



DAVAO DEL NORTE

SOCIO ECONOMIC & ECOLOGICAL PROFILE

(SEEP 2020)

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PROVINCIAL GOVERNOR'S OFFICE

Message

The Province of Davao del Norte is on the cusp of a golden age of genuine transformation and inclusive growth and development when the pandemic arrived. It has sadly disrupted our momentum in realizing socio-economic growth, with particular attention given to the disadvantaged sectors. But, we never lost heart. We undertook radical reforms in bringing the Provincial Government even closer to the people and in moving towards recovery. We solidified the whole-of-government approach in improving delivery of basic services, ensuring food sufficiency, greater connectivity, and in achieving lasting peace and inclusive growth.


In our quest to serve the best interest of our people, we have to thoroughly study and update our plans and policies to effectively address multifarious socio-economic issues. There is a need to constantly check our progress, particularly on resource utilization, mission integrity, and organizational performance in the light of attaining our vision, mission and goals.

As we set our K.U.Y.A. G.O.B. development agenda into high gear, we need to further strengthen our policy framework and strategic plans so we can achieve our goals and objectives and take full control of our progress no matter the challenges ahead. The quality of our policies, plans, programs and activities heavily hinges on adequate, relevant and reliable data. The Socio-Economic Ecological Profile (SEEP) of the Province of Davao del Norte, therefore, provides us an essential tool in pursuing proactive, responsive and transparent pro-poor governance. This consolidation of useful information is indeed vital in administrative, socio-economic, environmental, and political decision-making.

Kudos to the Provincial Planning and Development Office (PPDO) for diligently producing this rich reference. We thank our partners and stakeholders, as well, for your unwavering support. Your efforts will strike a chord that will reverberate with kindness in our continuous quest for an effective and efficient public service. I hope that our major functionaries, planners, the private sector and all sectors of our society will make full use of this wealth of information in charting a better future for all Dabaonons.

Let us work together to move Davao del Norte forward in realizing resilient recovery, inclusive growth, stability and sustainability.

One DavNor, One Team!



EDWIN L. JUBAHIB
Governor



INTRODUCTION

The Socio-Economic and Ecological Profile (SEEP) is an official document that contains data and statistics on the economic, social and physical situation, and other basic information about Davao del Norte Province that serve as bases in setting direction for development of the province. This document is prepared and updated by the Provincial Planning and Development Office (PPDO). This particular edition covers a period from 2019 to 2020. Projections of future data were made up to year 2030 based on the two past census years.

The SEEP as a source of statistical data serves as a tool in planning not only of government agencies but also of private institutions and organizations. Entrepreneurs who plan to expand their businesses to this province also gather data from this planning document. Regular browsers of the document include researchers from the academe.

Despite accessibility of the SEEP to the different data/statistics-seekers, this document is primarily intended for use in the preparation of plans by the PPDO. Considering the vision, mission and objectives toward which the development of Davao del Norte Province is directed, the analysis of data in the SEEP and statistical projections can help much in determining future demand for resources and services as well as future trends of development.

Concerning its format, the SEEP starts off with the physical profile which includes the physical location, topography, climate and rainfall, soil characteristics and fertility, water resources, navigable waterways and fishing banks. This is followed by the Population and Settlements Profile that discusses the human resource aspect which is important in planning. The third chapter deals on the present economy of the province and its contributions to the regional and national development. Succeeding chapters present a detailed information on transportation and access; income, employment, service access and poverty, land use and local government administration. Such wealth of information is deemed to equip the planner with necessary data on the available resources that can be used or tapped in response to the actual needs of the people. The last chapter is a directory of the present local and national officials of the province. The narrative portion of this SEEP is supported with plates and tables provided in every chapter of this document.

It is expected that the SEEP would be able to adequately serve the purpose for which it is intended. Moreover, the data and statistics in this document may be enhanced as needed by this office and subject to their availability. Concerning its format, the SEEP is flexible and will be subject to revision as the need arises.

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DEVELOPMENT OVERVIEW

The development framework of the Province of Davao del Norte is anchored on the following vision and mission:

Vision

DAVAO DEL NORTE, A LEADING, INNOVATIVE AND COMPETITIVE PROVINCE WITH EMPOWERED AND RESILIENT PEOPLE.

Mission

WE COMMIT OURSELVES TO UPLIFT THE QUALITY OF LIFE FOR ALL DABAONONS BY:

- Championing excellence in governance and administration towards operational peace
- Providing globally competitive products and services with local market advantage
- Adopting science-based policies and technologies in environment protection, climate-smart agriculture, disaster-risk management, infrastructure development and social needs
- Promoting international tourism while preserving and protecting the environment and cultural heritage
- Sustaining a business-friendly environment for rural and urban development
- Developing skilled and certified workforce to participate in knowledge economy and global arena
- Strengthening people's collaboration in all levels of governance

THUS, ENSURING SUSTAINABLE INCLUSIVE DEVELOPMENT

THE EXECUTIVE AGENDA

“Capitalizing on Radical Change in Shaping a Better Future”

Our overwhelming mandate ushered in a new era of a stronger, more peaceful and more prosperous Davao del Norte. We owe it to the people the will to uphold true transformational leadership that justly works for a balanced, inclusive sustainable progress. This rare opportunity of moving a generation of Dabaonons forward behooves us to make tough decisions in engendering a more effective, efficient, transparent, accountable and responsive Provincial Government.

Securing Davao del Norte’s lead in terms of socio-economic growth remains our priority. Yet, we now pursue this strategic stake without sacrificing the indicators vital for our people to live peaceful, healthy, long, and productive lives. The policy of ably preparing our people to tackle the increasing globalization would be a complete failure if we fail to address the welfare of our people. Socio-economic development is just a part of the happiness index. That is why, our administration is giving equal importance to the non-economic aspects of wellbeing, to include good governance, culture and psychological wellbeing, as well as community vitality, among other domains. This also takes account of the integrity, stability, security and strong relationships within families and among the community members, as a significant determinant of the wellbeing of the people.

Given the indispensability of the family in the pursuit of happiness, Governor Edwin I. Jubahib crafted a development strategy anchored on the endearing qualities of a big brother. Such great characteristics of being the protector, nurturer and a role model to his siblings, among other attributes. This gave Thus, engendering the 7-point development agenda, known as K.U.Y.A. G.O.B. This is spelled as: Knowledge Management, Education and Sports; Universal Health and Social Services; Yield Growth in Agriculture and Environmental Sustainability; Adequate Infrastructure and Facilities; Greater Livelihood and Income Opportunities; Operational Peace and Development Framework; and, Broad-Based Economic Growth and Investments.

Giving impetus to the strategy is the new battle cry of the Province of Davao del Norte, dubbed as: One DavNor, One Team! Governor Jubahib exercised his leadership to fashion a consensus, catalyze LGUs into common action and harmonize discordant policies, particularly in implementing vital programs and infrastructure projects of the Province. The tagline represented the Province’s best chance of attaining its vision, mission and goals, as they will not only be determined by the team of the Capitol officials and employees, but by the will of all the sectors of the Dabaonon society.

The K.U.Y.A. G.O.B. development agenda is consistent with the thrusts and priorities of President Rodrigo R. Duterte, as it is also clearly anchored on the Ambisyon Natin 2040, a long term vision of the national government to end poverty in the country by 2040. The 25-year vision reflects the ordinary Filipinos’ desire to pursue a middle-class and family-centric life. As this is perfectly in harmony with the family-oriented strategy of the governor, the Province of Davao del Norte anchors its plans and policies on the Ambisyon Natin 2040, which hopes to achieve a Philippines that is a “prosperous, predominantly middle-class society where no one

is poor.” The Province has “localized” the vision for Filipinos to live “long and healthy lives”, being smart and innovative, and living in a “high-trust society”.

Aside from ensuring that the strategies, policies, programs and projects of the Province are consistent with the Ambisyon Natin 2040, the Jubahib leadership further mainstreamed the Sustainable Development Goals (SDGs) into the planning documents or sustainable development policies of the Province. The 17 SDGs were adopted by all the UN Member States in 2015, as part of the 2030 Agenda for Sustainable Development. Well-aware that achieving the SDGs strongly depends on the ownership, contributions, capacities and accountability of local governments, the Province Norte committed itself to create local policies and programs that work toward helping address global challenges, such as eradicating poverty, reducing inequalities, and achieving environmental sustainability, among others. This is to ensure important stake of the Province in helping boost the commitment of the national government to the attainment of the shared global vision towards sustainable development for all.

Development Goals, Objectives and Strategies

The components of the Executive Agenda are subsumed according to the corresponding sectors of the local governance management tool for easier monitoring of the performance of respective offices tasked with implementing the different programs, plans and activities in addressing development gaps in the province. The sectors include General Public Services/Governance Sector, Social Services Sector, Economic Development Sector, and Environmental Management Sector.

A. General Public Services/Governance Sector

This includes the components Operational Peace and Development and Adequate Infrastructure and Facilities.

Goal: Excellent Local Governance

Objective: Efficient and Effective Governance

The Provincial Government of Davao del Norte continues to address multifarious issues and concerns that hamper its aim of fully attaining efficient and effective governance. Authorities are called to have uniform interpretation of policies, laws and regulations in effecting better delivery of services. Strong enforcement of policies and provincial ordinances entails imposition of sanctions, coupled with the commitment of the LGUs and concerned offices. The updating of development plans and functionality of provincial development council facilitates development planning. There is a need for the Province to execute exceptional local revenue generation measures to unshackle the province from its high dependence on the internal revenue allotment (IRA). Government offers should also be attractive and processes must be simplified to boost the absorptive capacity of the Province and better facilitate implementation of important projects and activities. More appropriate learning and development interventions are essential in fully capacitating the human resource. An enabling policy for interoperability is required to attain

integration of the Information and Communication Technology systems towards better coordination and performance between and among the various departments of the Province.

The participation of people's and non-government organization in local governance and the availability of feedback mechanism to generate citizens' view on the reach of government services is essential in maintaining good governance. The effectiveness of financial management systems and functionality of the bids and awards committee coupled with the availability of public information, accessibility of public documents and publication of updated information about government programs and services boost transparency in governance. The Province is now bolstering interventions vital in combatting criminalities and security threats.

Strategies:

- Strengthening the institutionalization of results-based monitoring and evaluation of PPAs.
- Ensuring implementation and achievement of Provincial Governance Reform Roadmap (PGRR) targets.
- Strengthening the oversight functions of legislative body.
- Strengthening the functionality of the provincial development council.
- Engaging innovations and strengthening local revenue generation measures.
- Enforcing regular fund utilization monitoring.
- Strengthening internal controls.
- Establishing asset management system.
- Implementing Human Resource Development Plan and other HR Plans.
- Establishing a unified Information System.
- Strengthening ICT Infrastructure.
- Establishing a Provincial Community Based Monitoring System
- Streamlining procurement systems, processes and procedures with unified understanding, interpretations and implementations of the existing policies, laws, rules and regulations.
- Strengthening the Local Disaster Risk Reduction and Management Councils Committees of the Barangay.
- Strengthening active participation of CSO, NGOS and POs
- Strengthening the Financial Management Systems
- Full utilization of quad-media in boosting public support and engagement to PPAs.
- Enhancing Public-Private Partnerships.
- Forging strong linkages with local, regional and national media outlets/organizations.
- Institutionalizing the Provincial Development Advisory Council.
- Strengthening of the peace efforts and security measures towards operational peace and development.

Major Program/ Projects:

- Legislative Program
- Creation of Task Force to evaluate/assess status of existing ordinances/resolutions
- Knowledge Management Development Program
- Public Fiscal Management Program
- Creation of additional Revenue Generating Centers (Casting, hotel, quarry operation)
- Financial Resources Management Development Program
- Development of Asset Management System software
- Human Resources Development Program
- Human Capital Enhancement Program
- E-Governance Program
- Government Facilities Upgrading Program
- Community Development Assistance Program
- Digitalization of Radio 911 and PTV-DavNor
- Regular updating of official website of Provincial Government of DavNor
- Peace and Order Program
- Creation of Provincial Development Advisory Council
- Public Safety Program
- Enhancing the Programs of the Davao Provincial Rehabilitation Center

B. Social Services Sector

This includes the components Knowledge Management, Education and Sports, as well as Universal Health and Social Services.

Goal: Ensure Healthy Lives and Well-being for all at all ages

Objective: Improved Access to Quality Healthcare, Key Social Services and Social Protection, Quality Education and Sports and Recreation Programs

The Provincial Government of Davao del Norte adopted an integrated and comprehensive approach to raise the health literacy of the Dabaonons. Improved well-being entails some capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. Vital interventions are strengthened to protect our people from health risks, hazards, vulnerability and marginalization. Along with providing quality social services, the Province is also enhancing the capacity of the Dabaonons to protect themselves from social and economic threats.

In addition to intensifying capacity development of its human resource and strengthening vital mechanisms to ensure quality education to youngsters, the Province continues its tradition of providing scholarship to enable the youth to succeed in technical and higher education. More interventions are also being pursued to improve the quality of life and build the competencies of adolescents to become successful adults, besides the thrust of building future sports champions and promoting healthy lifestyle.

Strategies:

- Scale up health governance, health service delivery, financial risk protection and health regulation
- Upgrade hospitals, blood centers and Luntiang Paraiso Provincial Rehabilitation Center (LPPRC) operation
- Standardize social welfare services through: sustaining crisis intervention, preventive and protective services; strengthening local structures of marginalized groups/sectors; and, sustaining involvement of partners and other stakeholders.
- Sustaining the support for the provincial scholarship program for both academic and technical-vocational courses attuned to the industry market needs, both and local market.
- Strengthen linkage with public and private stakeholders in the delivery of education-related opportunities
- Maintain a sound collaboration with concerned LGU counterparts and IP Sector partners.
- Increased access to continuing studies, particularly to undergraduate government employees and barangay functionaries
- Increased educational opportunities for targeted sector, especially the Indigenous People
- Implementation of grassroots training and development program;
- Exposure of athletes in competitive meets and events;
- Improvement of Sports tourism in the province;
- Development of youth capacity and capability;
- Increase youth involvement in leading organization and advocacies;
- Enhancement of youth awareness and involvement in culture and the arts.

Major Program/Projects:

- Local health support project
- Drug testing laboratory project
- Maternal and Child care Health Project
- Environmental Health Sanitation Project
- Vector Control Malaria, Dengue, and Filaria Project
- Prevention and Control of Communicable and Non-Communicable Disease Project
- Establishing the Health Care Provider
- Construction of Additional Hospital Buildings Facilities
- Improvement of Provincial Blood Center Renovation and Improvement of Luntiang Paraiso Provincial Rehabilitation Center (LPPRC)
- Crisis Intervention and Relief Management
- Operation of Residential Care Facilities
- Community and Family Support Services
- Construction of Bahay Pag-asa for Girls
- Construction of Sheltered Workshop for Sectoral Groups
- Construction of Half-way House for Former Rebels
- Construction of Child Minding Center

- Talent Reinforcement and Intensification (TRAIN)
- Complementary Exposure to Tournament and Events (COMPETE)
- Holistic Organizing of Sports Tournament and Events (HOST)
- Learning and Education Activities for a Revitalized Nation (LEARN)
- Leadership, Empowerment and Advocacy (LOAD)
- Arts, Culture and Talents (ACT)

C. Economic Development Sector

This includes the components Yield Growth in Agriculture and Environmental Sustainability; Adequate Infrastructure and Facilities; Greater Livelihood and Income Opportunities; and, Broad-Based Economic Growth and Investments.

Goal: Increased Family Income and Economic Opportunities

Objectives:

- Increased farm and livestock productivity
- Increased Infrastructure support to broad-based economic growth
- Enhanced policies and programs implementation to support climate disaster resilient infrastructure facilities and utilities.
- Improved access to employment and economic opportunities
- Competitive tourist destinations and products.

As agriculture remains the pillar of the provincial economy, the Province shall continue to give high premium to food security and increased economic opportunities for small farmers and fisherfolks through better access to value-chains, technology and financing. Livestock and poultry production will also be given renewed focus as a very viable livelihood option to increase income of the farmers. Building climate-smart physical infrastructures and facilities is also high on the agenda to facilitate better access to essential health and social services, enhanced mobility of people and transport of products to the market, and improved connectivity of our resources and services to our peripheries.

The Province shall strengthen market-responsive technical and vocational education, livelihood training and skills development to enable our people to adequately provide for their families and build sustainable communities. Sustainable tourism development. While pushing for sustainable tourism development, the mechanisms for sound business environment shall be further strengthened to sustain Davao del Norte's prominence as the Most Competitive Province in the region.

Strategies:

- Strengthen collaborations with LGUs, private sectors, and other line agencies for wider coverage and greater impact.

- Formulate new strategies to provide a more efficient and effective agricultural/fishery services such as extension support, education and training services, and production support services.
- Intensify farm mechanization to increase farming efficiency while reducing production cost.
- Strengthen research development and extension linkage to farmers/fisher folk.
- Promotion of agribusiness development through commodity based-clustering approach and the use of value chain analysis.
- Promote farmland diversification
- Utilizing vast tracks of idle tribal lands for high-value-crop production
- Intensify support in disaster mitigation and preparedness projects
- Maximize access to Rice Competitiveness Enhancement Fund (RCEF)
- Institutionalize agriculture database system and result based monitoring and evaluation.
- Intensify disease monitoring and surveillance and animal health and veterinary interventions.
- Institutionalize barangay-base activities.
- Organization and capacitation of barangay-based agricultural extension workers.
- Massive upgrading of animals through artificial insemination.
- Strengthen extension activities to farmers.
- Sustain strong linkages with LGU's, stakeholders and national government agencies.
- Continuous out-sourcing of funds.
- Encourage establishment of livestock and poultry multiplier farms as family-based enterprise.
- Collaborate with land owners for development of potential pasture and forage areas.
- Strengthen institutional capacity to access resources from national government and private sector.
- Strengthen internal and external linkages through road network development.
- Adoption of climate-smart and disaster resilient technologies in design and construction of infrastructure projects.
- Establish Infrastructure Information System to include climate-smart and disaster resilient information
- Maintain and Strengthen Partnership with City, Municipal, Barangay, Local Government Units, (CLGUs, MLGUs, BLGUs) and Peoples organization in project implementation and maintenance.
- Institutionalization of employment facility in every LGU and accreditation of Job Placement Office (JPO) in schools, colleges and universities
- Provision of workforce development interventions such as livelihood, technical and life skills, business and social entrepreneurship acumen and other related productive competencies leading to employment opportunities in both local and global industries
- Establishment of a training, assessment and accreditation facility for proper education and training at par with global standards

- Acknowledgement of knowledge economy (through on-line jobs/businesses) as an alternative source of employment opportunities specifically to the young people and other unemployed individuals
- Establishment and maintenance of a customized and more functional Skills Registry Database Management System for easy access and referral activity
- Institutionalized local tourism councils (barangay, city and municipal level)
- Facilitate a sustainable tourism destination infrastructure program
- Adopt a PPP-based marketing strategy and plan.
- Through the Regional Development Council Region XI, persistently push for the implementation of the Davao Tourism Access Program (DTAP), which shall focus on connectivity in air, sea and land.
- Implement a sustainable tourism destination infrastructure program
- Develop diversified tourism products that engage local communities
- Implement a PPP-based mandatory tourism enterprise accreditation system and facilitate tourism investment and lower cost of business.
- Safeguard natural and cultural heritage and vulnerable groups
- Develop tour packages for specific market functions to include bilingual brochures and promo materials
- Participate in local and international tourism fairs and exhibits for targeted markets
- Develop competent, well-motivated and productive tourism workforce.
- Improve governance in the area of safety, security and in dealing with tourists.
- Support and implement the Republic Act No. 10066, An Act Providing For The Protection And Conservation Of The National Cultural Heritage
- Establish more access to credit and financing institution (GA and NGAs)
- Adopt good governance and Improved overall performance of coops and associations
- Continuous education/Info/CB/Institutionalization of coops and associations
- Develop/Establish data banking for productive and unproductive organizations
- Establish a technical group that will assist in the documentary needs of coops and associations
- Intensify investment promotion and facilitation
- Provide MSME development initiatives
- Institutionalize and integrate the Provincial Business Chamber of Commerce
- Institutionalize the development of the industry cluster
- Strengthen DRRM awareness among local business establishments

Major Program/Projects:

- Rural Based Organizations Marketing Support Project
- Fishery Enhancement Project
- Cereals Enhancement Project
- High Value Commercial Crops Development Project

- Improvement of Provincial Nurseries for Tissue-Cultured Banana and Fruit Seedlings
- Construction of Drainage System
- Operation and Maintenance of Farm Equipment, Tractor and Facilities Acquisition of Farm Machines
- Livestock Development Program
- Animal Genetic Resource Improvement and Conservation Project
- Animal product utilization and regulation project
- Rabies Control and prevention project
- Animal healthcare and dairy development project
- Livestock and poultry production and restocking project
- Infrastructure Development Program
- Disaster resilient design excellence program
- Livelihood and skills development program
- Operation of Training and research for entrepreneur and employment
- Sustainable Tourism Development Program
- Sustainable Human Capital Enhancement Program
- Loan facilitation for Coops
- Financial support/grants for associations
- Trade and Investment Program
- Trade and Investment Facilitation and Generation Project
- MSMEs Project
- Micro-financing Loan Project
- Local Government Integrity Circle Project

D. Environmental Management Sector

This naturally includes the component Yield Growth in Agriculture and Environmental Sustainability.

Goal: Sustainable Environment and Risk Resilient Communities

Objective: Improved Environmental Health and Protection, and Reduced Vulnerability of the people from hazards

The Province is scaling up its efforts in environmental protection and preservation, as well as in managing its natural resources in pursuing sustainable development. Keeping the integrity of our forests and watershed areas is vital in improving the quality of life of our population, in protecting the livelihood of upland communities, and raising the productivity of our industries, among other benefits. Vital interventions are also being implemented to make the Dabaonon communities inclusive, safe, resilient and sustainable.

Strategies:

- Implement projects related SDGs number 13 to 15.
- Strengthen institutions leading to effective implementation.
- Enact local policies that mainstream new environmental concepts.
- Implement pollution control projects.
- Strengthen institutions and enforcement that reduces pollution at source.

- Community-based approach to environmental protection, rehabilitation and conservation.
- Advocacy and social marketing of environmental policies.
- Improving community knowledge and awareness on hazards and disaster risks, communicating risk information and ensuring communities personalize the risks and threats in their locality.
- Implementing climate smart projects focusing on reducing the negative impacts of flooding.
- Establishing an early warning system integrating local and indigenous knowledge.
- Developing evacuation plan at all levels emphasizing pre-emptive evacuation of people in high risk areas.
- Contributing significantly in the capacity building down to the grassroots level particularly in 2nd to 6th class LGUs. Capacity building is being done across all local government units, however, differences in community resources, livelihood options and assets affect the capacity of the LGUs and the extent to which capacity can be strengthened.
- Strengthening response mechanism by giving awareness on the cluster system and active engagement of the cluster system with the non-cluster system actors.
- In consonance with policies focus increasingly on preventative and proactive approaches to disaster management, gaps and challenges on recovery and rehabilitation should be addressed (e.g. linking quick response with long-term recovery programs).

Major Program/ Projects:

- Integrated Watershed Development Program
 - Agroforestry Management Project
 - Tree Plantation Project
 - Cave Management Project
 - Community Tree Parks Management Project
- Natural Resources Management and Protection Program
 - a. Mineral Resource Management Project
 - b. Ecological Solid Waste Mgt. project
 - c. Waste Management Project
- 3. Land Management Program
 - a. Land Surveying and Mapping Project
- Disaster Prevention and Mitigation Program (Calamity Fund)
 - a. Pantaron Mountain Range Management Project
 - b. Restoration of Forest on LGUs Prone to Disaster
 - c. Riverbank Protection and Mangrove Rehabilitation
 - d. Integrated Coastal Management Project
- Flood control and slope protection
- Data and information management
- Policy Formulation on pre-emptive evacuation
- Disaster Risk Reduction- Climate Change Adaptation, Promotion, Awareness and Advocacy
- Emergency response and assistance
- Rehabilitation and improvement of buildings, roads and bridges
- Organizing of One-DavNor Rescue

- Provision of Appropriate tools, Equipment and accessories (TEAs) to LDRRMOs

Platform of Governance and Priority Thrusts

The K.U.Y.A. G.O.B. Development Agenda shows the resolve of Governor Edwin I. Jubahib in delivering quality basic services, increasing investment in human development, generating more jobs in a diversified economy and ensuring rapid and sustained inclusive growth that particularly benefits the lost, the least and the last in our society.

This strategy takes into account the critical role of the Provincial Government of Davao del Norte in boosting the national government's commitment to the attainment of the Sustainable Development Goals by 2030 in this part of the world. Cognizant of the challenges that directly concern and impact our local communities, including those related to poverty, inequality, climate change, environmental degradation, peace and justice, the Province resolves to put its best foot forward to contribute in achieving the SDGs.

It was noted that the SDGs have targets that relate to the role of local governments in terms of their responsibilities in the delivery of basic services, including their ability to integrate inclusive and sustainable local development. For this purpose, nine (9) components of the K.U.Y.A. G.O.B. development agenda directly links up with SDGs.

The first component, Knowledge Management, Education and Sports speaks of the current administration's resolve to invest on the future of our youth; intensify capacity development; build future sports champions and promote healthy lifestyle; as well as, institute better policies for interoperability and integration of the various information and communication technology (ICT) systems between and among the Capitol departments for better coordination and performance. This platform, which is under the Social Services Sector, connects with the SDG "**Goal 4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."

The Universal Health and Social Services component seeks to ensure that the Dabaonon people receive accessible and affordable quality health benefits, such as prevention, promotion, treatment, rehabilitation and palliation services of sufficient quality. This includes free hospitalization in the three Davao del Norte Hospitals, namely: the Kapalong Zone, Carmen Zone and Samal Zone. Other public services that shall be given priority include vital services intended to aid disadvantaged, distressed, or vulnerable persons or groups.

This component, which is also under the Social Services Sector, is directly related to the SDG "**Goal 3:** Ensure healthy lives and promote well-being for all at all ages."

With Yield Growth in Agriculture and Environmental Sustainability, the Province gives high premium on attaining food security and increased economic opportunities for small farmers and fisherfolks, by facilitating access to value-chains, technology and financing, while asserting and defending their rights and welfare. Vast tracks of idle tribal lands shall also be planted with high-value crops to improve

the living condition of the indigenous people and improve their contribution to economic growth. Disaster reduction and management and climate change adaptation efforts, reforestation, environmental management, and community engagement in our ecological programs and projects shall also be intensified.

This component, which has specific programs and activities that are included in the Economic Development and Environmental Management Sectors, explicitly connects to three (3) goals of the SDG, namely: “**Goal 2:**End hunger, achieve food security, and promote sustainable agriculture; **Goal 11:**Make cities and human settlements inclusive, safe, resilient and sustainable; and, **Goal 15:** Protect and promote terrestrial ecosystems, forests, land and biodiversity.”

In pushing Adequate Infrastructure and Facilities, the Province aims to vigorously build better climate-smart physical infrastructures and ensure the security and resilience of critical infrastructures that include the vast, interconnected network of systems, products, and services that our people depend on. These include facilities that provide food, roads, health care, emergency response, communications, and other basic services that are essential to the provincial economy and the quality of life of our people.

This component, which has specific programs and activities that are also under the Economic Development Sector and the General Public Services/Governance Sector, is exactly associated with “**Goal 9:** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.”

Sustainable sources of income enable families to support the most basic needs of their children. Through the Greater Livelihood and Income Opportunities, the Province shall provide economic development interventions that equip target sectors with the necessary knowledge, skills, and livelihood opportunities that enable them to provide for their families and build sustainable communities for the coming generation.

As it is also under the Economic Development Sector, this component is related with “**Goal 1:** End poverty in all its forms everywhere and **Goal 8:** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.”

Operational Peace and Development Framework employs the whole-of-nation approach in pursuing local peace engagements and interventions by harmonizing and prioritizing the delivery of basic government services, social development packages, and construction of essential infrastructures towards ushering inclusive development in conflict-affected and vulnerable communities.

Carrying the banner of the General Public Services/Governance Sector, this component is linked up with “**Goal 16:** Promote peaceful societies, accountable institutions, and access to justice for all.”

With the Broad-Based Economic Growth and Investments component, the Province intends to encourage a pro-poor, broad-based inclusive growth that creates income opportunities needed to raise living standards and lift people out of poverty. It puts emphasis on policies that benefit in absolute terms the indigent communities,

remove constraints to growth, and create a level playing field for investments. The agendum gives priority to better regulatory environments, business development, and access to finance, as well as greater focus on job-creating micro, small and medium-sized enterprises and community-based tourism.

Included in the Economic Development Sector, this component is associated with “**Goal 8:** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.”

THE LEGISLATIVE AGENDA

The Sangguniang Panlalawigan (SP), the highest legislative body in the Province of Davao del Norte is primarily tasked to enact ordinances and adopt resolutions for the general welfare of the Province and its constituents not to mention its secondary core functions that establish the legal framework and policy directions to productively or substantially steer the dynamics and very essence of local governance. As constantly advocated by the Republic, the flagship thrust of good governance has been embedded to the tenets of sound moral foundation in government service, transparency to scrap corruption of all forms, adherence to established ethics of effective service delivery and wider peoples’ participation. These principles of local governance must be complemented with the outstanding local leadership of persons in charge of effecting and realizing the goals of the Province through vigorous mobilization of the Executive-Legislative Agenda (ELA), a considered mother of all development and investment plans of the Provincial Government by policy-makers and legislators.

As defined, a Legislative Agenda (LA) is a package of priority policies and legislative measures designed to support local development priorities, particularly those contained in the Executive Agenda (EA). It serves as a roadmap to guide the Sanggunian in the local legislative council in identifying, analyzing and formulating solutions to problems and issues requiring public policy action. As a list of prioritized ordinances and resolutions for enactment during a specified period, the LA can be used to focus the work of the legislative during its term of office, and to synchronize and converge legislative actions with EA priorities.

In its true sense, the participation of the Sangguniang Panlalawigan in ELA is an indispensable factor that provides a well-structured convergence among the planning initiatives, policy foundation processes and applicable legislative actions between the Executive and Legislative Departments. Through that set-up connecting the two working Departments, exceptional leadership would be prevailing since both government offices can acquire understanding and accurate insights of local problems and opportunities that can serve as baseline inputs to the actual foundation of policy, legislative and implementation actions.

THE LEGISLATIVE AGENDA (LA) OBJECTIVES

Before producing a sound, comprehensive and applicable outputs, there is a pressing need to identify first the directions or pathways in the series of LA preparations by establishing its objectives or targeted goals which are as follows:

- 1) It aims that LA's output must be grounded on realistic analysis and thorough research so as to yield pertinent data, objective analysis of trends and solid data/information to arrive with a reliable conclusion.
- 2) It will pursue in-depth review and validation of existing plans including that of component LGUs. The various stakeholder's development views must be considered and taken into account.
- 3) The LA strategies must be anchored on the actual needs of the local community so that the allocation of government funds/resources shall not be squandered.
- 4) It also aims to provide relevant legislation that can be implemented realistically during this term of office and must be practically implementable.
- 5) It will ensure that the ELA as envisioned must be popularized and enjoy support of all involved parties

LEGISLATIVE STRATEGIES

For the clear procedural scheme in the conduct of identification and analysis of implementing variables and for subsequent monitoring of development gaps, the following strategies are adopted:

a) Employ Sectoral Groupings

In legislation, it has been the practice and approach of the Sangguniang Panlalawigan (SP) to cluster by sectoral groupings or thematic areas the varying issues and concerns with corresponding strategies and solutions. Thus, it would be easier for the legislative chamber to classify the numerous legislative issues and concerns contained in the ELA even though few of which are inter-related or directly connected with each other. Core problems can be best derived from long lists of development projects, programs and activities. Once identified, legislative measures can be passed and approved to resolve development gaps and mitigate the implementation intricacies in the most expeditious manner.

b) Categorize Areas of Legislation

Though the Executive Legislative Agenda were subsumed according to the corresponding sectors of the local governance management tool, the

Sangguniang Panlalawigan, by invoking its mandate and existing rules/protocols, has adopted a more comprehensive or all-inclusive “Tasks and Responsibilities Checklist”, a simplified learning tool on how to deliver the people’s expectations for local development as supplied by the Department of the Interior and Local Government (DILG) .

By clustering through the assignments of the five (5) Areas of Legislation so as to complement the Executive Agenda (EA), the Sangguniang Panlalawigan shall put into sets the areas of governance, administration, social services, economic development and environmental management.

- **GOVERNANCE.** This area of legislation is closely linked to the effective performance of public administration and its relationship to private sector and civil society, characterized by the norms of accountability, transparency, equity and citizen participation (BLGS-LGA) and be structured as follows:
 - a. Financial Accountability
 - b. Transparency
 - c. Citizen Participation/Empowerment
 - d. Equity
 - e. Local Legislation

- **ADMINISTRATION.** This area of legislation refers to the performance of executive duties for the effective delivery of public services and be structured, to wit:
 - a. Development Planning
 - b. Revenue Generation
 - c. Revenue Allocation and Utilization
 - d. Human Resource Management and Development
 - e. Customer Service

- **SOCIAL SERVICES.** It refers to all basic services delivery as enumerated in the enabling provisions of Republic Act 7160 or the 1991 Local Government Code with its corresponding legislation for the improvement of health/sanitation, education, housing and basic utilities, peace and security, disaster preparedness, among others. This also includes the General Welfare Clause of the Local Government Code.

- **ECONOMIC DEVELOPMENT.** Through legislations, the SP shall propose structured measures to increase the level of economic production that will enrich the living standards and advancement of technologies of the Dabaonon people in the field of agriculture,

fisheries development, business enterprise and entrepreneurship, Industrial promotion, to name a few.

- **ENVIRONMENTAL MANAGEMENT.** It refers to the deployment of administrative functions that are associated in designing, implementing and assessing the environmental policies and schemes of the Provincial Government when it comes to natural resources and management, waste management, pollution control, ecological issues, among others.

THE LEGISLATIVE AGENDA SEQUENCE

In the exercise of its mandated major functions being stipulated in Republic Act 7160 or the Local Government Code of 1991, the Sangguniang Panlalawigan shall provide legislations requirements that will cover over a range of developmental concerns and sectoral issues in the Province. As mentioned on prevailing references, ELA process must involve the Sanggunian in the undertaking by coming up with Legislative Agenda that mainly identifies the needed legislative treatment to mobilize the very objectives and intentions of the ELA. The SP shall strictly follow the indicative steps in determining policy/legislative requirements, to wit:

- a) Determine and examine methodically the development policies and directions
- b) Identify and analyze the policy/legislative gaps
- c) Enumerate and establish areas requiring policy/legislative measures
- d) Draw up legislative agenda
- e) Passage of legislative measures for ELA acceptance and advocacy.

THE ACTION AGENDA

The Sangguniang Panlalawigan, having considered all the premises, is in unanimous accord to officially adopt the Executive Agenda in its entirety and declare the same to be the Legislative Agenda in principle. Therefore, the SP has embraced the 7-point development strategy of the current administration and deeply committed to provide the necessary legislative actions and oversight tasks in popularizing and mobilizing the ELA.

By also consolidating and involving the adopted ELA process into regular/mandated local government structures and systems purposely for the development plans, community growth-inducing initiatives and interconnected investment programming, the SP shall fully mobilize its Standing (Regular)

Committees and be supported by Ad Hoc or Special Committees to conduct research and legwork as well as convening the legislative fora as follows:

- a) Committee Meetings
- b) Committee Hearings
- c) Public Hearing/Consultations
- d) Inquiry in aid of legislation
- e) Inter-Department/LGU consultations
- f) Conduct of backstopping and research
- g) Executive Sessions

In its resolve to sustain the pursuit for community development and good quality of life for the Dabaonon People, the Sangguniang Panlalawigan, in the exercise of its legislative and oversight functions, shall consistently propose additional impact measures and coherent legislation in consultation or coordination with the Governor, as the need arises. This would not only mean supplemental programs, projects and activities for the Province but an enhanced pro-people agenda as well.

HISTORY OF THE PROVINCE OF DAVAO DEL NORTE

The original mother Province of Davao was divided into three (3) provinces, namely: Davao del Norte, Davao del Sur and Davao Oriental by virtue of the bill authored by then Congressman. Hon. Lorenzo S. Sarmiento, Sr., which bill was passed into law and became known as R.A. 4867 dated 8 May 1967. The three provinces simultaneously celebrate their anniversary every 1st of July, which date was then the start of the Fiscal Year and marked the official commencement of operation as created provinces.

When it was created, Davao del Norte was composed of thirteen (13) municipalities, namely: Asuncion, Babak, Compostela, Kapalong, Mabini, Mawab, Monkayo, Nabunturan, Panabo, Pantukan, Samal, Sto. Tomas and Tagum. Six (6) additional municipalities were created as of May 6, 1970. These were Carmen, Kaputian, Maco, Montevista, New Bataan and New Corella. As of 1996, the province had a total of twenty-two (22) municipalities with the creation of San Vicente (now Laak) in 1979, Maragusan in 1988 and Talaingod in 1990.

The first Governor, Hon. Verulo C. Boiser was appointed by the President. He served the Province for ten years, which was from July 1, 1967 to July 7, 1977. This corresponds to two years as appointed Governor and two terms as elected Governor.

In 1972, during the term of Governor Boiser, the infrastructure development of Davao del Norte was given a big boost when the province qualified among the twenty eight (28) provinces nationwide to be included in the development program of the MLGCD and the United States Agency for International Development (USAID). Under this program, the Province successfully implemented the Rural Roads Program (RRP) for fifteen years and the Barangay Water Program (BWP) for eleven years.

On June 17, 1972, Davao Province was renamed to Davao del Norte by virtue of Republic Act No. 6430.

The second Provincial Chief Executive was Governor Gregorio R. Dujali who was also extended a presidential appointment when the first Governor stepped down from the gubernatorial position on July 7, 1977. Like his predecessor, Governor Dujali also served Davao Province as the appointed governor for one year and as an elective governor for two terms until March 31, 1986.

During the term of office of Governor Dujali, agricultural endeavors of the provincial government gained prominence. One of the significant projects was the "Pagkain ng Bayan", a demonstration/model rice farm administered by the provincial government, which also generated income for the province. This economic enterprise was later expanded to include the production of other agricultural products. The "Pagkain ng Bayan" site has been the venue of several trainings jointly sponsored by the Japan-based Organization for Industrial, Spiritual and Cultural Advancement (OISCA) and the Province of Davao.

Under the Dujali administration many people in the province had availed themselves of agricultural livelihood projects.

On February 25, 1986, Her Excellency, Mrs. Corazon C. Aquino was installed as President of the Philippines by virtue of the "People Power" otherwise known as the EDSA Revolution. Davao Province was among the local government units that experienced a change of officials.

Hon. Prospero S. Amatong was appointed as the OIC-Governor of Davao Province on April 4, 1986. Together with him, six board members were also appointed, but four of them resigned when they ran for congressional positions. Consequently, four new members of the Provincial Board were appointed to fill in the vacancies.

The administration of Governor Amatong ushered in a new style of leadership. His untiring close supervision in the implementation of infrastructure projects resulted to the completion of several buildings, roads and bridges.

It was also during the term of Governor Amatong when the peace and order situation greatly improved. Owing to the cease-fire that resulted in the mass surrender of insurgents, a rehabilitation center for rebel returnees was established and these returnees were given the opportunity to earn a living through livelihood projects.

In his bid for the 1988 election, Governor Amatong resigned from his appointive position on November 30, 1987. The Chief Local Government Officer of the Department of Interior and Local Government (DILG), Davao Province, Mr. Romeo S. Jardenico took over as OIC Governor for two weeks until the appointment of Atty. Jesus T. Albacite as OIC Governor. However, the term of OIC Governor Albacite was short lived, lasting only for twenty one (21) days when due to certain constitutional provisions, the position of OIC Governor was extended to Hon. Cecilia de la Paz.

On February 3, 1988, Governor Prospero S. Amatong took his oath as the new governor of Davao Province.

During the term of office of Governor Amatong, the economic development of the Province of Davao had been greatly enhanced as more projects were implemented. Davao Province was one of the pilot provinces for the decentralization program which were granted financial assistance by the national government termed as Block Grant in the amount of P120 Million for social, agricultural and infrastructure development.

The administration of Governor Amatong marked the turning point in the implementation scheme for the construction and maintenance of roads and bridges. Since the province had purchased heavy equipment, the contractors were no longer involved in the implementation of roads and bridges. The Governor himself conducted actual visits to the projects to ensure that these were properly implemented.

With the implementation of R.A. 7160 or the Local Government Code of 1991, Non-Government organizations like the cooperatives were involved in government endeavors. This partnership between government and non-government organizations in the pursuit of development was contributory in hastening the progress of the province and in achieving a better quality of life for the people of Davao del Norte.

The same Local Government Code inspired Governor Amatong to pursue the implementation of the first ever reorganization of employees in the provincial government on December 16, 1991. This reorganization has rightfully placed the structure and functions of every office in a proper perspective that is more responsive and supportive to local government services delivery.

Still with RA 7160, devolution of functions of a number of national government agencies to the provincial government was made possible.

Among the highlights of achievement under the leadership of Gov. Prospero S. Amatong were the three Galing Pook Awards received for three (3) consecutive years by the Davao Province from the Asian Institute of Management and the Department of the Interior and local Government. The said award was given for having excelled in its agricultural program in 1995 and 1996 and its health program in 1997. These were the 1995 Trichogramma; 1996 Sustainable Food Security Program and the 1997 Blood Sufficiency Program.

Considering these prestigious awards received for three (3) consecutive years, Davao Province was included in the Hall of Fame for which it was awarded another plaque.

On January 30, 1998, President Fidel V. Ramos signed *Republic Act No. 8470* creating the Province of Compostela Valley out of Davao Province, which in turn was renamed back to Davao del Norte. Other historical events that transpired in Davao del Norte together with the creation of Compostela Valley were: the enactment of *Republic Act No. 8471*, creating the Island Garden City of Samal, which comprises the former municipalities of Babak, Samal and Kaputian; *Republic Act No. 8472* converting Tagum municipality into Tagum City, the seat of the provincial government of Davao del Norte Province; and *Republic Act 8473* creating the municipality of Braulio E. Dujali from the municipalities of Carmen and Panabo are components of Davao del Norte province. At the turn of events, the province had a political composition of eight municipalities and two cities with 223 barangays.

The term of Governor Prospero S. Amatong ended on March 26, 1998 when he took his Oath of Office as Governor of the newly created province of Compostela Valley on the same day.

The national and local election period from April 1 to June 30, 1999 necessitated the appointment of interim provincial officials headed by Hon. Anecito M. Solis as the Acting Governor.

Hon. Rodolfo P. del Rosario was elected and sworn into office as the first Governor of the new Davao del Norte Province on July 1, 1998.

His leadership concerns were on programs for poverty alleviation and sustainable development. His priority programs were the protection and preservation of our natural resources, human resource development to include education, health and employment generation, cooperative development and the review and modification of the financial policy of the province.

Governor del Rosario institutionalized the “Cluster Development” approach that grouped municipalities and cities for better developmental complementation.

Subsequently, on March 31, 2001 the Municipality of Panabo was converted into a city by virtue of Republic Act 1015. This changed the administrative composition of Davao del Norte to seven municipalities and three cities. Honorable Congressman Antonio R. Floirendo, Jr. sponsored the bill creating the City of Panabo.

One of the remarkable features of good governance exemplified under the leadership of Gov. Rodolfo P. del Rosario is the bonding together of the elected provincial officials into an organization known as “Hugpong Dabaonon” wherein said officials made a commitment to work together, setting aside political affiliation and ideological differences. This manifestation of unity and solidarity is instrumental in effecting the fast pace of development in Davao del Norte.

Priority programs and projects in his time were the Integrated Water Resource Development Project where a feasibility study was made on the potable water supply in the province; the establishment of the Technology and Livelihood Development Center (TLDC) launched in 1999; the Davao del Norte Investment Promotion Center (DNIPC) aimed at increasing investment/business opportunities; the “Medicare Para sa Masa” program; the Nutrition Program; the Surgical Outreach Program and the opening of the Carmen District Hospital; “Luntiang Paraiso” rehabilitation center for drug dependents in New Corella; the Sports Development Program and the full support for the Summer Program for Employment of Students (SPES).

Economic services anchored on the MBN concept included projects such as the Infrastructure Project for the Enhancement of Rural Productivity (IPERP), livestock production and animal dispersal projects, the Community-Based Forest Resource Management Project, the Coastal Resource Management Project and the Upland Development Program.

Another landmark, the “Tahanan ng PunongLalawigan”, the official residence of the Provincial Chief Executive of Davao del Norte, was constructed within the compound of the provincial government center.

As member of the Davao Integrated Development Program (DIDP) major economic projects such as farm-to-market roads and Upland Farming Model Villages were realized.

On March 15, 2004, a new municipality was born. Republic Act No. 9265 created the Municipality of San Isidro, the eighth municipality of Davao del Norte. This municipality comprises 6 barangays culled out from the Municipality of Kapalong and 7 barangays culled out from the Municipality of Asuncion. The bill was sponsored by Cong. Arrel R. Olaño of District I. The seat of this new local government unit is Barangay Sawata.

Governor Rodolfo P. del Rosario served for two terms only. His decision not to run for re-election paved the way for Hon. Gelacio P. Gementiza, Mayor of Tagum City to run for governor of Davao del Norte. His landslide victory gave him a new mandate to head as the governor of the Province of Davao del Norte.

The centerpiece program of government of Governor Gementiza is the social services development and peace and order stability of Davao del Norte. In his inaugural address he pledged to continue the implementation of on-going programs and projects geared towards attaining poverty alleviation through the MBN approach.

During the 2007 election, Governor Rodolfo P. del Rosario decided to run again and won the race against Governor Gementiza.

In the first term of his return to office as Governor, he led the province with a much deeper purpose and commitment as he laid down his centre-piece of governance, the “RDR WHEELS” that spells out his strategic goals, development thrusts and directions, to wit:

R- Roads and Infrastructure Development

D- Development of Cooperatives in all sectors

R- Reforms in Governance and Peace and Order

W- Water and electricity development

H- Health, Housing, Sanitation and Social Services

E- Economic Development and Environment

Protection/Rehabilitation

E- Education, Culture, Sports and Human Development

L- Livelihood and Skills Development Program

S- Spiritual and Moral Recovery Program

After his unopposed bid for re-election in 2010, Governor del Rosario veered from “RDR WHEELS”’s focus on hard infrastructure to soft infrastructure with the aim of “putting a human face development. As a center-piece of development, PEOPLE stands for:

- P - eople Empowerment
- E - ducation
- O- ptimum Health and Social Services
- P - ublic-private partnership
- L- ink to the world
- E- mployment and livelihood opportunities.

In his last term of office, Governor Rodolfo P del Rosario gave his steadfast commitment to deliver effectively and efficiently the programs, projects and activities under his development agenda, PEOPLE, that champions change beyond politics.

The end of term of Governor Rodolfo P. del Rosario on June 30, 2016 also marked the beginning of the term of office of his son, Governor Antonio Rafael G. del Rosario on July 1, 2016. The past administration had ably prepared the Dabaonons, the province’s resources and institutions for the eminent globalization and climate change. The new administration vows to expand the human development agenda with the resolve to promote the “Abilidad at Malasakit” brand of governance.

“Abilidad” stands for competitiveness Cluster, which include the Economic and Governance Sectors. On the other hand, “Malasakit” makes up the Welfare Group that covers the Environment and Social Sectors. “Abilidad at Malasakit” involves raising the competitiveness of our people and institutions to effectively adjust to globalization while creating a close-knit, caring community in providing welfare provision for the poorest of the poor so that they too can lead decent lives.

The strategies of “Abilidad at Malasakit” subsumes the B.E.S.T. P.E.O.P.L.E Development Agenda, which spells out as follows:



Significant Accomplishments of Governor Rodolfo P.del Rosario under his development agenda: PEOPLE

People Empowerment

- *Under the Australian-funded Provincial Road Management Facility (PRMF) and the Philippine Australia Human Resource and Organizational Development Facility*
 - Hastened institutional reforms and enhanced the local governance structure
 - Introduced interventions which improved processes and systems, and introduced innovations in service delivery, such as: Fast and Accurate Processing of Claims (FAPC), e-budgeting, e-procurement, automated communication system, geographic information system (GIS), Human Resource Information System (HRIS) and Socioeconomic Profiling System (SEPS) Online.
 - Sent 31 scholars for graduate studies in Australian Universities
 - Implemented the Strategic Performance Management System, a scientific assessment on organizational and collective performances.
 - Institutionalized a human resource development (HRD) system that enabled the province to ascend from Level I (Transactional) to Level II (Transformational) in the PRIME-HRM
 - Received the Seal of Good Local Governance for satisfying the core assessments on good financial housekeeping, disaster preparedness, social protection, and peace and order.
 - Garnered a high score in the Agency Procurement Compliance and Performance Indicators (APCPI) for speed, accuracy, transparency and accountability in the procurement process.
 - Achieved a major breakthrough in fiscal management by hitting the P 1.082 Billion annual budget in 2014, while reducing by 5% our IRA dependency having realized P 153 Million total local income.
 - Implemented the Enhanced Tax Revenue and Collection System (E-TRACS) with extensive information and education campaign have significantly increased the real property tax collection by 12%.
 - Completed P210.1 Million worth of projects consisting of public buildings, water systems, roads, bridges, drainage and electrification, while projects worth P 83.5 Million are still on-going province-wide.

Education and Environment

- Increased the allocation to P36.4 Million in support of various education programs and projects that include support for elementary and secondary education, local school board, alternative learning system, sports development program, Madrasah education, and culture and the arts.
- Completed 91 school buildings worth P309 Million
- Allocated P 6.9 Million for the scholarship program and other projects which benefitted the youth in the province.
- Conducted through the Davao del Norte Technology and Livelihood Center (DN-TLDC) 30 institutional trainings for business enterprises and

- livelihood programs; 12 trainings for indigenous people communities; and 33 trainings for various non-government organizations.
- Established the Davao del Norte Learning Institute (DNLI) for the Continuing Education Program that enabled provincial employees to earn college degrees and upgrade their academic qualification and service delivery skills. The first batch is 30 employees who graduated with the degree Bachelor in Public Administration. So far, this opportunity had been extended to employees in the component cities and municipalities.
 - Achieved the biggest enrollment of Lumads at 14,536 in the Special Education Program, which is that Alternative Learning System for Indigenous People (ALS-IP).
 - Oplan A.N.D.A.M. cum Brigada Eskwela at the opening of classes has made schools more disaster-ready and resilient.
 - Launched the Talaingod DavNor Runners, a unique sports development program that is focused on the inherent physical prowess of Lumad children. Thus, Davao del Norte is known as the running center in the country.
 - Participated in the Mindanao “TreeVolution”, which gained the Guinness Book of World Records. In Davao del Norte, participating 15,924 planters have planted 306,541 seedlings.
 - Implemented an intensive reforestation across the LGUs under the National Greening Program in partnership with private entities and communities.
 - Enforced forest protection laws and achieved a 13% increase in accomplishments with the confiscation of 413.82 cu.m. of illegally cut and transported forest trees.
 - Intensified the riverbank protection program under Oplan A.N.D.A.M.
 - Capacitated the LGUs to advance pollution control, proper solid waste management.

Optimum Health and Social Services

- Expanded the Phil Health Program to those belonging to the low income bracket such as the trisikad drivers, fisherfolks, Barangay Police Action Team (BPATS) members and GawadKalinga beneficiaries as well as those in prison and their families.
- Enhanced the capacity of the 3 Provincial Hospitals to operate 24/7 in health care services such as OPD, emergency Room, Laboratory, Pharmacy, Auxillary and In-patient Department, Operating Room and Delivery Room Sections
- Reduction in malnutrition rate to 4.76% from 4.86% and had been a consistent recipient of the Green Banner Award and Regional Outstanding Winner in Nutrition.
- Intensified Malaria Control and was declared by the Department of Health as a Filariasis-free province.
- Implemented the Tobacco Prevention and Control Program and launched the Provincial Smoking Cessation Clinic in 2014. Thus, received the Red Orchid Award from the Department of Health in 2014.
- Provided support and incentives to Day Care workers: P 5,000.00 retirement benefit and P 5,000.00 mortuary benefits. Davao del Norte had the most number of Day Care Centers in Region XI.

- Partnered with educational institutions and TESDA to develop the creative skills of Persons with Disabilities (PWDs) to enable them to keep up with the society.
- The implementation of DSWD programs enabled the province to receive the distinction as the region's Model LGU and the Gawad Parangal for Local Executives category from the Association of Local Social Welfare and Development Officers of the Philippines.

Public-Private Partnership

- Completion of the Davao del Norte Sports and Tourism Complex, the site of the successful hosting of the best-ever Palaro has caught national attention. The complex highlights the province's potential as a MICE (meetings, incentives, conferences and exhibitions) destination.
- Upgrading of hospitals through the procurement of laboratory equipments, i.e. hematology and serum electrolyte machine which increased income from laboratory fees by 32% and from laboratory procedures by 14.5%.
- Outsourcing of hospital utility personnel for a well-maintained and cleaner hospital environment as well as effective infection control.
- Harnessed the private sector in disaster preparedness and response protocol particularly during the onset of calamities.
- Facilitated the P5.7 Billion seaport and container yard project of the Hijo International Port Services, Inc.; the P2.7 Billion mall project of the Robinsons Land Corporation; P2.6 Billion international container terminal of the Anflocor-owned San Vicente Terminal and Brokerage Services in Panabo City; and the P116.2 Million Oakwood Residences undertaken by the HLC Construction and Development Corporation in Panabo City.
- The province passed the Davao del Norte Public-Private Partnership (PPP) Code, a significant law that signifies our readiness for the eminent ASEAN integration.

Link to the World

- "DavNor Karon" newspaper was created as a medium of information to keep people aware of development-related news in the province. Such information is also made available online through the province's website.
- Some 471.63 kilometers provincial roads in good condition are being closely monitored by the Provincial Monitoring Committee (PMC) to assure greater accessibility of people to social services.
- Tourism as a link to the world was enhanced through the implementation of support infrastructures to priority destination sites, namely: a) Talikud Island as model for sustainable open-beach destination under the Local Governance support Program for Local Economic development (LGSP-LED) Project; b) Concreting of seawall and embankment in Cagangohan, Panabo City; c) access to Panas Water Falls (New Corella) and Suaon Nature Park (Kapalong).
- Established the Local Tourism Industry Development Program (LTIDP)
- Enactment of the Provincial Tourism Code and the Provincial Investment Incentives Code

Employment and Livelihood

- Capacitated the Davao del Norte Investment Promotion center (DNIPC) and the Davao del Norte Technology and Livelihood Development Center (DN-TLDC) to provide assistance from product identification and development to marketing and promotion.
- Established the “Magneosyo Ta” Program that provides small and medium enterprises free orientation, livelihood trainings and demonstrations.
- Established the “Pasalubong” Center as marketing support to local products, particularly those “One Town, One Product” commodities.
- Supported campaigns for local products to enter international markets.
- Supported the Davao del Norte Credit Surety Fund, thus, facilitated the release of loans to 200 farmers and entrepreneurs amounting to P 21.5 Million.
- Supported the Organic Farming and System Rice Intensification Program, which reduced farm production cost by 11 percent.
- Received the recognition as Davao Region’s Top Performing Province in implementing the Organic Agriculture Program.
- Supported the Cereals Enhancement Program that increased the rice sufficiency level by 10 percent.
- Supported the Livestock and Poultry Production Program, which improved the production of fast growing, feed efficient, high value and disease resistant animals. The province had started the operation of the frozen goat semen processing laboratory in Kapalong, the only one of its kind in Davao Region.

Seal of Good Local Governance (SGLG)

- During the administration of Governor Rodolfo P. del Rosario that the province attained the Seal of Good Local Governance that covered the areas of good financial housekeeping, disaster preparedness, social protection, business friendliness and competitiveness, and peace and order.

Disaster Preparedness: CCA-DRRM

- Climate Change Adaptation and Disaster Risk Reduction Management (CCA-DRRM) was put in place, while Oplan A.N.D.A.M. (Advocacy on Natural Disaster Awareness and Management) was launched to promote a culture of safety and a more resilient Davaonons. Some P 53 Million was allotted to support DRRM projects and activities.

Policy Direction

- Adopted the performance reward system to capitol employees through the Productivity Enhancement Incentive (PEI).
- Supported all efforts to achieve the Millenium Development Goals (SDGs)
- Initiated the formulation of a feasibility study of the proposed Samal Bridge, the Talikud Island Development and the completion of the coastal Road from Panabo City to the Municipality of Carmen

- Supported the Localized and Integrated Programs and Approaches for Development through Ugmad Komunidad (LIPAD-UK) Program in Cagangohan, Panabo City.

On 2019 election, Governor Edwin I. Jubahib won the race against Governor Anthony del Rosario.

The unprecedented change that swept across the local landscape marked the advent of a new era for Davao del Norte. It enabled the province to soar to fresh milestones in attaining higher growth, as well as faster and more inclusive socio-economic advancement.

Governor Jubahib, assume the very important role of a first-born son in helping provide for the needs of the family. He would like to be remembered as a loving big brother to all Dabaonon brethren. One who afforded safe refuge, a nurturer, a role model, a protector and a mediator, among other endearing traits of an older brother. Rooting on the endearing qualities of a big brother, he crafted the development agenda, known as K.U.Y.A. G.O.B. This is spelled as: Knowledge Management, Education and Sports; Universal Health and Social Services; Yield Growth in Agriculture and Environmental Sustainability; Adequate Infrastructure and Facilities; Greater Livelihood and Income Opportunities; Operational Peace and Development Framework; Broad-Based Economic growth and Investments.

The K.U.Y.A G.O.B. development agenda is consistent with the thrusts and priorities of President Rodrigo R. Duterte, as it is also clearly anchored on the Ambisyon Nation 2040. This is the long term vision of the national government to end poverty in the country by 2040. The 25 year vision, which reflects the ordinary Filipinos' desire to pursue a middle-class and family-centric life, is perfectly in harmony with family-oriented strategy. Hence, with the K.U.Y.A G.O.B. approach, the Province "localized" the vision for Filipinos to live "long and healthy lives", being smart and innovative, and living in a "high trust society".

The List of Provincial Officials
Province of Davao del Norte
From 1968 to Present

CY 1968-1971 (Presidential Appointment)

Governor	Hon. Verulo C. Boiser
Vice Governor	Hon. Cecilia A. de la Paz
Members	Hon. Ruperto C. Garcia Hon. Candido M. Perales Hon. Dominador F. Selga

CY 1971 – 1974

Governor	Hon. Verulo C. Boiser
Vice Governor	Hon. Cecilia A. de la Paz
Members	Hon. Ruperto C. Gonzaga Hon. Candido M. Perales Hon. Rolando C. Marcial

CY 1974 – 1977

Governor	Hon. Verulo C. Boiser
Vice Governor	Hon. Cecilia A. de la Paz
Members	Hon. Ruperto C. Gonzaga Hon. Candido M. Perales Hon. Rolando C. Marcial

CY 1977 – 1980 (Presidential Appointment)

Governor	Hon. Gregorio R. Dujali
Vice Governor	Hon. Cecilia A. de la Paz
Members	Hon. Ruperto C. Gonzaga Hon. Rolando C. Marcial Hon. Candido M. Perales

CY 1980 – 1983

Governor	Hon. Gregorio R. Dujali
Vice Governor	Hon. Gelacio P. Gementiza
Members	Hon. Rolando C. Marcial Hon. Ruperto C. Gonzaga Hon. Maximo M. Nuñez

Hon. Candido M. Perales
Hon. Virgilio C. Boiser
Hon. Artemio V. San Juan
Hon. Constancio M. Fernando
Hon. Salvador N. Rodriguez (KB)

CY 1983 – 1986

Governor	Hon. Gregorio R. Dujali
Vice Governor	Hon. Gelacio P. Gementiza
Members	Hon. Rolando C. Marcial Hon. Ruperto C. Gonzaga Hon. Candido M. Perales Hon. Virgilio C. Boiser Hon. Artemio V. San Juan Hon. Bienvenida M. Royo Hon. Maximo C. Nuñez Hon. Salvador N. Rodriguez (KB)

CY 1986 – 1987 (Presidential Appointment)

Governor	Hon. Prospero S. Amatong
Vice Governor	Hon. Jose R. Caballero
Members	Hon. Margarito M. Cualing Hon. Crisanto D. Maniwang Hon. Rey T. Uy Hon. Pedro B. San Jose Hon. Versim A. Enad Hon. Providencia P. Nuñez Hon. Virgilio C. Boiser Hon. Artemio V. San Juan Hon. Rodolfo C. Bautista Hon. Bienvenida M. Royo Hon. Anecito S. Solis Hon. Elmer B. Jampayas (KB)

CY 1988 – 1992

Governor	Hon. Prospero S. Amatong
Vice Governor	Hon. Jose R. Caballero
Members	Hon. Crisanto D. Maniwang Hon. Rey T. Uy Hon. Pedro B. San Jose Hon. Versim A. Enad Hon. Providencia P. Nunez Hon. Anecito A. Solis Hon. Artemio V. San Juan Hon. Rodolfo C. Rapista Hon. Virgilio C. Boiser Hon. Antonio R. Floirendo, Jr. (FABC)

CY 1992 – 1995

Governor	Hon. Prospero S. Amatong
Vice Governor	Hon. Gelacio P. Gementiza
Members	Hon. Margarito M. Cualing
	Hon. Pedro B. San Jose
	Hon. Virgilio C. Boiser
	Hon. Artemio V. San Juan
	Hon. Manuel E. Zamora
	Hon. Providencia P. Nuñez
	Hon. Aniceto S. Solis
	Hon. Eulogio L. Grasparil
	Hon. Fortunato A. Dayot
	Hon. Michael O. Galicia
	Hon. Antonio R. Floirendo, Jr. (FABC)
	Hon. Julio B. Abenales (PCL)
	Hon. Maria Carmen S. Zamora (SKF)

CY 1995 – 1998

Governor	Hon. Prospero S. Amatong
Vice Governor	Hon. Pedro B. San Jose
Members	Hon. Manuel E. Zamora
	Hon. Artemio V. San Juan
	Hon. Michael O. Galicia
	Hon. Aniceto S. Solis
	Hon. Eulogio L. Grasparil
	Hon. Rey T. Uy
	Hon. Rogelio E. Israel
	Hon. Virgilio C. Boiser
	Hon. Shirley Belen R. Aala
	Hon. Damasceno A. Aguirre
	Hon. Florante E. Garcia (PCL Pres)
	Hon. Antonio R. Floirendo, Jr.
	-(FABC Pres: July 1997-June 1998)
	Hon. Ramil L. Gentugaya
	-(SKF Pres: July 1997-June 1998)

April 1-June 30, 1998 Interim Officials

Governor	Hon. Aniceto M. Solis
Vice Governor	Hon. Virgilio C. Boiser
Members	Hon. Daniel B. Turan
	Hon. Jose L. Silvosa
	Hon. Gaspar G. Valera
	Hon. Maximo M. Estela
	Hon. Prospero H. Estabillo
	Hon. Providencia P. Nuñez

CY 1998 – 2001

Governor	Hon. Rodolfo R. del Rosario
Vice Governor	Hon. Gelacio P. Gementiza
Members	Hon. Rogelio E. Israel
	Hon. Arrel R. Olaño
	Hon. Alan D. Zulueta
	Hon. Meliton D. Lemos
	Hon. Rodolfo C. Rapista
	Hon. Maximo M. Estela
	Hon. Jose D. Silvosa, Sr.
	Hon. Gaspar R. Valera
	Hon. Eulogio L. Grasparil
	Hon. Hernanie L. Duco
	Hon. Macario A. Bermudez II (PCL Pres)
	Hon. Antonio R. Floirendo, Jr. - <i>(FABC Pres: Jan-June 1998)</i>
	Hon. Noel L. Tabacon - <i>(FABC Pres: July 1998-Dec 2001)</i>
	Hon. Ramil L. Gentugaya - <i>(SKF Pres: Jan-June 1998)</i>
	Hon. Nieljun C. Esdrejon - <i>(SKF Pres : July 1998-July 2001)</i>

CY 2001-2004

Governor	Hon. Rodolfo P. del Rosario
Vice Governor	Hon. Victorio R. Suaybaguio, Jr.
Members	Hon. Rogelio E. Israel
	Hon. Maximo M. Estela
	Hon. Jose D. Silvosa, Sr.
	Hon. Alan D. Zulueta
	Hon. Hernanie L. Duco
	Hon. Shirley Belen R. Aala
	Hon. Franklin D. Gentiles
	Hon. Macario A. Bermudez II
	Hon. Gaspar R. Valera
	Hon. Antonio M. Lagunsad
	Hon. Alan R. Dujali (PCL Pres)
	Hon. Noel L. Tabacon - <i>(FABC Pres: Jan-Oct 2002)</i>
	Hon. Antonio Rafael G. del Rosario - <i>(FABC Pres: Nov 2002-June 2004)</i>
	Hon. Nieljun C. Esdrejon - <i>(FABC Pres)</i>
	Hon. Kim P. Quesada - <i>(SKF Pres: 2002-2004)</i>

CY 2004 – 2007

Governor	Hon. Gelacio P. Gementiza
Vice Governor	Hon. Antonio Rafael G. del Rosario
Members	Hon. Hernanie L. Duco
	Hon. Franklin D. Gentiles
	Hon. Shirley Belen R. Aala
	Hon. Salvador R. Royo
	Hon. Meliton D. Lemos
	Hon. Gaspar R. Valera
	Hon. Alan D. Zulueta
	Hon. Macario A. Bermudez II
	Hon. Emelita A. Alvarez
	Hon. Jose D. Silvosa, Sr.
	Hon. Rogelio E. Israel (PCL Pres)
	Hon. Neiljun C. Esdrejon (FABC Pres)
	Hon. Kim P. Quesada (SKF Pres)

CY 2007-2010

Governor	Hon. Rodolfo P. del Rosario
Vice-Governor	Hon. Victorio R. Suaybaguio, Jr.
SP Members	Hon. Janet G. Gavina
	Hon. Rogelio E. Israel
	Hon. Salvador R. Royo
	Hon. Macario A. Bermudez, II
	Hon. Gregorio S. Facula
	Hon. Artemio V. San Juan
	Hon. Antonio M. Lagunzad
	Hon. Ely C. Dacalus
	Hon. Leopoldo A. Monteroso, Sr.
	Hon. Jose Recarido P. Federiso
	Hon. Demetrio C. Maligro (FABC)
	Hon. Helario T. Caminero (PCL)
	Hon. Dennis C. Café (SKFP)

For the successive terms of the Provincial Officials, they are presented with pictures already on the following pages.

Province of Davao del Norte Officials 2010-2013



HON. RODOLFO P. DEL ROSARIO
Governor



HON. VICTORIO R. SUAYBAGUIO, JR., MPA
Vice Governor



HON. ANTONIO RAFAEL G. del ROSARIO
Congressman - District I



HON. ANTONIO F. LAGDAMEO, JR.
Congressman - District II

SANGUNIANG PANLALAWIGAN MEMBERS:

District I



HON. SHIRLEY BELEN R. AALA



HON. RAYMOND JOEY D. MILLAN



HON. VICENTE C. ELIOT SR..



HON. ANTONIO M. LAGUNZAD



HON. ALFREDO D. DE VEYRA

District II



HON. JANET G. GAVINA



HON. DANIEL A. LU



HON. ALLAN R. DUJALI



HON. ELY C. DACALUS



HON. HERNANIE L. DUCO



HON. JANREY G. GAVINA
Ex-Officio Member-PCL



HON. VICENTE R. FLORENDO
Ex-Officio Member-FABC



HON. EUGENE KATRINA B. ESTRADA
Ex-Officio Member-SKPPF

**PROVINCE OF DAVAO DEL NORTE OFFICIALS
2013-2016**



HON. RODOLFO P. DEL ROSARIO
Governor



HON. VICTORIO R. SUAYBAGUIO, JR., MPA
Vice Governor



HON. ANTONIO RAFAEL G. del ROSARIO
Congressman - District I



HON. ANTONIO F. LAGDAMEO, JR.
Congressman - District II

SANGUNIANG PANLALAWIGAN MEMBERS:

District I



HON. SHIRLEY BELEN R. AALA



HON. RAYMOND JOEY D. MILLAN



HON. VICENTE C. ELIOT SR.



HON. ANTONIO M. LAGUNZAD



HON. ALFREDO D. DE VEYRA

District II



HON. JANET G. GAVINA



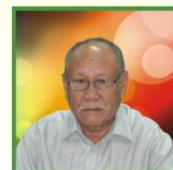
HON. DANIEL A. LU



HON. ALLAN R. DUJALI



HON. ELY C. DACALUS



HON. HERNANIE L. DUCO



HON. JANREY G. GAVINA
Ex-Officio Member-PCL



HON. VICENTE R. FLORENDO
Ex-Officio Member-FABC



HON. EUGENE KATRINA B. ESTRADA
Ex-Officio Member-SKPPF

Province of Davao del Norte Officials 2016-2019



Hon. Antonio Rafael G. delRosario
Governor

Congressional Representatives



Hon. Alan R. Dujali, MPA
Vice Governor



Hon. Pantaleon D. Alvarez
District I



Hon. Antonio D. Florendo, Jr.
District II

First District:



Hon. Shirley Belen R. Aala
Board Member-District I



Hon. Alfredo B. de Veyra III
Board Member - District I



Hon. Vicente C. Eliot, Sr.
Board Member-District I

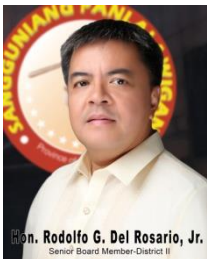


Hon. Raymond Joey D. Millan
Board Member-District I

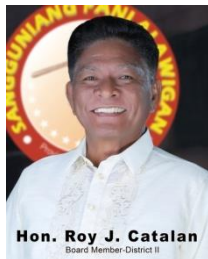


Hon. Francisco C. Remitar, MDMG
Board Member-District I

Second District:



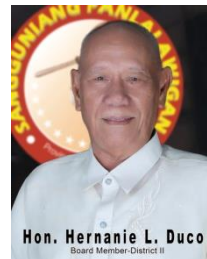
Hon. Rodolfo G. Del Rosario, Jr.
Senior Board Member-District II



Hon. Roy J. Catalan
Board Member-District II



Hon. Ernesto T. Evangelista, Sr.
Board Member-District II

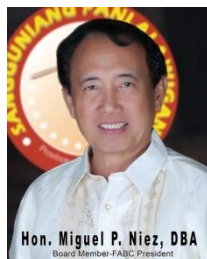


Hon. Hernanie L. Duco
Board Member-District II



Hon. Jannet Tanong-Maboloc
Board Member-District II

Ex-Officio:



Hon. Miguel P. Niez, DBA
Board Member-FABC President



Hon. Dan P. Gervacio, REE
PCL President



Hon. Victor M. Pandian
Board Member - Representative

Province of Davao del Norte Officials 2019 – 2022



Hon. Edwin I Jubahib
Governor



Hon. Rey T. Uy
Vice Governor

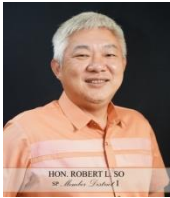


Hon. Pantaleon D. Alvarez
Congressman – District



Hon. Alan R. Dujali, MPA
Congressman – District II

First District:



Hon. Robert L. So
Sr. Board Member



Hon. Nicandro T. Suaybaguio, Jr. UAP
Board Member



Hon. Francisco C. Remitar, MDMG
Board Member



Hon. Prospero E. Esatabillo, Jr.
Board Member



Hon. Roger A. Laguna
Board Member

Second District:



Hon. Jannet Tanong-Maboloc
Board Member



Hon. Franklin D. Gentiles, CE
Board Member



Hon. Roy J. Catalan
Board Member



Hon. Janris Jay G. Relampagos
Board Member



Hon. Denise Marianne A. Lu, MD
Board Member

Ex-Officio:



Hon. Dindo C. Parangan
Board Member – FABC



Hon. Silvino P. Matobato, Jr. PTRP
Board Member – PCL President



Hon. Emerson Dave A. Silutan, LPT
Board Member – SKPF President



Hon. Datu Ariel S. Macla
Board Member-IP Representative

The Provincial Capitol- The Seat of the Provincial Government



After the creation of the province when there was no capitol building yet, the province established its offices on the mezzanine floor and in the space below the grandstand of an old municipal gymnasium which was located right at the back of the Municipal Hall of Tagum. Other provincial offices were located in the Ymalay and Cervantes buildings along Mabini St.

The building construction of the capitol started in 1969 in the 20-hectare capitol site which was donated by the following land owners: Mr. Quirino Salcedo Magsanoc, Mrs. Margarita Magsanoc Aala, Mr. Pablo Laude Aala, Mrs. Thelma Aala Still, Engr. Richie Magsanoc Aala, Engr. Crisanto Magsanoc Aala, Mrs. Urduja Aala Julopzinen and Mr. Pablito Magsanoc Aala. It was completed and inaugurated on July 1, 1972 during the 5th Founding Anniversary of the province.

The architects who designed the building are those commissioned by the Department of Public Works in the National Office. The architectural design was patterned after the Provincial Capitol of Benguet in Luzon. The capitol lies at the heart of a 24-hectare Provincial Government Center located at Barangay Mankilam, which is 3 kilometers west of Tagum City. It is a two-storey white building occupying a total floor area of about 3,000 square meters. The main building holds the Office of the Provincial Governor and various provincial offices. The annex building houses the Legislative Branch of the province.

At the time of its construction, the place was so remote, but then the capitol became a catalyst of urbanization to its vicinity. The site of the capitol has always been a part of a larger urban plan.

The Provincial Capitol has been the seat of the Provincial Government of Davao del Norte since it was established in 1972. It has withstood the test of times to the present. Major alteration has been made during the first two terms of office of Honorable Governor Rodolfo P. del Rosario. Such alterations include the renovation and improvement of the interior design of offices; the installation of air-conditioning units; the extension works and renovation of the building façade and the main lobby; the transfer of the Legislative Branch to the

Annex Building and the improvement of other facilities to include the rest rooms and alleys.

When Governor Rodolfo P. del Rosario returned to serve a new term, ground improvement was undertaken which included the construction of a wide parking space to accommodate a good number of vehicles either owned by the provincial government and the transacting public.

Date of Creation, Legal Basis and Origin of LGUs in Davao del Norte

NAME OF LGU	DATE OF CREATION	LEGAL BASIS	ORIGIN
Davao del Norte	May 8, 1967	R A No. 4867	Great Davao Province
Asuncion	June 20, 1957	R A No. 1675	Municipal District in 1918 Saug, renamed to Asuncion
Carmen	June 18, 1966	R A No. 4745	Panabo
Kapalong	August 1, 1948	E.O. 151-Pres. Quirino	
New Corella	June 18, 1966	R A No. 4747	Asuncion
Panabo City - As municipality - As city	July 1, 1949 March 31, 2001	E O No. 236 R. A. No. 1015	Tagum
Sto. Tomas	August 14, 1959	E. O. No. 352	Panabo
IGaCoS - Babak - Kaputian - Samal	January 30, 1998 May 28, 1953 June 18, 1966 July 8, 1948	E. O. No. 596 R. A. No. 4754 E. O. No. 151	Samal, Babak, Kaputian Samal Samal Great Davao Province
Tagum City - As municipality - As city	June 23, 1941 January 30, 1998	E. O. No. 452 R. A. No. 8472	Municipal. District in 1918
Braulio E. Dujali	January 30, 1998	R. A. No. 8473	Carmen and Panabo City
San Isidro	March 17, 2004	R. A. No. 9265	Asuncion and Kapalong

Source: 1980 Census on Population and Housing Report
Municipal/City Socio-Economic Profile

ACKNOWLEDGEMENT

The Provincial Planning and Development Office, which is tasked to formulate the Socio-Economic and Ecological Profile wishes to express its profound gratitude to all those in one way or another have extended their support and cooperation in coming up with this 2020 Socio-Economic and Ecological Profile of the Province of Davao del Norte.

Along this line, we would like to make special mention to the following agencies, to wit:

National Offices:

- a) National Economic Development Authority
- b) National Statistical Coordination Board
- c) Department of Education
- d) National Irrigation Administration
- e) Philippine National Police
- f) Department of Public Works and Highways
- g) Philippine Statistics Authority
- h) Department of Trade and Industry
- i) Bureau of Agricultural Statistics
- j) Provincial Office of the Fire Marshall
- k) Technical Education Skills Development Authority
- l) Commission on Higher Education
- m) Department of Transportation and Communication
- n) Land Transportation Office

Provincial Offices:

- a) Provincial Governor's Office
- b) Provincial Budget Office
- c) Provincial Treasurer's Office
- d) Provincial Accountant's Office
- e) Provincial Assessor's Office
- f) Provincial Health Office
- g) Provincial Engineer's Office
- h) Provincial Agriculturist and Cooperative Office
- i) Provincial Veterinary Office
- j) Provincial Social Welfare and Development Office
- k) P E N R O- LGU

Other Offices:

- a) Davao del Norte Electric Cooperative
- b) Davao Light and Power Company

CHAPTER I

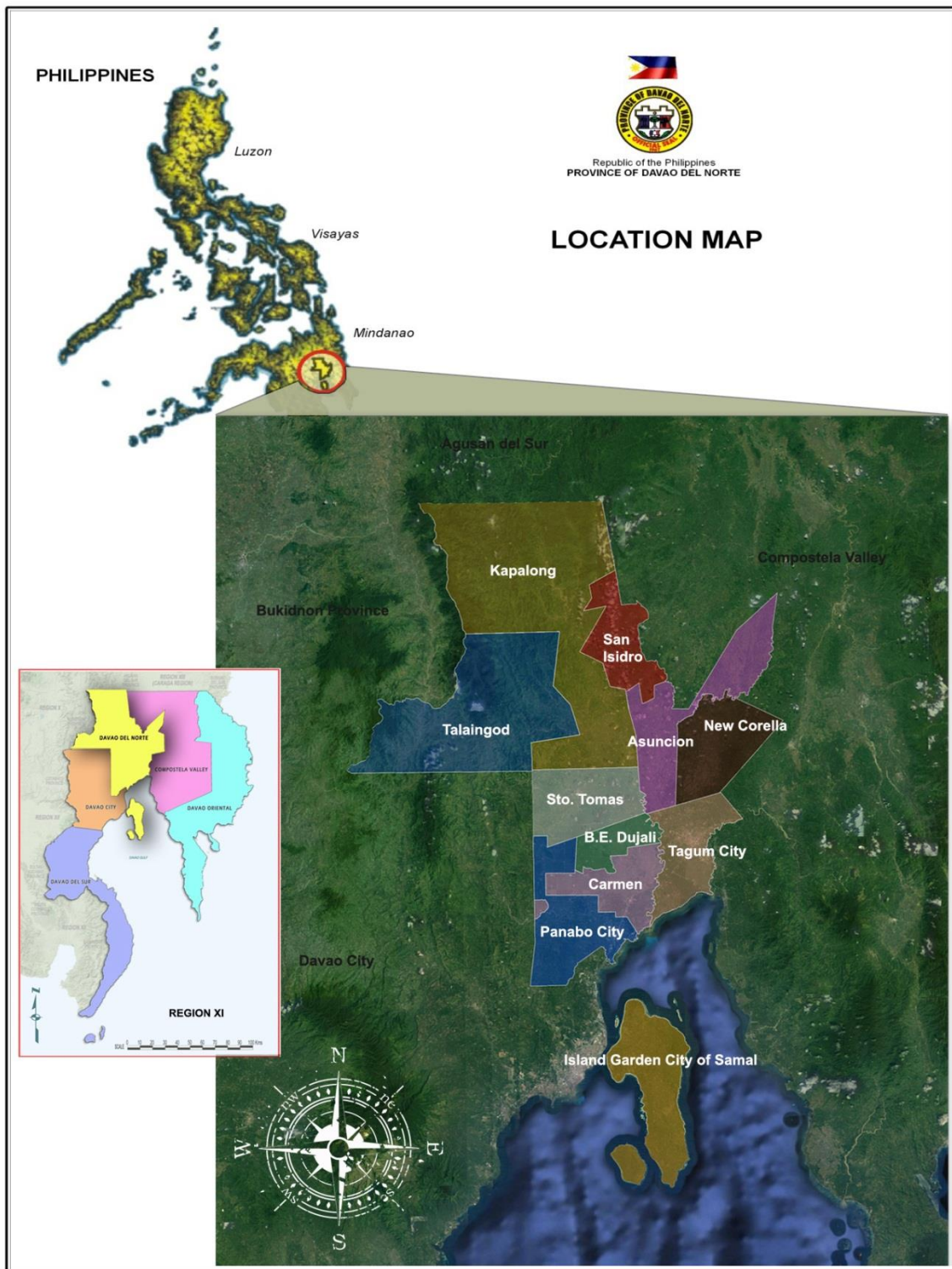
PHYSICAL PROFILE

1.1 Location, land area, and political subdivision

Davao del Norte is strategically located at the southeastern part of Region XI, bounded by Agusan del Sur on the North, Bukidnon on the Northwest, Davao City on the West, Davao Gulf on the South and Davao de Oro on the East. (See Provincial Map 1)

Davao del Norte had an initial composition of 13 municipalities upon its creation on May 8, 1967. However, on May 6, 1970, six additional municipalities were created, and between 1979 and 1990, another three additional municipalities were also created. In 1996, Davao del Norte had a total of twenty-two municipalities. Furthermore, on January 31, 1998, President Fidel V. Ramos signed Republic Act No. 8470 creating the Province of Compostela Valley out of Davao del Norte. Along with the creation of Compostela Valley, were: the enactment of Republic Act No. 8471, creating the Island Garden City of Samal that comprise the former municipalities of Babak, Samal and Kaputian; Republic Act 8472 converting Tagum Municipality into Tagum City, the seat of the provincial government center of Davao del Norte; and Republic Act 8473 creating the municipality of Braulio E. Dujali out of some barangays from Carmen and Panabo municipalities. Subsequently, on March 31, 2001 by virtue of Republic Act 1015 the Municipality of Panabo was also converted into a city. And lately, the Municipality of San Isidro was created on March 15, 2004 pursuant to Republic Act 9265. Six barangays were taken from the Municipality of Asuncion, while seven barangays were taken from the Municipality of Kapalong. At present, Davao del Norte comprises eight (8) municipalities and three (3) cities with 223 barangays, sub-divided into two congressional districts. (See Table No. 1-1)

Map1-1:Location Map



Source : Provincial Planning and Development Office-GIS

Table No. 1-1 **Land Area and Number of Barangays,**
by City/Municipality Davao del Norte, 2020

City/Municipality	Land Area (Sq. Km.)	No. of Barangays
District I		
Asuncion	293.47	20
Kapalong	945.86	14
New Corella	321.48	21
San Isidro	152.49	13
Tagum City	182.54	23
Talaingod	454.96	3
District II		
Braulio E. Dujali	91.00	5
Carmen	166.25	20
Island Garden City of Samal	280.71	46
Panabo City	253.63	39
Sto. Tomas	320.41	19
DAVAO DEL NORTE	3,462.80	223

Source: DENR XI

Note: Land area is not authoritative, for planning purposes only.

1.2 Topography and slope

Rugged, mountainous and moderately to steeply sloping areas on the western part and a wide alluvial plain on the central lowland area generally characterize the topography of the province. Comprising the major portion of the alluvial plain is a flat tract of land. However, some places are gently undulating and exhibit a rolling topography.

Davao del Norte has generally a lowland terrain comprising 37 percent of the total land area with less than 100 meters elevation. The highest elevation ranging from 1000-2000 meters comprising 3 percent of the total land area is found in the municipalities of Kapalong and Talaingod.

Table No.1-2: **Elevation Characteristics**
Province of Davao del Norte, 2020

Area of Elevation in Hectares						
<100 m	100-300 m	301-500 m	501-1000 m	1001-2000 m	>2001 m	Total
128,343	84,651	29,501	94,174	9,613	-	346,280
Percent Distribution						
37 %	24 %	9 %	27 %	3 %	0.00%	100%

Source: BSWM XI

Slope is a key variable affecting the selection and positioning of crops and likewise, influences the type of management infrastructure that must be adopted to sustain land productivity.

About 53.6 percent of the total land area of the province or 185,687.11 hectares has slope range of 0-18 percent (Table No.1-3). These areas may be used for agriculture, industries and settlements. The remaining 46.4 percent or 160,592.89 hectares of the province are areas with slope ranging from 18 percent to more than 50 percent.

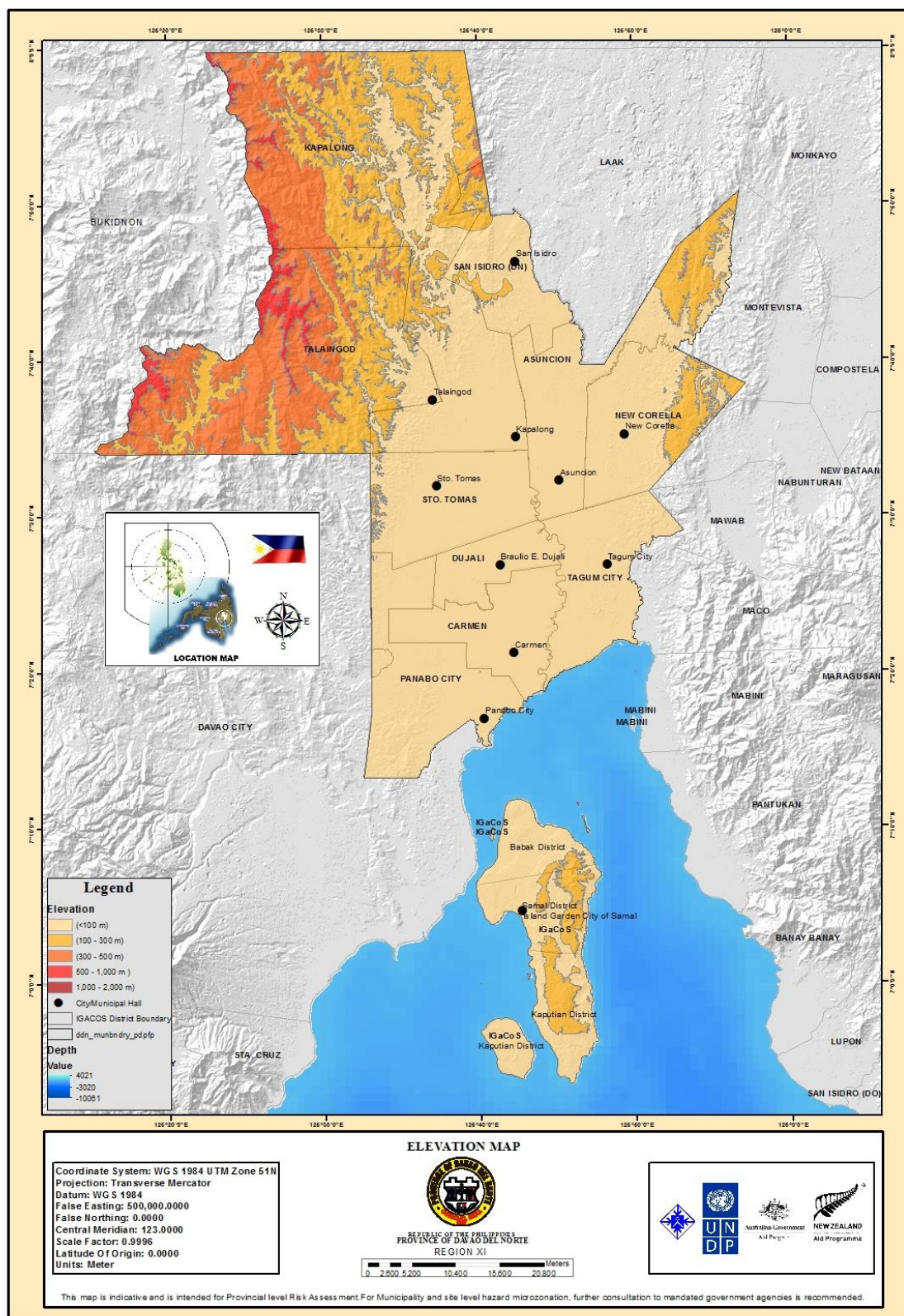
Table No. 1-3 : **Slope Classification by City/Municipality**
Davao del Norte (in hectares)

City/ Municipality	Slope Class						Total
	0-3 %	3-8 %	8-18 %	18-30 %	30-50 %	50 % up	
Asuncion	13,530.90	1,799.30	2,601.80	2,652.70	8,758.80	3.50	29,347.00
B.E Dujali	9,100.00	0	0	0	0	0	9,100.00
Carmen	16,603.30	16.50	5.20	0	0	0	16,625.00
Kapalong	10,850.30	5,551.50	5,543.31	25,806.69	19,025.37	27,808.83	94,586.00
New Corella	12,446.30	3,232.80	4,934.90	3,863.80	7,643.80	26.40	32,148.00
San Isidro	4,627.00	1,871.00	939.00	7,716.00	96.00	0	15,249.00
Sto. Tomas	13,093.00	3,670.00	2,793.00	9,350.90	2,999.30	134.80	32,041.00
Talaingod	0	1,656.70	2,235.30	14,453.50	7,716.00	19,434.50	45,496.00
Samal City	11,323.10	8,839.10	5,346.80	853.80	1,357.40	350.80	28,071.00
Panabo City	13,023.50	4,210.50	7,589.00	124.50	415.50	0	25,363.00
Tagum City	16,892.30	1,051.00	310.70	0	0	0	18,254.00
Davao del Norte	121,489.70	31,898.40	32,299.01	64,821.89	48,012.17	47,758.83	346,280.00
% Distribution	35.10	9.20	9.30	18.70	13.90	13.80	100

Source: BSWM XI, GIS computations based on the maps by the DENR, BSWM

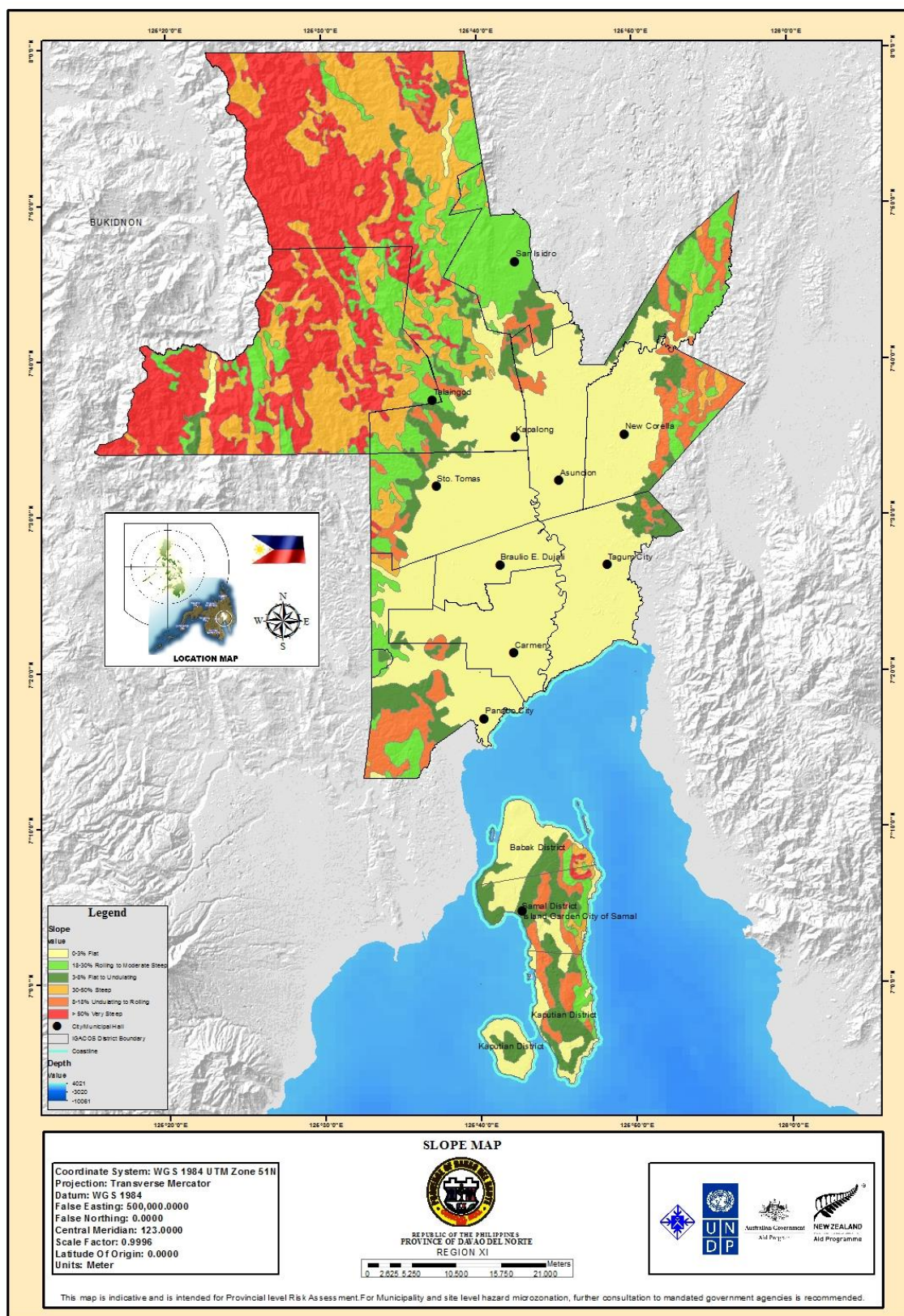
Note: Land area is not authoritative for any other purposes.

Map 1-2: ELEVATION MAP



Source: PPDO-GIS

Map 1- 3: **SLOPE MAP**



Source: PPDO-GIS

1.3 Land and water resources

Davao del Norte has a total land area of 346,280 hectares. About 279,759.50 hectares or 80% of the total land area may be protected for environmental and agriculture development purposes. These are the NIPAS area, SAFDZ, areas affected by severe erosion, marine protected areas and non-NIPAS which include second growth forest with over 1000 meters elevation or 50% slope, mangrove forest, watershed area and buffer strips or easements along rivers and escarpments.

The remaining 66,520.50 hectares or 20% may be used for urban and rural settlements, farming, industries, tourism and other urban-related activities. Davao del Norte's land area is about 18.3 % of the total area of Region XI.

The province has an abundant water supply both from surface and groundwater resources. 15 rivers and creeks traverse the province. The bigger rivers such as the Lasang, Tagum/Libuganon, Saug and Tuganay drain the broad plain west and north into Davao Gulf. These major rivers are part of the watershed of the same name.

Tagum/Libuganon River with a total length of 95 kilometers is the longest among the major rivers in the province and has a total watershed area of 247,500 hectares. It originates from the eastern hillside of the Mindanao Central Cordillera and flows to the central alluvial plain, and then extends to Davao Gulf.

On the other hand, the shortest river in the province is found in the Island Garden City of Samal, which is the Benoling River traverses an estimated distance of one (1) kilometer from Barangay Cawag to Sitio Benoling. At the midstream of this river is the Hagimit Falls, which is approximately 15 feet in height.

A study conducted by the Sinclair Knight Merz in 2004 for an Integrated Water Resource Development Project in the Province of Davao del Norte identified surface water from Tagum River as a major resource which can provide a large volume for potable drinking water with minimal risk of supply failure. The water in the river will require treatment considering its quality. Likewise, water supply needs for agricultural purposes, in terms of volume, accessibility and availability will also have to be given due consideration.

Table No. 1-4 : **Drainage Areas and Flow Rates of Major Rivers**
Province of Davao del Norte

Major Rivers	Drainage Area (km ²)	Flow Rate (m ³ /sec)		
		Peak	Maximum	Minimum
Hijo	617	150.9	102.5	8.3
Tagum	2,326	654.7	601.9	24.1
Lasang	808	No gauging station present		

Source: *Philippine Water Resources Summary Data, NWRC*

Provincial Water Supply, Sewerage and Sanitation Sector Plan, Davao del Norte

Notes: *Peak – Peak discharge of Daily Maximum Discharge*

Maximum – Maximum Daily Discharge of Weighted Daily Discharge

Minimum – Minimum Daily Discharge of Weighted Daily Discharge

Groundwater availability in the province is classified as deepwell and difficult area. Deep well area covers approximately 80% of the province, widely distributed in the river basins of Tagum and Davao rivers. Groundwater is the main source of drinking water in the urban centers of Tagum, Panabo, Sto. Tomas, Island Garden City of Samal, New Corella and Carmen. About 20% of the provincial area is classified as a difficult area to exploit groundwater. Such areas are characterized by mountains in the northwestern side of the province. Springs are the common source of water in these areas. There are 157 developed springs currently serving the populace mostly in the rural areas of the province.

1.4 Soil characteristics and fertility

a. Soil type

The soils of the Province of Davao del Norte have developed from either alluvium washed from the uplands or from materials originating from igneous or sedimentary rocks. Each type of soil has a different fertility, structure and character.

There are seven (7) types of soil in the province. These are:

1. Hydrosol - Under this miscellaneous soil type are the swamps, which are made up of a complex of poorly drained immature soils. These soils are generally brackish or salty and are sandy in some places. A very significant area of this type is utilized as fishponds in the City of Tagum.
2. Camansa Sandy Clay Loam - This soil is one of the most extensive soils in Davao del Norte. It occupies the hilly and mountainous regions on the northern parts of the province. The more gentle slopes of this soil are suited to perennial crops, but the soil on the whole is more suited for forestry purposes.
3. Cabangan Clay Loam - Soil of this type are secondary soils derived from recent Alluvium washed mainly from the uplands underlain by sedimentary. This soil occupies the greater part of the gently rising plain at the head of the gulf. The yields of the different crops on this soil indicate that it is of medium to high productivity. To secure optimum growth of most crops, except lowland rice, artificial drainage for this soil must be provided.
4. San Manuel Silty Clay Loam - This soil is developed from recent alluvium washed from the uplands and deposited by rivers along their courses. A large portion of the areas under this soil type is sometimes flooded and for this reason they make up some of the most productive soils of the province. Because of the natural fertility of the soil, diverse crops are raised on it with moderately high yields.
5. Mountain Soils (Undifferentiated) - The soils classified as mountain soils or undifferentiated soils commonly found in areas that are inaccessible. These soils support the forests of the province and although they have no agricultural importance, they do support forestry farming.

6. Bolinao Clay- The Island Garden City of Samal is composed of this type of soil. The soil is slightly acidic and has a rather poor internal drainage, but the production of coconuts, corn, and citrus on the eastern coast compares favorably with that of other soils of the province, though at a much lower level of production.
7. Cabantian Clay- The soils of the Cabantian Clay type are formed in the hilly portions of the City of Panabo bordering the City of Davao. On this soil, crops have only moderate yields or even lower in some places.

b. Soil fertility

The soil fertility of the province is highly categorized under medium acid that is within the range of 5.6-6.0. About 43.98 percent or 167,698 hectares of the total land area are medium acidic. (See Table No. 1-5)

Table No. 1-5: **Soil Fertility, Province of Davao del Norte**

Range	Classification	Area (Has.)	% Distribution
< 4.5	Extremely Acid	36,387	10.33
4.5 – 5.0	Very strongly acid	65,499	17.18
5.1 – 5.5	Strongly acid	26,634	6.98
5.5 – 6.0	Medium Acid	167,698	43.98
6.1 – 6.5	Slightly acid	42,898	11.25

Source: Land Resources Information System (LARIS)
Bureau of Soils and Water Management, DA-RFU XI

1.5 Mineral resources

Davao del Norte is endowed with rich deposits of non-metallic minerals like guano, marble, limestone and others. It has an estimated total reserve of 44,845,283 MT of non-metallic minerals.

Table No. 1-6 : **Estimated Non-Metallic Resources**
Province of Davao del Norte, 2010

Non-Metallic Mineral	Locality	Total Reserve (M.T)
1. Guano Phosphate	Samal & Talikud Is.	112,400
2. Rock Phosphate	Samal & Talikud Is.	43,800
3. Sand & Gravel	Lasang River, Panabo City, Sto, Tomas and Carmen River	1,800,000
4. Marble Deposit	Igang, Tagasan, Kapalong	35,000
5. Limestone/ Lime Raw Materials	New Visayas & Ulugan Kapalong	7,854,083
6. Magnesite	Igang, Tagasan, Kapalong	35,000,000

Source: MGB XI

The Province also has an abundant source of high grade quality sand and gravel, a major component material in construction. Tagum City, Panabo City

and the municipalities of Carmen, Kapalong and Sto. Tomas are the major suppliers of sand and gravel. Total production of sand and gravel in 2015 was 306,626.00 cu. m. In Region XI, Davao del Norte is the second largest producer of sand and gravel, next to Davao City.

1.6 Climate and rainfall

The province has Type IV climate under the coronas classification. Rainfall is more or less evenly distributed throughout the year with no pronounced rainy season and dry season. Davao del Norte lies within the typhoon belt. According to the Manila Observatory Report (Arguilles 2013), six typhoons made landfall in Mindanao in the last 15 years before Typhoon Sendong. It also pointed out that typhoons do pass through Mindanao in December and that “roughly one typhoon per 10 years crosses Mindanao in December”. In 2012, Typhoon Bopha (known locally as Pablo) made landfall in the southern islands of the Philippines. Based on winds speeds, Bopha remains the strongest storm to have affected the southern part of Mindanao in the past decades (NOAA, 2020)

The fairly pronounced rainy months in the province are from November through February. The province’s average annual rainfall for the past five years, which was based on climatological data from PAG-ASA Agromet Station in Tagum City, ranges from 165.25 mm. to 267.48 mm.

Table No. 1-7 : **Monthly and Annual Rainfall** (In Millimeter)
Province of Davao del Norte: CYs 2016-2021

Month	Total Monthly Rainfall (in mm.)					
	2016	2017	2018	2019	2020	2021
Jan.	22.0	420.0	181.0	350.1	138.0	281.3
Feb.	51.8	410.0	115.0	265.0	34.9	34.9
March	32.4	296.4	78.0	136.0	68.1	190.9
April	160.7	89.9	192.6	66.2	54.0	513.0
May	210.9	366.1	264.9	251.0	224.0	456.5
June	292.1	256.6	253.3	317.0	288.2	386.4
July	354.1	181.2	146.0	184.8	138.4	136.0
Aug.	41.8	291.6	107.2	201.0	547.2	
Sept.	300.7	252.2	129.3	61.1	130.2	
Oct.	372.0	158.5	312.1	267.3	243.0	
Nov.	214.7	265.0	88.6	126.0	251.9	
Dec.	159.6	222.2	115.0	167.2	162.0	
Total	2,479.7	3,209.7	1,983.0	2,392.7	2,279.9	1,999.08
Average	206.64	267.48	165.25	199.39	189.99	333.07

Source : PAG-ASA Agromet Station in Tagum City

Humidity is a measure of the amount of water vapor in the air. Relative humidity refers to the ratio of the amount of water vapor present in a given volume of air to the amount of vapor required for saturation at the existing air temperature. Table No. 1-8, provides a five-year information of the average monthly relative humidity of the province of Davao del Norte from 2016 to

2021. Average range of humidity for the past five years is from 69.67% to 89.17%

Table No. 1-8: **Average Monthly Relative Humidity (%)**
From 2016 to 2021
Province of Davao del Norte

Month	Relative Humidity					
	2016	2017	2018	2019	2020	2021
January	70	80	76	93	90	95
February	71	78	69	85	89	87
March	73	76	66	85	87	90
April	69	69	67	82	90	82
May	88	76	71	84	89	88
June	85	73	70	88	90	87
July	88	76	71	90	87	
August	88	73	67	84	91	
September	89	74	64	86	88	
October	85	73	67	87	89	
November	91	78	73	87	88	
December	88	72.36	75	89	92	
Average	82.08	74.86	69.67	86.67	89.17	88.17

Source: PAG-ASA Agromet Station in Tagum City

a. Historical temperature record

Historical data on mean seasonal temperature as shown in Table 1-9 indicates that in the span of 30 years (1971-2000), Davao del Norte has experienced hot temperature at 27.8°C during the summer months of March to May. During the rainy months of December to February temperature is colder at 26.7 °C, while the temperature for the rest of the months is at 27.4 °C. Comparing the temperature to the rest of the months, temperature on March, April and May is higher by 1.1 to that of December, January to February and 0.2 to the rest of the months.

The temperature is expected to further increase in 2020 and 2050 given the high-range and medium-range scenarios. Although the highest increase in temperature is during the months of June, July and August in 2020 and 2050 under the medium-range emission scenario, but still the hottest months would be from March to May as indicated in the table below.

Table 1-9: **Baseline and Projected Temperature 2020 and 2050**
Province of Davao del Norte

Baseline Observed				High-Range Emission Scenario				Medium-Range Emission Scenario			
Average for 1971-2000				Temperature Change (°C) Projections for 2020							
DJF	MA M	JJA	SON	DJF	MAM	JJA	SON	DJF	MAM	JJA	SON
26.7	27.8	27.4	27.4	0.8	0.7	0.8	0.8	0.9	1.1	1.2	1.1
				27.5	28.5	28.2	28.2	27.6	28.9	28.6	28.5
Average for 1971-2000				Temperature Change (°C) Projections for 2050							
26.7	27.8	27.4	27.4	1.7	1.8	1.6	1.6	1.9	2.3	2.5	2.1
				28.4	29.6	29.0	29.0	28.6	30.1	29.9	29.5

b. Historical rainfall record

Based on historical data of 30 years (1971-2000) as shown in Table 1-10, December, January and February (DJF) months poured a lot of rainfall in the province at 637 mm. The amount of rainfall reduced during the months of March, April and May (MAM) and then increased again from the months of June, July and August (JJA) to September, October and November (SON) until it reaches the rainy months of December to February.

The scenario as indicated in Table 1-11, in 2020 and 2050 is different. There is a reduction in rainfall in the province during the summer season, making the usually dry season drier. While the dry season becomes drier, wet season becomes wetter as huge amount of rainfall is projected to drop in the months of December to February.

Table 1-10: **Baseline and Projected Rainfall Change (in %)**
In 2020 and 2050
Province of Davao del Norte

Baseline Observed (mm)				High-Range Emission Scenario				Medium-Range Emission Scenario			
Normal Values from 1971-2000				Rainfall Change (%) Projections for 2020							
DJF	MAM	JJA	SON	DJF	MAM	JJA	SON	DJF	MAM	JJA	SON
637.0	496.5	535.6	556.2	-10.1	0.2	-0.1	2.2	9.2	-12.5	-3.6	-1.5
				Projected Rainfall in 2020							
				572.6	497.5	535.1	568.4	695.6	434.4	516.3	547.8
Normal Values from 1971-2000				Rainfall Change (%) Projections for 2050							
637.0	496.5	535.6	556.2	-33.7	-17.3	15.7	14.9	1.1	-22.2	-7.9	-2.2
				Projected Rainfall in 2050							
				422.3	410.6	619.7	639.1	644.0	386.3	493.3	543.9

Table 1-11: **Projected Maximum and Minimum Temperature Increase**
In 2020 and 2050
Province of Davao del Norte

Baseline Observed (mm)				High-Range Emission Scenario				Medium-Range Emission Scenario			
Maximum Temp Increase											
Normal Values from 1971-2000				Temperature Change (°C) Projections for 2020							
DJF	MAM	JJA	SON	DJF	MAM	JJA	SON	DJF	MAM	JJA	SON
31.2	32.8	32.0	32.3	1.0	0.8	0.8	0.8	1.0	1.5	1.5	1.2
Normal Values from 1971-2000				Temperature Change (°C) Projections for 2050							
31.2	32.8	32.0	32.3	2.1	2.2	1.6	1.5	2.4	3.2	3.2	2.4
Minimum Temp Increase											
Normal Values from 1971-2000				Temperature Change (°C) Projections for 2020							
22.1	22.7	22.7	22.6	0.7	0.6	0.8	0.8	1.0	1.0	1.1	1.1
Normal Values from 1971-2000				Temperature Change (°C) Projections for 2050							
22.1	22.7	22.7	22.6	1.6	1.6	1.8	1.8	1.8	1.9	2.3	2.2

1.7 Land use potentials and constraints

1.7.1 Land classification

Davao del Norte has a total land area of 346,280¹ hectares, of which 192,459.52 hectares or 55.6 percent are classified as Alienable and Disposable (A&D) and 153,820.48 hectares or 44.4 percent as forestland. Land classification is based on the criteria set by law. All lands with an 18-degree slope and higher are considered forestland regardless of whether these lands have forest cover or not. Areas characterized with a slope of less than 18 degrees are classified as alienable and disposable.

Table No. 1-12 : **Area and Location of A&D lands and Forestlands**
Province of Davao del Norte

City/Municipality	Total Area (has.)	Alienable and Disposable (A&D)		Forestlands	
		Area (has.)	% Distribution	Area (has.)	% Distribution
Asuncion	27,347.00	18,924.12	69.2	8,422.88	30.8
B. E Dujali	9,100.00	9,100.00	100	0	0
Carmen	16,625.00	16,525.25	99.4	99.75	0.6
Kapalong	94,586.00	19,673.89	20.8	74,912.11	79.2
New Corella	30,822.00	24,657.60	80.0	6,164.40	20.0
San Isidro	15,249.00	4,788.19	31.4	10,460.81	68.6
Sto. Tomas	32,041.00	26,658.11	83.2	5,382.89	16.8
Talaingod	45,496.00	2,274.80	5.0	43,221.20	95.0
IGC of Samal	28,071.00	25,572.68	91.1	2,498.32	8.9
Panabo City	25,363.00	24,881.10	98.1	481.90	1.9
Tagum City	19,580.00	19,403.78	99.1	176.22	0.9
Total	346,280.00	192,459.52	55.6	153,820.48	44.4

Source: DENR XI

Note: GIS computation based on the Land Classification Map from DENR-XI, land area not authoritative, for planning purposes only, includes area for mangrove forest.

Alienable and disposable lands (A&D) are those lands of the public domain which are classified and determined not to be needed for forest purposes and are available for disposition under Commonwealth Act No. 141 as amended by the Public Land Act. It also specifies that no land of the public domain, 18% in slope or over which have already been declared as A&D shall be reverted to the classification of forestlands. A&D lands are used for agriculture, settlements, infrastructure and utilities, industries, tourism and others.

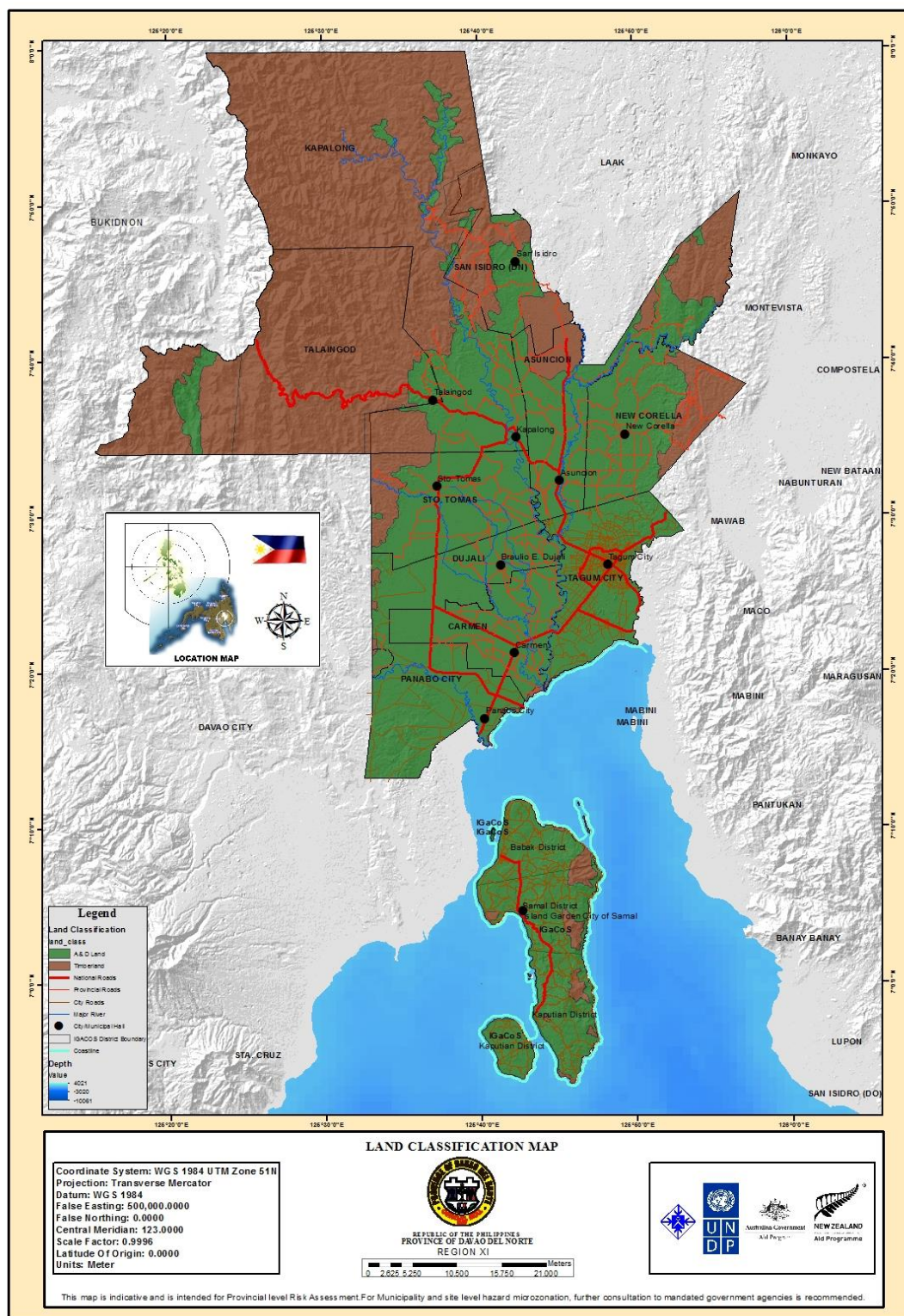
Forest lands are those lands of the public domain which have been classified as such and declared as needed for forestry purposes. Forest lands are also watershed which inherently produce more benefits and give better service than when converted to agricultural lands or other uses, such that, those lands are not to be titled. Forestlands in the province include production and protection areas. Not all forestlands are covered with forest trees. Areas categorized as production forest in the province is about 74,944.70 hectares,

¹Land area is not authoritative. GIS computation is based on the Land Classification Map of DENR-XI. Land area used in this plan is for planning purposes only.

while the areas categorized under protection forest is approximately 60,773.52 hectares.

There are two major watersheds in Davao del Norte. These are the Saug-Libuganon watershed covering 247,500 hectares and the Tuganay watershed with 69,375 hectares covers the municipalities of Sto. Tomas, B. E Dujali, Carmen and part of Talaingod. These watersheds should be able to sustain life and provide economic benefits. Rehabilitation and protection of the province watershed through reforestation program is of prime consideration of the provincial government. Saug-Libuganon watershed covers the municipalities of Asuncion, New Corella, San Isidro, Kapalong, Talaingod and the City of Tagum.

Map 1-4: LAND CLASSIFICATION MAP



Source: PPD0-GIS

1.7.2 Land suitability

According to the land capability analysis in the Davao Integrated Development Program (DIDP) Master Plan Study, Davao del Norte is suitable for lowland paddy, upland crops, upland crops/orchard, orchard and pasture. Some areas in the lowland (Carmen, B.E Duajli, Tagum) are found unsuitable for agriculture since these areas are frequently affected by flooding which is causing damage to crops and properties. These areas can still be developed and its usefulness and productivity optimized, if mitigating measures like flood control and drainage projects are provided. Some areas in the western part of Kapalong and Talaingod are also identified as unsuitable for agriculture because of the presence of steep slopes characterized by severe erosion.

In the Provincial Physical Framework Plan (PPFP) of Davao del Norte, land suitability is classified based on the degree to which the characteristics of the land can satisfy the environmental requirements of specific crops without deterioration of the land resource.

In identifying land suitability, the Land Management Unit (LMU) is assessed to determine whether the characteristics of the land can satisfy the environmental requirements of the crop using the following criteria:

Production Forest

- Presence of loggable forest
- No serious erosion hazard
- Slopes <50% and land < 1000 m. elevation
- No serious limitation of terrain or rock

Plantations

- As for production forest loggable forest need to be present. Also because of the greater need for access and management, slopes should be <30% and the limitation of terrain or rock should be less severe.

Irrigated Rice

- Slopes <3%, up to 8% if terraced
- Low soil permeability
- Availability of irrigation water
- No significant limitation of rock, erosion, soil depth, etc.
- Presence of problem soils downgrades the suitability but is not necessarily limiting

Cultivated Annual Crops

- No significant existing erosion (or a low soil permeability)
- Slopes <8% (benchmark of erosion hazard)
- Adequate soil depth (>50cm)
- No flooding or poor drainage
- No problem soils
- No serious limitations of terrain or rock

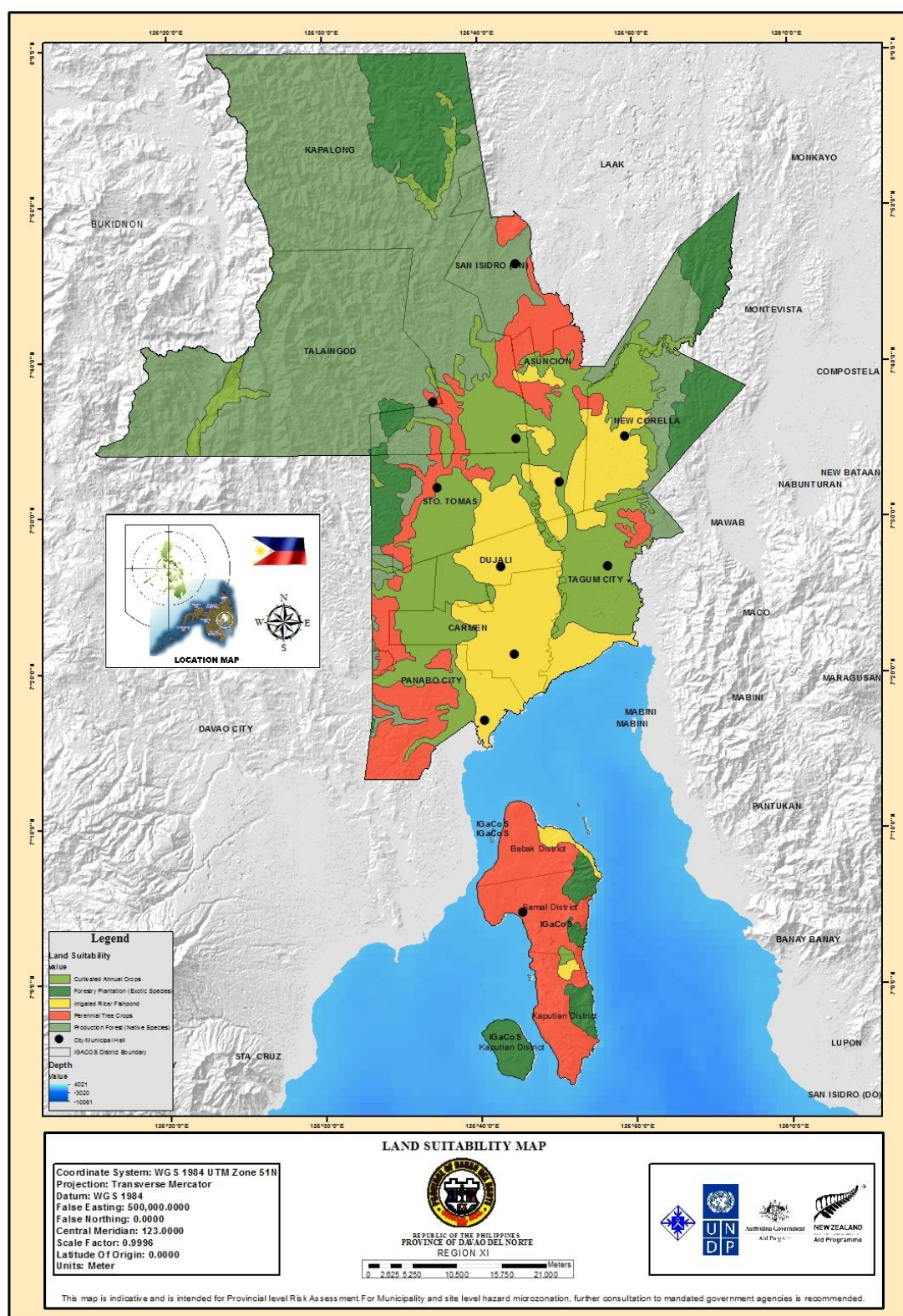
Perennial Tree and Vine Crops

- For cultivated annual crops that can be placed on more erodible slopes. A slope limit of 18% may be allowable.

Pastures

- No serious existing erosion
- Slopes <18% if land is erodible
- Slopes <50% if land is stable
- No serious limitation of terrain, flooding, etc.

Map 1- 5: LAND SUITABILITY MAP



Source: PPDO-GIS

The land suitability analysis indicates that irrigated rice is suitable in the municipalities of Carmen, New Corella, Asuncion and B. E Dujali. Trees and vine crops are suitable in more areas of Island Garden City of Samal, San Isidro and Panabo City. Forestry plantation is suitable in the municipalities of Kapalong, New Corella, Sto. Tomas and Asuncion, while the production forest is suitable in Talaingod and Kapalong. Data on Land Suitability is presented in Table No. 1-13.

Table No. 1-13 : **Land Suitability Classification** (in hectares)
Province of Davao del Norte, 2020

Suitability Class	Area (Has.)	% Distribution
Suitable for Rice Paddy	48,348.90	14 %
Suitable for Cultivated Annual Crops	55,939.90	16 %
Suitable for Perennial Tree Crops	64,057.50	18 %
Suitable for Forestry Plantation	44,733.90	13 %
Suitable for Production Forest	133,201.50	39 %
Total	346,280.00	100 %

Source: PFPF, Davao del Norte, 1996, BSWM-XI

1.7.3 Land sustainability

As applied to land use, sustainability of land use means a form of use that are able to be continued on and into the future with the same level of productivity and with no deterioration of the land resource. The principles inherent in the land use sustainability approach to land resource management are the following:

- a. All land should be used in a way that production from it is sustainable in perpetuity. It should not be used in such a way or at such intensity that it deteriorates and loses the productive capacity for any form of use that it initially possessed.
- b. Sustainable land use can only be achieved by using the land within the limits of its sustainability for use.
- c. Good quality agricultural land is finite, scarce and non-renewable resource and should be protected for agricultural use.

Three categories are adapted in assessing the degree of land use in the sustainability approach and defined correspondingly as follows:

1. Sustainable land use – land which is being used in accordance with its suitability
2. Under-used or development opportunity land – land being used at a level of intensity that is below the intensity it is suitable

3. Not sustainable or over-used land – land being used at a level of intensity that is in excess of its suitability for use.

The existing land use is compared with the suitability of the land for those uses to determine whether the land is being used in a sustainable way.

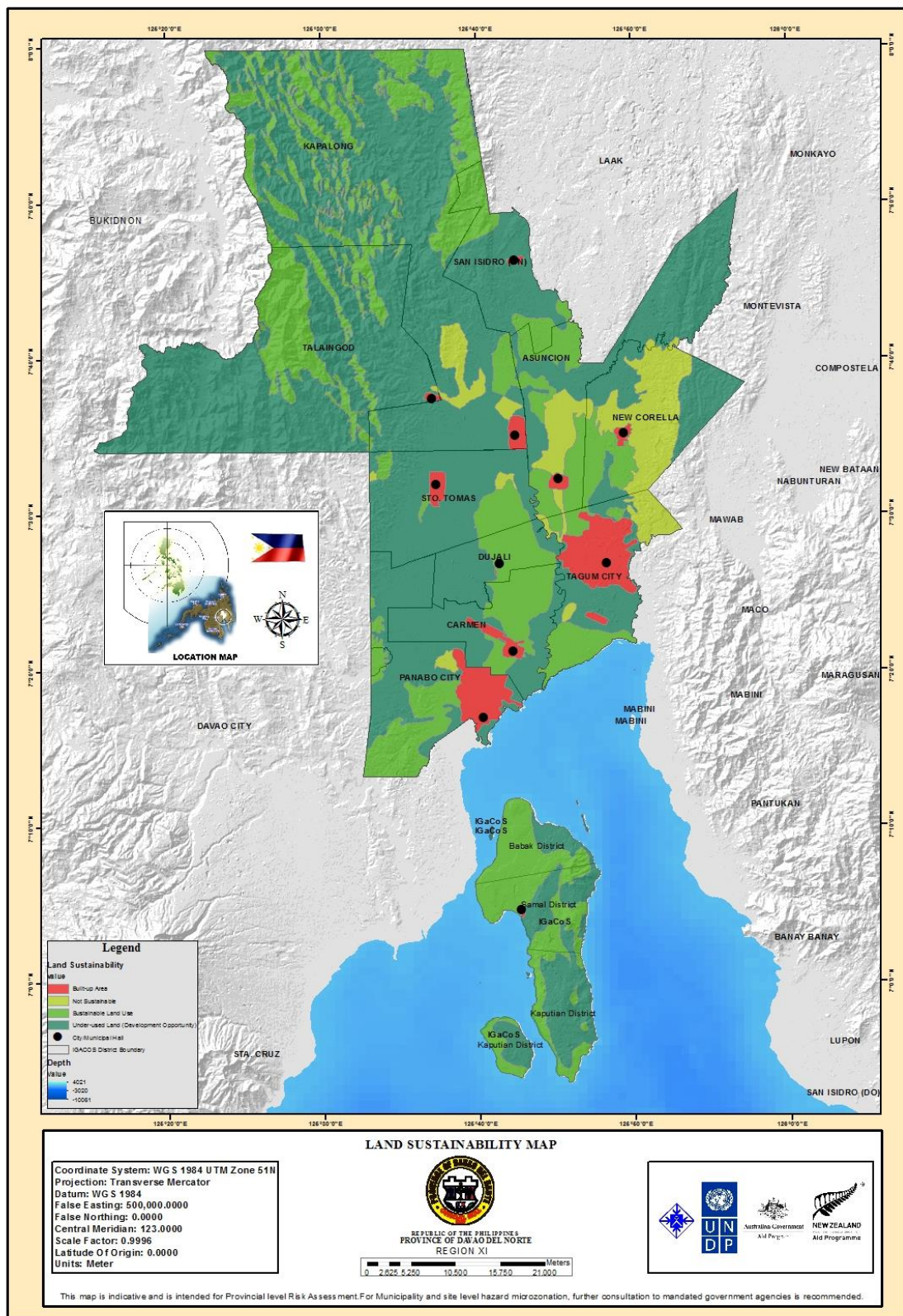
More than one-half of the total A&D land within the province is below the intensity that it is suited for. Approximately, 111, 261.17 hectares are under-used or classified as development opportunity lands.

The lands being used in accordance with its suitability are 72,736.70 hectares. The municipality of B.E Dujali and the Island Garden City of Samal are the two LGUs with the highest number of lands used in a sustainable way.

On the other hand, over-used lands or lands being utilized at a level that is in excess of its suitability for use is evident in the municipalities of New Corella, Asuncion and Kapalong.

In areas classified as forest land, about 23 percent of the total area is used in a sustainable manner, while 77 percent are under-used or can be considered as a development opportunity.

Map 1- 6: LAND SUSTAINABILITY MAP



Source: PPDO-GIS

1.7.4 Protection areas

Protection land is a portion of land and water set aside for its unique physical and biological diversity and protected against destructive human influences or impacts.

Davao del Norte's protection lands include the Mangrove Swamp Forest Reserve in Babak, Non-NIPAS, Network of Protected Areas for Agricultural Development/Strategic Agriculture and Fisheries Development Zone (NPAAD/SAFDZ) and severely eroded areas.

NIPAS areas in Davao del Norte are the 7,656 hectares Samal Island Protected Landscape/Seascape which was proclaimed under Proclamation No. 2152.

The Non-NIPAS areas cover second growth forest above 1000 m. elevation or more than 50% slope, mangrove forest and buffer strips along rivers and escarpments. Approximately, 47,758.83 hectares are under this category of protection lands.

SAFDZ area in the province is accounted at 132,382 hectares. The identification and setting aside of the NPAAD and SAFDZ ensure that the future expansion of successful agriculture and fishery production promoted under the Agriculture and Fishery Modernization Act (AFMA) shall be done on economically and environmentally suitable lands.

Of the total SAFDZ area, 125,847 has. or 96.1 % are identified as Strategic Crop Sub-Development Zone, 3,861 has or 2.9 % as Strategic Fishery Sub-Development Zone, 2,120 has. or 1.6 % as Integrated Strategic Crop/Livestock Sub-Development Zone, while Integrated Strategic Crop/Fishery Sub-Development Zone is approximately 554 has. or 0.4 %. Total SAFDZ area of the province is 21.6 percent of the region.

Another category of "protected" land includes certain types of agricultural lands. The concept of protection in this case varies from that other categories of protected areas. Under NPAAD/SAFDZ, some agricultural lands are "protected" against any irreversible conversion such as urban use. The main purpose of such protection is to keep and preserve the highly suitable agricultural lands for long-term food security of the nation.

The NPAAD/SAFDZ highly restricted agricultural land covers the most efficient agricultural lands, which are the traditional sources of food and cash crops. These are the most stable crop lands with moderate levels of farm management requirement. In addition, these lands are usually supported by large investment in infrastructure. Remaining NPAAD in Davao del Norte covers agricultural lands that are ecologically fragile and those lands that are covered with grasses.

Table No. 1-14: **Area of Major Categories of Protection Lands and SAFDZ**
By City and Municipality, Province of Davao del Norte

City/Municipality	NIPAS (has.)	Non-NIPAS (has.)	Areas with severe erosion (has.)	SAFDZ (has.)	Total
Asuncion			10,175.8	8,337	18,512.8
B.E Dujali				8,712	8,712.0
Carmen				16,910	16,910.0
Kapalong		27,808.83*	78,200.3	11,661	89,861.3
New Corella		26.40*	6,542.0	16,377	22,919.0
San Isidro	-	-	-	-	-
Sto. Tomas		134.80*	5,724.8	18,750	24,474.8
Talaingod		19,434.50*	37,461.5	1,475	38,936.5
IGC of Samal	7,656.00	-	6,141.6	23,371	29,557.1
Panabo City			3,231.5	13,400	16,736.5
Tagum City				13,389	13,389.0
Davao del Norte	7,656.00	47,758.83*	147,477.5	132,382	279,759.5

* within areas affected by severe erosion

Data for San Isidro is still included in Asuncion and Kapalong

Source: SAFDZ, DA-BSWM, 1997

PPFP, Davao del Norte

1.7.5 Environmentally critical areas

Environmentally critical areas include flood prone areas, areas susceptible to soil erosion, salt water intruded areas and areas traversed by geologic fault lines.

Areas subject to natural hazards include those weather-related hazards to earthquake-induced hazards and those subject to volcanic hazard. The fault line is one natural hazard where lateral or vertical displacement (movement) is likely to occur. Episodic movements along this “active” fault lines cause earthquakes with the accompanying destruction of property and may be loss of life.

The vulnerability assessment relative to flooding, landslides and earthquake hazards was conducted by Mines and GeoSciences Bureau (MGB). The results were translated into GIS maps.

a. Flood prone areas

Davao del Norte’s physiographic characteristics made it naturally susceptible to floods and flash floods. The province has generally a lowland terrain comprising 35.1 percent of the total land area with a slope of 0-3%. Fifteen (15) rivers and several creeks traverse the province. The bigger rivers such as the Lasang, Tagum/Libuganon, Saug and Tuganay drain the broad plain west and north into Davao Gulf. Tagum/Libuganon River with a total length of 95 kilometers is the longest among the major rivers in the province and has a total watershed area of 247,500 hectares. It originates from the eastern hillside of the Mindanao Central Cordillera and flows to the central alluvial plain, and then extends to Davao Gulf.

Alluvial plains of Davao del Norte are most affected by flooding due to its low physiography and the inability of the nearby rivers to cope with high flood discharge due to heavy siltation of the rivers and other waterways, thereby limiting the physical and economic productivity of the land.

Flood hazard susceptibility zones were derived based on the geomorphological analysis of landforms and the fluvial system. Information on flood occurrences, flood depths, duration of inundation as well as topographic information supported the geomorphologically-based flood. Levels of susceptibility were classified as low, moderate, high and very high. About 9,605.48 hectares have a very high susceptibility to flooding, while, 30,227.65 hectares have high susceptibility to flooding. The municipalities of Asuncion, Kapalong, Stomas and B.E. Dujali have large areas that are very susceptible to flooding. In the category of high susceptibility, the municipality of Carmen has the largest area, followed by Asuncion, B.E. Dujali and Kapalong. (Table 1-14).

Table 1-15. Areas Susceptible to Flooding, Davao del Norte

City/Municipality	Very High Susceptibility Area (VHSA)	High Susceptibility Area (HAS)	Moderate Susceptibility Area (MSA)	Low Susceptibility Area (LSA)
Asuncion	3,222.64	5,671.44	1,438.09	514.20
B.E. Dujali	1,162.25	4,907.80	2,373.55	417.46
Carmen	475.12	6,218.12	4,825.53	4,236.41
Island Graden City of Samal (IGACOS)	0	0	0	0
Kapalong	1,836.32	3,608.66	2,446.53	1,357.52
New Corella	737.87	3,056.07	2,049.01	1,277.84
Panabo City		1,276.02	1,836.77	7,334.31
San Isidro	157.02	183.32	291.71	0.71
Sto. Tomas	1,358.35	2,947.34	3,974.09	6,341.92
Tagum City	655.92	2,357.27	87.64	51.08
Talaingod		1.60	2.03	
Davao del Norte	9,605.48	30,227.65	19,324.95	21,531.45

Note: Area generated thru GIS from the MGB Map

Flood Occurrence

The recurrence of floods almost every year in the province reveals its vulnerability to the hazard with a total of seven (7) flooding events recorded from year 2006 to 2011, affecting 252 barangays. The municipalities of Carmen, B.E. Dujali, Asuncion, New Corella and the City of Tagum are the most affected by flood occurrences. The lowland areas of these municipalities form the greater plain area and the central part of the province. Flood events usually occur on the 1st and the last quarter of the year. Per record of the PDRMC, there were 85,610 families affected by floods/flash floods from 2006-2011. Agricultural lands, crops, livestock and infrastructure were also destroyed or damaged every time flooding occurs. The number of affected municipalities and barangays were recorded in 2009, while the number of families affected was in 2006.

In December 4, 2012, Typhoon Bopha, known in the Philippines as Typhoon Pablo, was the strongest tropical cyclone to ever hit the southern Philippine island of Mindanao, making landfall as a Category 5 super typhoon with winds of 175 mph (280 km/h) and rainfall at a rate of 25mm. per hour. This was the first experience of Davao del Norte to a strong typhoon. In effect, the province was submerged in floodwaters particularly those areas along the river banks and the lowlands. Many families lost their homes, livestock and livelihood.

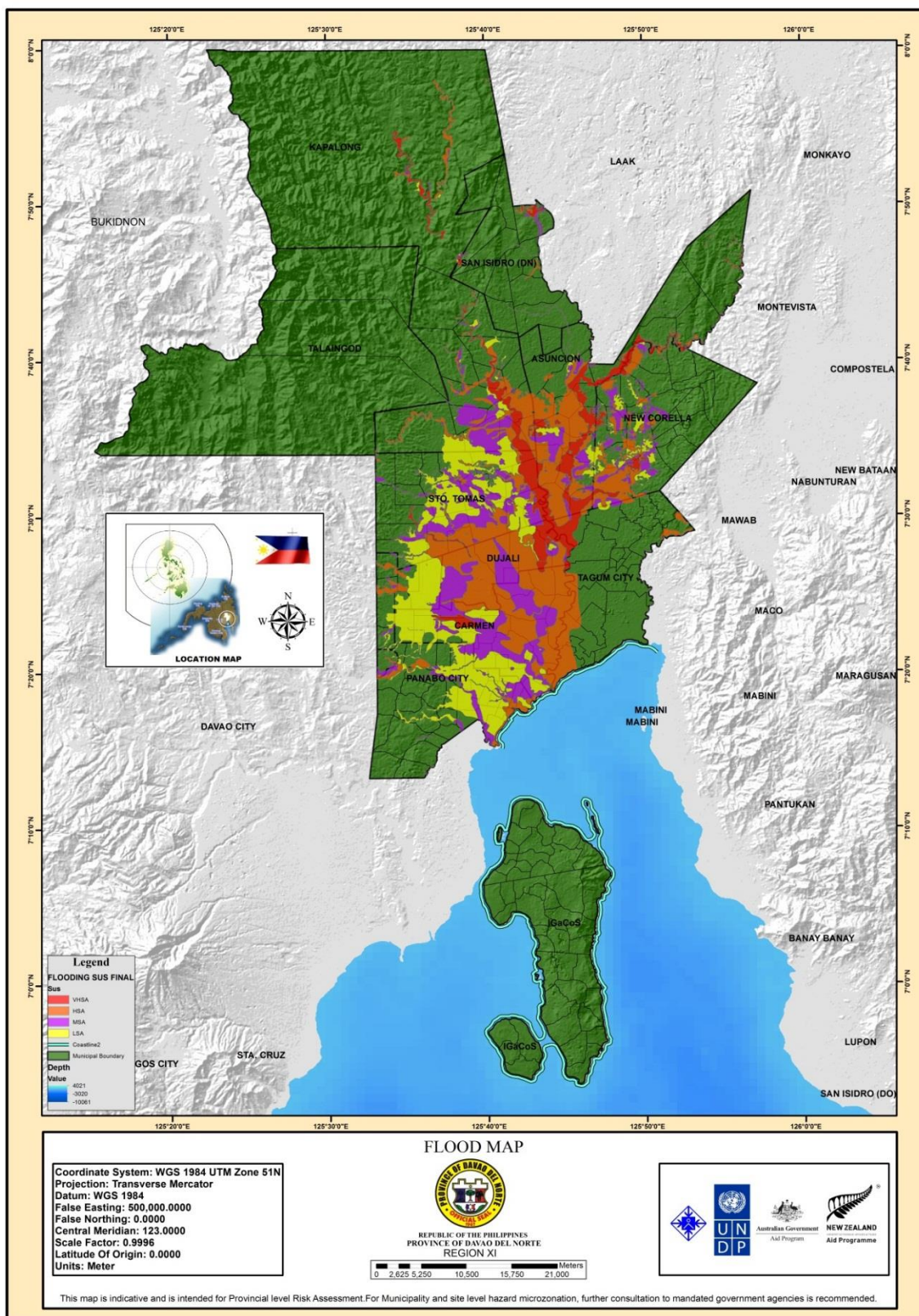
The agriculture sector was heavily hit by this typhoon with damage to crops, particularly the export banana industry estimated at Php 2.8 Billion. This was followed by livestock and fishery with estimated damages of Php900 Million and Php 0.55 Million, respectively. Likewise, important infrastructures such as schools, roads and bridges also suffered major damages amounting to Php 768.27 Million. A rundown of flood and flash flood occurrences that have affected the province in the past is presented in Table 1-15.

Table 1-16. Flood Events in Davao del Norte: CY 2020

Date of Occurrence	Number of Affected			No. of families evacuated	Number of Casualty		Total Amount of Damage (PhP)	
	City/Mun	Brgys	Families		Injured	Dead	Infra	Crops/ Livestock/ Fishery
Aug. 13-14, 2020	2	12	0	289	1	0	0	0
Aug. 18, 2020	3	20	0	0	0	0	577,165.00	600,000.00
Dec. 18, 2020	5	33	0	3,433	0	0	8,787,358.00	600,00.00

Source: PaDO-PDRR Division

Map 1-7 Flood Map



Source: PPDO-GIS

b. Landslide Prone Areas

Landslides (or mass movements) are downward and outward movement of materials, including rock and soil due to various causes such as excessive rain, earthquake, volcanic eruption, rapid undercutting by rivers, waves or man's activities.

Areas prone to landslides typically include old landslide deposits along, near or beneath steep slopes and down slope of streams and creeks; thick soil or fractured rocks; those along or on top of cut slopes; and developed steep slopes with no appropriate drainage. Human activities sometimes contribute to the susceptibility of the area to landslides. Building structures around or on top of the slopes, pipe leakages, septic system and irrigation discharges, and vibrations from machinery and from blasting can increase pressure and weaken the soil.

Landslide hazard susceptibility zones were derived through a qualitative map combination using lithology, geomorphology, slope gradient and fault distance. DENR-MGB has set four possible levels of susceptibility to landslides (Table 1-16). Each level was defined based on the characteristics of slope, cracks, and recent landslide activities. Even without the benefit of a map, one can still identify active landslide areas by looking for cracks or scars, surface depressions, disturbance of the drainage patterns; hummocky topography; and ear-lobe like bulges near the base of slopes.

Table 1-17. **Landslide Susceptibility Levels**
Province of Davao del Norte

Susceptibility Levels	Description
High Susceptibility	Presence or active/recent landslides Large tension cracks that would affect the community Areas with drainages that are prone to landslide damming Steep slopes (21%-55% gradient)
Moderate Susceptibility	Areas with inactive and old landslides Small tension cracks are located away from the community Moderately steep slopes (15%-30%) Small, shallow landslides (<1.0 vertical displacement)
Low Susceptibility	Gently sloping to sloping Absence of tension cracks Flat terrain (5%-15%)
Possible Landslide Debris Accumulation Zone	Areas to be likely affected by transported landslide materials

Rugged, mountainous and moderately to steeply sloping areas on the western part and a wide alluvial plain on the central lowland generally characterize the topography of the province. The majority of the area of the province (27.70%) are with a slope ranging from 30-50%. This topographic characteristics of the province, made it highly vulnerable to hazards such as landslides. This is aggravated by the deteriorating condition of the upland areas due to forest degradation brought about by illegal logging activities in the past and unsustainable farming practices.

Rain-Induced Landslide

Basing on the map from the Mines and Geosciences Bureau (MGB), 33 barangays in 6 municipalities and 1 city have areas with high susceptibility to rain-induced landslides. These are located in areas with high elevation and steep slopes, and represent 14.7 percent of all barangays in the province. The LGU of Kapalong has the widest area highly susceptible to landslide at 56,434.90 has. The LGU by Talaingod is second with 34,914.90 has. The majority of the area of these two municipalities is classified as forestland, with 95 percent for Talaingod and 75.2 for Kapalong.

Municipalities with high Potentially Affected Population in the high susceptibility area are Kapalong and Talaingod with 29,346 and 18,854, respectively. Under the Moderate susceptibility area, the municipality of Kapalong and Sto. Tomas are the top two LGUs with high potentially affected population (Table 1-17).

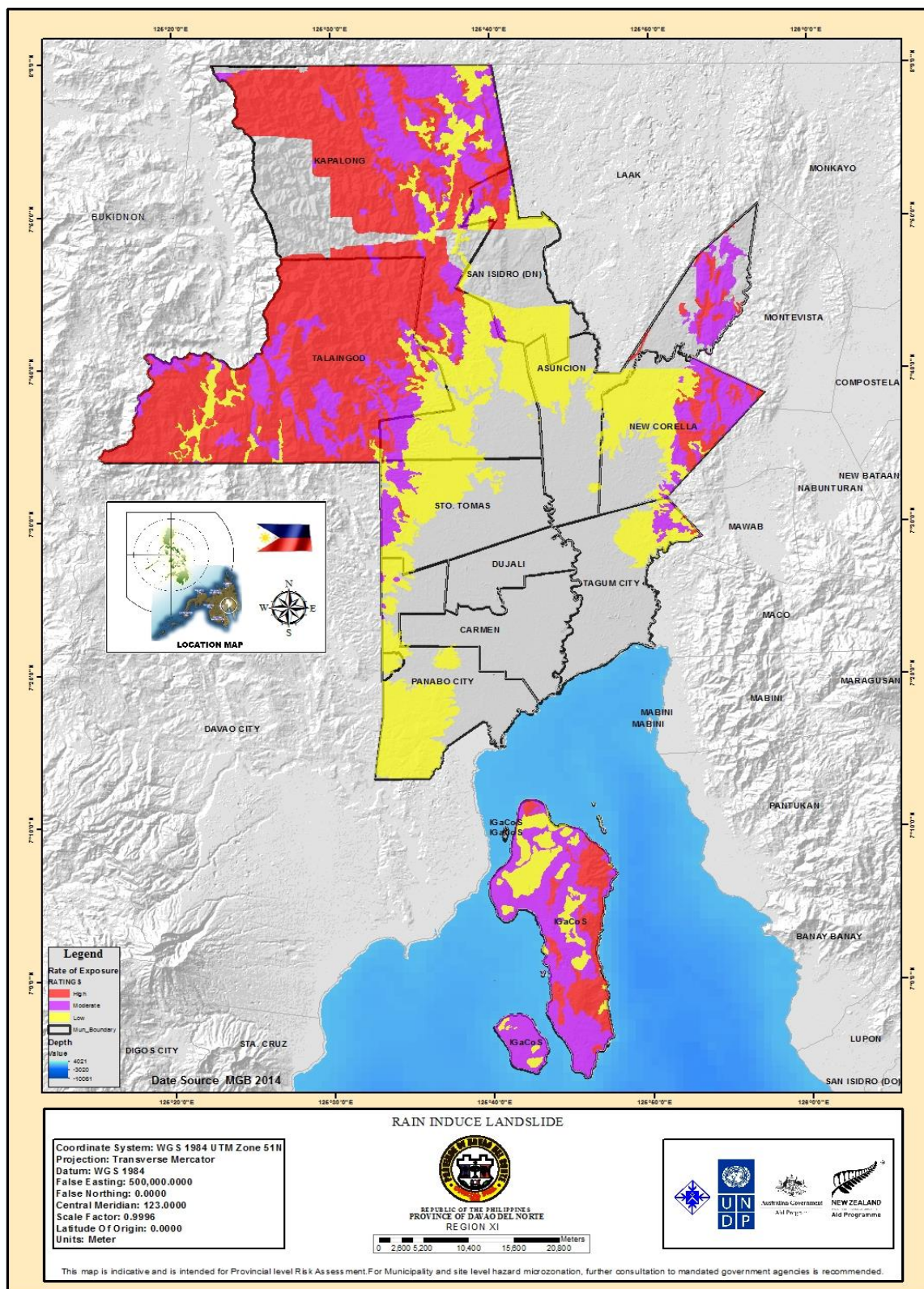
Data from the PDRRMC indicate that the province has experienced a landslide, though in a relatively small magnitude in 2008, 2009 and 2010. Eight (8) barangays in four (4) municipalities were affected by this event. In February 2013 during typhoon Crising, a landslide occurred in one (1) barangay in New Corella affecting 156 families. Fortunately, no damages to person and properties were reported in these occurrences.

Table 1-18. Rain Induced Landslide Susceptibility Level
Davao del Norte

City/Municipality	Susceptibility in Hectares		
	High	Moderate	Low
Tagum City	56.00	843.90	3,309.10
Asuncion	1,296.80	3,946.70	12,433.00
New Corella	2,908.00	4,298.40	9,256.80
Kapalong	56,434.90	24,905.60	23,671.10
San Isidro	10,176.90	9,123.00	6,038.30
Talaingod	34,914.90	6,736.60	2,780.60
Island Garden City of Samal	6,314.45	15,562.29	5,742.96
Sto. Tomas	112.60	2,186.70	7,085.90
Panabo City		102.70	11,605.00
Carmen			558.90
Davao del Norte	112,214.55	67,705.89	82,481.66

Note: GIS generated data based on the MGB map

Map 1-8: Rain Induced Landslide



Source: PPDO-GIS

Earthquake and Earthquake-Induced Hazards

The Philippines, being in the Pacific ring of fire is vulnerable to earthquake and earthquake-induced hazards. Ground shaking, earthquake-induced landslide and liquefaction are among the earthquake-induced hazard that has a high probability of occurrence in Davao del Norte. Aside from these natural hazards, there are also man-made hazards such as water pollution, rock bursts, waste disposal, carbon emission, and global warming that complements the natural hazards and pose a threat to the province.

An earthquake is caused by the constant motion of the earth's surface. This motion creates buildup and releases energy stored in rocks at and near the earth's surface. Earthquakes are the sudden, rapid shaking of the earth as this energy is released. Faults are fractures in the earth's surface where rock movement has taken place and earthquakes produced. Episodic movements along this "active" fault lines cause earthquakes with the accompanying destruction of property and may be loss of life. Active faults that traverse the province of Davao del Norte are Mati Fault, Eastern Mindanao Fault and the Central Mindanao Fault. Very destructive earthquakes occur from fault movements occurring at less than 30 kms. Tsunamis are oftentimes generated if strong shallow earthquake occurs under the sea and displace parts of the seabed.

Earthquake strength is measured in terms of either the magnitude or intensity. Magnitude measures the total energy released at the earthquake's point of origin (below the earth's surface) based on the information derived from a seismograph.

Table 1-19 **Earthquake Magnitude and Description**
Province of Davao del Norte

Magnitude	Description
1	Not felt. Detected only by seismographs under favorable condition
2	Hardly perceptible. Detected by seismographs
3	"Very feeble". Felt only near the epicenter
4	"Feeble". Generally felt. But doesn't usually cause any damage
5	"Moderate" earthquakes. May cause local damages
6	"Strong" earthquakes. Usually cause local damages
7	"Major" earthquakes. Causes considerable, widespread damages. Maybe accompanied by surface fault rupture and tsunami
8	"Great" earthquakes. Potentially devastating
9	Rare earthquakes. Only five recorded since 1900

Earthquake Occurrences

History of earthquake occurrences dates back as early as the 18th century. Data generated from PHILVOCS indicate that in the 20th century, Davao del Norte had experience earthquakes of different magnitude ranging from 4.6 to 7.3. The strongest earthquake that the province had experience was 7.3 magnitude, which occurred on 21 June 1893 at 7:30 in the morning. The latest record was in January 2008 with a 4.5 magnitude. However, no data on the

possible damage to lives and properties are obtained. The potential sources of these earthquakes are the three major fault lines that traverse the province namely: Mati Fault, Eastern Mindanao Fault and the Central Mindanao Fault.

Mati Fault Line, which emanates from the province of Davao Oriental passes through Compostela Valley and the Province of Davao del Norte. It crosses through the municipalities of New Corella and Asuncion. The Central Mindanao Fault Line on the other hand, negotiates from the Davao Gulf and passes through the City of Tagum all the way to the municipalities of New Corella and the eastern part of Asuncion. Historical data on earthquake occurrence is presented in Table 10.

Table 1-20. **Historical Data on Earthquake Occurrence**
Province of Davao del Norte

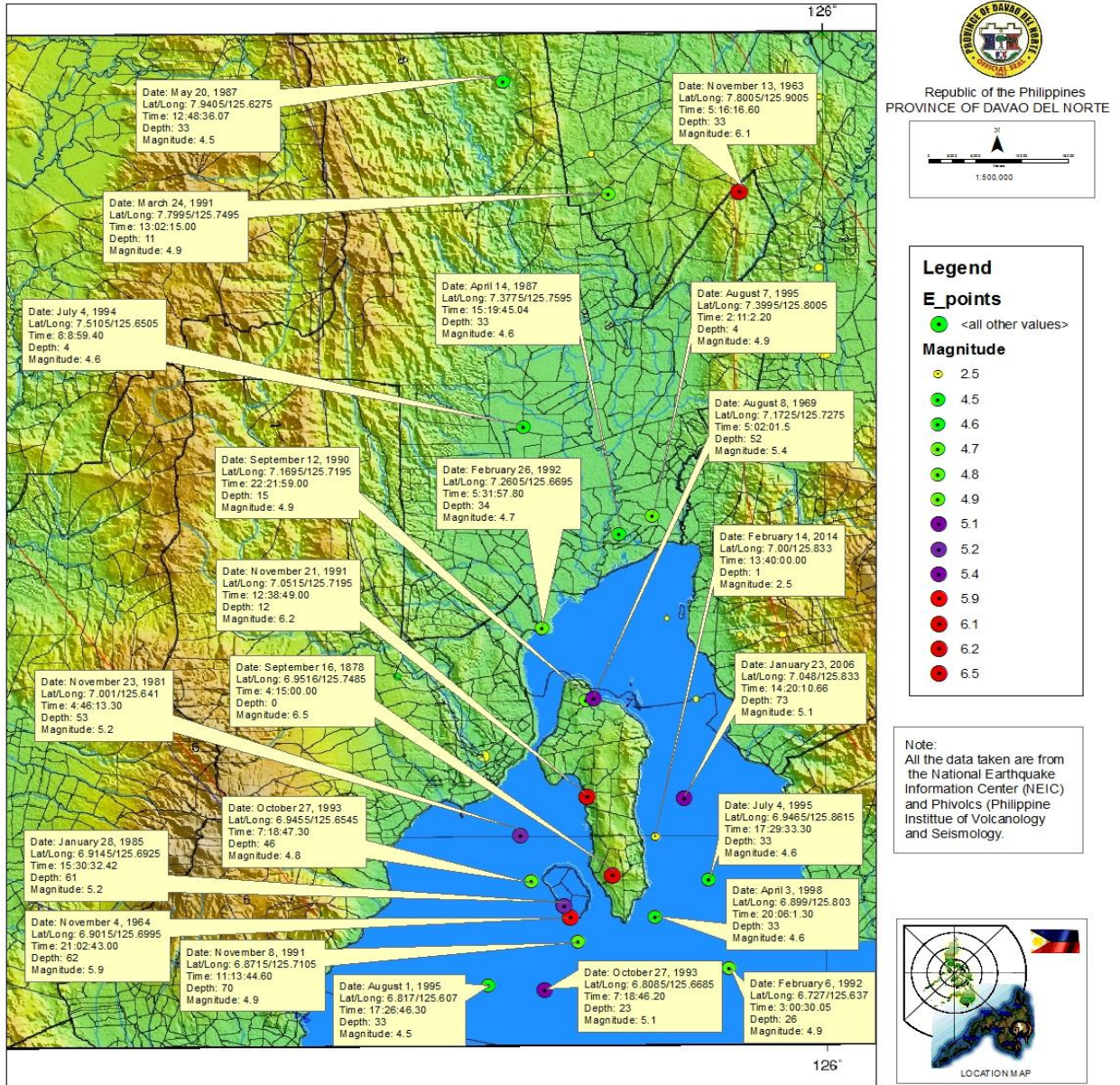
Date of Occurrence	Time	No. of Occurrence	Frequency of Occurrence	Magnitude	Depthness (kms.)	Longitude	Latitude
1863 11 19	18 00 00.0	1	1	4.900000	4.900000	125.900000	7.250000
1867 02 23	21 15 00.0	2	1	4.700000	4.700000	125.950000	7.350000
1871 05 28	03 00 00.0	3	1	5.500000	5.500000	125.950000	7.250000
1891 06 24	19 42 00.0	4	1	7.200000	7.200000	126.000000	7.600000
1893 06 21	07 30 00.0	5	1	7.300000	7.300000	126.100000	7.650000
1956 12 27	21 31 28.00	6	1	5.500000	33.000000	126.100000	7.500000
1969 10 19	12 25 44.90	7	1	5.600000	58.000000	126.000000	7.700000
1969 10 19	12 25 45.10	8	1	5.700000	5.700000	125.994000	7.706000
1976 11 10	17 45 06.20	9	1	5.900000	5.900000	126.115000	7.848000
1977 11 17	19 16 05.50	10	1	4.700000	4.700000	126.095000	7.822000
1985 04 29	06 04 03.26	11	1	5.000000	5.000000	126.109000	7.300000
1987 08 09	06 44 31.83	12	1	5.000000	5.000000	125.729000	7.849000
1991 3 24	13 2 15.00	13	1	4.900000	11.000000	125.750000	7.800000
1991 4 26	17 37 4.20	14	1	6.000000	17.000000	126.150000	7.840000
1992 04 25	12 37 09.70	15	1	4.600000	4.600000	126.097000	7.191000
1992 5 24	20 37 54.90	16	1	4.500000	12.000000	126.100000	7.230000
1993 05 9	7 51 59.60	17	1	4.700000	4.700000	125.996000	7.918000
1993 10 8	5 16 29.90	18	1	5.000000	8.000000	126.290000	7.360000
1993 12 11	8 47 43.00	19	1	5.100000	18.000000	126.160000	7.540000
1994 1 22	11 18 1.30	20	1	4.800000	4.000000	126.030000	7.950000
1994 5 17	21 48 9.30	21	1	4.600000	7.000000	126.080000	7.920000
1994 11 6	11 53 11.60	22	1	5.700000	23.000000	125.930000	7.550000
1996 11 23	17 24 8.90	23	1	4.500000	9.000000	126.110000	7.680000
1997 04 14	6 17.80	24	1	4.600000	4.600000	126.120000	7.218000
2003 10 10	03 32 46.00	25	1	4.900000	135.000000	126.031000	7.339000

I Physical Resources

2004 05 16	11 01 16.69	26	1	5.700000	2.000000	126.055000	7.727000
2004 05 17	08 11 47.57	27	1	5.000000	1.000000	126.067000	7.708000
2008 01 07	18 25 04.51	28	1	4.500000	7.000000	126.250000	7.638000

Source: PHIVOLCS

Map 1-9 : Earthquake Incidence



EARTHQUAKE INCIDENCE SINCE 1878 TO 2014

Source: PPDO-GIS

Ground Shaking

The main hazard event created by seismic earth movements is ground shaking. This term is used to describe the vibration of the ground during an earthquake. During an earthquake, seismic waves travel rapidly away from the source and through the earth's crust. Upon reaching the ground, they produce shaking that may last from seconds to minutes. The severity of the impact of ground shaking depends on a number of factors, including the magnitude of the earthquake and the distance from the rupture and the local geological conditions, which may either amplify or reduce the earthquake waves. One general observation is that the damage is more severe for buildings founded on unconsolidated material than in rock.

Typically, the nearer one is from the epicenter, the greater is the magnitude of the intensity. As one moves further from the origin, the intensity decreases.

The PHILVOCS Earthquake Intensity Scale (PEIS) provides descriptions of the consequences of the earthquake. It also helps to explain the intensity assigned to a particular location based on the observations made about the consequences of the earthquake event. PEIS I indicates that the earthquake is scarcely perceptible, PEIS II is slightly felt, PEIS III is weak, PEIS IV is moderately strong, PEIS V is strong, PEIS VI is very strong, PEIS VII is destructive, PEIS VIII is very destructive, PEIS IX is devastating and PEIS X is very devastating.

Using the simulation parameters located at the Central Mindanao Fault with a magnitude of 7.2 with a depth of 2 km., with the epicenter located at 125.75 longitude and 7.53⁰ latitude using the site amplification assumption and wet season, ground shaking data/map is generated. The process generated information on areas that are prone to ground shaking as presented in Table 1-20.

Table 1-21. **Areas Prone to Ground Shaking by Municipality,**
Province of Davao del Norte

City/Municipality	Less Prone (in sq. km)	Prone (in sq. km.)
Asuncion	0	158.544
B.E. Dujali	36.514	52.114
Carmen	102.784	64.097
Kapalong	614.263	293.651
New Corella	0	90.752
San Isidro	58.542	109.478
Sto. Tomas	112.333	103.308
Talaingod	356.312	260.103
IGaCoS	154.902	124.965
Panabo City	243.787	0
Tagum City	1.873	183.466

Source: GIS generated data from MGB map

Earthquake –Induced Landslides

Most moderate and large earthquakes trigger landslides, and these landslides commonly account for a significant portion of total earthquake damage and injuries. Among the many causes of landslides, those triggered by the earthquake and heavy rainfall are the most common throughout the country. Thus, formulating scenarios where earthquake-induced landslides are likely to occur can help local authorities plan emergency response and mitigate landslide risk.

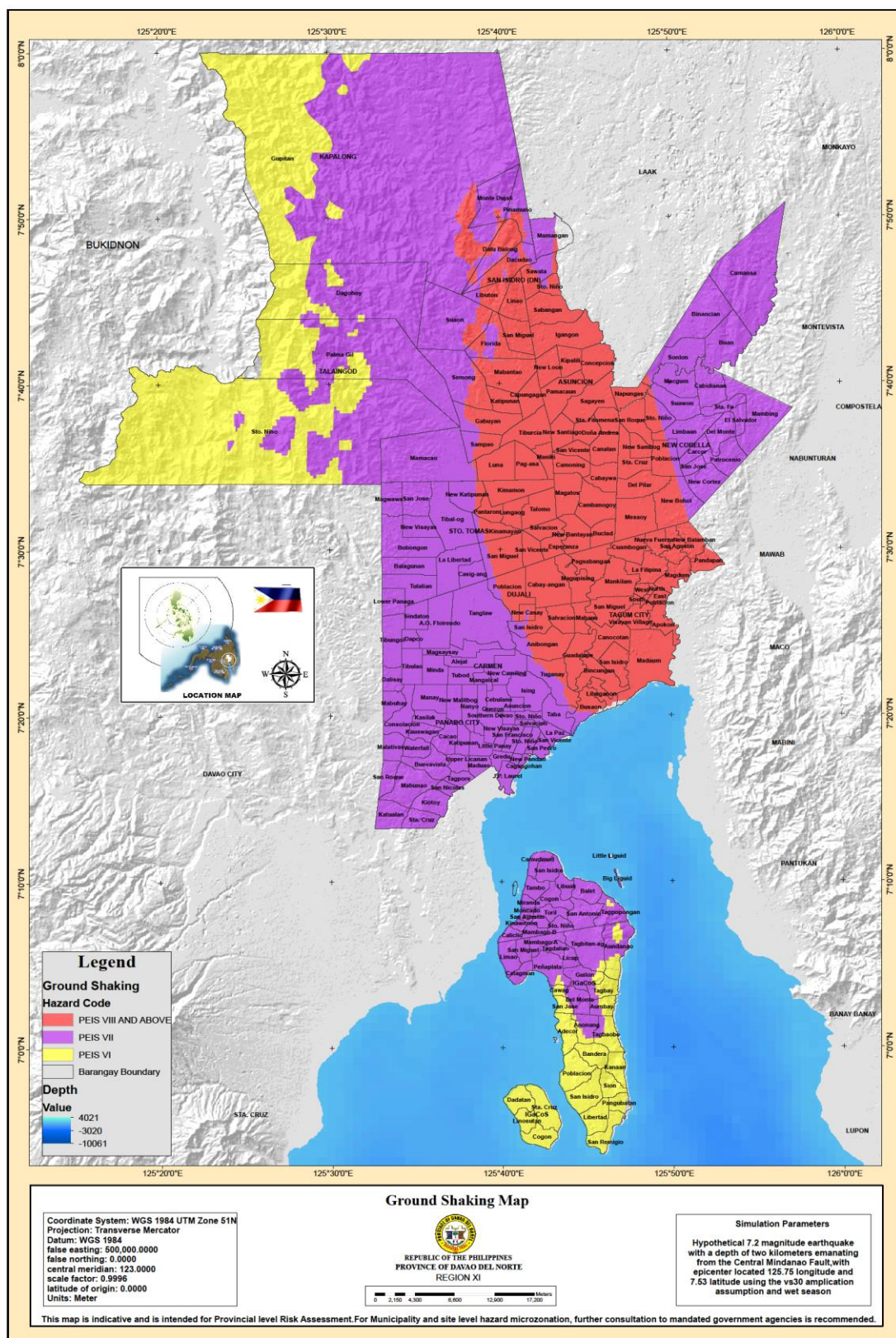
Although there are no recorded incidents of earthquake-induced landslide in Davao del Norte, however, due to the presence of fault lines traversing the province, the event will become evident due to the topographic characteristics of the province. Using GIS and the available data from PHILVOCS, the simulation conducted indicates that the municipality of Kapalong has the widest area of 320.1038 square kilometers with high incidence to earthquake-induced landslide. Other localities that are prone to earthquake-induced landslide are Talaingod, San Isidro and New Corella. Table 1-21 below shows the areas in Davao del Norte that are susceptible to earthquake-induced landslides.

Table 1-22. **Earthquake-Induced Landslide Susceptibility**
Province of Davao del Norte

City/Municipality	Exceedance (in sq. km.)				Total
	No	Low	Moderate	High	
Asuncion				2.4913	2.4913
Kapalong			194.3461	320.1038	514.4499
New Corella				22.6721	22.6721
San Isidro				52.9188	52.9188
Talaingod			206.0218	192.9790	399.0008
Island Garden City of Samal		14.5199			14.5199
Davao del Norte		14.5199	400.3679	591.1650	1,006.0528

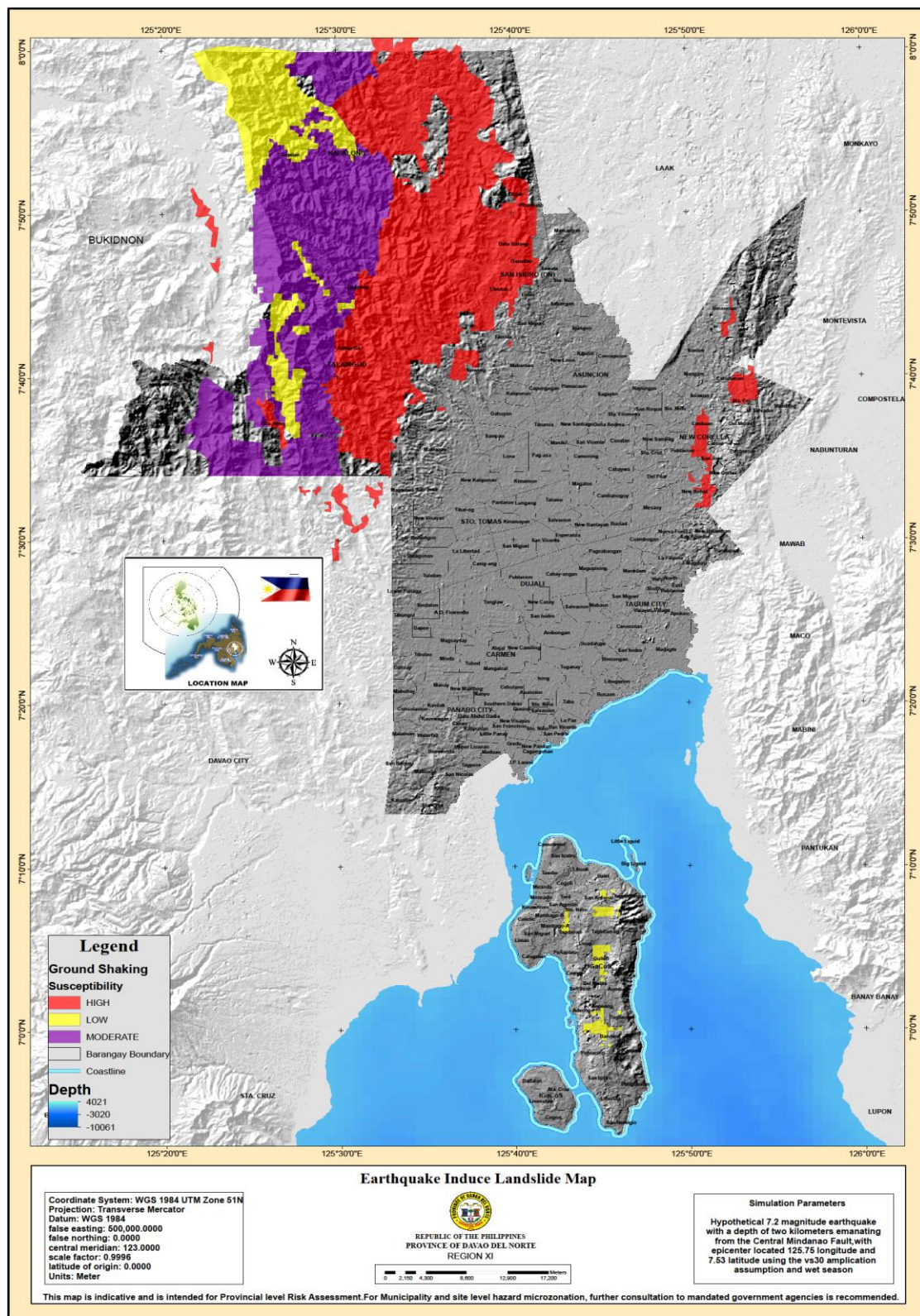
Source: GIS generated data from MGB map

Map 1-10: Ground Shaking Map



Source: PPDO-GIS

Map 1-11: Earthquake Induced Landslide Map



Source: PPDO-GIS

Liquefaction

Soil liquefaction describes a phenomenon whereby a saturated or partially saturated soil substantially loses strength and stiffness in response to an applied stress, usually earthquake shaking or other sudden change in stress condition, causing it to behave like a liquid.

Liquefaction is a process where particles of loosely-consolidated and water-saturated deposits of sand are rearranged into a more compact state. This results in the squeezing of water and sediments towards the surface in the form of “sand fountain” and creating a condition resembling to a “quicksand”. In this phenomenon, the strength of the soil is reduced to a point where it is unable to support structures.

Liquefaction commonly occurs in areas that are water saturated (shallow water table), low-lying and situated in typically loose (unconsolidated) foundation or in sandy or silty deposits. Typical examples of these areas are river banks, abandoned rivers, flood plains, coastlines and swamps.

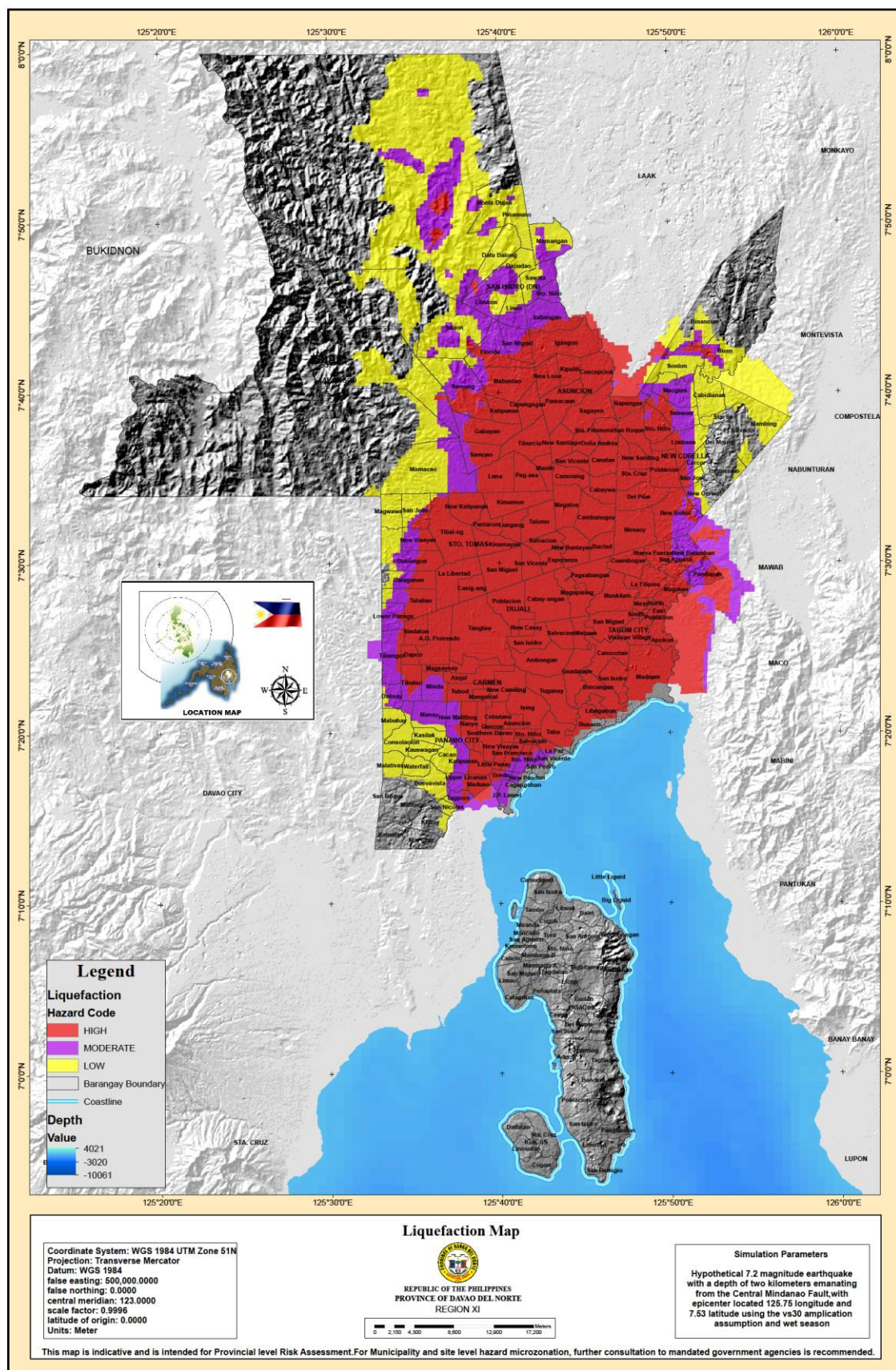
There are no reported liquefaction occurrences in the Province. However, zones of different liquefaction potential were derived based on the geomorphological analysis. The municipality of Kapitalong and San Isidro have the largest high susceptibility area with 289.00 square kilometers. The other municipalities have either low or moderate susceptibility. The municipality of Carmen and Island Garden City of Samal have no areas susceptible to liquefaction. Detail of liquefaction hazard susceptibility is presented in Table 1-22.

Table 1-23. **Liquefaction Hazard Susceptibility, By Municipality**
Province of Davao del Norte

Municipality	Exceedance				Total (sq. km.)
	No (sq.km.)	Low (sq.km.)	Moderate (sq.km.)	High (sq.km.)	
Asuncion	283.47	0	0	10.000	293.47
B.E. Dujali	80.00	11.000	0	0	91.00
Carmen	166.25	0	0	0	166.25
Kapalong/San Isidro	608.35	106.000	95.000	289.000	1,098.35
New Corella	291.28	0	0	30.000	321.28
Sto. Tomas	216.41	73.000	30.000	1.000	320.41
Talaingod	340.76	72.000	41.000	1.000	454.76
Island Garden City of Samal	280.71	0	0	0	280.71
Panabo City	142.63	99.000	1.000	11.000	253.63
Tagum City	154.54	0	8.000	0	182.54
Total	2,584.80	361.00	175.00	342.00	3,462.80

Source: GIS Generated data from MGB map

Map 1-12: Liquefaction Map



Source: PPDO-GIS

Storm Surge

Storm surge is a rise in sea level that occurs during tropical cyclones, intense storms also known as typhoons or hurricanes. The storm produces strong winds that push the water into shore, which can lead to flooding. This makes the storm surge very dangerous for coastal areas.

In general storm surge occurs where the winds are blowing onshore. The highest surge tends to occur “near the radius of maximum winds,” or where the strongest winds of the typhoon occur.

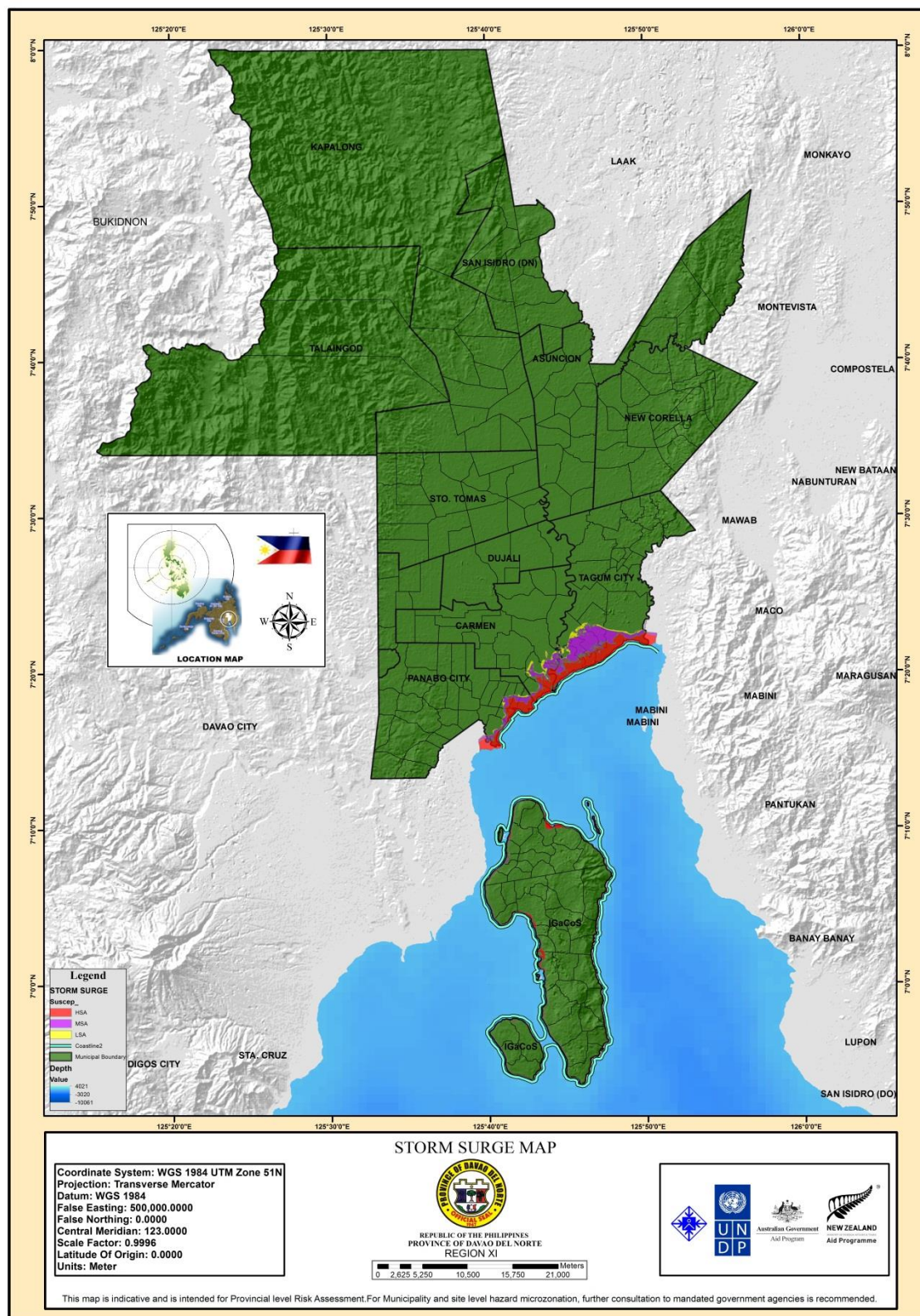
There are no reported storm surge occurrences in Davao del Norte. However, to determine the effect of the storm surge and the extent of flooding if so ever it occurs in the province, a simulation using the worst case scenario (5 meter surge) is done through GIS. The result of the simulation is presented in Table 1-23 and Map 1-13.

Table 1-24: **Storm Surge Susceptibility Area**
Province of Davao del Norte

City/Municipality	Barangay	Susceptibility Level		
		HIGH (in has.)	MODERATE (in has.)	LOW (in has.)
Carmen	Lapaz	234.662	76.126	68.387
	Taba	452.188	344.722	71.327
	Tuganay	57.341	256.947	97.699
	Guadalupe		14.579	40.189
	Ising		30.55	37.502
	Sto. Nino		6.843	21.436
<i>Total</i>		<i>744.191</i>	<i>729.767</i>	<i>336.54</i>
IGACOS	Adecor	106.814	8.066	2.64
	Audanao	0.215	0.127	0.08
	Balet	37.901	3.731	1.255
	Caliclic	30.531	6.879	1.717
	Camudmud	28.691	4.611	1.869
	Catagman	6.895	2.158	1.349
	Cawag	9.351	0.32	0.04
	Cogon	20.926	2.087	0.92
	Dadatan	9.903	1.401	0.492
	Kinawitnon	12.246	3.441	1.629
	Libertad	13.393	1.994	0.84
	Libuak	60.905	6.413	3.065
	Limao	29.776	5.955	1.762
	Linusutan	12.148	1.685	0.6
	Miranda	24.611	9.024	2.928
	Moncado	36.212	6.075	1.09
Penaplata	61.701	5.607	1.52	
Poblacion	31.655	4.555	1.273	

	San Isidro	14.052	1.685	0.686
	San Jose	28.47	2.28	0.623
	San remegio	12.77	1.866	0.44
	Sta. Cruz	9.197	0.906	0.28
	Tambo	27.92	3.605	1.339
<i>Total</i>		<i>626.283</i>	<i>84.471</i>	<i>28.437</i>
Tagum City	Bincungan	467.714	339.885	73.928
	Busaon	739.261	156.332	26.747
	Libuganon	383.137	88.273	0.091
	Madaum	1,005.257	202.527	74.279
	San Isidro	254.682	194.774	81.398
	Canocotan		0.955	6.593
<i>Total</i>		<i>2,850.05</i>	<i>981.791</i>	<i>256.443</i>
Panabo City	Cagangohan	111.66		
	Gredu		1.249	1.304
	J.P. Laurel	316.965	73.103	27.753
	New Pandan	55.884	42.724	9.162
	San Francisco	7.171	36.127	21.459
	San Pedro	308.06	25.664	6.482
	San Vicente	140.667	18.635	9.741
	Sto. Nino	180.556	38.582	15.168
<i>Total</i>		<i>1120.963</i>	<i>236.084</i>	<i>91.069</i>

Map 1-13: Storm Surge Map



Source: PPDO-GIS

Impacts/Implications of Hazards

- Reduction in rainfall during the summer season will result in water shortages. Irrigation water for farms will be less affecting food production. Water level in dams will be low affecting energy production.
- Heavy rains during the wet season creates flooding affecting economic activities, damages to physical assets and the worst, fatalities, injuries and illnesses.
- Moreover, increase in temperature and variability in rainfall will affect the growth and development of plants and animals in the forest. Some forest plants and wildlife species may not survive.
- Changes in temperature and rainfall intensity, frequency and distribution affect the growth and yield of climate sensitive crops and fruit trees. It will also trigger the spread of pests and diseases of both plants and animals.
- Floods brought by typhoons or heavy rains due to LPA also damage critical infrastructures and lifelines affecting access and mobility and provision of social services.
- Drought will seriously affect crop production while heat stress will increase mortality of poultry and livestock. Sea surface temperature will affect fisheries. Fish will move out to cooler and deeper water making it difficult to reach and catch them by marginal fishermen.
- Increased frequency and intensity of rainfall in some areas will produce more pollution and erosion and sedimentation due to runoff
- Flooding can affect water quality, as large volumes of water can transport contaminants into water bodies and also overload storm and wastewater systems

1.8 Coastal Area

The coastal line of the province is about 115.377 kms long in the Island Garden City of Samal and 76.624 kms. long in the mainland. There are 24 coastal barangays with a population of 60,126 in Samal Island, while there are also 9 coastal barangays in the mainland with a population of 60,047. All in all, the population of coastal barangays based on the 2007 census totals to 115,173.

Table No. 1-25: Land Area and Population of Coastal Barangays in Davao del Norte

Barangay by Municipality	Land Area (Has)	Population 2020 Census
Tagum City - 1. Libuganon 2. Madaum 3. Busaon Total	449.220 2,870.000 1,040.000 4,359.220	2,803 14,421 3,197 20,421
Carmen - 1. La Paz 2. Taba Total	1,500.000 806.000 2,306.000	2,757 1,619 4,376
Panabo City - 1. San Vicente 2. San Pedro 3. Cagangohan 4. J.P. Laurel Total	792.030 256.040 512.400 914.030 2,474.500	19,334 3,408 13,224 9,458 45,424
Island Garden City of Samal Babak District - 1. Caliclic 2. Kinawitnon 3. Miranda 4. Camudmud 5. Balet 6. Tagpopongan 7. Libuak Sub-Total	305.810 246.810 292.670 444.460 801.310 1,407.850 471.460 3,970.370	3,003 2,559 7,576 2,760 2,980 1,435 1,513 21,826
Samal District - 1. Catagman 2. Limao 3. Aundanao 4. Cawag 5. San Jose 6. Tagbay 7. Aumbay Sub-Total	403.000 493.000 1,373.000 269.000 762.000 537.000 358.000 4,195.000	1,774 2,858 1,310 2,382 2,159 1,318 2,276 12,845
Kaputian District - 1. Adecor 2. Kaputian (Poblacion) 3. San Remegio 4. Pangubatan (Talicud) 5. Tagbaobo 6. Sta. Cruz 7. Dadatan 8. Linosutan 9. Cogon 10. Kanaan Sub-Total	420.000 1,701.000 580.000 735.000 815.000 1,387.000 666.000 395.000 395.000 806.000 7,900.000	1,900 4,623 2,430 1,468 2,652 4,095 1,450 1,011 2,193 1,641 23,463
Grand Total	25,205.090	129,587

Source: 2015 Census Report, PSA
Municipal / City Planning & Dev't. Offices

CHAPTER II

Population and Settlements

2.1 Population

The 2015 Census of Population and Housing shows that the population of Davao del Norte rose to 1,016,318 with an annual growth rate of 1.38%. The increase indicates that over a period of 5 years there was an increase of 70,554 persons or 14,111 persons every year. (PSA 2016).

Going back to history, in 1960, the province only had a population of 160,059 persons which is only about 14% of the total population of the province in the in the latest census conducted in 2020. At that time, the rate of population growth was considered high at 4.88% that contributed to the rapid population growth of the province in the past. Although there is a slowing down in the growth rate from 1960, the population continues to grow in size (NSO 2013).

Table 2-1. Total Population by Census Year
Davao del Norte, 1960 to 2020

Decennial Census	Total Population (in thousands)	Average Annual Growth Rate
1960	160.1	-
1970	257.7	4.88
1980	405.7	4.64
1990	590.0	3.82
2000	743.8	2.34
2010	945.8	2.43
2015	1,016.3	1.38
2020	1,125.1	2.16

Source: Philippine Statistics Authority

If population will continue to increase at the recent growth rate of 2.16%, by the year 2025, the population of the province is expected to reach 1,237,829 (Table 2-2). From 2020, it is estimated that on the average some 22,554 persons will be added to the population every year until 2025. It is also expected that population size will double in 32 years. It is important for policy makers and planners to seriously consider an increase and doubling of the population since it will definitely mean more mouths to feed, more children to send to school, more jobs to create and more infrastructure and services to provide (Rosenberg 2009).

Table 2-2. Population Projection, 2021-2030
Province of Davao del Norte

Year	Projected Population	Year	Projected Population
2021	1,135,151	2026	1,265,097
2022	1,159,894	2027	1,293,039
2023	1,185,234	2028	1,321,672
2024	1,211,216	2029	1,351,014
2025	1,237,829	2030	1,318,084

Source: National Statistics Office: 2020 Census of Population and Housing

Using the 2010 Census data¹, the median age divides the population into two equal parts where the number of persons with ages above the median is the same as those with ages below the median (UN-DESA 2013). For Davao del Norte the median age is 23.3 years old in 2010, which increased from 20.8 years old in 2000 (NSO 2013). This suggests that half of the population was younger than 23.3 years old.

2.1.1 Population Distribution

Being the seat of the provincial government and the center of business and trade, Tagum City had the biggest population size that made up 26.3% of the total provincial population as of the 2020 Census Report. This is followed by Panabo City with a population share of 18.6%, the municipality of Sto. Tomas with 11.4 %, the Island Garden City of Samal with 10.4%, the municipality of Carmen with 7.3% and the municipality of Kapalong with 7.2%. The municipalities of Asuncion, New Corella and Braulio E. Dujali contributed less than 7.0%, while the municipalities of San Isidro and Talaingod both had respective contributions of 2.4% and 2.5% share to the population (Table 2-3).

Table No. 2-3: **Population, Annual Population Growth Rate,**
by City/Municipality, Davao del Norte
2010, 2015 & 2020

City/Municipality	Population			Population (% Share)			APGR		
	2010	2015	2020	2010	2015	2020	2010-2015	2015-2020	2010-2020
District I									
Asuncion	55,844	59,322	61,893	5.9	5.8	5.5	1.16	0.90	1.03
Kapalong	68,261	76,334	81,068	7.2	7.5	7.2	2.15	1.27	1.73
New Corella	50,699	54,844	57,913	5.4	5.4	5.2	1.51	1.15	1.34
San Isidro	25,548	26,651	27,233	2.7	2.6	2.4	0.81	0.46	0.64
Tagum City	242,801	259,444	296,202	25.7	25.5	26.3	1.27	2.83	2.01
Talaingod	25,566	27,863	28,333	2.7	2.7	2.5	1.39	0.64	1.30
District II									
Braulio E. Dujali	28,339	30,104	35,729	3.0	3.0	3.2	1.16	3.67	2.34
Carmen	69,199	74,679	82,018	7.3	7.3	7.3	1.46	1.99	1.71
Island Garden City of Samal	95,874	104,123	116,771	10.7	10.2	10.4	1.58	2.44	1.99
Panabo City	174,364	184,599	209,230	18.4	18.2	18.6	1.09	2.67	1.84
Sto. Tomas	109,269	118,750	128,667	11.6	11.6	11.4	1.60	1.70	1.65
DAVAO DEL NORTE	945,764	1,016,332	1,125,057	100.0	100.0	100.0	1.38	2.16	1.75

Source: Philippine Statistics Office and Provincial Planning and Development Office

2.1.2 Household Population, Number of Household and Household Size

A household is defined by the National Statistics Office (2010) as “a social unit consisting of a person or a group of persons who sleep in the same housing unit and have common arrangements in the preparation and consumption of food”. It is differentiated from the institutional population,

¹ 2010 Census data is used since 2015 Census data are still unavailable.

which pertains to persons enumerated in institutions, namely, jails/prisons, military camps, convents/seminaries, mental hospitals, leprosaria and others (NSO 2013).

As of 2015, Davao del Norte had a total household population of 1,006,888 and a total institutional population of 9,444. The total number of households increased to 233,232 or 9.49% from 211,099 of households in 2010. However, the average household size in the province was 4.3, which decreased slightly by 0.1 from 4.44 (PSA 2015).

Table No. 2-4. **Household Population, No.of Households and Household Size, by City and Municipality, Province of Davao CY 2015**

LGU	Household Population	Number of Household	Household Size
Asuncion	59,311	13,801	4.3
Braulio E. Dujali	23,615	5,404	4.4
Carmen	74,679	16,743	4.4
Kapalong	76,319	17,265	4.4
New Corella	54,713	12,403	4.4
San Isidro	26,636	6,460	4.1
Sto. Tomas	118,353	26,291	4.5
Talaingod	27,462	6,142	4.5
Island Garden City of Samal	104,083	26,245	4.0
Panabo City	184,123	42,489	4.3
Tagum City	257,594	59,989	4.3
Davao del Norte	1,006,888	233,232	4.3

Source: PSA Report on Census of Population and Housing: 2015

Table No. 2-5. **Projected Household Population**
Province of Davao del Norte: CY 2015-2020

LGU	Household Population					
	2015	2016	2017	2018	2019	2020
Asuncion	59,311	59,997	60,691	61,392	62,102	62,820
B.E. Dujali	23,615	23,807	24,000	24,195	24,391	24,589
Carmen	74,679	75,771	76,880	78,004	79,145	80,303
Kapalong	76,319	77,963	79,643	81,359	83,112	84,902
New Corella	54,713	55,521	56,342	57,174	58,019	58,876
San Isidro	26,636	26,853	27,072	27,292	27,515	27,739
Sto. Tomas	118,353	120,227	122,130	124,064	126,028	128,024
Talaingod	27,462	27,844	28,232	28,625	29,024	29,428
IGC Samal	104,083	105,738	107,420	109,129	110,864	112,628
Panabo	184,123	186,128	188,155	190,204	192,275	194,368
Tagum City	257,594	260,796	264,038	267,320	270,642	274,006
Davao del Norte	1,006,888	1,020,646	1,034,602	1,048,758	1,063,117	1,077,684

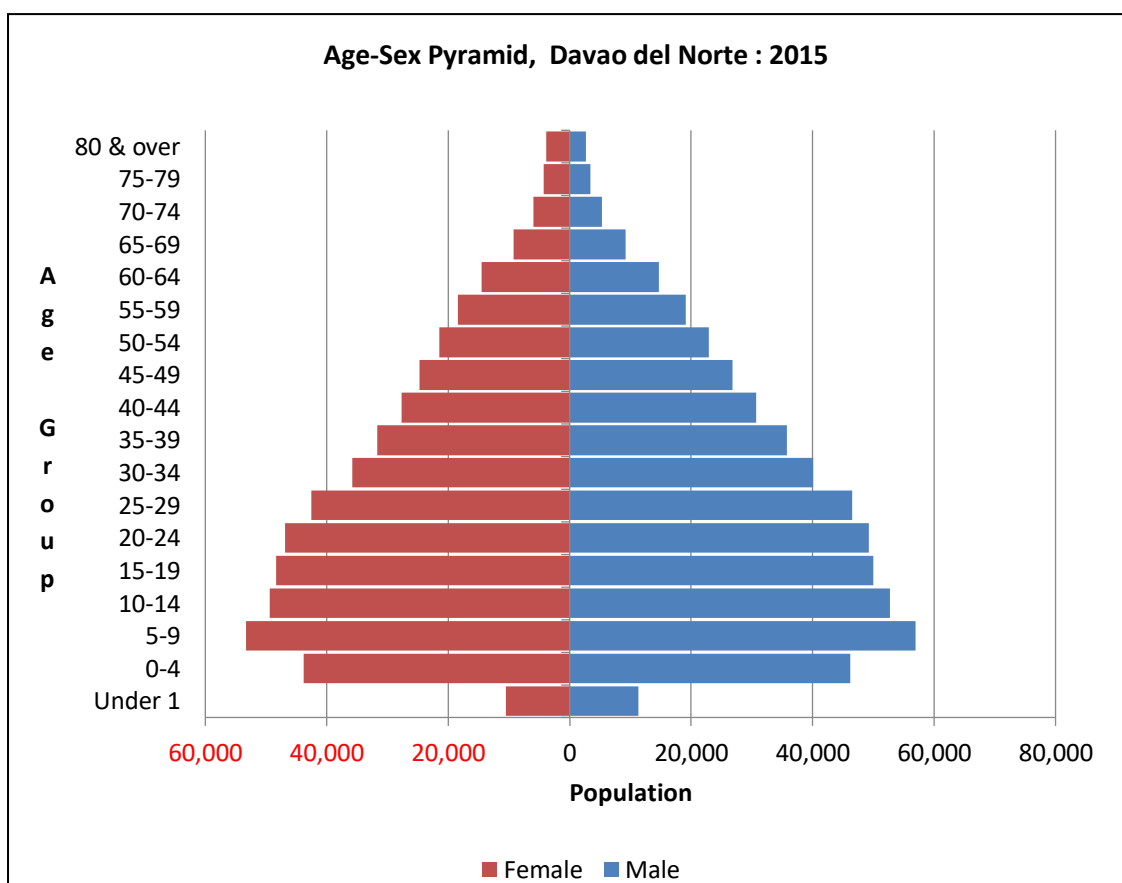
Source: PSA Report on Census of Population and Housing: 2015

2.1.3 Age and Sex Structure

The most essential demographic characteristics that can be generated in a census of population are the age and sex structure of the population. It is because they are important attributes that have a strong impact on the role of an individual in a given society (Riyaza 2000, Petersen 2001).

a. Age Structure

The age structure of a population is the distribution of the population in different age groups. Looking at the age structure of Davao del Norte, it can be gleaned that it has a very young population because about 61.49% of its household population is younger than age 30 (Madsen, Daumerie and Hardee 2010). Moreover, 32.90% of the total household population belongs to the 0-14 age group. Children in the 0-4 age group have the biggest proportion of the population with 11.47%, followed by those in the 5-9 age group with 10.99% and those in the 15-19 age group with 10.61% (NSO 2013). The population distribution in these age groups suggests that fertility had started to decline. A youthful population structure is also referred as a progressive population typical of a less developed country like the Philippines. It is characterized by a very high birth rate, slowly decreasing death rate and slow rises in life expectancy. Thus, the population pyramid is really a pyramid as shown in Figure 1.



Source: National Statistics Office: 2010 Census of Population and Housing

The positive implication for a youthful population is that Davao del Norte will have an abundant supply of workers in the future and it is a matter of harnessing these potential workers to enable them to be economically gainful. On the other hand, a young population requires high investment in basic education and health care which burden shall fall on the economically active population. In addition, a population explosion will likely occur when this youthful population reaches maturity and form their respective families (UN-DESA 2004).

b. Sex Structure

Sex composition is one of the basic demographic characteristics of the population. Any changes in the male-female composition can be attributed to the prevailing socioeconomic and cultural situations. Normally, the overall sex ratio of a population is 100. A sex ratio above 100 indicates an excess of males while an excess below 100 indicates a surplus of females. For Davao del Norte in 2010, the males (480,932 or 51.3%) outnumbered the females (456,853 or 48.7%) hence, a sex ratio of 105 males for every 100 females. The difference in the sex ratio shows the equality between men and women towards attaining a better quality of life (Riyaza 2000). It can be noted that between the ages of 0-49 years old, there are more males than females, but, at the top of the pyramid, there are more females than males. The predominance of females over males at older ages suggests an increased overall survival of women due to better health care (UN-DESA 2004).

2.1.4 Dependency Ratio

The dependency ratio relates to the number of children with ages 0-14 years old and the number of persons at ages 65 years and over with the working-age population at ages 15-64 years old (The World Bank 2013; Riyaza 2000). Children are too young to work, while the old dependents are too old to work and either depend on their families or on pensions for support. Those who belong to the working age group are the ones who produce economic activity (Anneberg Learner nd).

In 2010, Davao del Norte had a total of 345,341 (36.83%) dependents, where 308,681 (32.92%) comprise the young dependents, while 36,660 (3.91%) are old dependents. On the other hand, the working age population totaled 592,444 or 63.17% (NSO 2013). Based on the total household population, the young dependency ratio was 32.92 while the old dependency ratio was 3.91. The overall dependency ratio was 36.83 suggesting that there are about 37 dependents for every 100 persons in the working age population.

Table No. 2-6: Dependent and Productive Age Population
Province of Davao del Norte: 2010

	Number	Percent
Young dependents, 0-14 years old	308,681	32.92
Old dependents, 65+	36,660	3.91
Total dependents	345,341	36.83

Working age population, 15-64 years	592,444	63.17
Total Household Population	937,785	100.00

Source: National Statistics Office: 2010 Census of Population and Housing

Dependency ratio has important implications for economic growth. Nations with high dependency ratios invest a large amount of resources in taking care of their dependents, while those with lower ratios have the capacity to invest a large part of their resources on physical capital, technological advancement and education. Having a high dependency ratio, Davao del Norte’s resources are focused on addressing the needs of its dependent population. Lowering the fertility rate will not only redirect government resources to other areas of development, but will also help delay the doubling of population. Aside from reducing the burden of those who are economically active, it will give more women the opportunity to participate in the labour force (Anneberg Learner nd; UN-DESA nd).

2.1.5 Density and Urbanization

The province has a total land area of 3,462.80 square kilometers (Table 2-7). As of 2020, its population density is 325 persons in every square kilometer. It increased by 31 persons (9.54%) from the 294 persons per square kilometer density in 2015. The cities have more persons living in a square kilometer area, namely, Tagum City with 1,623, Panabo City with 825 and the Island Garden City of Samal 416. Likewise, the municipality of Sto. Tomas, which is an emerging growth center because of its booming banana industry, had a population density of 402. The least densely populated municipalities are Kapalong (86) and Talaingod (62) due to their large land area (PSA 2016).

Table No. 2-7: **Population Density, by City and Municipality**
Province of Davao del Norte: 2010, 2015 & 2020

City/Municipality	Density			Increase		Area	
	2010	2015	2020	2010-2015	2015-2020	(Sq. km.)	% Share
District I							
Asuncion	190	202	211	12	9	293.47	8
Kapalong	72	81	86	9	5	945.86	27
New Corella	158	171	180	13	9	321.48	9
San Isidro	168	175	179	7	4	152.49	4
Tagum City	1,330	1,421	1,623	91	202	182.54	5
Talaingod	56	61	62	5	1	454.96	13
District II							
Braulio E. Dujali	311	331	393	20	62	91.00	2
Carmen	251	271	493	20	222	275.16	8
Island Garden City of Samal	342	371	416	29	267	280.71	8
Panabo City	687	728	825	41	97	253.63	7
Sto. Tomas	341	371	402	30	31	320.41	9
DAVAO DEL NORTE	273	294	325	21	31	3,462.80	100

Source: Philippine Statistics Authority & Prov'l. Planning & Devt. Office

2.1.6 Growth rate

Between 2010-2015 censuses, the Municipality of Kapalong showed the highest annual population growth rate (APGR) of 2.15% among all LGUs of Davao del Norte (Table). The growth can be attributed to new roads that offer accessibility for more economic activities. On the other hand, the Municipality of San Isidro had the least growth of only 0.81%. With the given annual growth rates of LGUs, the population will continue to grow (Table 2-8), although at a slower but varied pace.

Table No. 2-8: **Estimated Population and Density,**
by City/Municipality: Davao del Norte, 2020

City/Municipality	Population 2020	APGR 2015-2020	Density 2020	Estimated Popn 2021	Estimated Density 2021	Add Popn of 2021
District I						
Asuncion	61,893	0.90	211	62,448	213	555
Kapalong	81,068	1.27	86	81,795	86	727
New Corella	57,913	1.15	180	58,433	182	520
San Isidro	27,233	0.46	179	27,477	180	244
Tagum City	296,202	2.83	1,623	298,860	1,637	2,658
Talaingod	28,333	0.64	62	28,587	63	254
District II						
Braulio E. Dujali	35,729	3.67	393	36,050	396	321
Carmen	82,018	1.99	493	82,754	498	736
Island Garden City of Samal	116,771	2.44	416	117,819	420	1,048
Panabo City	209,230	2.67	825	211,107	832	1,877
Sto. Tomas	128,667	1.70	402	129,821	405	1,154
DAVAO DEL NORTE	1,125,057	2.16	325	1,135,151	328	10,094

Source: National Statistics Office
Computations by Provincial Planning and Development Office

Table No. 2-9: **Projected Total Population, by City/Municipality**
 Davao del Norte, 2020-2030

LGU	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Asuncion	61,893	62,448	63,009	63,574	64,144	64,720	65,300	65,886	66,477	67,074	67,676
BE Dujali	35,729	36,050	37,373	38,746	40,169	41,644	43,173	44,758	46,402	48,106	49,873
Carmen	82,018	82,754	84,403	86,085	87,801	89,551	91,336	93,156	95,013	96,907	98,838
Kapalong	81,068	81,795	82,838	83,894	84,964	86,047	87,144	88,254	89,380	90,519	91,673
New Corella	57,913	58,433	59,106	59,788	60,477	61,174	61,879	62,593	63,315	64,044	64,783
San Isidro	27,233	27,477	27,603	27,728	27,855	27,982	28,109	28,237	28,366	28,495	28,625
Sto. Tomas	128,667	129,821	132,032	134,281	136,567	138,893	141,258	143,664	146,110	148,598	151,129
Talaingod	28,333	28,587	28,771	28,957	29,143	29,331	29,520	29,710	29,901	30,094	30,288
IGCSamal	116,771	117,819	120,697	123,645	126,666	129,760	132,930	136,177	139,504	142,912	146,403
Panabo	209,230	211,107	216,748	222,539	228,485	234,590	240,858	247,293	253,900	260,684	267,650
Tagum City	296,202	298,860	307,314	316,007	324,946	334,138	343,590	353,309	363,303	373,580	384,148
Davao del Norte	1,125,057	1,135,151	1,159,894	1,185,243	1,211,216	1,237,829	1,265,097	1,293,039	1,321,672	1,351,014	1,381,084

Source: Provincial Planning and Development Office

2.1.7 Densities and growth rates

a. High density and fast-growing settlements: Tagum City and Panabo City

Tagum City, the center of trade and commerce in the province does not only cater the neighboring cities and municipalities within the province; however, its strategic location extended its linkages as far as the provinces of Davao Oriental, Compostela Valley, Agusan del Sur, and Bukidnon. Panabo City, on the other hand, with its proximity to Tagum City and Davao City integrates the development of these big cities and compliments to the industrial activities of Davao City because of its seaport facility.

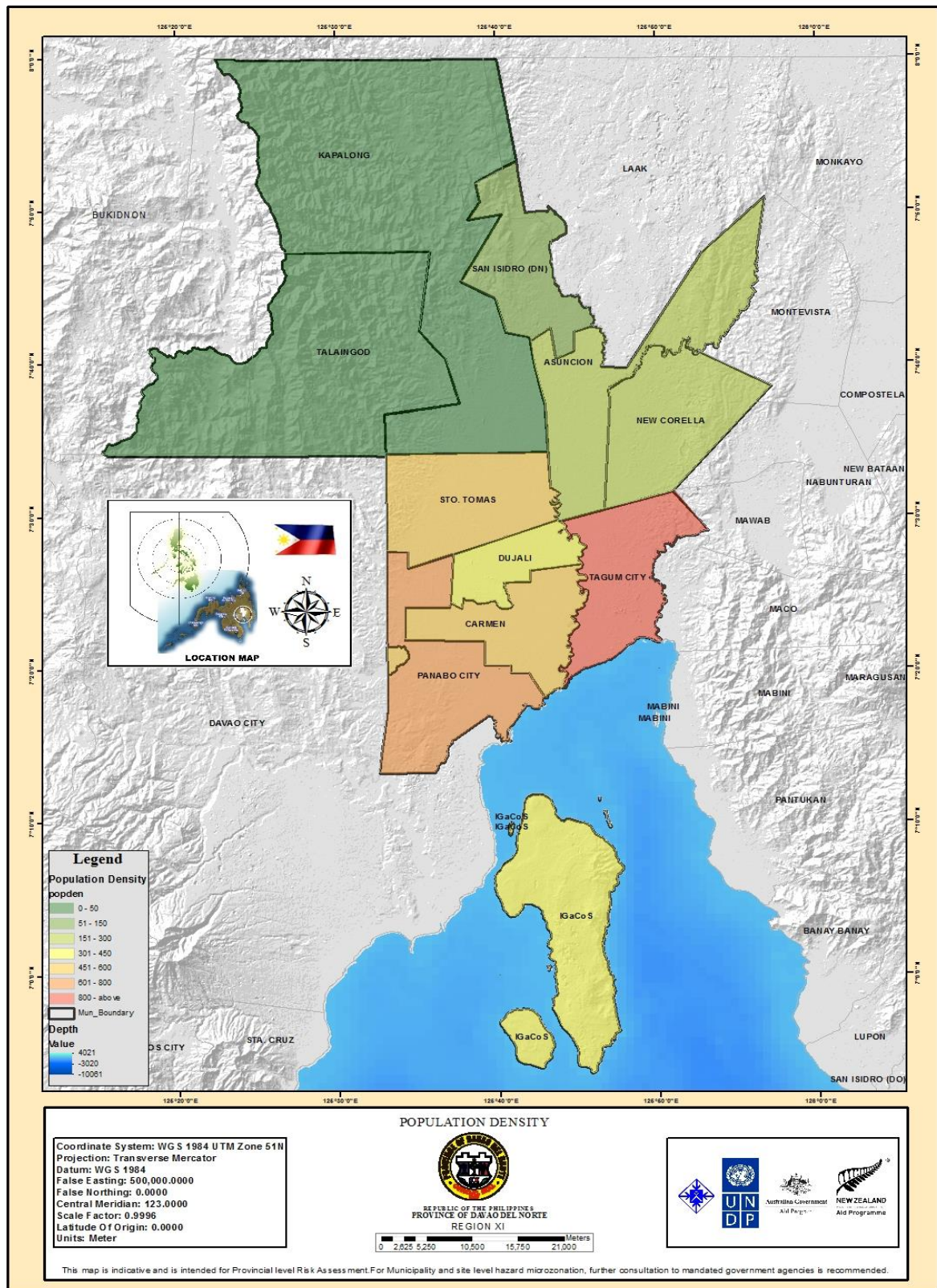
b. Low density and fast-growing settlements: Braulio E. Dujali, Sto. Tomas and the Island Garden City of Samal.

Braulio E. Dujali and Sto. Tomas, are two adjacent municipalities with fast growing settlements because their economies are centered on export banana industry. The existence of TADECO, which is a big banana plantation attracts workers to settle in the area. On the other hand, growth in the Island Garden City of Samal is attributed to the boom in its tourism industry.

c. Low density and slow-growing settlements: Carmen, Asuncion, New Corella, San Isidro, Kapalong, and Talaingod.

The municipalities of Carmen, Asuncion and New Corella, San Isidro, Kapalong and Talaingod are the source areas for agricultural products that are traded in Tagum City. These LGUs have low densities and are slow-growing because of urban migration. Most of its population tends to flock to bigger LGUs in search for employment opportunities most specifically in the services and trade sectors.

Map 2-1 : 2010 POPULATION DENSITY



Source: PPDO

2.2 Existing settlement pattern

“Urbanization is the increase in the proportion of the population living in urban areas – the process of people moving to cities or other densely settled areas. Population distribution refers to the patterns of settlement and dispersal of population within a country or other area” (Population Reference Bureau, 1991).

The rate of urbanization in cities and municipalities of Davao del Norte varies hence, a histogram is formulated to illustrate the hierarchy of settlements among the cities and municipalities in the province. The cities and municipalities are categorized as follows:

- a. Large town or city has an urban population of 100,000 to 400,000 with facilities and amenities that serve neighboring towns and cities;
- b. Medium town has an urban population of 50,000; and
- c. Small town, which has an urban population below 50,000.

The 2020 Census on Population and Housing (2020 CHP), suggests that the cities of Tagum and Panabo have reached the category of large town or city. Tagum City as Primary Urban Center A. has the following salient features:

- It is the capital town and the seat of the Provincial Government;
- A center for trade and commerce in Davao del Norte;
- Very proximate to the regional center Davao City (64 kilometers);
- A hub for education, sports and recreation, communication, health care facilities, and shopping malls; and
- A major market and distributor of primary agricultural products.

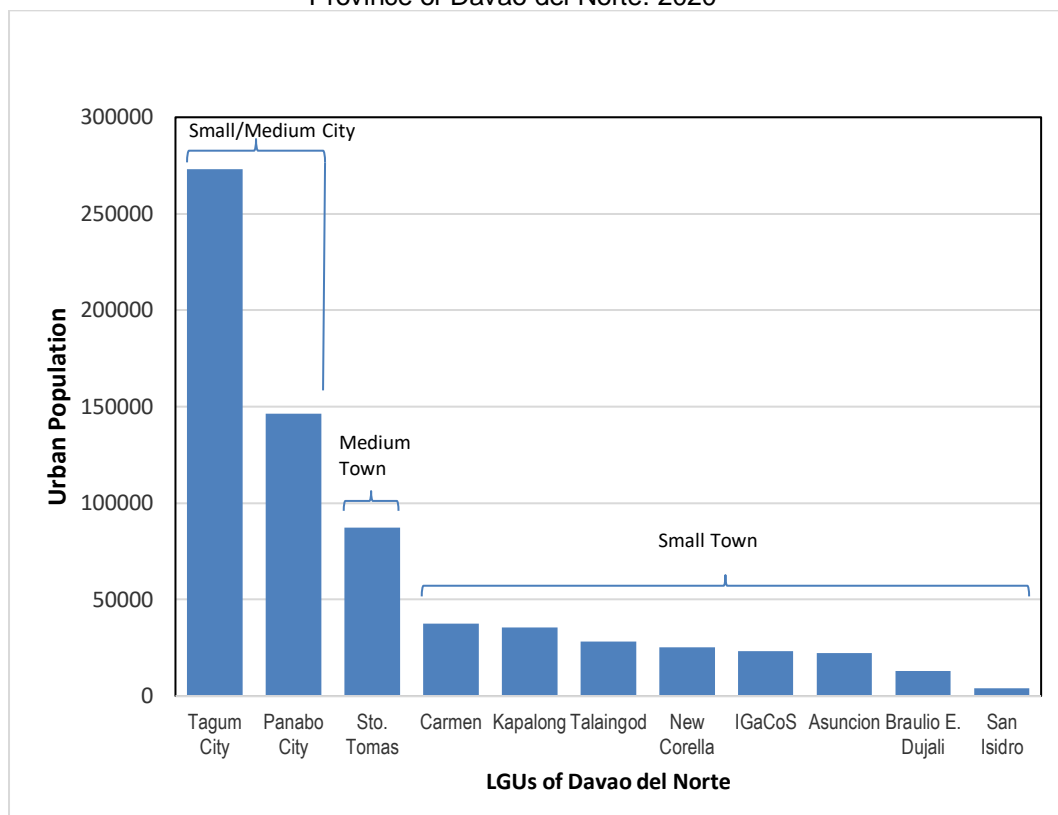
Panabo City, on the other hand is known as the Secondary Urban Center A, has the following features:

- It is a preferred residential area both for those working in Davao City and Tagum City
- It has seaport facilities
- An alternate site for agro-industrial development in Davao del Norte

The Municipality of Sto. Tomas falls under the category of Medium Town since it has an urban population of more than 50,000 but less than 100,000. This town has very promising potentials in agriculture hence, a good number flock to this town for employment opportunities and eventually take up residence in the locality. The services available in do not only cater to its locals but also the neighboring municipalities with smaller markets, namely Kapalong, Talaingod, Braulio Dujali and San Isidro

The LGUs that are under the Small Town category are the following: Carmen, Kapalong, Talaingod, New Corella, the Island Garden City of Samal, Asuncion, Braulio E. Dujali and San Isidro. These LGUs have less than 50,000 urban population.

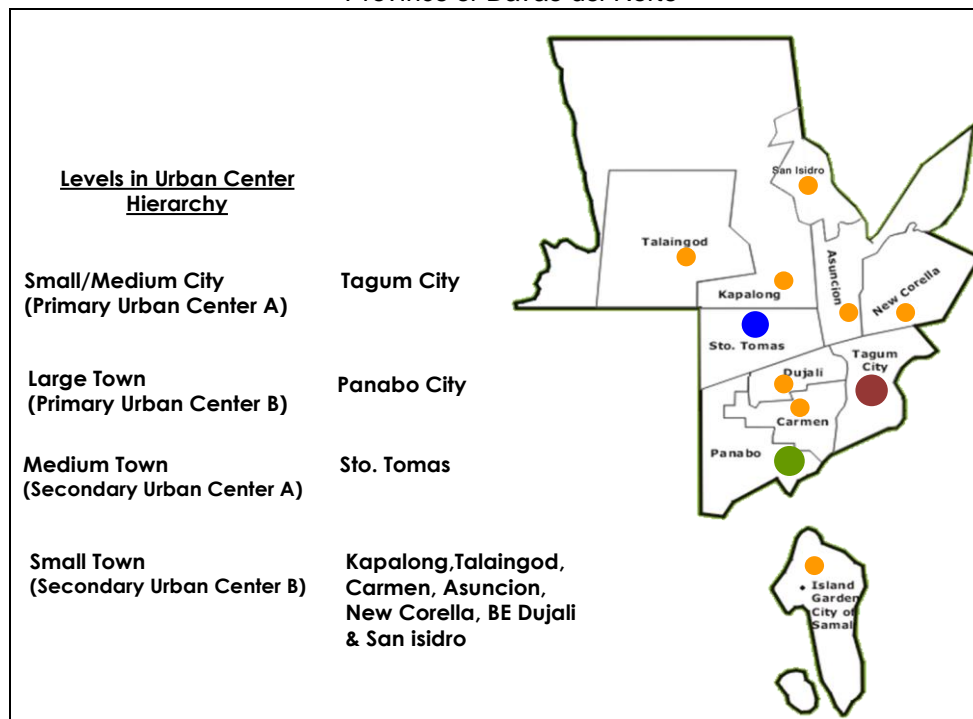
Figure 2-1: **Histogram of Settlements by City/Municipality,**
Province of Davao del Norte: 2020



Source: PPDO

Based on the histogram presented above, Figure 2-3 further illustrates the distribution of population and the distinct role of cities and municipalities in the map.

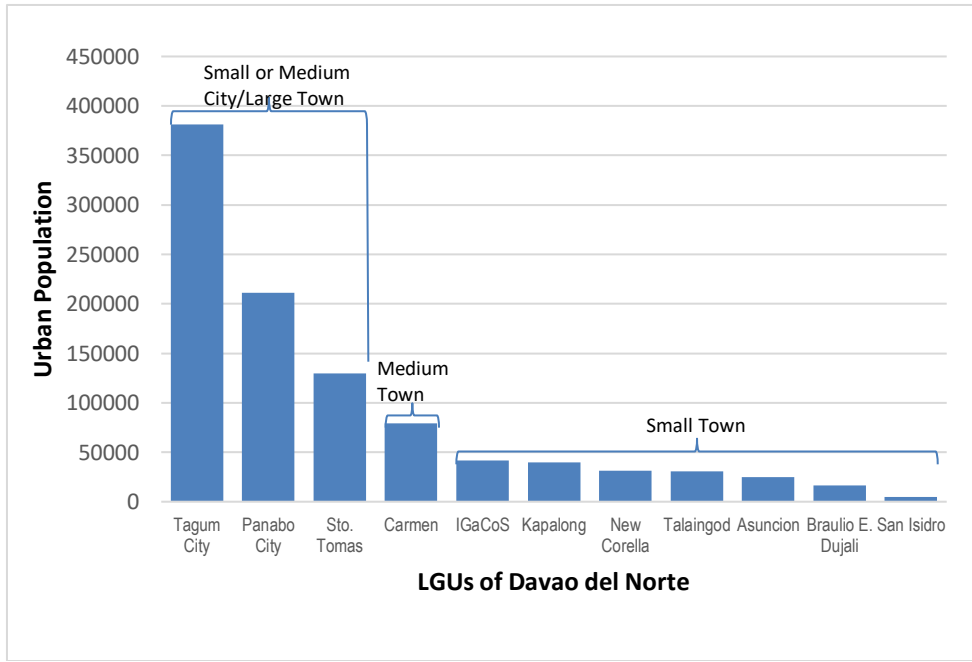
Figure No. 2-3: **2020 Hierarchy of Urban Centers**
Province of Davao del Norte



Source: Provincial Planning & Development Office

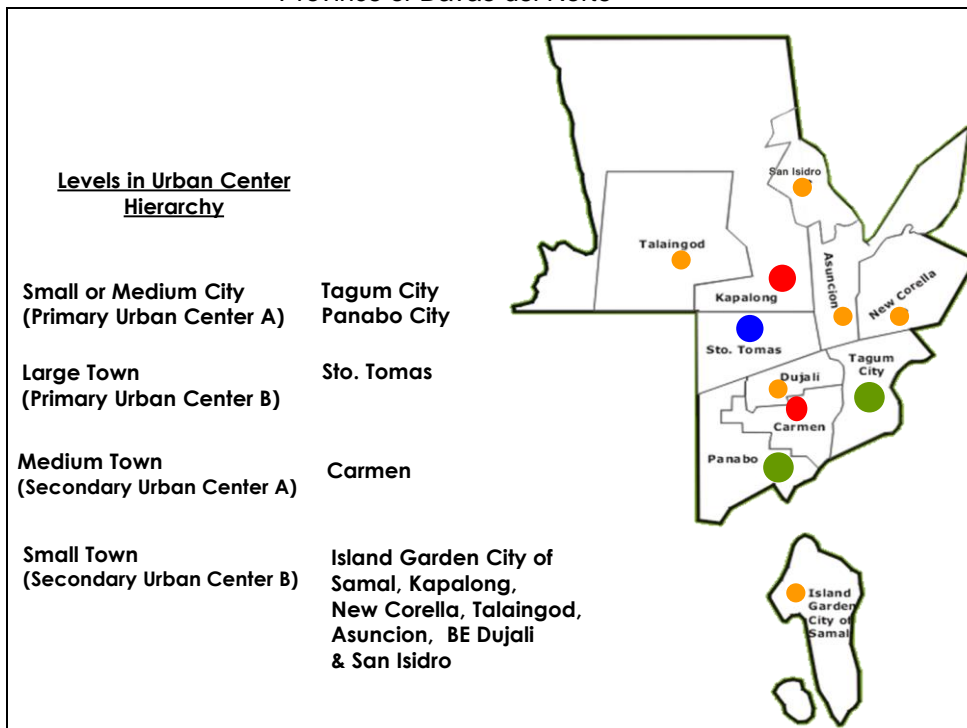
It is projected that the population of Davao del Norte will continue to grow at an annual average growth rate of 2.16 until 2030. It is seen that movements of the population will yield an increase in urbanization rate as there will be a shift of some barangays from rural to urban. This will be attributed to the changing population distribution and settlement pattern. Hence, the histogram presents a different arrangement of urban centers.

Figure No. 2-4: **2030 Projected Histogram of Urban Centers**
Province of Davao del Norte



Source: Provincial Planning & Development Office

Figure No. 2-5: **2030 Projected Hierarchy of Urban Centers**
Province of Davao del Norte



Source: Provincial Planning & Development Office

2.3 Population Exposed to Hazards

2.3.1 Population Exposed to Flood

With reference to the maps produced on flooding, and by overlaying the population density map and the flood prone map, there are three municipalities with high percentage of the population exposed to flooding. These are the municipalities of B. E. Dujali, with a total of 21,589 populations exposed (76.18%), Carmen with 14,016 populations exposed (49.46%) and Asuncion with 15,210 populations exposed (25.64%). The municipalities of Carmen and B.E Dujali lie on the central broad plain of the province where major rivers traverse that most likely contribute to flooding. On the other hand, the municipality of Asuncion is also a low-lying area that is affected by the overflow of Saug river.

There are also population classified under very high susceptibility to flooding, namely B. E. Dujali with 18.04% and Asuncion with 14.57% of populations exposed to flooding.

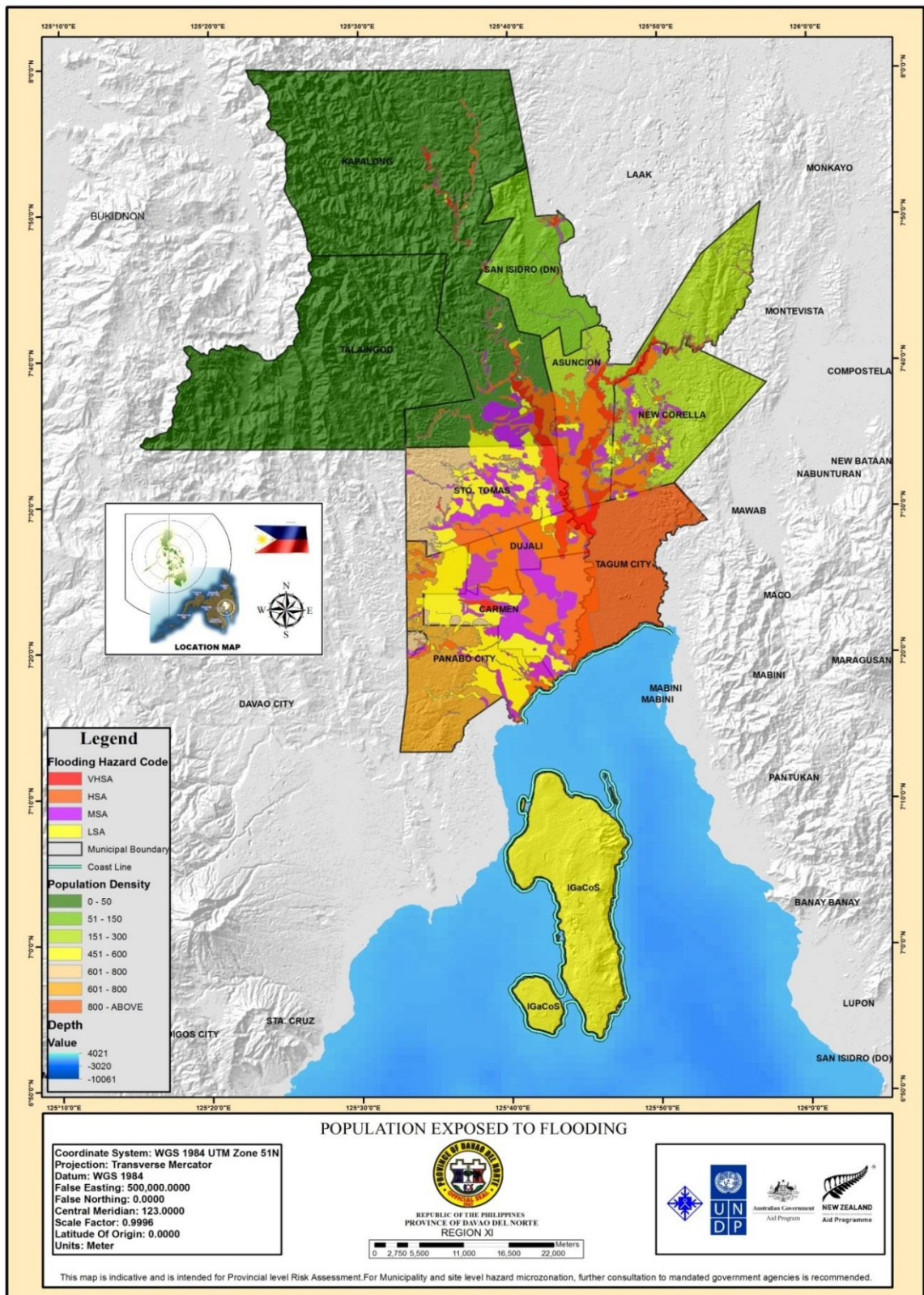
Table 2-10: **Population Exposed to Flood**
Province of Davao del Norte: CY 2015

City/Mun	Popn. 2015	Exposure				Percentage Exposure			
		Very High Suscep-tibility	High Suscep-tibility	Moderate Suscep-tibility	Low Suscep-tibility	Very High Suscep-tibility	High Suscep-tibility	Moderate Suscep-tibility	Low Suscep-tibility
Asuncion	59,322	8,643	15,210	3,856	1,376	14.57%	25.64%	6.50%	2.32%
B.E. Dujali	30,104	5,431	22,933	11,090	1,951	18.04%	76.18%	36.84%	6.48%
Carmen	74,679	1,138	14,889	11,557	10,145	3.78%	49.46%	38.39%	33.70%
Kapalong	76,334	1,977	3,878	2,626	1,458	2.59%	5.08%	3.44%	1.91%
New Corella	54,844	2,238	9,263	6,214	3,872	4.08%	16.89%	11.33%	7.06%
San Isidro	26,651	269	314	509	1	1.01%	1.18%	1.91%	0.01%
Sto. Tomas	118,750	9,963	21,624	29,165	46,538	8.39%	18.21%	24.56%	39.19%
Talaingod	27,482	-	1	2	-	-	0.01%	0.01%	-
Panabo City	184,599	-	13,033	18,755	74,873	-	7.06%	10.16%	40.56%
Tagum City	259,444	11,701	42,030	1,557	908	4.51%	16.20%	0.60%	0.35%

Source: PPDO

Note: These are GIS-generated data which are based on the Population Density and Flood Prone Maps.

Map 2-2: Population Exposed to Flood, Province of Davao del Norte



Source: PPDO

2.3.2 Population Exposed to Rain-Induced Landslide

The population exposed to rain-induced landslide is presented in Table 2-11. A total of 60,237 are classified to high susceptibility, and at risk to rain-induced landslide, 60,012 are moderately susceptible and 231,813 belonged to low susceptibility.

The municipality of Kapalong has the most number of populations that are highly susceptible to rain-induced landslide at 29,346. It is followed by the municipality of Talaingod with 18,854 populations exposed to highly susceptible areas. These two municipalities have the largest upland areas in the province.

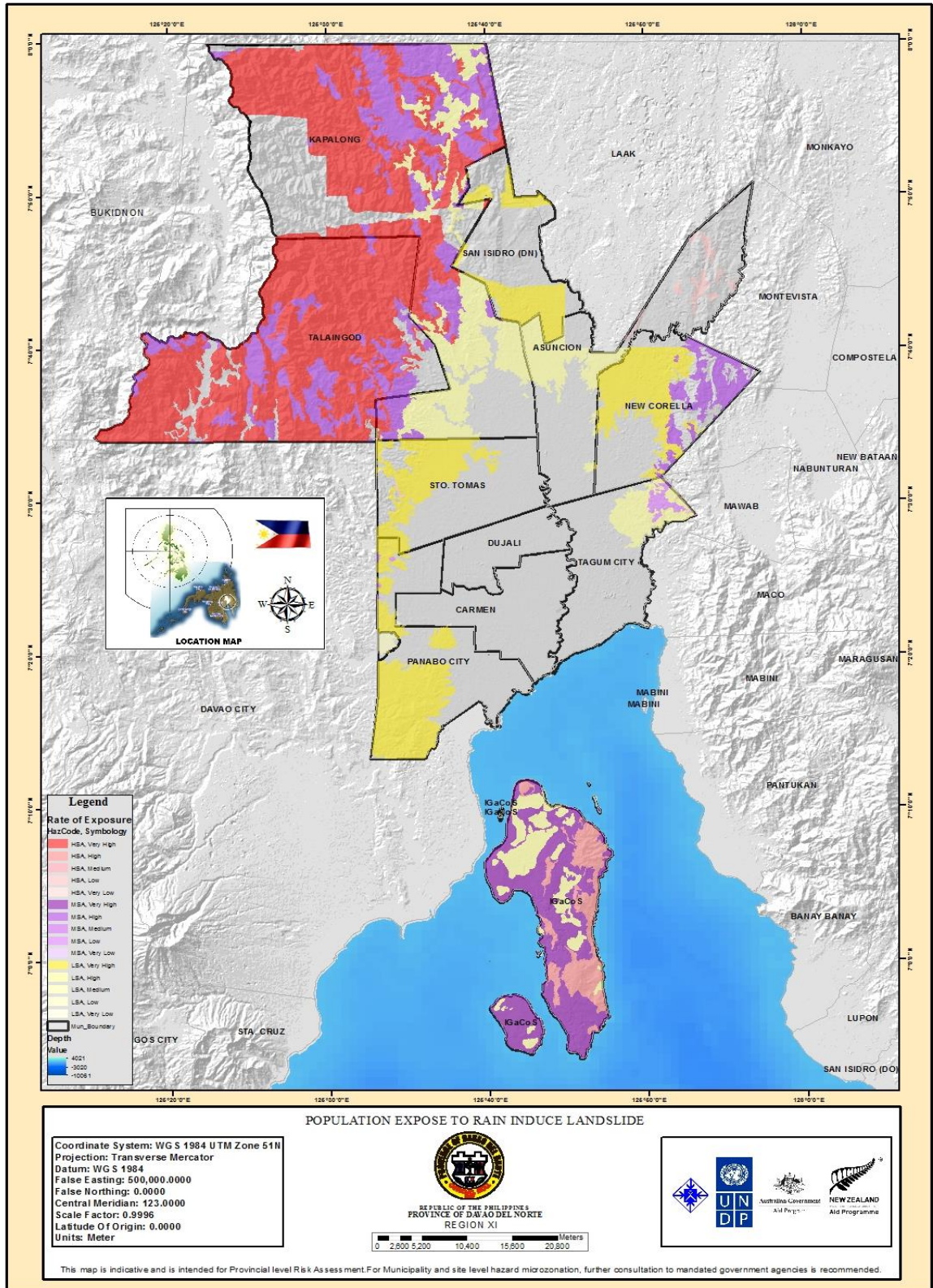
Table 2-11. Population Exposed to Rain-Induced Landslide
Province of Davao del Norte

City/ Municipality	Population	Population Exposure within the HSA	Population Exposure within the MSA	Population Exposure within the LSA	Exposure percentage of population within the HSA	Exposure percentage of population within the MSA	Exposure percentage of population within the LSA
Asuncion	59,322	2,966	8,305	26,695	5%	14%	45%
Carmen	74,679	0	0	2,290	0	0	3%
Kapalong	76,334	25,508	11,271	10,678	43%	19%	18%
New Corella	54,844	7,130	10,969	21,938	13%	20%	40%
San Isidro	26,651	1,599	1,599	10,127	6%	6%	38%
Sto. Tomas	118,750	1,188	11,875	39,188	1%	10%	33%
Talaingod	27,482	20,337	5,496	1,649	74%	20%	6%
IGaCoS	104,123	0	57,268	20,825	0	55%	20%
Panabo City	184,599	0	738	88,608	0	0.40%	48%
Tagum City	259,444	519	10,378	44,105	0.20%	4%	17%

Source: PPDO

Note: These are GIS-generated data which are based on the Population Density and Flood Prone Maps.

Map 2-3: Population Exposed to Rain-Induced Landslide



Source: PPDO

2.3.3 Population Exposed to Earthquake-Induced landslide (EIL)

Using the simulation parameters located on the Central Mindanao Fault with a magnitude of 7.2 with a depth of 2 km., with the epicenter located at 125.75 longitude and 7.53° latitude using the site amplification assumption and wet season, ground shaking data/map is generated. The process generated information on areas that are prone to ground shaking and earthquake induced landslides.

The municipalities of Kapalong and Talaingod have the most of their population exposed to EIL under the high susceptible category with 27,848 and 11,784 respectively. The majority of the area of these two municipalities is categorized as forest land or upland having a slope of 18 percent and above and an elevation of above 18%. In the same manner, populations exposed to EIL under the moderate and low susceptible category are from these two municipalities also.

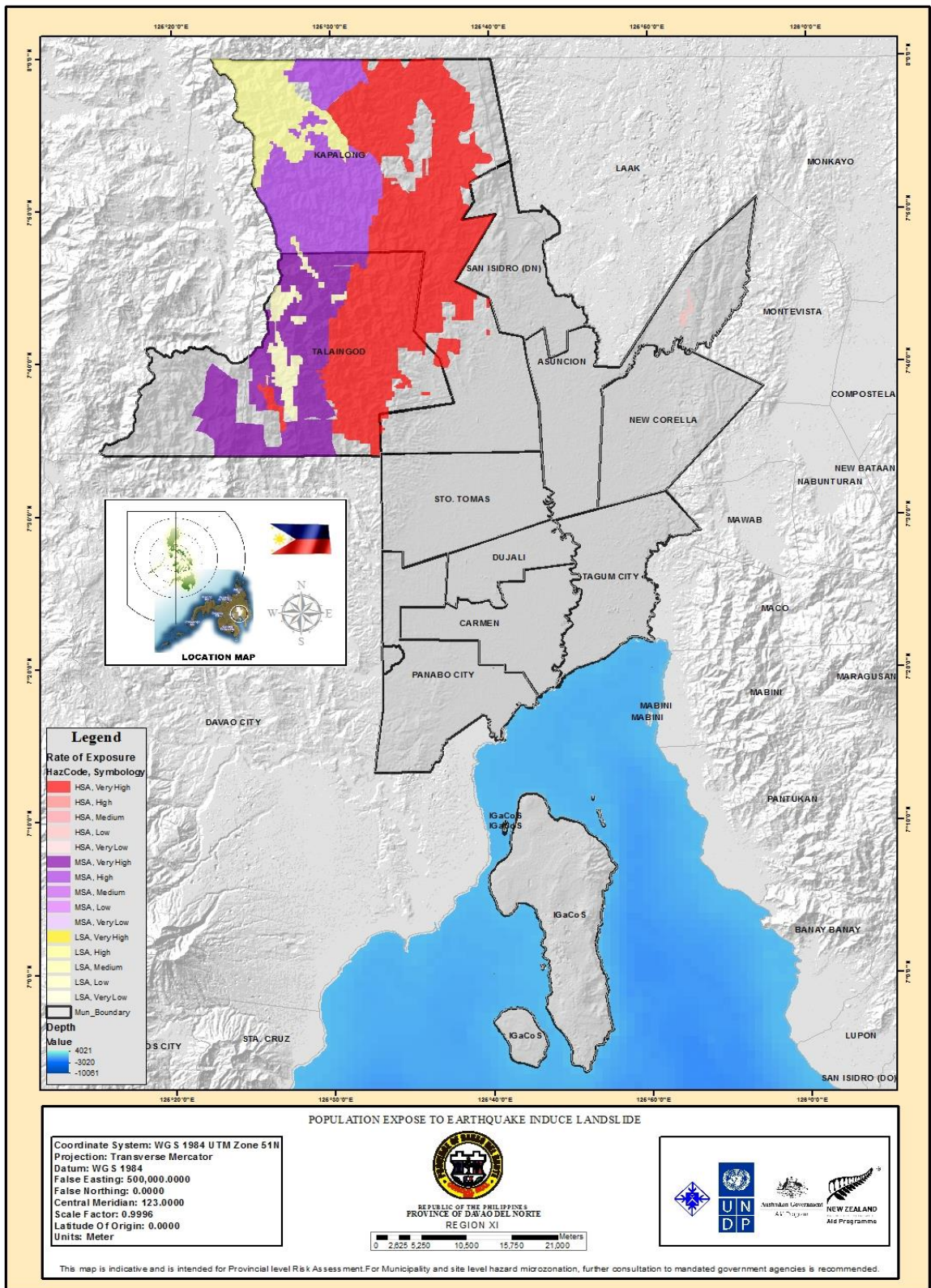
Table 2-12: **Population Exposed to Earthquake-Induced Landslide (EIL)**
Province of Davao del Norte

LGU	2015 Population	Population Density per sq. km.	Exposed Population in High Susceptible Area	Exposed Population in Moderate Susceptible Area	Exposed Population in Low Susceptible Area	Population Exposure Percentage in High Susceptible Areas	Population Exposure Percentage in Moderate Susceptible Areas	Population Exposure Percentage in Low Susceptible Areas
Asuncion	59,322	220	474.576	-	-	0.80%	-	-
BE Dujali	30,104	331	-	-	-	-	-	-
Carmen	74,679	271	-	-	-	-	-	-
Kapalong	76,334	81	26,716.90	16,030.14	8,396.74	35%	21%	11%
New Corella	54,844	171	5,484.40	-	-	10%	-	-
San Isidro	26,651	175	8,261.81	-	-	31%	-	-
Sto. Tomas	118,750	371	-	-	-	-	-	-
Talaingod	27,482	61	8,519.42	9,069.06	1,374.10	31%	33%	5%
IGaCoS	104,123	371	-	-	5,206.15	-	-	5%
Panabo City	184,599	728	-	-	-	-	-	-
Tagum City	259,444	1,421	-	-	-	-	-	-

Source: PPDO

Note: These are GIS-generated data which are based on the Population Density and Flood Prone Maps.

Map 2-4: Population Exposed to Earthquake-Induced Landslide (EIL)



Source: PPDO

2.3.3 Population Exposed to Ground Shaking

The table below indicates that all of the municipalities and cities in the province, except Panabo City are prone or exposed to ground shaking. Tagum City, Sto. Tomas and the Island Garden City of Samal are the three LGUs with a large number of populations that will be affected by this hazard. The data on this hazard is generated thru an earthquake simulation scenario of the Central Mindanao Fault with an earthquake magnitude of 7.2.

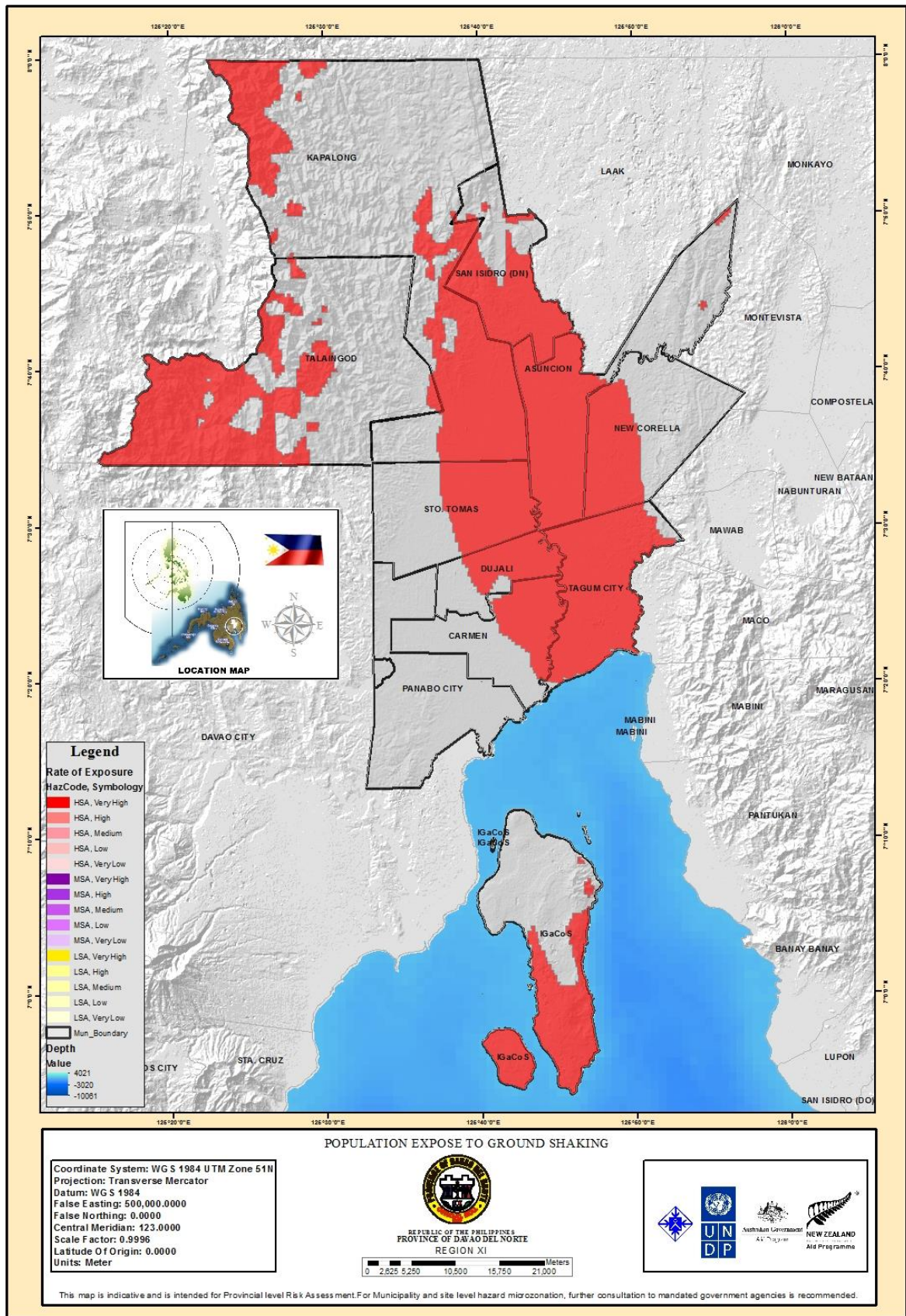
Table 2-13: **Populations Exposed to Ground Shaking**
Province of Davao del Norte

City/Municipality	Population	Population Density per sq. km.	Area Affected	Exposed Population in Prone Areas
Asuncion	59,322	220	15,860.018	36,374
B.E Dujali	30,104	331	5,211.429	20,130
Carmen	74,679	271	6,409.683	31,437
Kapalong	76,334	81	29,387.243	25,554
New Corella	54,844	171	9,075.182	23,232
San Isidro	26,651	175	10,952.514	17,469
Sto. Tomas	118,750	371	10,330.832	62,054
Talaingod	27,482	61	26,012.569	15,883
IGACOS	104,123	371	12,496.465	46,628
Panabo City	184,599	728	-	-
Tagum City	259,444	1,421	18,346.652	272,321
Davao del Norte	1,016,332	382	144,082.60	551,082

Source: PPDO

Note: These are GIS-generated data which are based on the Population Density and Flood Prone Maps.

Map 2-5: Population Exposed to Ground Shaking



Source: PPDO

2.3.4 Population Exposed to Liquefaction

Liquefaction is a phenomenon that is caused by earthquake shaking. Wet sand can become liquid-like when strongly shaken. The liquefied sand may flow and the ground may move and crack, causing damage to surface structures and underground utilities.

Data and maps are designed to give the general public as well as land-use planners, utilities and lifeline owners, and emergency response officials, new and better tools to assess their risk from earthquake damage. The following table presents the population in every city and municipality of Davao del Norte that by certain degrees have risks on liquefaction.

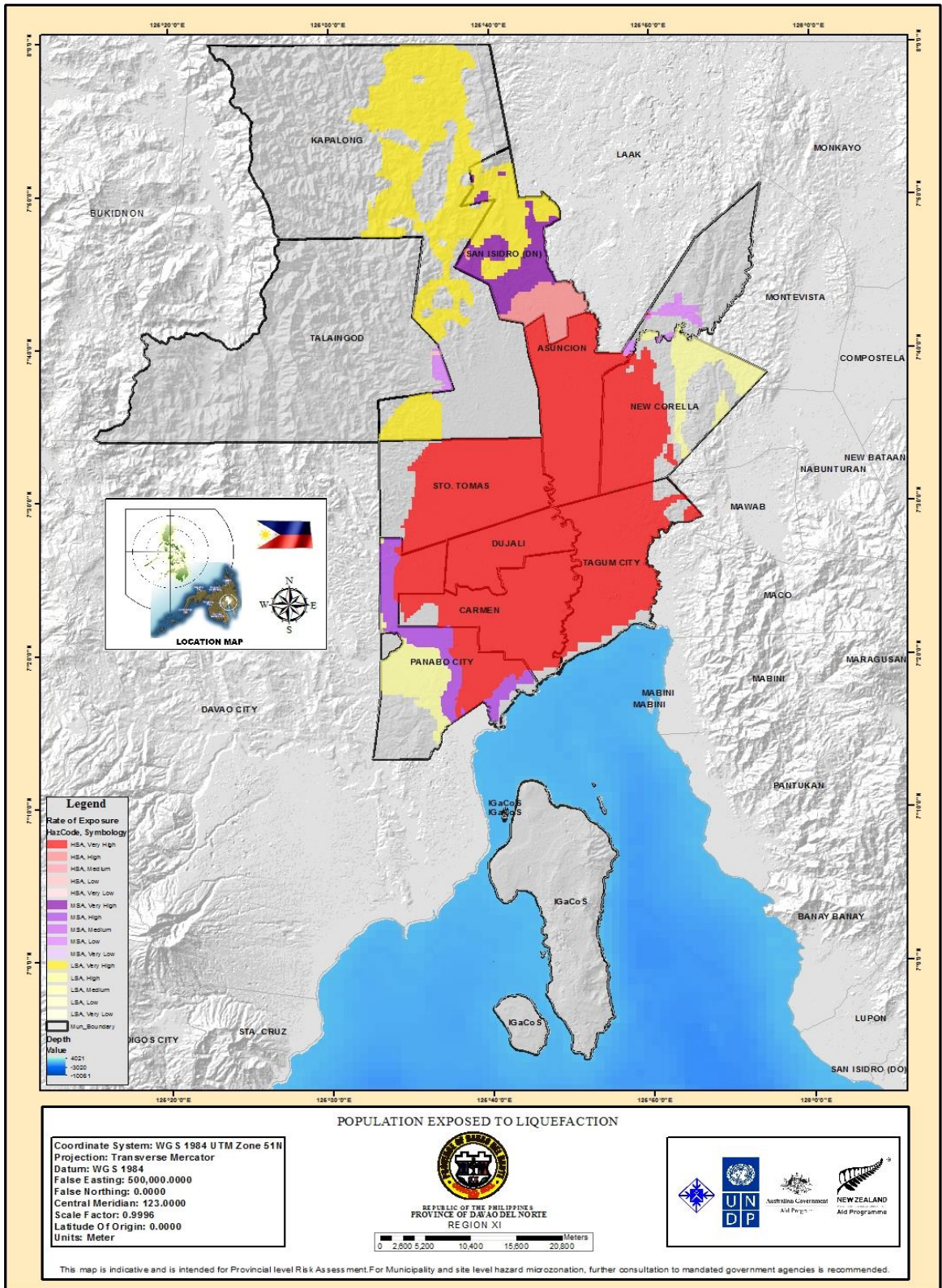
Table 2-14: **Population Exposed to Liquefaction**
Province of Davao del Norte

Municipal Name	2015 Population	Population Exposed within high susceptible area	Population Exposed within Moderate susceptible area	Population Exposed within low susceptible area	Percentage of population exposed within high susceptible area	Percentage of population exposed within moderate susceptible area	Percentage of population exposed within low susceptible area
Asuncion	59,322	34,015	2,853	6,009	57.34%	4.81%	10.13%
B.E.Dujali	30,104	30,104	0	0	100.00%	0.00%	0.00%
Carmen	74,679	66,367	4,600	2,629	88.87%	6.16%	3.52%
Kapalong	76,334	10,381	8,015	23,091	13.60%	10.50%	30.25%
New Corella	54,844	25,700	7,925	12,181	46.86%	14.45%	22.21%
San Isidro	26,651	6,452	8,957	10,399	24.21%	33.61%	39.02%
Sto. Tomas	118,750	93,017	9,358	15,509	78.33%	7.88%	13.06%
Talaingod	27,482	30	294	2,825	0.11%	1.07%	10.28%
Island Garden City Of Samal	104,123	0	0	0	0.00%	0.00%	0.00%
Panabo	184,599	58,924	44,581	40,076	31.92%	24.15%	21.71%
Tagum	259,444	228,544	15,878	0	88.09%	6.12%	0.00%
Davao Del Norte	1,016,332	609,715	112,312	122,587	32.05%	8.93%	16.80%

Source: PPDO

Note: These are GIS-generated data which are based on the Population Density and Flood Prone Maps.

Map 2-6: Population Exposed to Liquefaction



Source: PPDO

2.4 Hazard Implications for Population and Settlements

Floods and other hazards impact on both individuals and communities, and have social, economic, and environmental consequences. The consequences of floods and other hazards, both negative and positive, vary greatly depending on the location and extent of the hazards, and the vulnerability and value of the natural and constructed environments they affect.

The flood is the most expensive type of natural hazard that affected Davao del Norte in the past years. The consequences of floods, both negative and positive, vary greatly depending on their location, duration, depth and speed, as well as the vulnerability and value of the affected natural and constructed environments. Floods impact both individuals and communities, and have social, economic, and environmental consequences.

Floods have large social consequences for communities and individuals. As most people are well aware, the immediate impacts of flooding include loss of human life, damage to property, destruction of crops, loss of livestock, and deterioration of health conditions owing to waterborne diseases. As communication links and infrastructure such as power plants, roads and bridges are damaged and disrupted, some economic activities may come to a standstill, people are forced to leave their homes and normal life is disrupted.

Similarly, disruption to industry can lead to loss of livelihoods. Damage to infrastructure also causes long-term impacts, such as disruptions to supplies of clean water, wastewater treatment, electricity, transport, communication, education and health care. Loss of livelihoods, reduction in purchasing power and loss of land value in the floodplains can leave communities economically vulnerable.

Floods can also traumatize victims and their families for long periods of time. The loss of loved ones has deep impacts, especially on children. Displacement from one's home, loss of property and disruption to business and social affairs can cause continuing stress. For some people the psychological impacts can be long lasting. Households whose dwellings will be damaged by the hazards will eventually be rendered homeless. This adds up to the housing backlogs that the LGUs have to address too.

Table No. 2-15: **Population of Urban Barangays, by City and Municipality
Province of Davao del Norte: May 1, 2020**

Municipality/ City	Name of Barangay	Population
Asuncion	Cambanogoy	10,253
	Magatos	7,017
	Sagayen	5,048
	Sub-Total	22,318
Braulio E. Dujali	Dujali	7,438
	Cabayangan	5,655
	Sub-Total	13,093
Carmen	Alejal	8,174
	Ising	12,426
	Sto. Niño	6,210
	Tubod	10,631
	Sub-Total	37,441
Kapalong	Maniki	18,485
	Gabuyan	5,518
	Capungagan	5,386
	Sampao	5,989
	Sub-Total	35,378
New Corella	Poblacion	10,247
	Del Pilar	5,028
	Mesaoy	9,839
	Sub-Total	25,114
Sto. Tomas	Balagunan	6,230
	Bobongon	7,000
	Kimamon	7,220
	Kinamayan	5,551
	La Libertad	5,831
	New Katipunan	6,955
	Tibal-og	48,459
	Sub-Total	87,246
Panabo City	Datu Abdul Dadia	7,394
	Cagangohan	13,224
	Gredu	16,252
	J. P. Laurel	9,458
	Manay	6,353
	New Pandan	8,550
	New Visayas	18,987
	Quezon	6,933
	Salvacion	10,748
	San Francisco	13,953
	San Vicente	19,334
	Sto. Niño	5,156
	Southern Davao	9,899
	Sub-Total	146,241
Island Garden City of Samal	Miranda (Pob.)	7,576
	Moncado (Pob)	3,912
	Peñaplata (Pob)	6,326
	Tambo	5,525
	Sub-Total	23,339

Tagum City	Apokon	37,984
	Canocotan	9,752
	Cuambogan	13,140
	La Filipina	21,262
	Madaum	14,421
	Magdum	13,559
	Mankilam	41,345
	Magugpo Pob	2,945
	Pagsabangan	5,556
	San Miguel	21,735
	Visayan Village	42,648
	Magugpo East	15,770
	Magugpo North	8,595
	Magugpo South	11,563
	Magugpo West	12,924
Sub-Total	273,199	
Talaingod	Dagohoy	6,798
	Palma Gil	7,532
	Sto. Niño	14,003
	Sub-Total	28,333
San Isidro	Sawata	4,123
Davao Del Norte		695,825

Source : Philippine Statistics Authority

Table No. 2-15: **Population of Rural Barangays, by City and Municipality Province of Davao del Norte: May 1, 2020**

Municipality/ City	Name of Barangay	Population
Asuncion	Binancian	2,337
	Buan	1,328
	Buclad	2,925
	Cabaywa	3,478
	Camansa	1,554
	Camoning	3,233
	Canatan	2,803
	Concepcion	3,000
	Doña Andrea	3,846
	Napungas	2,027
	New Batayan	2,422
	New Santiago	1,422
	Pamacaun	2,137
	San Vicente	2,361
	Santa Filomena	731
	Sonlon	2,405
	New Loon	1,576
	Sub-Total	39,585

II Population and Settlements

Braulio E. Dujali	New Casay	1,908
	Magupising	2,293
	Sub-Total	4,201
Carmen	Anibongan	3,234
	Asuncion	1,860
	Cebulano	1,662
	Guadalupe	3,150
	La Paz	2,757
	Mabaus	1,714
	Mabuhay	1,656
	Magsaysay	4,208
	Mangalcal	4,243
	Minda	1,226
	New Camiling	3,829
	Salvacion	2,377
	Taba	1,724
	Tibulao	1,574
	Tuganay	4,966
Sub-Total	40,180	
Kapalong	Florida	4,141
	Gupitan	17,878
	Katipunan	2,744
	Luna	3,885
	Mabantao	3,950
	Mamacao	2,158
	Pag-asa	3,626
	Semong	3,253
	Sua-on	2,023
	Tiburcia	2,032
	Sub-Total	45,690
New Corella	Cabidianan	1,405
	Carcor	1,657
	Del Monte	920
	El Salvador	1,344
	Limbaan	4,810
	Macgum	2,303
	Maming	2,001
	New Bohol	2,074
	New Cortez	2,982
	New Sambog	1,143
	Patrocenio	1,072
	San Jose	1,152
	San Roque	3,178
	Sta. Fe	1,638
	Sta. Cruz	1,511
	Sto. Niño	1,319
	Suawon	2,291
Sub-Total	32,800	
Sto. Tomas	Casig-ang	2,768
	Esperanza	3,052
	Lunga-og	3,662
	Magwawa	1,644
	New Visayas	3,848

II Population and Settlements

	Pantaron	3,127
	Salvacion	4,845
	San Jose	3,541
	San Miguel	3,300
	San Vicente	2,555
	Talomo	3,300
	Tulalian	4,606
	Sub-Total	40,248
Panabo City	A. O. Floirendo	4,165
	Buenavista	794
	Cacao	1,304
	Consolacion	1,509
	Dapco	4,199
	Kasilak	2,730
	Katipunan	2,449
	Katualan	606
	Kauswagan	1,799
	Kiotoy	1,503
	Little Panay	2,736
	Lower Panaga (Roxas)	1,598
	Mabunao	2,116
	Maduao	3,720
	Malativas	2,582
	Nanyo	3,979
	New Malaga (Dalisy)	2,088
	New Maltbog	4,236
	San Nicolas	2,948
	San Roque	656
	Santa Cruz	1,175
	Sindaton	4,312
	Tagpore	1,773
	Tibungol	2,037
	Upper Licanan	1,598
	Waterfall	969
San Pedro	3,408	
	Sub-Total	62,989
Island Garden City of Samal	Adecor	1,900
	Anonang	2,757
	Aumbay	2,276
	Aundanao	1,310
	Balet	2,980
	Bandera	1,819
	Caliclic	3,003
	Camudmud	2,760
	Catagman	1,744
	Cawag	2,382
	Cogon	3,424
	Cogon (Talicod)	2,193
	Dadatan	1,450
	Del Monte	1,871
	Guilon	1,738
	Kanaan	1,641
Kinawitnon	2,559	

II Population and Settlements

	Libertad	2,591
	Libuak	1,513
	Licup	1,045
	Limao	2,858
	Linosutan	1,011
	Mambago-A	2,461
	Mambago-B	3,377
	Pangubatan (Talicod I)	1,468
	Poblacion Kaputian	4,623
	San Agustin	2,225
	San Antonio	2,294
	San Isidro, Babak	2,517
	San Isidro, Kaputian	1,893
	San Jose (San Lapuz)	2,159
	San Miguel (Magamono)	1,663
	San Remigio	2,430
	Sta. Cruz (Talicud II)	4,095
	Santo Niño	1,802
	Sion (Zion)	775
	Tagbaobo	2,652
	Tagbay	1,318
	Tagbitan-ag	2,386
	Tagdaliao	935
	Tagpopongan	1,435
	Toril	4,099
	Sub-Total	93,432
Tagum City	Bincungan	4,045
	Busaon	3,197
	Liboganon	2,803
	New Balamban	1,596
	Nueva Fuerza	2,496
	Pandapan	2,504
	San Agustin	1,567
	San Isidro	4,795
	Sub-Total	23,003
San Isidro	Dacudao	1,581
	Datu Balong	1,444
	Igangon	3,074
	Kipalili	2,845
	Libuton	971
	Linao	2,177
	Mamangan	2,885
	Monte Dujali	1,560
	Pinamuno	1,839
	Sabangan	1,991
	San Miguel	1,589
	Sto. Niño	1,154
	Sub-Total	23,110
Davao del Norte		405,238

Source : Philippine Statistics Authority

Table No. 2-16: Household Population by Major Religious Affiliation
Province of Davao del Norte: CY 2015

Major Religious Affiliation	Male	Female	Total	% of Total
1. Bible Baptist	7,794	7,730	15,524	1.53
2. Evangelicals (Philippine Council of Evangelical Churches)	26,545	26,399	52,944	5.21
3. Iglesia ni Kristo	12,847	12,189	25,036	2.46
4. International One-Way Church	3,639	3,578	7,217	0.71
4. Islam	12,847	11,779	24,253	2.39
5. Jehovah's Witness	4,804	5,130	9,934	0.98
6. Roman Catholic (including Catholic Charismatic)	399,995	372,756	772,751	76.03
7. Seventh Day Adventist	9,479	9,236	18,715	1.84
8. Tribal Religions	8,102	7,465	15,567	1.53
9. United Pentecostal Church (Philippines)	6,253	6,113	12,366	1.22
10. United Church of Christ in the Philippines	3,481	3,514	6,995	0.69
11. Other Religious Affiliations	11,841	11,206	23,047	2.27
Total Population			1,016,332	

Source : Philippine Statistics Authority

CHAPTER III ECONOMIC DEVELOPMENT

3.1 Agriculture

The potentials of the province in agriculture are reflected through its vast area devoted to agricultural activities. Agricultural land use accounts for 47.30% (163,983.65 hectares) of the total land area of Davao del Norte.

Its geographic location with regard to agriculture is strategic; Davao del Norte being surrounded by mountain ranges of neighboring provinces. Although it is within the typhoon path, but lesser damage was caused particularly in the onslaught of Typhoon Pablo compared with other provinces. Climate is generally of Type IV with rainfall more or less evenly distributed throughout the year. However, occasional flooding is experienced in some areas caused by river overflows and runoff accumulation from higher elevations. Flooding is sometimes intense and lasts for a week in plains near major river courses. Dry spell, particularly during El Nino, is also experienced and affects agricultural productivity mostly in the uplands and elevated production areas where gravity irrigation is intermittent.

The soil characteristics of the province can support cultivation of most agricultural crops. Soil resources are dominantly clayey in texture that originates from alluvium washed from the uplands and from materials originating from igneous and sedimentary rocks. These soils exhibit medium to high fertility, except in some places where nutrient supplementation is required for optimum yields.

a. Crops Production

Table No. 3-1 indicates the major crops grown in the province as of CY 2019. These include paddy rice, corn, coconut, banana for export and local consumption, fruit trees, and some high valued commercial and industrial crops. Vegetables, root crops and other temporary and perennial crops are also grown, although mostly not in commercial (or plantation type) scale.

Paddy rice cultivation is undertaken in 19,272.08 hectares, of which 81.03% (15,156.02 hectares) is irrigated. Rice is grown in all municipalities and cities of the Province. Six (6) municipalities contributed considerable production areas, namely: New Corella, Asuncion, Sto. Tomas, Kapalong, Carmen, and BE Dujali. Sto. Tomas and Carmen. Correspondingly, these municipalities have also contributed for rice production pegged at 153,147.02 metric tons or 91.18% of the total provincial production.

Mono-crop cultivation of corn is around 9,961.15 hectares which are usually planted with the white variety. Corn is produced in sizable areas in the municipalities of New Corella, Talaingod and Kapalong. There are also areas grown with corn and being inter-cropped with other commodities like local banana and under coconut.

Coconut is one of the dominant crops grown in the province. Some 46,389.30 hectares are devoted to coconut production. The Island Garden City of Samal devotes the largest area for coconut production at 14,431 hectares, contributing 31% of the total area planted to coconut in the Province.

Banana is also one of the major crops grown in the province. Around 53,877.45 hectares are devoted to the cultivation of banana, both for local consumption and export market. There are two kinds of banana grown for local consumption, the table and the cooking banana. Table banana includes the Lakatan, Latundan and Bungulan varieties, while the cooking varieties are Cardaba and Saba. Cavendish banana, which is the export variety, is most popular and extensively grown in plantation scale in most municipalities and cities except on the island of Samal. Production of this commodity contributes considerably to the income of the Province.

Fruit tree growing is also feasible in the Province. Two banner fruit tree crops with export potentials are being promoted for commercial and orchard production because of strong tendencies of income generation. These are durian and mango. Durian is highly suitable for production in the Province because of its terrain and climatic condition. Mango is highly suitable in some areas with soil type of corraline limestone origin (Bolinao clay) as typically found in the Island Garden City of Samal, some parts of Panabo City and some upland areas in the mainland. Mango and durian are grown in 4,785.86 and 1,070.25 hectares, respectively.

Table No. 3-1 : **Agriculture Profile
Province of Davao del Norte
As of CY 2019*
(Areas in Hectares)**

Commo- dities (has.)	Municipalities/ Cities											Totals
	District I						District II					
	Tagum	New Corella	Asuncion	Kapalong	San Isidro	Tala- ingod	Sto. Tomas	Panabo	Carmen	BE Dujali	IGaCoS	
Paddy rice	407.60	25,880.92	3,088.36	1,820	262.60	914.00	4,796.00	561.25	2,167.75	2,369.75	82.76	19,272.08
Irrigated	253.00	22,696.32	2,275.27	1,125.90	50.00	110.00	4,508.00	442.25	2,167.75	2,226.28	62.76	15,617.02
Rain fed	154.60	3,184.60	813.09	694.40	212.60	804.00	288.00	119.00	-	143.47	20.00	3,655.06
Corn	290.05	12,738.50	279.00	1,466.50	621.50	2,377.50	460.50	237.36	149.74	45.00	683.00	9,961.15
White	128.50	7,776.00	16.00	933.00	621.50	2,174.40	373.00	237.36	114.69	-	683.00	7,873.45
Yellow	161.55	4,962.50	263.00	533.50	-	203.10	87.50	-	35.05	45.00	-	2,087.70
Coconut	3,469.23	32,094.86	5,069.14	2,656.50	4,643.07	3,119.61	1,190.70	4,298.41	1,752.28	88.00	14,431.00	46,389.30
Banana	1,982.04	187,604.41	3,980.15	7,978.60	6,326.54	1,714.00	10,832.87	8,704.82	2,440.37	2,604.00	3,027.46	53,877.45
Cavendish	1,557.09	46,626.89	1,076.62	3,150.00	1,414.54	262.00	10,180.06	6,910.12	1,815.24	2,368.00	-	29,649.27
Other Banana	290.00	16,179.19	1,547.00	3,172.00	1,978.00	328.00	369.00	1,270.00	476.00	55.00	2,776.00	14,261.00
Saba Banana	134.95	14,583.79	1,356.53	1,656.60	2,934.00	1,124.00	283.81	524.70	149.13	181.00	251.46	9,967.18
Mango	26.50	129.75	55.57	259.45			331.75	797.00	27.63	28.00	2,725.99	4,318.89
Durian	176.70	738.84	24.40	27.50	206.70	161.00	15.00	62.27	8.74	18.00	51.56	865.72
Coffee	-	32.92	11.00	48.10	-	281.50	46.00	91.20	-		47.37	891.67
Cacao	338.10	107.55	650.92	640.00	4,072.92		614.74	282.15	1.00	124.00	357.40	7,832.73
Vegetables & Spices	144.68	1,548.58	642.02	76.86	126.60	63.30	714.37	293.88	90.43	0.00	429.52	2,988.58
Other crops	3,498.00	44,557.45	11,723.00	12,924.00	-		10,429.00	4,522.00	5,6704.00	3,688.00	282.00	64,747.00
Abaca						2,077.00						2,077.00
Rubber		925.52	169.40	614.40	306.90	1,481.00	356.50	138.10				3,568.00
Oil Palm		389.35	22.60	243.85				35.50		18.00		376.95

Source: Provincial Agriculturist's Office

Note * : 2019 Agriculture data is the latest that PAGRO can provide due to COVID-19 Pandemic.

With regards to crop production as presented in Table 3-2, rice produced in CY 2019 totaled 167,844.04 metric tons (dry basis) harvested from a total area of 19,272.08 hectares. The area of irrigated rice comprised 81.03% of the total rice production area. This is where most of the production of paddy rice (palay) came from. The average yield per hectare was estimated at 9.31 metric tons (dry basis), or at an average of 186.2 bags of 50 kilograms in a hectare. Paddy rice production is estimated to value annually at P 2,623.30 Million at farm gate prices.

Fruit tree growing both for commercial and orchard production is also feasible in the Province. Fruit trees are considered as banner crops which have high export potentials. Durian is highly suitable for production in the Province because of its terrain and climatic condition. Mango is likewise suitable in some areas of the Province with soil type of coralline limestone origin (Bolinao clay) as typical in the Island Garden City of Samal and some areas of Panabo City.

Table No.3-2: Crop Area, Production, Average Yield, and Value of Production, By Crop, Davao del Norte, 2019

Crops	Averages			Value per Kilo	Estimated value (2019 farm gate price, Php, M)
	Area Harvested (Has.)	Production (MT)	Ave. Yield (MT/+Ha.)		
Rice	19,272.08	167,844.04			2,623.30
Irrigated	15,617.02	145,371.95	9.31	15.63	2,272.16
Rain fed	6,655.06	22,472.09	3.38	15.63	351.24
Corn	9,961.15	28,524.17			240.21
White	7,873.45	19,821.72	2.52	13.26	127.58
Yellow	2,087.70	8,432.45	4.04	12.25	112.63
Coconuts	46,389.30	262,522.21	5.66	15.53	4,076.97
Banana	53,877.45	2,358,267.54			36,432.27
Cavendish	29,649.27	1,510,847.19	50.96	22.45	33,918.42
Other Banana	14,261.00	115,365.69	8.09	16.80	1,938.14
Saba/Cardaba	9,967.18	106,024.23	10.64	5.43	575.71
Mango	4,318.89	8,363.94	1.94	20.00	167.28
Durian	865.72	5,610.77	6.48	20.10	112.78
Coffee	891.67	917.25	1.03	63.10	57.88
Cacao	7,832.73	1,792.38	0.23	93.79	168.11
Palm Oil	376.95	2,574.81	6.83		
Rubber	615.00	6,578.72	10.70	28.43	187.03
Abaca	2,077.00	3,494.82	1.68	67.17	234.75
TOTAL CROPS	217,166.52				

Source: Philippine Statistics Authority for the raw data
Provincial Agriculturist's Office for the estimation of values

In terms of contributions to the income of the province from the agriculture sector, Cavendish banana had the highest income contribution among all major crops at an estimated value of Php 24.37 Billion in 2015. This is followed by coconut with Php 8.32 Billion; rice with Php 2.40 Billion; local banana with Php 561.77 Million and corn with Php 240.21 Million.

Table No. 3-3 : **Estimated Value of Production of Major Crops, by Municipality/City, Province of Davao del Norte, 2019**

Municipality/ City	Value, in Php Millions						Total
	Rice	Corn	Banana			Coconut	
			Cavendish	Table	Saba		
Asuncion	344.58	11.06	1,231.67	210.25	242.42	445.51	2,485.48
BEDujali	403.30	2.09	2,709.03	7.47	32.35	7.73	3,161.97
Carmen	313.40	2.30	2,076.66	64.69	26.65	154.00	2,637.70
Kapalong	278.94	34.29	3,603.65	271.81	296.05	233.47	4,718.20
New Corella	404.52	168.91	1,046.77	431.09	245.01	498.43	2,794.74
San Isidro	33.97	24.60	1,618.25	268.82	524.33	408.06	2,878.04
Sto. Tomas	647.38	5.20	11,646.14	50.15	50.72	104.65	12,504.23
Talaingod	35.56	97.25	299.73	44.58	200.87	274.17	952.15
IGCSamal	12.60	17.12	-	377.27	44.94	1,268.28	-
Panabo City	96.45	1.31	7,905.28	172.60	93.77	377.77	8,647.18
Tagum City	52.69	10.53	1,781.33	39.41	24.12	304.90	2,212.98
TOTALS	2,623.40	374.65	33,918.52	1,938.14	1,781.21	4,076.97	44,712.89

Source: Primary data as computed from PSA and AMAD -DA XI data

Notes :

Considerations in estimating the values:

- a. Total productions (in metric tons) from the Philippine Statistics Authority (PSA)
- b. Disaggregation of production by cities/municipalities were proportionated based on their production areas. The production areas were based on their respective Comprehensive Development Plans and Commodity Road Maps.
- c. Prices (farm gates, retail and wholesale) for rice, corn, local banana and coconut were provided by PSA.
- d. Price of Cavendish banana was taken from DA-AMAS.
- e. Dash indicates that data is not available.
- f. This is the latest data generated from PAGRO

b. Fish Production

Fish production is usually undertaken and sourced from Municipal waters and from aquaculture production. Municipal waters include coastal resources delineated up to 15 kilometers from the coastline and inland water bodies. Aquaculture production pertains to cultivation or growing of fishes in ponds, both brackish and freshwater resources.

For aquaculture, brackish water production is sourced from 1,433 hectares of fishponds producing mostly bangus (*Chanos chanos*), tilapia (*Oreochromis niloticus*), shrimps, and crabs. Brackish fishponds are mostly found in Tagum City, Carmen, Panabo City, and in the Island Garden City of Samal. On the other hand, tilapia and catfish (*Clarias garofinus*) are mostly produced in the 321.65 hectares of freshwater fishponds. Freshwater fishponds are situated in B.E. Dujali, Sto. Tomas, Panabo City, and Carmen. Other municipalities have also started developing freshwater fishpond cultivation owing to the presence of suitable sites such as inland water bodies and water impoundments. Net cages are often used in these areas where regulating water depth is

necessary for fish cultivation. Areas with land depressions wherein water usually stagnates (water logged) are likewise developed into fishponds.

The following are information on the 2019 fishery activity:

Table No. 3-4: **Municipal Fishing Resources**
Province of Davao del Norte: CY 2019

Particular	Number	Production (mt/yr)	Area in Hectares
Municipal Fishing			
Full time fishermen	2,163		
Part time fishermen	1,017		
Motorized banca	1,701	1,818.28	
Non-motorized banca	1,221	791.96	
Fish corral	88	311.40	
Stationary bagnet	66	23.19	
Lakes		16.68	26.00
Rivers			865.55
Dams			19.50
Water impounding			108.00
Water logged			1,105.00
Aquaculture Fishing	# Operators		
1. Brackishwater Fishpond			
(Under Fishpond Lease Agreement)			
- Operators	11	596.52	110
Private Operators/Others	287	1,276.73	1,234
2. Freshwater Fishpond			
- Tilapia	909	170.897	119.95
- Hito	92	68.69	22
- Tilapia Hatchery	3	615,000 pcs.	7.8
- Hito Hatchery	7	900,000 pcs.	6.3
- Ornamental Fish			
➤ Operators	10	5.5	3.03
- Freshwater Fish Cages	7	10.0	5.005
- Marine Fish Cages			
➤ Mariculture Park	116	1,767.9	352 units/ 768.05 has
➤ Juvenile Cages	29	3.2M fingerlings	16 cages
3. Seaweeds	30 individuals/ 1 association	2	214.85
4. Oyster	60	2.5	150

Source: Provincial Agriculturist's Office

Fishery cooperatives can co-manage coastal fishery resources, help improve the living conditions of small-scale fishers, and slow down the rapid depletion of these resources. As provided in the 1991 Local Government Code, the participation of people's organization ensures a meaningful and successful local governance. The table below presents the list of fisherfolks and cooperatives in Davao del Norte.

Table No. 3-5: **List of Fisherfolk Organization/Cooperatives**
Province of Davao del Norte: CY 2019

LGU/Accronym	Complete Name of Association/Cooperative
Tagum City	
LIFA	Libuganon Fisherfolk Association
LOBUFFA	Lower Busaon Fisherfolk Association
SEAK	Self-Employment Assistance Kabuhayan – Busaon & Libuganon
BUSFOA	Busaon Fishpond Owners/Operators Association
LIBFOA	Libuganon Fishpond Owners/Operators Association
BINFOA	Bincungan Fishpond Owners/Operators Association
GAMGAI	Garinan Mangrove Growers Association Inc.
PDSFA	Purok Daisy Small Fisherfolks Association
CABUSAFA	Cabugan-Busaon Fisherfolks Association
Panabo City	
	Gugmasan, San Vicente Fisherfolk Association
	San Pedro Fisherfolk Association
	Cagangohan Women Association
	Cagangohan Unified Farmers and Fisherfolks Association
	JPL Mangrove Producers Association
CONFIASS	Consolacion Fisherfolk Association
	Vintage Fisherfolk Association of Cagangohan
	Dalisay Farmers and Fisherfolks Association
	Josil Village Association
	Mabunao Fisherfolks Association
	CMuLA
	Cagangohan Fisherfolks Association
Island Garden City of Samal	
a. Babak District	
MAFFA	Matamata Farmers and Fisherfolks Association
BFFA	Balet Farmers & Fisherfolk Association
TASEGDECO	Tambo Seaweeds Grower Development Cooperative
CFA	Caliclic Fisherfolks Association
LFA	Libuak Fishermen Association
KIFA	Kinawitnon Fishermen Association
BMFA	Barangay Miranda Fisherman Association
SUPFA	Sea Urchin Processors Fisherfolk Association
SIFAI	San Isidro Fishermen Association Inc.
VSFA	Villarica Seaside Fishermen Association
TFA	Tagpopongan Fishermen Association
b. Peñaplata District	
CAFHSA	Cawag Fishermen and Homeowners Association
SAMASCA	Samahang Mangingisdang Asosasyon ng Catagman
LFSA	Limao Fishermen Savings Association
SJFA	San Jose Fisherfolks Association
SMFA	San Miguel Fisherfolks Association
PFA	Pigasaan Fishermen Association
AFA	Aumbay Fisherfolks Association
BPFA	Barangay Peñaplata fisherfolks Association
SISGA	Samal Island Seaweeds Growers Association
c. Kaputian District	
ADFISCO	Adecor United Fisherfolk Cooperative
SRFC	San Remegio Fisherfolk Association

KFA	Kanaan Fisherfolks Association
NAGMAPA	Nagkahiusang Mananagat sa Pangubatan
NAGMATA	Nagkahiusang Mananagat sa Tagbaobo
SIFA	San Isidro Fishermen Association
COMUFCO	Cogon Multipurpose & Fisherfolks Cooperative
COFTA	Cogon Fish Trap Association
LIPCO	Linosutan Fisherman Association
DAFISCO	Dadatan Fisherfolks Association
DFA	Dadatan Fishermen Association
SDFA	Sta. Cruz Dapia Fisherfolks Association
BPKFA	Barangay Poblacion Kaputian Fisherfolks Association
PFA	Paatang Fisherfolks Association of Sta. Cruz
HSKL	Hugpong sa Kababaihan sa Linosutan
SLFA	Sitio Libod Fishermen Association
Carmen	
ICAEDA	Interated Christian Agri-Eco Development Association
CAFCA	Carmen Fish culture Association
MAFIA	Maligaya Fisherfolks Association
CAGEA	Carmen aquaculture Growers Entrepreneur Association
CAFIMMA	Catumbal Fisherfolk & Mudcrab Multipurpose Association
ECMPI	Ezra Christian Ministry for Peace Inc.
TAFMA	Taba Mudcrab Fisherfolks Association
Kapalong	
GFO	Gabuyan Fisherfolk Organization
KAFO	Katipunan Fisherfolks Organization
MFO	Mabantao Fisherfolks Organization Mamacao Fisherfolks Organization
FFO	Florida fisherfolks Organization
SFO	Semong Fisherfolks Organization
Asuncion	
AFESCA	Association of Federation of Senior Citizen Association
PAMAVELPA	Pamacaun Aquatic Vegetables & Livestock Producers Association
Braulio E. Dujali	
BEDUFFA-MPC	BE Dujali Fish Farmers Multipurpose Cooperative

Source: Provincial Agriculturist's Office

Fish catches are typically landed in private, traditional or government-owned landing centers. The government-owned landing centers in Davao del Norte are fishports managed by the local government units (LGUs). There are 3 fish landing centers in the mainland located in Tagum city, Panabo City and Carmen. On the other hand there are a total of 31 fish landing sites in the Island Garden city of Samal (See Table 3-6 below).

A way to manage fish harvest is by putting up sanctuaries. These gives many species the chance to freely reproduce. Fish inside a sanctuary grow larger and multiply more easily, which further leads to faster turnover of fish from the reserve to the non-reserve through spillover of fish and improved recruitment outside the reserve.

A way to manage fish harvest is to put up sanctuaries. This gives many species the chance to freely reproduce. As fish inside a sanctuary grow larger and multiply more easily, this leads to a faster turnover of fish from the reserve to the non-reserve through spillover of fish and improved recruitment outside the reserve. There are 6 established fish sanctuaries in the province that are located in the 3 coastal towns, namely Tagum city, Carmen and the Island Garden City of Samal. (See Table 3-6).

Mariculture parks are areas in the sea that are similar to industrial parks or estates on land, where the appropriate infrastructure such as roads, other facilities, and support services are provided to attract entrepreneurs or investors. The Panabo City Mariculture Park is an existing facility in Panabo City with a total land area of 40 hectares. While the Island Garden City of Samal is proposing to establish its own Samal Mariculture Park. (See Table 3-6).

Another facility is the fish hatchery, which is a place for artificial breeding, hatching and rearing through the early life stages of animals—particularly finfish and shellfish. The hatchery system supports the conservation of native fish species. The province has 4 government hatcheries and 3 privately-owned hatcheries. (See Table 3-6).

Table No. 3-6: **List of Fishing Facilities**
Province of Davao del Norte: CY 2019

Facility/LGU	Location
1. Fish Landing	
a. Tagum City	- Libuganon
b. Panabo City	- PMP Fish Port, Cagangohan
c. Carmen	- Catumbal, La Paz
d. Island Garden City of Samal	Babak District - Balet - Caliclic - Camudmud - Kinawitnon - Libuak - Pichon - San Isidro - Tagpopongan - Tambo - Villarica Samal District: - Aundanao - Aumbay - Catagman - Cawag - Limao - Peñaplata - San Miguel - San Jose - Tagbay Kaputian District:

	<ul style="list-style-type: none"> - Adecor - Cogon - Dadatan - Kanaan - Libertad - Linosutan - Pangubatan - Poblacion - Sta. Cruz - San Isidro - San Remegio - Tagbaobo
2. Fish Sanctuary	
a. Tagum City	<ul style="list-style-type: none"> - Liboganon Fish Sanctuary, 22 has. - Cagangohan Marine Reserve, 40 has
b. Carmen	<ul style="list-style-type: none"> - Catumbal Fish Sanctuary (Proposed)
c. Island Garden City of Samal	<ul style="list-style-type: none"> - Tagpopongan Fish Sanctuary, 23 has. - Aundanao Fish Sanctuary and Marine Reserve, 5 has. - Balet Fish Sanctuary and Marine
3. Mariculture Park	
a. Panabo City	<ul style="list-style-type: none"> - Panabo City Mariculture Park, 40 has. - Fish Cage Zone, 60 has.
b. Island Garden City of Samal	<ul style="list-style-type: none"> - Proposed Samal Mariculture Park, 701 has.
4. Fish Hatcheries	
4.1 Government	
a. BE Dujali	<ul style="list-style-type: none"> - BE Duajli Municipal Tilapia Hatchery, Sitio Bacali, (Momentarily not functional)
b. Carmen	<ul style="list-style-type: none"> - Tilapia and Hito Hatchery & Techno Demo Farm, Ising
c. Kapalong	<ul style="list-style-type: none"> - Florida Freshwater Fish Sanctuary, Tublihon, Florida
d. Panabo City	<ul style="list-style-type: none"> - BFAR-RFTC Tilapia Hatchery Techno Demo Laboratory, Sitio Eden, Southern Davao - DNSC Freshwater Hatchery, New Visayas (Educational purposes) - Tilapia Hatchery, Brgy. Manay
4.2 Private	
a. Braulio E. Dujali	<ul style="list-style-type: none"> - Ornamental Hatchery (KOI & Goldfish- 3.03 has with 10 operators
b. Carmen	<ul style="list-style-type: none"> - Aqua-Penon Tilapia Hatchery & Nursery & Nursery, Brgy. Ising - CSO-Carmen - Hilario Gohetia Hito Hatchery, Brgy. Asuncion - Noel San Luiz Hito Hatchery - Ricardo Estologa Hito Hatchery, Brgy. Tubod
c. New Corella	<ul style="list-style-type: none"> - Varquez Farm Hito Hatchery

Source: Provincial Agriculturist's Office

c. Livestock and Poultry

The livestock and poultry production are deemed an important industry sector. Not only does this sector the source of people’s sustenance but its production chain also directly supports the livelihood of poor small holder farmers. Specifically, livestock production is considered an important risk reduction strategy for vulnerable communities as well as an important provider of nutrients and traction for growing crops in small holder systems. Growth of the sector is driven by a rapidly increasing demand for livestock products brought about by population growth, urbanization and increasing incomes.

Table No 3-7: **Livestock Production Data**
Davao del Norte: CY 2020

LGU	Commodities			
	Carabao	Cattle	Goat	Swine
Tagum City	300	481	2,356	10,313
Island Garden City of Samal	933	5,058	6,913	11,098
Panabo City	1,318	1,413	5,809	46,289
Talaingod	276	177	1,306	416
Sto. Tomas	658	732	3,261	5,689
Kapalong	872	901	3,682	3,649
San Isidro	971	374	1,638	2,230
Carmen	645	600	3,500	1,500
BE Dujali	573	169	385	356
Asuncion	1,380	417	7,050	2,530
New Corella	439	142	1,518	1,054
Total	7,173	10,153	35,515	83,714

Source: Provincial Veterinary Office

Table No 3-8: **Poultry Production Data**
Davao del Norte: CY 2020

Type	Total	Backyard	Commercial
Broiler	98,542		
Layers	288,283		
Native	1,794,206		
Duck	247,343	223,194	24,583

Source: Philippine Statistics Authority

Recent data show that livestock production is generally raised in the backyards of the farming households. The carabao, however, is utilized in farm cultivation and is usually slaughtered once it has outlived its utility. Households predominantly use farm by-products and kitchen residues for feeds for raising hogs. Likewise, households use available grass areas in the farm to raise goats.

d. Export Banana

Banana is the country’s most important fruit crop in terms of production and export revenue.

In 2019, the value of Cavendish banana production in the country have reached US\$ 1.9 Billion, which represents 13.2% of global banana sales. This correspondingly ranked the Philippines 2nd Place after Ecuador among the 15 countries that exported bananas with the highest dollar value (Please see the following Table). Due to Panama disease, unfavorable climatic condition and the adverse effects of Covid-19 pandemi, the Philippines had posted a decline of 1,12% in export banana sales in 2020.

Table No. 3-9: Top Exporting Countries of Cavendish Banana

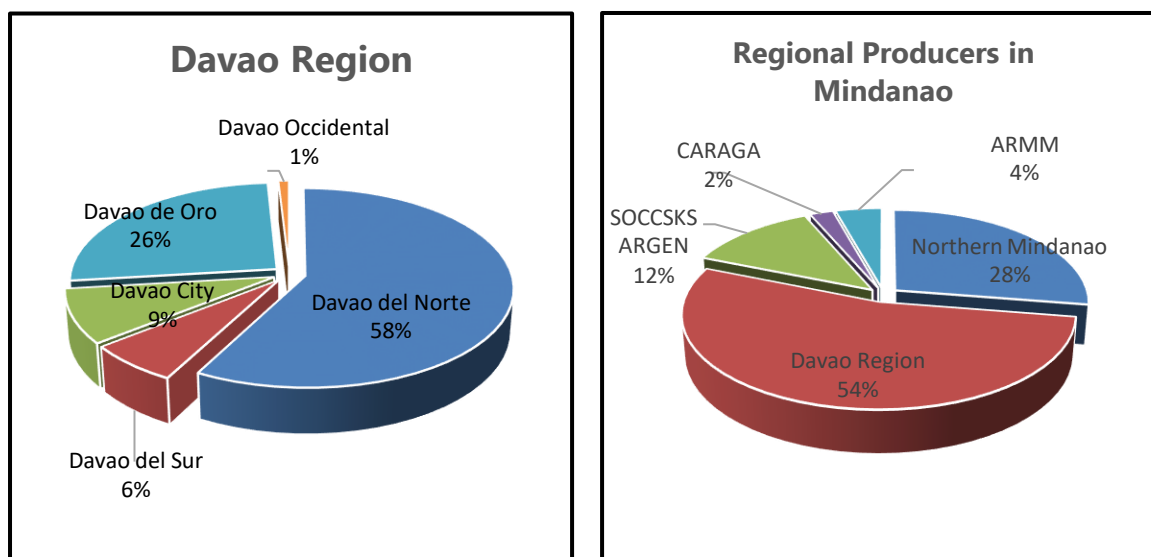
Country	Value in Billion US\$	% Share
1. Ecuador	3.3	22.6
2. Philippines	1.9	13.2
3. Colombia	1.6	11.0
4. Costa Rica	.9997	6.8
5. Guatemala	.9445	6.4
6. Netherlands	.7906	5.4
7. Belgium	.7821	5.3
8. United States	.4503	3.1
9. Dominican Republic	.4327	3.0
10. Panama	.3791	2.6
11. Ivory Coast	.3397	2.3
12. Honduras	.3027	2.1
13. Mexico	.2695	1.8
14. Cameron	.2564	1.7
15. Germany	.2421	1.7

Source: <https://www.worldstopexports.com/bananas-exports-country/>

Production, area and yield

Cavendish production comes mainly from commercial plantations in Mindanao while the other banana varieties are grown mostly by small farmers. The regional producers are Davao Region, Northern Mindanao, SOCCSKSARGEN and CARAGA, while all provinces in Davao Region are producing Cavendish banana. Davao del Norte contributed 59% of the total production in Davao Region. Likewise, Davao Region contributed 57% of the Mindanao area output.

Figure No. 3-1 **Leading Producers of Cavendish Banana in Mindanao Area and Davao Region: 2019**



Source: Philippine Statistics Authority

There are 18 provinces and 1 city that devote to Cavendish banana production as seen in Table 3-7. There are also other LGUs that produce Cavendish banana but only in smaller volumes. In the said table the Province of Davao del Norte had contributed about 33.72% (1,493,961.04 mt) to the total national output of 4,430,889.73 metric tons. This is followed by the provinces of Bukidnon (29.75%) and Davao de Oro (15.14%).

Table No. 3-10: **Cavendish Banana: Production based on Volume in Metric Tons, Philippines, 2019**

Province	Production Volume	% Share
Philippines	4,430,889.73	100.00
Davao del Norte	1,493,961.04	33.72
Bukidnon	1,318,135.00	29.75
Davao de Oro	670,683.14	15.14
Davao City	228,088.26	5.15
Maguindanao	209,595.00	4.73
Davao del Sur	167,630.53	3.78
South Cotabato	165,136.05	3.73
Cotabato	154,952.32	3.50
Sarangani	132,820.00	3.00
Agusan del Norte	18,998.00	0.43
Davao Oriental	11,914.46	0.27
Misamis Oriental	11,065.00	0.25
Iloilo	1,395.00	0.03
Misamis Occidental	458.00	0.01
Bohol	425.00	0.01
Nueva Vizcaya	330.39	0.01
Negros Oriental	117.00	0.00
Surigao del Norte	46.25	0.00
Leyte	91.61	0.00

Source: Philippine Statistics Authority

Davao del Norte also has the largest area cultivated with Cavendish at 33.21% followed by the provinces of Bukidnon and Compostela Valley.

Table No. 3-11: **Cavendish Banana Production based in Area In Hectares, Philippines, 2019**

Province	Area in Hectare	% Share
Philippines	88,241.50	100.00
Davao del Norte	29,312.00	33.22
Bukidnon	17,355.00	19.67
Davao de Oro	12,351.00	14.00
South Cotabato	5,365.00	6.08
Maguindanao	4,650.00	5.27
North Cotabato	2,950.00	3.34
Davao del Sur	3,178.51	3.60
Davao City	3,506.00	3.97
Surigao del Sur	2,350.00	2.66
Sarangani	1,825.00	2.07
Misamis Oriental	250.00	0.28
Agusan del Norte	238.00	0.27
Davao Oriental	414.00	0.47
Iloilo	143.00	0.16
Bohol	50.00	0.06
Misamis Occidental	18.00	0.02
Negros Oriental	23.00	0.03
Leyte	25.00	0.03
Nueva Vizcaya	21.00	0.02
Surigao del Norte	6.00	0.01

Source: Philippine Statistics Authority

Investment Opportunities

The proposed expansion area for banana production in Davao Region is 18,389 hectares distributed in the provinces as shown in the following table. It can be gleaned that Davao del Norte will continue to dominate the Cavendish production in the region with a potential 3,000 hectares land area viable for the said undertaking. Production areas for cardava, lakatan and latundan will also increase showing their potential competitiveness against other provinces in the region.

Table No.3-12 : **Expansion Area for Banana Production, Davao Region**

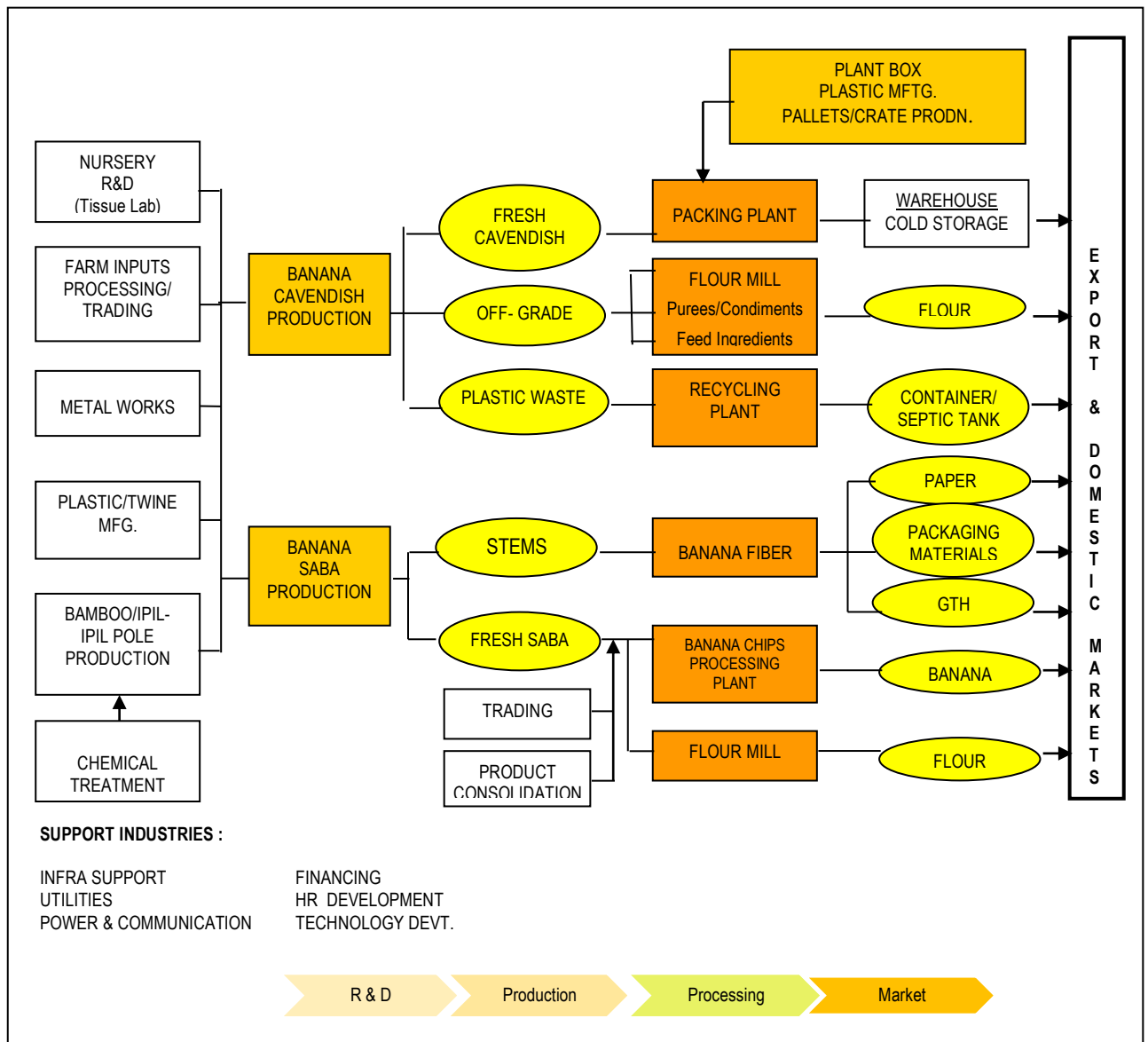
Cultivar	Davao del Norte	Davao Oriental	Compostela Valley	Davao del Sur	Davao City	Total
Cavendish	3,000 has.	1,000 has.	500 has.	500 has.		5,000 has.
Cardava	2,500 has.	2,000 has.	3,540 has.	100 has.		8,140 has.
Lakatan	1,500 has.	500 has.	200 has.	100 has.		2,300 has.
Latundan	500 has.	500 has.	200 has.	300 has.		1,500 has.
Unclassified/ any cultivar					1,449 has.	1,449 has.
Total	7,500 has.	4,000 has.	4,440 has.	1,000 has.		18,389 has.

Source: Davao Region Industry Cluster Plan, 2005-2010

Figure No. 3-2 shows the entire banana supply chain that illustrates the vast investment opportunities from the input stage up to the marketing stage. In

the input stage, investment areas are in fertilizer, pesticides, tissue cultured planting materials, organic inputs such as organic fertilizers and bio pesticides, plastic bags, plastic mulch and packaging materials. In the production stage, investment opportunities are in credit and expansion. In the processing stage, banana chips and other products such as flour, animal feeds, food grade, among others are the prospective investment areas. In the marketing stage, banana has vast potentials in the logistics, post-harvest facilities, cold chain system and transport facilities for domestic and export markets.

Figure No. 3-2: Value Chain Analysis of the Banana Industry Province of Davao del Norte



Source: PPDO

3.2. Industry

The industry sector in Davao del Norte serves a vital role in providing support to the banana production, which is the major industry of the province. The table below presents the sectoral contributions to employment generation of DTI registered industries in CY 2020. About 29.01% (8,872) of the total establishments belong to Wholesale and Retail Trade, followed by Agribusiness (21.98%) and Packaging and Storage Facilities (8.01%).

Table No. 3-13: **Sectoral Contributions to Employment Generation of DTI Registered Industries**
Province of Davao del Norte: CY 2020

Type of Industry	Number of Employment	% Share
1. Wholesale and Retail Trade	8,872	29.01
2. Food Processing	2,248	7.35
3. Packaging and Storage Facilities	2,452	8.01
4. Logistics	2,389	7.81
5. Agribusiness	6,724	21.98
6. Banks and Financial Intermediaries	1,054	3.45
7. Tourism	1,726	5.64
8. Household Services	452	1.48
9. Technical Services	974	3.19
10. Construction Services	1,046	3.42
11. Construction and Construction Supplies	1,173	3.84
12. Non-food Manufacturing	1,469	4.80

Source: Department of Trade and Industry

The total number of business establishments registered for CY 2020 was 24,564 in the whole Davao del Norte. Although not all of the LGUs provided data on investment and employment, total investment reported was P 303.2 Million and employment was provided to 6,187 individuals.

Table No. 3-14: **Total Trade and Services**
Province of Davao del Norte: CY 2020

LGU	No. of Establishments	Investment (in Million Pesos)	Employment
Asuncion	591	46.117	NDA
Carmen	2,623	NDA	NDA
BE Dujali	281	NDA	NDA
Kapalong	1,265	NDA	NDA
New Corella	1,194	9.542	NDA
Panabo City	2,846	247.541	6,187
Sto. Tomas	2,759	NDA	NDA
Tagum City	9,345	NDA	NDA
Talaingod	135	NDA	NDA
San Isidro	260	NDA	NDA
Samal City	3,265	NDA	NDA
Davao del Norte	24,564	303.2	6,187

Source: Department of Trade and Industry

Trade and Investment Promotion

Aside from Cavendish banana being exported to many parts of the world, other local products of Davao del Norte such as white melons, coconut-based products like charcoal and coconut shell chips, pallets and lumber, seafood products and tin cans, and crushed/GI bundles find their way into the international market.

To assist the MSMEs of Davao del Norte in promoting their products as well as assessing new markets, there were twelve fairs that were participated by the province in 2020. In spite of the Covid-19 pandemic where face to face transaction is discouraged however, Davao del Norte was able to generate a total sales of P 1,290,180.00 out from these trade fairs.

Table No. 3-15: **Trade Fairs Participated/Facilitated**
Province of Davao del Norte: CY 2020

Title of Trade Fair	Type/Level	# of SMEs/Exhibitors	Sales Generated
1. Pasinaya Virtual Trade Fair	Virtual	5	258,000.00
2. OTOP- KaAsenso Virtual Trade Expo	Virtual	10	330,700.00
3. MTE Virtual Trade Fair, 2020	Virtual	10	400,000.00
4. OTOP DavNor Christmas Bazaar, 2020	Virtual	15	301,480.00

Source: Department of Trade and Industry

3.3 Wood Industry

Wood industry used to be a major economic contributor of the province and the region as well. Due to relentless logging activities over the years, our forest lands have dramatically diminished thus, shrinking the capacity to supply wood commercial scale. Due to stricter enforcement of selective logging policies imposed in 1987. As a consequence, importation of logs increased to augment the supply of many wood processors.

There was always a strong domestic market demand for wood. Its steady stream of revenues came from the construction industry, which needs lumber, woodworks, and other wood by-products for construction purposes. The Department of Education (DepEd) on the other hand, has a yearly requirement for desks, tables and chairs. Likewise, wood pallets being used in the banana industry is estimated at 60,000 pieces per month. These pallets while marketed domestically are also found in the export market as packaging materials for export banana and other goods.

The three (3) strategies such as agro-forestry, afforestation and eco-tourism are undertaken by the Provincial Government of Davao del Norte for sustainable development of the industry. Through these strategies, it is

expected that employment can be provided particularly to IPs & forest occupants through CBFMA and IFMA programs.

The Provincial Environment & Natural Resources Office, with its limited resources implemented the following program & projects in relation to the following three strategies:

Table No. 3-16 : **Strategies in Local PENRO Program & Projects Implementation Province of Davao Del Norte**

Programs and Projects	Objectives
1. Small Watershed Rehabilitation Project	- Plantation development of forest trees for stream bank protection & forest protected zone. - Upland communities' participation in watershed protection.
2. Ecotourism Development Project	- Restoration, protection & development of ecotourism sites.
3. Plant Now Pay Later Project	- Plantation development of forest trees and fruit trees for production purposes.
4. Nursery and seedling production	- Production of forest tree & fruit tree seedlings for tree parks, ceremonial planting, & urban forestry requirements.
5. Agroforestry Learning Site & Extension Center	- Development of a diversified farming system in the upland that serves as a show window.
6. Forest Resource Management & Information System Project	- Provide concise to the point & timely information relating to forest resource management.

Source : PENRO –LGU, Davao del Norte

Production vs. utilization:

In 2020, a total of 25 permits were issued by the Department of Environment and Natural Resources for wood industry in Davao del Norte. Aside from the domestic demand for various wood products, wood industry also supports the banana industry. It was noted that the demand of the banana industry alone could not be supplied by the existing forest production in the province, hence nearby provinces also participated in the market.

Table No. 3-17 : **Wood Industries By Type of Permit Province of Davao del Norte: CY 2020**

Type of Permits	Number
Plywood/Veneer/Board.	2
Mini Veneer	2
Mini Sawmill	11
Lumber Dealer	10
Total	39

Source: DENR Tagum City

3.4 Mineral Deposits and the Quarrying Industry

Davao del Norte is endowed with rich deposits of non-metallic minerals like guano, marble, limestone and others. As shown in the table below, the province has a total reserve of 8,626,200.00 metric tons of non-metallic minerals.

Table No. 3-18 : **Non-Metallic Mineral Reserves**
Province of Davao del Norte

Non-Metallic Minerals	Location	Total Reserve (MT)
Guano Phospate	Samal & Talakud Is.	112,400.00
Rock Phospate	Samal & Talikud Is.	43,800.00
Sand & Gravel	Provincewide	600,000.00
Marble Deposit	Kapalong	35,000.00
Limestone/Lime Raw	Kapalong	7,800,000.00
Magnesite	Kapalong	35,000.00
Total		8,626,200.00

Source: DENR & PENRO

The province has an abundant source of high quality grade sand & gravel, a major construction component material. Total reserves of sand and gravel are estimated at 600,000 metric tons. Areas that have rich deposits of sand and gravel are Asuncion, Braulio E. Dujali, Carmen, Kapalong, Panabo City, Sto. Tomas and Tagum City. As of 2020, sand and gravel extraction have reached a total production of 2,947,446 cubic meters realizing an estimated income of P 276,872,990.00.

Table No. 3-19: **Sand and Gravel Volume of Production and Estimated Income**
Province of Davao del Norte: CY 2020

LGU	Production Volume (cu.m)	Estimated Income (PhP)
1. Asuncion	7,728.00	444,360.00
2. BE Dujali	7,826.00	449,995.00
3. Carmen	236,509.00	23,503,227.50
4. Island Garden City of Samal	33,481.00	3,788,402.50
5. Kapalong	469,723.00	39,976,172.50
6. New Corella	1,452.00	83,490.00
7. Panabo city	639,877.00	61,919,538.75
8. Sto. Tomas	122,778.00	10,366,972.50
9. Tagum City	1,428,072.00	136,340,831.25
Total	2,947,446.00	276,872,990.00

Source: PENRO-LGU

3.5 Tourism Industry

The province's island to highland destinations have a varied tourism portfolio that covers the following:

- a. Sun and beach

- b. Diving and marine sports
- c. Education
- d. Agri-tourism
- e. Sports
- f. MICE and events
- g. Cultural tourism
- h. Ethnic tourism
- i. Eco-tourism;
- j. Nature tourism – the most popular type

There are three identified major areas of destination in the province, namely:

- a) Island Garden City of Samal with its white sand beaches, diving sites and water sports
- b) Banana plantations in the mainland; and
- c) Highland journey in nature and culture includes:
 - Waterfalls, rivers, springs, lakes at the municipalities of Kapalong, New Corella, Asuncion, San Isidro; and
 - The Ata-Manobo Cultural Village in the highland municipality of Talaingod.

In the recent Provincial Tourism and Culture Development Plan (PTCDP) formulation, 2020-2021, the technical working group (TWG) was able to come up with a list of tourist attractions and destinations that are worth visiting in Davao del Norte. Through prioritization and consultation with multi-sectoral groups, the identified tourist attractions and destinations as well as products were identified into three classification, such as existing, emerging and potential. The following table provides the list of those tourist attractions that can be found in the cities and municipalities of the province of Davao del Norte.

Table No. 3-20: **Tourist Attractions of Davao del Norte**
As of CY 2020

Existing	Emerging	Potential
Asuncion Madgao Eco-Tourism	New Bantayan Eco-Tourism Park	1. Native Beads necklace 2. Road to Forever 3. Engineering Bamboo
Braulio E. Dujali Palayamanan		1. Organic Black Rice Production 2. Organic Black Rice Coffee of Sara-sara Production 3. Coco Sugar Production 4. Ibus Production
Carmen 1. Divine Mercy Islet	Tala River Cruise	1. Mangrove Board Walk

<ol style="list-style-type: none"> 2. Veteran's Shrine 3. Uma sa Taba 4. Balutan sa Carmen 5. Crab Fattening 6. Wow Carmen 		<ol style="list-style-type: none"> 2. Duck Raising Farm 3. Mangrove Thrill 4. Tubod Orchidarium 5. Havison Farm
<p>New Corella</p> <ol style="list-style-type: none"> 1. Matin-ao Inland Resort 2. Marlix Inland Resort 3. Panas Eco-Cultural Park 4. Six World Adventures, Inc. Waterpark Resort and Hotel 5. Mang Cadio Highlands 6. Camp Jovet Borlat 7. Encantadios 8. MEA Nature Farm 9. Davao del Norte Milk Processing Plant 	<ol style="list-style-type: none"> 1. Balaang Bukid 2. Paradise Cave 3. Borja Cave 4. Tibion Cave 5. Marcelino Cave 6. Guadalupe Lagoon 7. Children's Playground 	<ol style="list-style-type: none"> 1. Bongsit Cave 2. Barako Falls 3. Barako Lagoon 4. Casilak Falls 5. Monta Cave 6. Rickton Cave 7. Lungon Cave 8. Sapang Puti Waterfalls 9. Magsaysay Underground Pool 10. Kakanin Production 11. Mushroom Production
<p>San Isidro</p> <ol style="list-style-type: none"> 1. Chocolate de San Isidro Processing Plant 2. Dacudao Eco Tourism Park 3. Maltag Eco-Tourism 		<ol style="list-style-type: none"> 1. Danao's Peak 2. Imelda Falls
<p>Sto. Tomas</p> <ol style="list-style-type: none"> 1. Municipal Ecological Park and Ecology Center 2. Mt. Megatong 3. Jericho Grandalay Resort 4. Ebao Garden Resort 5. Coleen's Resort 6. Amaco Inland Resort 7. Aloha Inland Resort 	Lantawan ni Bakoko	<ol style="list-style-type: none"> 1. Andamon's Peak 2. 360 Degrees 3. Yargo
<p>Talaingod</p> <ol style="list-style-type: none"> 1. Uraya's Peak 2. Cliff's Café 3. Ridge View Mountain Resort 4. Balimba Hills Activity Center 	<ol style="list-style-type: none"> 1. Ridge View Mountain Resort 2. Salangkat Mountain Resort 3. Salawao Prayer Mountain 4. 360° Viewing Deck 5. Cultural Village 6. IP Women's Botnical Garden 7. Sitio Milako Agri-Tourism and Viewing Site (130 Steps) 8. "Switzerland of Talaingod" Viewing Area 9. Agri-Tourism at Sitio Uraya 	<ol style="list-style-type: none"> 1. Megkeyum Falls and Mesolong River 2. Naputkalan Cave 3. Paiton Lake 4. Kilomayaon Lake 5. Kalapat Falls 6. Mikayaga Falls 7. Quiomoy Falls 8. Milansad Falls 9. Kimatis Falls 10. Mibolo Falls 11. Asik-asik Falls 12. Lanot-lanot Falls
<p>Island Garden City of Samal</p> <ol style="list-style-type: none"> 1. Sanipaan Marine Park 2. Taklobo Tours/Giant Clams Sanctuary 3. Tagbaobo Community-based Eco-tourism Site 	<ol style="list-style-type: none"> 1. Tamburong Cave 2. Dapia Dive Site 3. Bandera Nature's Park 4. Bito Depression 	<ol style="list-style-type: none"> 1. Aundanao Dive Site 2. MX3 3. Labuto Adventure

<ol style="list-style-type: none"> 4. Monfort Bat Cave 5. Isla Farm 6. Hagimit Falls 7. Mt. Putting Bato 8. Anngas Peak 9. Dive Sites in Talikud Island (Coral Garden, Mansud Wall, Angel's Cove) 10. Baga Cave 		
<p>Panabo City</p> <ol style="list-style-type: none"> 1. Panabo City Parks and Plaza 2. Museo Panabo and Bulwagan Center 3. Panabo Mariculture Park 4. Panabo Mangrove Forest Park 5. Panabo Multi-Purpose Tourism, Sultural and Sports Center 6. Gambriel Inland Resort 7. Del Franco Inland Resort 8. Tatak Panabo Pasalubong center 9. ACES Organic Farm 10. TADECO Banana Plantation, Packing Plant and Livelihood Center 11. Moreno Inland Resort 12. Panabo Seawall and Park 13. Bonsai Park 14. Coastal Biodiversity and Floating Cottages 15. Zenaida Inland Resort 16. Panabo City Hall Park 17. JP Laurel Firing Range 18. Loyola Bee Farm 	<ol style="list-style-type: none"> 1. Agriya 2. Mabunao Eco-Park 3. Malativas Inland Resort 	<ol style="list-style-type: none"> 1. Bugtong Manga 2. Japanese Tunnel 3. Consolacion Pottery 4. Sigpit River
<p>Tagum City</p> <ol style="list-style-type: none"> 1. Hijo Resources Corporation/Banana Beach 2. Mercy Mom's Secret Lagoon 3. Tancuan Creek/Mangroves Park 4. Mary's Woods 5. Christ the King New Cathedral and Statue of Risen Christ with Giant Wooden Rosary 6. Regina Rosari 7. E Park 8. Tagum City Hall 9. Tagumpay Pasalubong Center 10. Night Market 11. Botanical 	<p>Aquaculture Complex</p>	<ol style="list-style-type: none"> 1. Marine Intensified Research and Aquaculture Complex for Livelihood Enhancement (MIRACLE Project) 2. Beach Resorts 3. Tagum City River Cruise 4. Farmer's Market 5. Docking Facility of the River Cruise 6. Little (Mini) Lake, Letter C shaped 7. Educational Museum 8. Floating Cottage 9. Butterfly Sanctuary

Garden/Tagumpay Nature's Park		
12. Huying-huyong Nature Park		
13. Rotary Park		
14. Davao del Norte Sports and Tourism Complex		
15. Davnor Pasalubong Center		
16. Provincial Tree Park		
17. Tagum City Historical and Cultural Center		

Source: PAdO- Tourism Division, Davao del Norte

In 2019, Region XI had a total of 5,173,488 visitors and ranked as the 4th most visited region among 15 regions in the Philippines per the Department of Tourism report. The region was able to maintain its rank in the tourism industry because of the overall success in tourism promotion on existing as well as new and fresh tourist destinations. In addition, the increased awareness of organizers of meetings, incentives conferences and exhibitions (MICE) particularly in Davao City coupled with the all-out support of the local government units (LGUs) in tourism undertakings had propelled the influx of visitors to the region. Availability of tourist facilities and the prevailing peace and order condition are important factors that contributed to the volume and trend of tourist visits in a specific place of destination.

Table No. 3-21: **Distribution of Regional Travelers in the Philippines CY 2019**

Region	Foreign Travelers	Overseas Filipino	Domestic Travelers	Total	Percent Share
NCR	848,152	168	568,755	1,417,075	3.75
CAR	88,626	659	1,402,582	1,491,867	3.95
Region I (Ilocos)	68,261	3,013	1,553,531	1,624,805	4.30
Region II (Cagayan Valley)	160,343	1,897	564,201	726,441	1.92
Region III (Central Luzon)	782,499	31,027	2,782,571	3,596,097	9.52
Region IV-A (CALABARZON)	426,833	3,004	3,888,788	4,318,625	11.43
Region IV-B (MIMAROPA)	377,926	4,569	1,040,085	1,422,580	3.77
Region V (Bicol Region)	845,778	22,104	3,658,125	4,526,007	11.98
Region VI (Western Visayas)	937,021	50,350	3,644,960	4,632,331	12.26
Region VII (Central Visayas)	1,935,906	15,189	2,658,623	4,609,718	12.20
Region VIII (Eastern Visayas)	42,046	2,294	1,008,375	1,052,715	2.79
Region IX (Zamboanga Peninsula)	9,080	12,859	608,812	630,751	1.67
Region X (Northern Mindanao)	98,211	6,340	2,596,975	2,701,526	7.15
Region XI (Davao Region)	174,165	14,699	2,649,625	2,838,489	7.51
Region XII (SOCCSSARGEN)	34,720	-	904,641	939,361	2.49

Region XIII (CARAGA)	49,513	2,816	1,195,183	1,247,512	3.30
Philippines	6,879,080	170,988	30,725,832	37,775,900	100.00

Source: Department of Tourism

The Island Garden City of Samal has become a favored tourist destination in the region second to Davao City. Aside from the scenic spots, Samal Island is adjacent to Davao City and is very accessible. The mainland also got a fair share of tourists who are seeking adventure particularly in nature and culture. Combining the number of travelers for Samal Island and the mainland makes Davao del Norte second to Davao City.

Table No. 3-22 : **Distribution of Travellers in Region XI**
Per Province/City : CY 2019

LGUs	Foreign Travellers	Overseas Filipinos	Domestic Travellers	Total	% Share
Davao de Oro	997	153	1,616,367	1,617,517	31.266
Davao City	183,730	45,697	2,345,468	2,574,895	49.771
Davao del Sur	530		79,932	80,462	1.555
Davao Oriental	5,299		182,077	187,376	3.622
Davao del Norte	25,663		687,387	713,050	13.783
Davao Occidental				188	0.004
Region XI	216,219	45,850	4,911,419	5,173,488	100.00

Source : http://www.tourism.gov.ph/Tourism_demand/RegionalTravelers2019.pdf

The tourism industry in the region generally caters to domestic travelers, which comprise 94.93% of the total travelers. The Province of Davao del Norte ranks third in terms of tourist arrival with taking 13.783% share of the pie.

Tourism arrivals recorded in 2019 suggests that there are ten countries that visited the country. Most visitors come from Korea, followed by China then the USA. The table below shows the information on foreign tourist arrivals in 2019.

Table No. 3-23: **International Tourism Market in 2019**

Country of Origin	Percent Share
1. Korea	29.09
2. China	25.49
3. USA	15.56
4. Japan	9.98
5. Taiwan	4.78
6. Australia	4.18
7. Canada	3.49
8. United Kingdom	3.06
9. Singapore	2.32
10. Malaysia	2.05

Source: http://www.tourism.gov.ph/industry_performance/

Aside from foreign tourism markets, Davao del Norte took a considerable share of domestic tourist. Most of these visitors come from the neighboring regions, namely: Northern Mindanao (Region 10), CARAGA (Region 13), Central Mindanao (Region 12) and the Autonomous Region of Muslim Mindanao (ARMM). Other domestic tourists come all the way from the Luzon and Visayas areas who belong to the following types of groups:

- General leisure tourist markets
- Private corporation and/or government agencies for small meetings and workshops
- Special interest groups like divers, caving enthusiasts, cyclists, hikers and adventure sports group
- Athletes
- Students
- Grouped for specialized waste management; and
- Agro-tourists

Accommodations

One way of attracting visitors to come to Davao del Norte is the availability of accommodation facilities and amenities that provides comfort similar to a home even when one is away from home. At any point in Davao del Norte, accommodation facilities are readily available as shown in the following table:

Table No. 3-24: Number of Accommodation Establishments/
Facilities by LGU,
Province of Davao del Norte: CY 2019

LGU	No. of Accommodation/ Establishments
Island Garden City of Samal	113
Panabo City	15
Tagum City	141
Asuncion	3
Braulio E. Dujali	0
Carmen	3
Kapalong	5
New Corella	4
San Isidro	0
Santo Tomas	8
Talaingod	2
Total	291

Source: PAdO-Tourism Division

Travel and Tour Operators

In addition to the tourist attractions and accommodation facilities, other tourist facilities and services are also present especially the travel and tour operators that cater to both domestic and international arrivals. Tour packages are available depending on the budget size or visitors. In Davao del Norte there

are a total of 115 travel and tour operators who offer affordable tour packages. Most of these operators locate in the tree cities of the province. Please the table below for more information.

Table 3-25: Number of Travel Tour Operators
Province of Davao del Norte
As of December 31, 2020

LGU	No. of Travel and Tour Operators
Island Garden City of Samal	16
Panabo City	10
Tagum City	76
Asuncion	1
Braulio E. Dujali	0
Carmen	0
Kapalong	2
New Corella	10
San Isidro	0
Santo Tomas	0
Talaingod	0
Total	115

Source: PAdO-Tourism Division

Restaurants and Other Food Establishments

Tourism is one of the major sources of income of the province. It operates and generates income by bring the clients right to the location of the tourist attractions. Hence, food services are very important components in the industry. The list of restaurants and other food establishments is shown in the next Table.

Table 3-26: Number of Restaurants and other Food Establishments
Province of Davao del Norte
As of December 31, 2020

LGU	No. of Accommodation/ Establishments
Island Garden City of Samal	26
Panabo City	35
Tagum City	83
Asuncion	19
Braulio E. Dujali	21
Carmen	26
Kapalong	14
New Corella	15
San Isidro	15
Santo Tomas	10
Talaingod	13
Total	245

Source: PAdO-Tourism Division

Shops

The province also boosts its growing business enterprises alongside the scenic tourist attractions that immensely provide livelihood and employment opportunities most especially to the local entrepreneurs. Shops serve as social outlets that provide a welcoming respite from the outdoor heat. The table below shows the existence of shops in almost all LGUs in the province.

Table 3-27: Number of Shops
Province of Davao del Norte
As of December 31, 2020

LGU	No. of Shops
Island Garden City of Samal	13
Panabo City	55
Tagum City	385
Asuncion	2
Braulio E. Dujali	2
Carmen	12
Kapalong	4
New Corella	10
San Isidro	0
Santo Tomas	11
Talaingod	3
Total	497

Source: PAdO-Tourism Division

Tourist Information Offices

The tourist information offices continue to be a significant and reliable source of informing and educating tourists about local areas and other tourism-related facilities. Hence, the province's local government units are taking effort to set up tourist information offices that can accommodate visitors. To date, LGUs have offices for city/municipal tourism and some of them also function as their information center.

Table 3-28: Number of Tourism Offices and Staff
Province of Davao del Norte
As of December 31, 2020

LGU	Number	
	Tourism Offices	Staff
Island Garden City of Samal	3	34
Panabo City	1	33
Tagum City	1	181
Asuncion	2	3
Braulio E. Dujali	1	1
Carmen	1	9
Kapalong	2	9
New Corella	1	10
San Isidro	1	2
Santo Tomas	1	4
Talaingod	1	3
Total	15	289

Source: PAdO-Tourism Division

3.6 Support to Industries

a. Banking Institutions

Commercial banks play an important role in the financial system and the economy. As a key component of the financial system, banks allocate funds from savers to borrowers in an efficient manner. They provide specialized financial services, which reduce the cost of obtaining information about both savings and borrowing opportunities. These financial services help to make the overall economy more efficient. On the other hand, a rural bank is a financial institution that helps rationalize the developing regions or developing country to finance the needs of farmers and local communities specially on implementing projects that contribute to agricultural progress. The following are the list of banks operating and serving the province of Davao del Norte:

Table No.3-29: **List of Banking Institutions by Municipality/City**
Province of Davao del Norte: CY 2020

Municipality of Carmen			
1.	One Network Bank Inc. (A Rural Bank)	Rural Bank	Ising (Poblacion)
Island Garden City of Samal			
1.	CardBank Incorporated - a Microfinance Oriented Rural Bank	Rural Bank	Miranda
2.	CardBank Incorporated - a Microfinance Oriented Rural Bank (Peñaplata)	Rural Bank	Peñaplata
3.	Century Rural Bank	Rural Bank	Moncado (Poblacion)
4.	Century Rural Bank, Inc	Rural Bank	Moncado
5.	Century Rural Bank2	Commercial Bank	Miranda
6.	Money Mall Rural Bank	Rural Bank	Miranda
7.	Money Mall Rural Bank - Branch 1	Rural Bank	Moncado (Poblacion)
8.	Money Mall Rural Bank - Branch 2	Rural Bank	Penaplata (Poblacion)
9.	Money Mall Rural Bank, Inc	Rural Bank	Moncado
10.	Money Mall Rural Bank2	Commercial Bank	Peñaplata
11.	One Network Bank	Rural Bank	Moncado
12.	One Network Bank, Inc	Rural Bank	Moncado (Poblacion)
13.	One Network Bank2	Commercial Bank	Miranda
Municipality of Kapalong			
1.	One Network Bank Inc. - A Rural Bank	Rural Bank	Maniki (Poblacion)
2.	People's Bank of Caraga	Rural Bank	Maniki (Poblacion)
3.	Rural Bank of Kapalong	Rural Bank	Maniki (Poblacion)
Municipality of New Corella			
1.	ONB	Commercial Bank	Poblacion
2.	One Network Bank	Rural Bank	Poblacion

City of Panabo			
1.	BDO Unibank, Inc.	Commercial Bank	Sto. Nino (Poblacion)
2.	Century Rural Bank, Inc.	Rural Bank	New Pandan (Poblacion)
3.	China Banking Corporation	Commercial Bank	New Pandan (Poblacion)
4.	D' Asian Hills Bank, Inc	Rural Bank	Sto. Nino (Poblacion)
5.	Eastwest Bank	Commercial Bank	Sto. Nino (Poblacion)
6.	Enterprise Bank Inc.	Thrift Bank	Sto. Nino (Poblacion)
7.	First Tagum Rural Bank, Inc.	Rural Bank	Sto. Nino (Poblacion)
8.	Land Bank of the Philippines	Commercial Bank	Sto. Nino (Poblacion)
9.	Metro Bank	Commercial Bank	Sto. Nino (Poblacion)
10.	One Network Bank Inc. - Maharlika Branch	Rural Bank	San Francisco (Poblacion)
11.	One Network Bank Inc. - Quirino Branch	Rural Bank	Sto. Nino (Poblacion)
12.	Pen Bank	Commercial Bank	Sto. Nino (Poblacion)
13.	Philippine Business Bank Inc.	Commercial Bank	Sto. Nino (Poblacion)
14.	Philippine National Bank-Panabo Branch	Commercial Bank	Sto. Nino (Poblacion)
15.	PNB (Philippine National Bank)	Commercial Bank	Sto. Nino (Poblacion)
16.	Rizal Commercial Banking Corporation	Commercial Bank	Sto. Nino (Poblacion)
17.	Rural Bank of Compostela (DAVAO), Inc.	Rural Bank	Sto. Nino (Poblacion)
18.	Security Bank	Commercial Bank	New Pandan (Poblacion)
Municipality of Sto. Tomas			
1.	One Network Bank	Rural Bank	Tibal-og (Poblacion)
City of Tagum			
1.	Asia United Bank Corporation	Commercial Bank	Magugpo East
2.	Bank of Makati (A Savings Bank), Inc.	Thrift Bank	Magugpo West
3.	Bank of the Philippine Island	Commercial Bank	Magugpo Poblacion
4.	BDO Unibank Inc.	Commercial Bank	Magugpo East
5.	BDO Unibank Inc. - Davao Tagum Branch	Commercial Bank	Magugpo Poblacion
6.	BPI - Tagum Quirante Branch	Commercial Bank	Magugpo East
7.	Cantilan Bank, Inc. (A Rural Bank)	Rural Bank	Magugpo West
8.	Century Rural Bank, Inc	Rural Bank	Magugpo Poblacion
9.	China Bank Savings, Inc.	Thrift Bank	Magugpo Poblacion
10.	China Banking Corporation	Commercial Bank	Magugpo Poblacion
11.	City Savings Bank, Inc.	Thrift Bank	Magugpo East
12.	Development Bank of the Philippines	Government-owned Bank	Visayan Village
13.	East West Banking Corporation	Commercial Bank	Visayan Village
14.	East West Rural Bank, Inc.	Rural Bank	Magugpo East

15.	Enterprise Bank Inc.	Commercial Bank	Magugpo West
16.	First Consolidated Bank	Thrift Bank	Mankilam
17.	First Tagum Rural Bank, Inc.	Rural Bank	Magugpo West
18.	First Tagum Rural Bank, Inc.	Rural Bank	Magugpo Poblacion
19.	Land Bank of the Philippines	Government-owned Bank	Magugpo East
20.	Land Bank of the Philippines Extension Office	Government-owned Bank	Mankilam
21.	Metropolitan Bank & trust Co.	Commercial Bank	Magugpo Poblacion
22.	Metropolitan Bank & Trust Company	Commercial Bank	Magugpo East
23.	One Network Bank, Inc. (A Rural Bank)	Rural Bank	Magugpo Poblacion
24.	Penbank, Inc. (A Private Development Bank)	Thrift Bank	Magugpo Poblacion
25.	Philippine Bank of Communications	Commercial Bank	Magugpo Poblacion
26.	Philippine Business bank, Inc. (A Savings Bank)	Thrift Bank	Magugpo Poblacion
27.	Philippine National Bank	Commercial Bank	Magugpo Poblacion
28.	Philippine National Bank	Commercial Bank	Visayan Village
29.	Philippine Savings Bank	Thrift Bank	Magugpo Poblacion
30.	PR Savings Bank	Thrift Bank	Magugpo West
31.	Rizal Commercial Banking Corp.	Commercial Bank	Magugpo Poblacion
32.	Rizal Microbank-A Thrift bank	Thrift Bank	Magugpo West
33.	Robinsons Bank Corporation	Commercial Bank	Visayan Village
34.	Rural Bank of Compostela (DDN), Inc.	Rural Bank	Magugpo East
35.	Security Bank Corporation	Commercial Bank	Magugpo Poblacion
36.	UCPB Savings Bank, Inc.	Thrift Bank	Magugpo South
37.	Bank of Commerce	Commercial	Apokon
38.	Rural Bank of Montevista	Rural Bank	Mabini St., Tagum
39.	Consolidated Cooperative Bank	Cooperative Bank	Lapu-lapu St.
40.	Producers Savings Bank Corporation	Commercial Bank	Sobrecarey St., Tagum

Source: Socio-Economic Profiling System (SEPS) Online

b. Cooperatives

A cooperative, or coop, is a member-owned & member-governed business. In cooperatives, people come together to scale buying power, access goods and services, and create economic opportunity not available to them individually. Cooperatives are about sustaining family businesses, fair trade, equitable community growth, and natural resources. In fact, it is a different way of doing business. In Davao del Norte, cooperatives fall under 2 categories, namely: primary and secondary, while there are many types of cooperatives, such as: consumer, multi-purpose, service, marketing, producer, credit, agrarian reform beneficiaries, advocacy, dairy and transport services. As of CY 2020, there are a total of 356 cooperatives operating in the province of Davao del Norte, please see table below.

Table No. 3-30: **Inventory of Operating Cooperatives, by City and Municipality**
Province of Davao del Norte: CY 2020

Cities/Municipalities	Category		Type										
	Primary	Secondary	Consumer	Multi-Purpose	Service	Marketing	Producer	Credit	Agrarian Reform	Advocacy	Dairy	Transport	Labor
Asuncion	21		2	13		1	5						
Braulio E. Dujali	7			7									
Carmen	32		2	24	1		2	1	1	1			
Kapalong	41		2	24	1	5	2	5	2				
New Corella	33		2	20	2	1	1	5	1		1		
San Isidro	8			6				1	1				
Sto. Tomas	43		2	25	3	1	8	3	1				
Talaingod	3			2			1						
IGaCoS	27		2	19	1	2	1	2					
Panabo City	70		3	49	4	4	3	4	2				1
Tagum City	71	4	6	39	8	2	8	3	1			3	1
Davao del Norte	356	4	21	228	20	16	31	24	9	1	1	3	2

Source: Cooperative Development Division, PAdO

Infrastructure Resource

c.1 Irrigation Services

There are four major categories of irrigation systems presently in operation in the Province. These are the River Irrigation Systems (RIS) or the run-of-the-river- type, the Communal Irrigation Systems (CIS), the Communal/Pump Irrigation Projects (CIPs/PIPs) and the small scale irrigation projects (SSIPs). Table No. 3-24 shows the distribution of these systems in the Province.

The River Irrigation Systems are the largest systems with the widest coverage or service areas. These are the Saug- Libuganon Left (SALLE) RIS and the Lasang- Libuganon- Kipaliku (LALIK) RIS. These systems are managed by the National Irrigation Administration (NIA). The total area covered by RIS is 24,482.51 of which 11,530.03 hectares cater the rice production areas while 6,760.71 hectares cater the Cavendish banana production. A total of 11,024 farmers benefit from the RIS services in 2021.

The smaller version of RIS is the Communal Irrigation Systems (CIS), which is being managed by the Provincial Irrigation Office. It is similar to RIS, but each system serves less than 1,000 hectares. A total of 1,910 hectares are served by eight (8) CIS in the province, benefitting 1,510 rice and banana farmers.

Smaller systems like the Communal and/or Pump Irrigation Projects (CIPs/PIPs) and small scale irrigation projects (SSIPs) are put up by the Department of Agriculture and the local government units. These are the small water impounding projects and diversion dams (SWIPs/DDs), shallow tube wells (STWs), open surface pumps, and other water harvesting units. These are managed by farmer's associations (FA) or the Irrigators' Service Associations (ISA). These systems primarily serve the rice areas, however it also extends its services to nearby Cavendish banana production areas. Total coverage of CIPs is 260.0 hectares and also benefits 235 farmers.

Table No. 3-31: **Irrigation Systems Facilities, Davao del Norte, 2021**

Name of Systems	LGUs Covered	Service Areas, Hectares			Farmers Served
		Potential	Effective		
			Rice	Banana	
I. National Irrigation System (NIS)					
1. Saug RIS	Asuncion	3,065.31	1,956.00	694.88	1,599
	Kapalong	230.45	172.88	43.78	151
	New Corella	1,589.80	959.08	171.29	691
	Tagum City	158.00	123.29	28.95	145
Sub-total		5,043.59	3,211.25	938.90	2,586
2. Libuganon Left RIS	Asuncion	274.45	135.71	47.06	157
	Kapalong	820.55	134.48	489.14	180
Sub-total		1,095.00	270.19	536.20	337
3. Lasang RIS	Carmen	3,263.09	724.10	1,367.06	1,414
	Panabo	1,665.83	337.27	941.30	517
Sub-total		4,928.92	1,061.37	2,308.36	1,931
4. Libuganon RIS	Carmen	3,169.12	1,862.90	123.29	1,488
	BEDujali	3,568.10	2,281.37	145.90	1,792
	Sto. Tomas	4,077.78	2,288.11	1,189.76	2,069
Sub-total		10,815.00	6,432.38	1,458.95	5,349
5. Kipaliku RIS	Sto. Tomas	2,600.00	554.84	1,518.30	821
Sub-total		2,600.00	554.84	1,518.30	821
II. Communal Irrigation System (CIS)					
1. Anamam CIS	New Corella	150.00	166.28	-	186
2. Balagunan CIS	Sto. Tomas	250.00	-	250.00	21
3. Bunawan Kipalili CIS	Asuncion	250.00	210.72	-	237
4. Semong CIS	Kapalong	430.00	353.13	76.87	397
5. Upper Tuganay CIS	Sto. Tomas	250.00	169.00	81.00	203
6. Limbaan CIS	New Corella	120.00	111.00	9.00	102
7. San Jose CIS	New Corella	150.00	80.50	75.00	58
8. Sta. Lucia CIS	Sto. Tomas	60.00	4.00	56.00	36
9. Gabuyan CIS	Kapalong	350.00	173.00	2.00	126
10. San Nicolas CIS	Panabo	200.00	174.69	200.00	33
11. Panaga CIS	Panabo	260.00	-	260.00	120
Sub-total		2,470.00	1,442.32	1,009.87	1,519

III. Communal Irrigation Project (CIP)					
1. Pamacaun CIP	Asuncion	160.00	80.00	-	128
2. Tulalian CIP	Sto. Tomas	75.00	30.50	4.00	33
3. Aumbay SIP	IGACOS	25.00	70.00	-	74
Sub-total		260.00	180.00	4.00	235
Total for Davao del Norte		27,212.51	13,152.85	7,774.58	12,778

Source: National Irrigation Administration

C.2 Farm to Market Roads

Another support infrastructure which is very much of importance to the development of the agriculture sector is the improvement of accessibility through well-defined road sections, the farm to market roads. Well established road networks facilitate transport of goods and services into and out of the farms; increases production efficiency and reduces losses, among others. A comprehensive discussion of road network will be taken up in the transport section of this document.

CHAPTER IV

TRANSPORTATION AND ACCESS

4.1 External Linkages

4.1.1 Land Access

The external linkages of the province are mainly land-based. The major external linkages consist of national roads connecting Davao del Norte to adjacent provinces of Davao de Oro, Bukidnon, Agusan del Sur, Davao Oriental and to the City of Davao. These roads are the Agusan-Davao Road, Surigao-Davao Coastal Road, Kapalong-Talaingod-Valencia, Bukidnon Road and Asuncion-Laak-Veruela, Agusan del Sur Road. Physical condition of these road sections is presented in the Table below.

Table No. 4-1: **Major External Linkages**
Province of Davao del Norte, 2020

Road Name	Length (Km)	% Paved	RROW	No. of Concreted Lanes
Surigao-Davao Coastal Road	6.848	0%	20/30/60	4
Asuncion-San Isidro-Laak-Veruela, Agusan del Sur Road	19.345	0%	20	2
Davao-Agusan Road-DAPECOL Compound Rd (Channelization)	0.288	0%	60	2
Kapalong-Talaingod-Valencia, Bukidnon Rd.	55.985	0%	20/60	2

Source: DPWH

a. Major External Access Routes

The **Agusan-Davao Road** extends from **Davao de Oro** in the north to Davao City in the south, while the **Surigao-Davao Coastal Road** connects the provinces of Davao Oriental and southern parts of Davao de Oro to the province of Davao del Norte. While Davao City serves as the main center for economic and social activities in Region XI, these routes serve as the main trunkline for the flow of trade and the delivery of basic social services across Davao del Norte, as well as, the northern provinces in the region. Davao del Norte, especially Tagum City plays an important role as a converging point of these two road sections. This puts the province as potential trading hub for Agusan del Sur, Compostela Valley and Davao Oriental. The Agusan-Davao road also connects to the poblacion of Carmen and Panabo City. National secondary roads and provincial roads connect the rest of the municipalities in the mainland.

The **Kapalong-Talaingod-Valencia, Bukidnon Road** is already established but not yet fully operational, though a four wheel drive and motorcycle can already pass through it. This road connects Davao del Norte to the province of Bukidnon via Talaingod and Kapalong in Davao del Norte, and San Fernando and Valencia City in Bukidnon. This road pave the way for more opportunities in the development of various sectors in the province such as, the trade and industry; eco-tourism,

agriculture, livestock and agro-forestry; as well as the deployment of basic social services and security enforcements in its tributary areas. It is also the shortest route from Davao del Norte to Bukidnon and vice versa.

Despite the high serviceability of this road, it has been observed to be constantly enduring severe road slips and landslides brought by heavy rains and past typhoons making the road difficult to traverse.

The **Asuncion-Laak-Veruela, Agusan del Sur Road** was converted into a National Secondary Road by virtue of RA 10075 dated April 20, 2010. This road connects Davao del Norte to the province of Davao de Oro and Agusan del Sur. The route will pass through Asuncion and San Isidro in Davao del Norte, Laak in Davao de Oro and Veruela in Agusan del Sur. The opening of this road provides an alternate and shorter route for the exchange of development opportunities among the three provinces.

b. Other Access Routes

There are also other provincial and city roads that link the province to Davao de Oro and Davao City, however, these roads are gravel and earthroads. These are the following:

Igangon-Sawata (Davao del Norte)-Bdry. Binasbas (ComVal) provincial road– This 10.12 kilometer concrete road also connects the municipality of San Isidro, Davao del Norte to Laak, Compostela Valley.

Saug-Sonlon-Bdry. Longanapan provincial road –This 11.60 kilometers gravel road is the shortest route from Laak, Compostela Valley going to Tagum City via New Corella, Davao del Norte.

Sonlon-New Visayas-Camansa provincial road – The road is in mountainous terrain connecting the eastern barangays of Asuncion to Compostela Valley via Montevista. The road length is 7.07 kilometers of gravel paved and earthroad. (concreting is on- going – PRDP)

Limbaan-Sta. Fe-El Salvador provincial road – Connects the municipality of New Corella to Bdry. Sitio Bayabas, Nabunturan, Compostela Valley. The road is 18.82 kilometers of gravel road and some portions traverse in mountainous area. (portion is ongoing construction).

Carcor-Patrocenio (Davao del Norte)-Jct Bayabas (ComVal) provincial road - This road also connects the municipalities of New Corella, Davao del Norte to Nabunturan, Compostela Valley. The road is 14.68 kilometers of gravel road and mountainous area. The concreting is ongoing by DPWH.

Feeder Road 2, Sto. Tomas-Magwawa provincial road – This road has 9.19 kilometers of gravel-paved and 1.02 kilometer of concrete road. It connects from Poblacion Sto. Tomas to the mountainous areas of Paquibato District which is part of Davao City.

Katualan (Davao del Norte)-Callawa (Davao City) road– This 2.9-kilometer Panabo City gravel road connects to Buhangin, Davao City.

Malativas (Davao del Norte) – Binowang (Davao City) Road- A 3-kilometer city road that connects Panabo City to Paquibato District, Davao City.

Kiotoy-Sta. Cruz- Bunawan (Panabo City – Davao City) – This fifteen-kilometer gravel road connects Panabo City to Mahayag, Bunawan, Davao City.

Kaputian-Babak, Samal-Sasa, Davao City Routes – This route is a 24 km road that traverses from Kaputian District to Babak District of Samal Island plus the Roll on Roll off system that ply the Pakiputan strait which is the Babak-Sasa Sea Route.

c. Bridges

Table No. 4-2: List of Existing Bridges along National Roads by Type, by City and Municipality, Province of Davao del Norte, 2020

Municipality	Name of Bridge	Construction Type	Length (Ln.M.)
Tagum City	1. Liboganon Bridge	Flat Slab	36.50
	2. Gov. Miranda Bridge 1	PSCG (Span 1&2), THROUGH TRUSS (Span 2&3)	147.10
	3. Pagsabangan Bridge	RCDG	60.80
	5. Pagsabanagn Bridge 2	PSCG	70.00
Sub-total	4		314.40
Asuncion	1. Ilog Bridge	CANTILEVER GIRDER WITH SUSPENSION SPAN (Inner 2 lanes), PSCG (Outer 2 lanes)	24.50
	2. Magatos Bridge	RCDG (Inner 2 lanes), PSCG (Outer 2 lanes)	32.50
	3. Cambaogo Bridge	RCDG (Inner 2 lanes), PSCG (Outer 2 lanes)	10.60
	4. Bunawan Bridge	RCDG (Inner 2 lanes), PSCG (Outer 2 lanes)	37.50
Sub-total	4		105.10
Kapalong	1. Maniki Bridge	STEEL GURDER	179.40
	2. Kipaliko Bridge	PSCG	40.00
	3. Gabuyan Bridge	RCDG	15.80
Sub-total	3		235.20
Talaingod	1. Sto. Niño Bridge 1	PSCG	30.10
	2. Sto. Niño Bridge 2	PSCG	40.00
	3. Nanaga Bridge 1	THROUGH TRUSS	46.70
	4. Nanaga Bridge 2	PSCG	25.30
	5. Mesolong Bridge	THROUGH TRUSS	68.00
	6. Napisulan Bridge	THROUGH TRUSS	47.40
	7. Lasang KTV Bridge	PSCG	30.60
Sub-total	7		288.10
Carmen	1. Tuganay Bridge	THROUGH TRUSS	55.00
	2. Tuganay Bridge 2	THROUGH TRUSS	55.00
	3. Ising Bridge	STEEL GIRDER (Inner 2 lanes), RCDG (Outer 4 lanes)	25.40
	4. Gov. Miranda Bridge 2	PSCG	650.60
	5. Mangalcal Bridge	PSCG	25.00

	6. Basak Bridge	RCDG	12.60
	7. New Camiling Bridge	RCDG	12.60
	8. Alejal Bridge	RCDG	12.60
	9. Magsaysay Bridge 1	RCDG	10.60
	10. Magsaysay Bridge 2	RCDG	12.60
	11. Tadeco Bridge	RCDG	12.60
Sub-total	11		884.60
Panabo City	1. Lasang Bridge	RCDG (Inner 4 lanes), PSCG (Outer 2 lanes)	56.40
	2. Panabo Flyover	STEEL GIRDER	200.60
	3. Tanglaw Bridge 1	RCDG (Inner 2 lanes), PSCG (Outer 2 lanes)	30.60
	4. Locutan Bridge 2	PSCG	35.00
	5. Tadeco Bridge 1	RCDG	20.60
Sub-total	5		343.20
Sto. Tomas	1. Feeder road 5 Bridge	FLAT SLAB	25.70
	2. Menzi Bridge	RCDG (Inner 2 lanes), PSCG (Outer 2 lanes)	40.90
	3. Tanglaw Bridge 4	FLAT SLAB (Inner 2 lanes), PSCG (Outer 2 lanes)	20.80
	4. Tanglaw Bridge 3	FLAT SLAB (Inner 2 lanes), PSCG (Outer 2 lanes)	20.80
	5. Tanglaw Bridge 2	FLAT SLAB (Inner 2 lanes), PSCG (Outer 2 lanes)	20.80
Sub-total	5		129.00
IGaCoS	1. Peñaplata Bridge	RCDG (Inner 2 lanes), PSCG (Outer 2 lanes)	10.00
	2. Benoling Bridge	CANTILEVER GIRDER W/ SUSPENSION SPAN	24.00
Sub-total	2		34.00
TOTAL	41		2,333.60

Source: DPWH

Table No. 4-3: **Traffic Volume on Some Major Internal Circulation Routes Province of Davao del Norte, 2020**

Station	Road Section	Car	Jeepney	Bus	Truck	Total/AADT
Km. 1462+800	Agusan-Davao Road	38.04	12.18	2.71	2.36	20665
Km. 1470+000	Tagum-Panabo Circum. Road	21.5	4.84	1.71	1.01	12154
Km. 1428+700	Surigao-Davao Coastal Road					
Km. 1478+590	Carmen-Dapecol Compound Road	23.05	2.61	1.67	0.33	9150
Km. 1512+000	Babak-Samal-Kaputian Road	8.95	2.4	0.92	0.64	5454

Source: DPWH

Table No. 4-4: **Distribution of Unpaved National Roads by Province/City
Davao Region as of November 2020**

Province/City	Unpaved National Roads (Gravel and Earth Roads in kilometers)	Percent Distribution %
Davao del Norte	-	-
Davao de Oro	0.23	0.07%
Davao Oriental	1.18	0.27%
Davao del Sur	-	-
Davao Occidental	73.38	28.74%
Davao City	-	-

Source: <http://www.dpwh.gov.ph>

Table No. 4-5: **Bridges Along Major External Linkages
Province of Davao del Norte, as of 2020**

Name of Bridge	Construction Type	No. of Lanes Capacity	Length (Ln.M.)
Liboganon Bridge	FLAT SLAB	6	36.50
Gov. Miranda Bridge 1	PSCG(Span 1&2 through TRUSS (Span 2&3)	2	147.10
Gov. Miranda bridge 2	PSCG	4	650.60
Tuganay Bridge 1	TROUGH TRUSS	2	55.00
Tuganay Bridge 2	TROUGH TRUSS	2	55.00
Ising Bridge	STEEL GIRDER (Inner 2 lanes),RCDG(Outer 4 lanes)	6	25.40
Lasang Bridge	RCDG(Inner lanes),PSCG (Outer	6	56.40
Kipaliko Bridge	PSCG	2	40.00
Gabuyan Bridge	RCDG	2	15.80
Sto. Niño Bridge 1	PSCG	4	30.10
Sto. Niño Bridge 2	PSCG	4	40.00
Nanaga Bridge 1	TROUGH TRUSS	2	46.70
Nanaga Bridge 2	PSCG	2	25.30
Mesolong Bridge	TROUGH TRUSS	2	68.00
Napisulan Bridge	TROUGH TRUSS	2	47.41
Lasang KTV Bridge	PSCG	2	30.60
Cambaogo Bridge	RCDG (Inner 2 lanes), PSCG (Outer 2 lanes)	4	10.60
Bunawan Bridge	RCDG (Inner 2 lanes), PSCG (Outer 2 lanes)	4	37.50

Source: DPWH-PEO

Table No. 4-6: **Ports Engaged in Product Exportation
Province of Davao del Norte, 2018**

Classification	Port Name	Location	Ownership	Major Cargoes
Private	HPI Wharf	Madaum, Tagum City	Hijo Plantations Inc.	Mainly bananas; others- ipil-ipil and palm oil
Private	TADECO Wharf	San Pedro, Panabo City	Tagum Agricultural Development Corp.	Mainly bananas; others-fertilizers, etc.
Private	STANFILCO Wharf	Bayawa, Panabo City	STANFILCO	Mainly bananas; others- fertilizers, etc.

Source: CDP, LGU

Table No. 4-7: **Total Road Network by City/Municipality and
by Administrative Functions
Province of Davao del Norte, 2020**

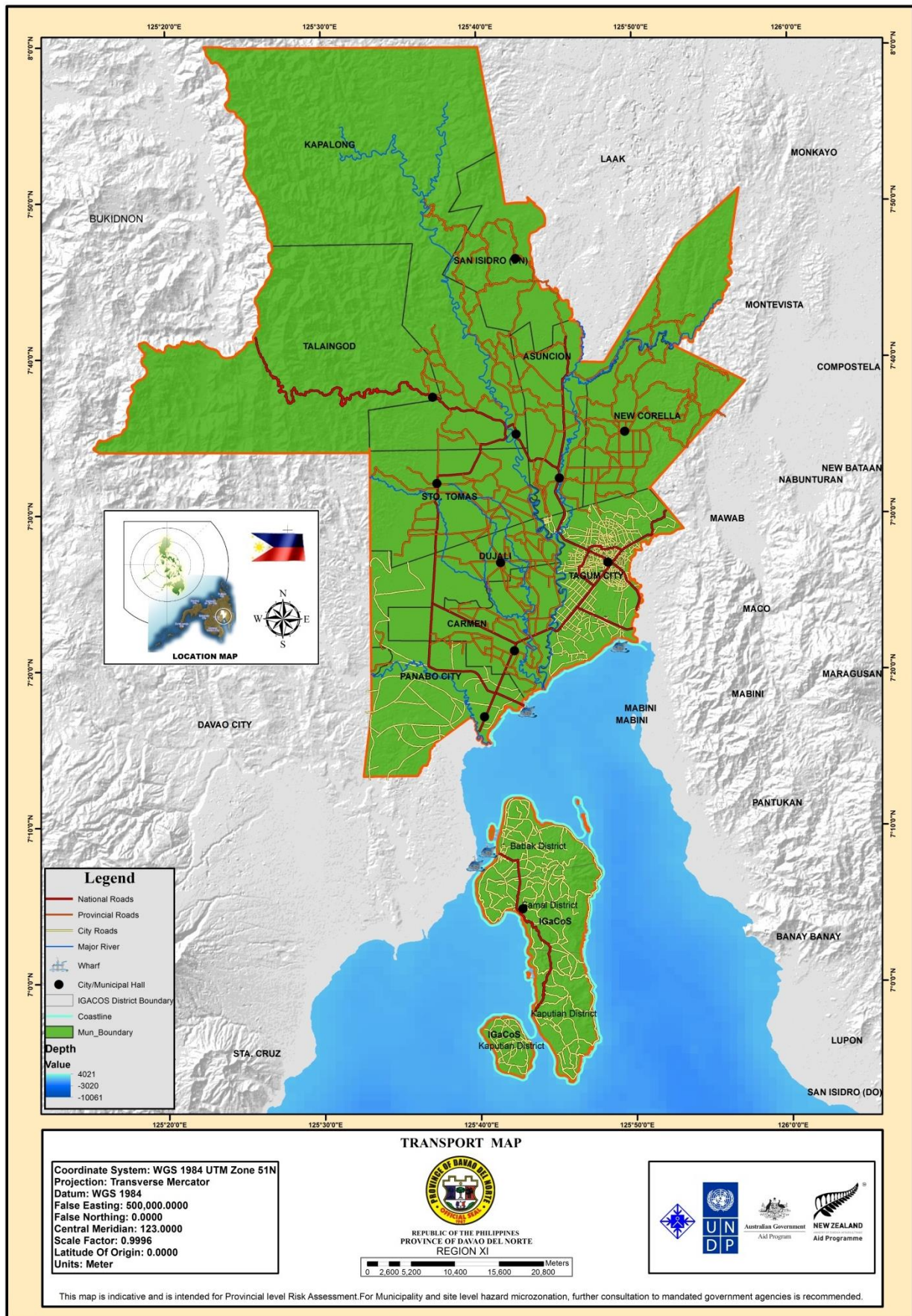
	Municipality/City	National Road	Provincial Road	City Road	Municipal Road	Barangay Road	Total Length
DISTRICT 1	Asuncion	25.427	127.21				
	Kapalong	19.982	187.08				
	New Corella	N/A	93.31				
	San Isidro	4.127	76.48				
	Talaingod	47.244	52.45				
	Tagum City	48.253	-				
DISTRICT 2	B.E. Dujali	-	53.61				
	Carmen	23.746	127.20				
	IGaCoS	24.921	-				
	Panabo City	23,825	-				
	Sto. Tomas	20.633	134.68				
	Davao del Norte	2,4039.33	852.02				
	%Distribution						

Source: DPWH, PEO, LGU-SEPS

Table No 4-8 : **Summary of Existing National Bridges (length and Number)
by Type per Province as of 2020**

District Engineering Office	Permanent Bridges						Temporary Bridges						Grand Total	
	Concrete		Steel		Total		Bailey		Timber		Total		No.	Length
	No.	Length	No.	Length	No.	Length	No.	length	No.	Length	No.	Length		
Davao de Oro	52	2,212	16	631	68	2,844	0	-	0	-	0	-	68	2,844
Davao City 2 nd DEO	14	693	1	138	16	831	2	35	0	-	2	35	18	866
Davao City	19	1,442	3	314	22	1,756	0	-	0	-	0	-	22	1,756
Davao del Norte	33	1,534.40	8	799.20	41	2,333.60	0	-	0	-	0	-	41	2,333.60
Davao del Sur	36	1,058	2	63	38	1,121	0	-	0	-	0	-	38	1,121
Davao Occidental DEO	19	819	9	552	28	1,371	1	93	0	-	1	93	29	1,464
Davao Oriental 1 st DEO	34	2,002	9	858	43	2,860	0	-	0	-	0	-	43	2,860
Davao Oriental 2 nd DEO	41	1,733	10	304	51	2,037	0	-	0	-	0	-	51	2,037

Map 1: Transport Map, Davao del Norte



Source: PPDO-GI

Table No. 4:9 External Linkages Characteristics
CY 2020

Road Name	Section	2020 (AADT)
Davao del Norte		
Agusan – Davao Road	Tagum-Mawab, Dvo. De Oro	22,579
	Panabo City-Davao City	22,562
Surigao-Davao Coastal Road		4880
Other Provinces		
Davao-Bukidnon Road	Calinan, Davao City	
Davao City-Digos-G. Santos Rd	Sta. Cruz, Davao del Sur Sulop, Davao del Sur	
Digos-Cotabato Road	Bansalan, Davao Oriental	
Surigao-Davao Coastal Road	Lupon, Davao Oriental	
Agusan- Davao RoAd	Monkayo, Davao de Oro	

Source: DPWH

Table No. 4-10: Traffic Volume on Major Arterial Roads (Comparative/Projected)
Davao Region, 2020

Road Name	Section	2016 (AADT)	2020 (AADT)	*Growth Ratio 2016-2020	2007 (AADT)	2013 (AADT)
Davao del Norte						
Agusan-Davao Road	Tagum, DDN-Mawab, DDO	12,000	22,579	1.90		
	Panabo City-Davao City	30,000	22,562	0.80		
Surigao-Davao Coastal Road	Tagum Diversion	4,880				
Other Provinces						
Davao-Bukidnon Road	Calinan, Davao City					
Davao City-Digos-G. Santos Road	Sta. Cruz, DS					
	Digos, DS					
	Sulop, DS					
Digos-Cotabato Road	Bansalan, DS					
Surigao-Davao Coastal Road	Lupon, DO					
Agusan-Davao Road	Monkayo, Davao de Oro					

Source: DPWH

*The growth ratio is based on the 1998 Davao Integrated Development Program Master Planning which in turn is sourced on DPWH Region XI and Master Plan Study on Visayas and Mindanao Islands Strategic Road Network Development Project undertaken by DPWH-JICA, 1997

The table above shows the traffic volumes on major trunkline roads of the province and of the equivalent roads in the other provinces. The 2016 AADT is based on the values derived from the study made by DPWH and JICA which was based on a future socioeconomic framework, present origin/destination matrices and forecast models formulated by existing transportation patterns, hence derived the 1996-2016 growth ratios. Data gathered for 2007 shows traffic volumes within the Davao del Norte only.

For purposes of data consistency in terms of comparison to other provinces, the same growth ratio is used to project the 2007 and 2013 data.)

Davao City is the main junction point of all the major arterial roads located in the region. To take into consideration that Davao City is also the center for business and trade, security administration, as well as tourism and other social activities of the region. Table No.4-3 presents the Annual Average Daily Traffic (AADT) of some major arterial national roads in Davao del Norte and also in other areas in the region.

It is shown in the table that the Davao-Agusan Road, especially in the Panabo City-Davao City section, has the highest volume of traffic as compared to other arterial roads in the region with a total of 24,868 number of traffic in 2007. This section is the bottleneck for the traffic coming to Davao City from the different areas in Davao del Norte, Compostela Valley, Davao Oriental and Agusan, and vice versa. The Tagum-Mawab section of the Agusan-Davao road and the Tagum section of the Surigao-Davao Coastal road also have relatively higher traffic volume compared to other road sections in the region, except to Sta. Cruz and Digos City sections of Davao del Sur.

National roads play a vital role in providing inter-provincial linkage in the region. Major arterial roads facilitates the flow of economic and social activities between the major city which is Davao, and the provinces; the 2020 distribution of unpaved national roads, Davao del Norte has no percentage of unpaved national road compared to other provinces. Most of these remaining unpaved length accounts to the proposed Kapalong-Talaingod-Valencia, Bukidnon Road and the Asuncion-Laak-Veruela, Agusan del Sur Road. (Table No. 4-1).

e. Key Transport Infrastructure and Facilities

e.1. Bridges

There are six bridges along the Agusan-Davao road, nine bridges along Kapalong-Talaingod- Valencia, Bukidnon Road and two bridges along Asuncion-Laak-Veruela, Agusan del Sur road within Davao del Norte section (Table No. 4-2). These are all classified as national bridges maintained by the Department of Public Works and Highways. These bridges are in excellent conditions which could serve two to four-lane traffic.

Despite the existing infrastructure facilities, the province still needs additional mode of transportation in the delivery of goods and comfort of the commuters.

e. 2. Inter-Provincial Public Transport Facilities

Along the Agusan-Davao and the Surigao-Davao trunk line, there are three land transport terminals that serve as collecting points for inter-provincial passenger traffic across Davao del Norte. These are the public terminals in Tagum City, Carmen and Panabo City. With Davao City as the key destination, inter-provincial public utility buses also avail these terminals as main stop over points in the province. Routes plying to Compostela Valley, Davao Oriental, Surigao del Sur, Agusan del Sur and Misamis Oriental, as well as, inter-island buses to Manila pass by these terminals.

The Tagum City public terminal has 24 bays capacity for inter-provincial buses. The terminal is adjacent to the public market with amenities like commercial spaces and restrooms that serve the needs of the traveling passengers.

The Panabo City public terminal has 10 bays capacity for both north bound and south bound buses. Commercial spaces and passengers' lounge that caters the needs of the passengers are also located at the terminal.

The newly completed public terminal in Carmen has two bays for south and north bound buses. Like the Panabo public terminal, it is located adjacent to the national highway at the poblacion center.

The public terminal in Sto. Tomas also provides inter-provincial routes to Davao City via Carmen and Panabo City.

4.1.2 Sea Access

The private ports in Panabo City and Tagum City are the only existing ports that provide external linkages for exportation in the province. These ports are engaged in exporting agricultural products mainly bananas. In terms of sea transportation, the province is linked to other parts of the country mainly through, the passenger ferry services in the Port of Davao, and in the ports of Cagayan de Oro City and Nasipit, Agusan del Norte which is about 300 kilometers and 200 kilometers, respectively, from the province. The Port of Davao is connected by passenger ferry services with cities of Manila, Iloilo, Cebu, Zamboanga, and General Santos while the ports in Cagayan de Oro and Nasipit caters passenger ferry services to and from the cities in Visayas and Manila.

In the 1996 study of the Davao Integrated Development Program, STANFILCO and TADECO wharves handled 372,706 and 363,960 tons of cargoes, respectively, which was 50% of the total volume of cargoes handled for export by private ports in Region XI. During that period, the private ports in Region XI share about 95% of the total volume of products that are for export in the region.

An expansion of the private port facility in Hijo Plantation, Barangay Madaum, Tagum City is soon to be operational. This new development of Hijo International Port Services is a joint business venture between Hijo Resources Corporation and (HRC) and International Container Terminal Services Inc. (ICTSI). With a 54-hectare terminal area, a 1200-meter draft berth and an annual capacity of two million (TEU) 20-foot equivalent units of container is foreseen, this development of Madaum Port can relieve the congestion in Davao City Ports.

4.1.3 Air Access

The province avails of the nearest and practical air transport facility via Francisco Bangoy International Airport (FBIA) in Davao City. The FBIA is the busiest and most modern airport in Mindanao and accommodates large planes from major airlines such as Philippine Airlines, Cebu Pacific, Silk air and Tiger Airways. These major carriers ply the Davao route from major domestic and select international destinations.

The province, with its key cities, shall scout potential areas based on their CLUPs/CDPs for an alternative airport site. This is in anticipation that FBIA can no longer cater the increasing number of passengers and bigger bodied airplanes in the future. The current airport site, with a total area of 217 hectares, has exceeded its capacity of two million passengers as reflected in the 2011 and 2013 data of the Civil Aviation Authority of the Philippines (CAAP)-Davao.

4.2 Internal Circulation

The internal circulation of the province is characterized by land and sea transportation. Except for the Island Garden City of Samal, all other municipalities and cities are interconnected to each other by national, provincial and city roads. The Island Garden City of Samal (IGaCoS) is connected to the mainland by passenger and RORO ferry services via Davao City.

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4.2.1 Road Systems

a. Road Network

The total road network in the province is 3,656.62 kilometers, which is categorized into five (5) types according to its administrative functions, namely: national roads, provincial roads, city roads, municipal roads, and barangay roads. Table No. 4-7 shows the total road network per administrative functions.

Total length of barangay road accounts for the highest percentage of road length in the province with 49.63 percent followed by provincial roads with 23.3 percent. National and municipal roads have the lowest percentage of 5.40 and 7.18 percent, respectively while city roads comprise 14.80 percent of the total road network.

In terms of road right-of-way national roads ranges from 20 to 60 meters, while provincial and city roads ranges from 15 to 20 meters. Municipal roads have road right-of-way that ranges from 10 to 20 meters, while barangay roads have minimum of eight (8) meters and maximum of 12 meters.

Among the three cities, Tagum City, the capital of the province, has the largest total road network of 678.275 kilometers which is also the largest for the whole province, but it has the least length of city roads among the component cities. It has the most national road of 48.132 kilometers, since it is located in the intersection of three major national roads in the province namely; the Agusan-Davao Road, Surigao-Davao Coastal Road and the Tagum-Panabo Circumferential Road. Tagum City also has the most barangay roads in the province.

The City of Panabo is second to Tagum City in terms of total road network among the three cities and the province as a whole.

On the other hand, Island Garden City of Samal has the least total of road networks which is 433.66 kilometers, but has the most city roads of 242.5 kilometers. This is because the provincial roads and the municipal roads of the former three municipalities in the island were converted to city roads.

Among the municipalities, New Corella has the highest total road network and provincial road length of 446.17 kilometers and 187.08 kilometers, respectively. Kapalong is second highest in the total road network length of 408.408. On the other hand Asuncion is ranked third in the total road network of 380.63 and provincial road length of 115.88 kilometers among municipalities.

B.E. Dujali has the least total road network of 93.11 kilometers. Talaingod has the most national roads among the municipalities with a length of 47.382 kilometers. This is because larger portion of the Kapalong-Talaingod-Valencia, Bukidnon road is within Talaingod. However, Talaingod has the least provincial and barangay road length of 52.45 and 4.40 kilometers respectively.

Table No.4-11: **Distribution of All-Weather Barangay Roads**
by Province/City, Davao Region, 2019

Province / City	All-Weather Barangay Roads (km)	% Distribution
Davao del Norte	1,905.74	20.68
Compostela Valley	1,775.86	19.27
Davao Oriental	1,385.77	15.04
Davao del Sur	2,868.34	31.14
Davao City	1,278.09	13.87

Source: Provinces/City

Barangay roads are important for the internal circulation in the province. They link barangays to provincial, municipal or city roads. They are also referred to as feeder roads, rural roads or farm to market roads.

In the 2003 data Davao del Norte has the most barangay roads in terms of length compared to other areas in the region. At present, there is a reduction of length of barangay roads in Davao del Norte due to the conversion of some barangay roads to municipal or city roads.

b. Main Internal Circulation Routes

1. Tagum- Panabo Circumferential Road

The Tagum-Panabo Circumferential Road is a national secondary road connecting Agusan-Davao Road. It connects the poblacion areas of Sto. Tomas, Kapalong and Asuncion to the centers of Tagum and Panabo cities. Its influence area includes the municipalities of Sto. Tomas, Kapalong, Asuncion, and also Talaingod, San Isidro

and B.E. Dujali. There are several roads tributary to this circumferential road that connects to the municipalities of Talaingod, San Isidro and to the center of B.E. Dujali. Other provincial and city roads also connect to the inner barangays and banana plantation areas in Sto. Tomas, Carmen, Kapalong, Asuncion and Panabo City. This road is vital for the export banana production which is the main economic feature in its influence area and the main route for transport of bananas for export to Panabo City wharves.

2. Carmen-Davao Penal Colony (DAPECOL) Road

The Carmen-DAPECOL Compound road is a bypass road of Tagum-Panabo road. It connects areas of Sto. Tomas to the municipality of Carmen. It is the main transport route for agricultural products, such as, bananas coming from areas between Sto. Tomas and Carmen. This is also a main route of goods and commodities, and passenger traffic between Panabo City, Carmen and Sto. Tomas.

3. Bdry. Baca, Tagum City - New Corella – Sonlon – Camansa, Asuncion Provincial Road

The Tagum-New Corella road is the main and the shortest route that links Tagum City and the urban center of New Corella. Its influence area includes the rural production areas of New Corella and the eastern barangays of Asuncion or Kaimunan sa Manguwangan ug Dibabawon (KAMADI) District. It is the main route for the transport of goods, commodities, agricultural products, such as, rice, corn, bananas, coconut, cacao, mango, durian and basic social services.

4. Asuncion-San Isidro Roads

There are two routes between the municipalities of Asuncion to San Isidro. These are two provincial road sections namely: Km9 Sagayen - Sawata Road and Igangon - Sawata Road sections that serve as link between Compostela Valley and Davao del Norte. These roads are tributaries to Asuncion-San Isidro-Laak-Veruela National Road. These road networks traverse Banana and cacao production areas.

5. San Isidro-Kapalong Road

One of the roads tributary to Tagum-Panabo circumferential road is the road from San Isidro to Kapalong consisting of Km. 9 Sagayen-Sawata provincial road, Pandulian - Jct San Miguel provincial road and Kapalong - Mabantao - Florida provincial road. Its influence area is characterized by the expansion of banana and cacao production and forestlands in the hinterlands of San Isidro and Kapalong.

6. Tagum City-Sto. Tomas Road

The road section is composed of Boundary Tagum - Crossing Kinamayan-Sto. Tomas road. This is the shortest route between Tagum City and the municipality of Sto. Tomas. This road traverses through the rice and banana production areas in Sto. Tomas. Several connecting roads also link to other barangays of Sto. Tomas, Dujali, and to some urban barangays and banana plantation areas in Kapalong.

7. Tuganay-Dujali Roads

The Tuganay-Dujali road is composed of Tuganay-Anibongan-San Isidro and San Isidro-Dujali-San Miguel road sections. It connects B.E. Dujali to the Agusan-Davao Road at Tuganay, Carmen. Other provincial roads also connect B.E. Dujali to Sto. Tomas and Tagum City. These roads are important for the growing banana production and fishery production in B.E. Dujali.

8. Babak-Samal-Kaputian Circumferential Road

The Babak-Samal-Kaputian Circumferential Road is located within the Island Garden City of Samal connecting the three districts of the city. This road is the main trunkline for the circulation of basic goods and commodities, basic social services, trade and security services within the island. It plays a major role for tourism in the island. It provides access through land transport to the different areas of tourism destination. The road is also vital for the transport of perennial crop products, such as, mango and coconut.

Several city roads and barangay roads serve as tributary to the circumferential road. These roads lead to the inner barangays, as well as to the inland and coastal areas of the island with tourism significance.

9. Talikud Island Circumferential Road, IGaCoS

This 17.18km road stretch is basically gravel-paved that connects the four barangays of the island namely Linusotan, Sta. Cruz, Cogon and Dadatan. This road also brings access to existing resorts and some potential diving areas. Talikud, at present, needs to improve its road infrastructure in order to generate more tourism development and private investments. Upgrading of this circumferential road will enable tourists and the people in the community to move conveniently within the island.

10. Tagum City By Pass Road

(Jct. Agusan – Davao Rd.– Canocotan– San Miguel – Mankilam –Pagsabangan – La Filipina – Magdum, Tagum City, Davao del Norte). It is an existing 20.35km barangay road which traverses from Jct. Agusan – Davao Rd.– Canocotan – San Miguel – Mankilam –Pagsabangan – La Filipina – Magdum, Tagum City, Davao del Norte.

11. Panabo City By Pass Road

(Jct. Agusan – Davao Rd. J.P. Laurel Sec. - Jct. Tagum – Panabo Circum. Rd. Southern Davao Section)

This is an existing 8.92km provincial road which traverses from junction Agusan – Davao Road J.P. Laurel Section – Gredu – New Visayas – Jct. Tagum – Panabo Circumferential Road Southern Davao Section, Panabo City, Davao del Norte to Jct. Brgy. Sto. Niño (Daang Maharlika Road).

c. Roads Leading to Tourist Destination Areas

The tourism industry is one of the drivers of the economic growth in Davao del Norte. Tourist destinations are abounding the province inviting more and more visitors and enthusiasts from all over. Based on the 2015 Department of Tourism (DOT) report tourist arrival in Davao del Norte reached 692,145. The volume of visitors had been increasing early hence, there is a need to improve accessibility to tourist destinations in the province.

Table No. 4-12: **Projects under DOT-DPWH Convergence Program**
Province of Davao del Norte: 2020

District	No. of Projects Enrolled	No. of Projects Approved	No. of Projects for Funding
Dist. I	4	2	1
Dist. II	10	3	6

Beginning 2013, eight (8) road sections leading to prime tourist destinations are enrolled in the Department of Tourism (DOT)-Department of Public Works and Highways (DPWH) Convergence Program. From the table above, only four (4) road sections are approved while another four (4) projects are to be implemented on the next funding.

d. Travel Time

The average travel time from the different cities and municipalities in the province to Davao City, the regional center is shown in Table No. 4-10. Talaingod and San Isidro are the farthest municipalities with respect to Davao City. Travel time from Tagum City is on average while Panabo City has the least time of travel

Table No. 4-13: **Average Travel Time from the Province to Davao City, Under Major External Routes, 2020**

City/Municipality	Travel Time
Talaingod	2hrs & 25mins
Kapalong	2hrs
Asuncion	1hr-45mins
San Isidro	2hrs-30mins
New Corella	2hrs
Sto. Tomas	1hr & 50 mins
Be Dujali	1 hr & 30 mins
Carmen	1 hr & 15 mins
IGaCoS	1hr
Panabo City	1hr
Tagum City	1hr & 30 mins

Source: PEO

The following table reflects the average time of travel from the production areas in different municipalities to the two major urban centers of the province; Tagum and Panabo City. Tagum and Panabo City are categorized under small/medium city (Primary Urban Center A). Most of the agricultural and production areas are located in the municipalities. Carmen and BE Dujali are nearer in terms of time travel to Panabo City, while the rest of the municipalities take longer time to travel to Tagum City.

Table No. 4-14: **Average Travel Time from Major Provincial Urban Centers to Production Agricultural Areas, Province of Davao del Norte, 2020**

Major Urban Centers	Production Areas								
	Talaingod	Kapalong	Asuncion	San Isidro	New Corella	Sto. Tomas	BE Dujali	Carmen	IGaCoS
Tagum City	1hr-20mins	45mins	30mins	1hr-20mins	30mins	40mins	30mins	25mins	1hr-30mins
Panabo City	1hr-45mins	1hr-20mins	1hr-10mins	2hrs	1hr-10mins	50mins	30mins	15mins	1 hr

Source: PEO

e. Access to Social Services

Table No 4-15: **Average Travel Time to Municipalities/Cities where Government and Major Hospitals are Located Province of Davao del Norte, 2020**

Hospital Locations	Municipalities/Districts							
	Talaingod	Asuncion	San Isidro	New Corella	Sto. Tomas	BE Dujali	Babak District (IGaCoS)	Kaputian District (IGaCoS)
Tagum City	1hr & 25mins	30mins	1hr	35mins	40mins	30mins	1hr & 30mins	2hrs - 30 mins
Panabo City	1hr & 55mins	1hr	1hr & 40mins	1hr & 5mins	50mins	30mins	1hr	2hrs
Kapalong	35mins	30mins	1hr	40mins	25mins	50mins	2hrs & 20mins	3 hrs
Carmen	1hr & 40mins	45mins	1hr & 25mins	50mins	40mins	20mins	1hr & 20mins	2 hrs & 20mins
Samal District (IGaCoS)	2hrs & 50mins	2 hrs & 10mins	2hrs & 50mins	2hrs & 30mins	2 hrs-20 mins	2hrs	25mins	50mins

Source: PEO

Major private and government hospitals are located in Tagum City, Panabo City, Kapalong, Carmen and Island garden City of Samal. Talaingod, Asuncion, San Isidro and Sto. Tomas take lesser time to travel to Kapalong but larger hospitals are located in Tagum City. New Corella, Asuncion and B.E. Dujali take the least time to travel to Tagum City. Talaingod and San Isidro have the longest travel time to any of the hospital facilities in the province. In the Island Garden City of Samal, Kaputian District takes more time to travel to a hospital in Samal District as compared to Babak District which, on the other hand, also is nearer to Davao City than the other two districts.

Generally, schools and health centers are situated in the center of a barangay or a municipality. In remote barangays, centers are usually located near the larger

clusters of settlements. In some cases, smaller clusters in sitios travel to the barangay center as far as five (5) kilometers or more.

5.2.2 Road Characteristics 2020

Table No. 4-16: Road Condition of the province of Davao del Norte, 2020

Functional Classification / Road Name / Road number / Surface Type		Condition Rating					Total
		Good	Fair	Poor	Bad	No Assessment	
	Primary Roads	25.23	8.05	7.47	-	5.00	45.75
1-Jan	Daang Maharlika (MN)	25.23	6.05	2.62	-	5.00	38.90
	Concrete	0.39	3.35	2.50	-	3.49	9.73
	Asphalt	24.84	2.70	0.12	-	1.52	29.17
2-Feb	Surigao-Davao Coastal Rd	-	2.00	4.85	-	-	6.85
	Concrete	-	2.00	4.85	-	-	6.85
	Secondary Roads	94.83	82.56	9.01	1.24	3.60	191.24
3-Mar	Asuncion-San Isidro-Laak-Veruela Rd	19.30	-	-	-	0.05	19.35
	Concrete	19.06	-	-	-	0.04	19.09
	Asphalt	0.24	-	-	-	0.01	0.25
4-Apr	Babak-Samal-Kaputian Rd	9.99	14.20	-	0.70	0.03	24.92
	Concrete	9.99	14.20	-	0.70	0.03	24.92
5-May	Carmen-DAPECOL Cmpd Rd	2.81	4.80	3.07	-	0.51	11.19
	Concrete	-	4.48	3.07	-	0.06	7.61
	Asphalt	2.81	0.32	-	-	0.45	3.58
6-Jun	Davao-Agusan Rd-DAPECOL Compound Rd (Channelization)	-	0.14	0.15	-	-	0.29
	Concrete	-	0.14	0.15	-	-	0.29
7-Jul	Kapalong-Talaingod-Valencia (Bukidnon) Rd	41.02	14.33	-	0.31	0.33	55.99
	Concrete	41.02	14.33	-	0.31	0.33	55.99
8-Aug	Tagum City Diversion Rd	1.93	6.91	0.18	-	1.27	10.28
	Concrete	1.00	6.73	0.18	-	1.27	9.18
	Asphalt	0.92	0.18	-	-	-	1.10
9-Sep	Tagum-Panabo Circum Rd	19.78	42.18	5.61	0.22	1.44	69.24
	Concrete	9.85	36.16	4.82	0.22	0.82	51.88
	Asphalt	9.93	6.02	0.79	-	0.62	17.36
	Tertiary Roads	1.02	0.15	-	-	-	1.17
A	Carmen-DAPECOL Cmpd Rd	1.02	-	-	-	-	1.02
	Concrete	1.02	-	-	-	-	1.02
B	Tagum-Panabo Cir Rd-DAPECOL Cmpd Rd (Channelization)	-	0.15	-	-	-	0.15
	Concrete	-	0.15	-	-	-	0.15
TOTAL		121.08	90.76	16.48	1.24	8.61	238.16

Source: DPWH

Table No. 4-17: **Inventories of National Roads**
Province of Davao del Norte, 2020

Name of Road/Location	Concrete (km)	Asphalt (km)	Gravel (km)	Total (km)
Agusan-Davao Road				37.091
Tagum City	4.893	16.147	N/A	
Carmen		9.293	N/A	
Panabo City	0.753	6.005	N/A	
Surigao- Davao Coastal Road				6.848
Tagum City		6.848	N/A	
Tagum City Diversion Road				10.279
Tagum City	7.677	2.602	N/A	
Tagum-Panabo Circumferential Road				69.236
Tagum City	6.083	4.003	N/A	
Asuncion	10.026	0.183	N/A	
Kapalong	11.829	10.077	N/A	
Sto. Tomas	10.556	4.003	N/A	
Panabo City	13.064	-	N/A	
Carmen-DAPECOL Compound Road				11.187
Panabo City	-	-		
Carmen	6.221	4.966	N/A	
Babak-Samal- Kaputian Road				24.921
IGaCoS	22.493	2.428	N/A	
Kapalong-Talaingod- Bukidnon Road				55.985
Kapalong	8.488	0.253	N/A	
Talaingod	46.908	0.336	N/A	
Asuncion- San-Isidro- Laak-Veruela Road				19.345
Asuncion	15.03	0.188	N/A	
San Isidro	3.888	0.239	N/A	
Agusan-Davao Road Channelization				1.81
Carmen	1.81	N/A	N/A	
Davao-Agusan Road-DAPECOL Compound Road Channelization				0.288
Carmen	0.288	N/A	N/A	
Tagum-Panabo Circumferential Road-DAPECOL Compound Road Channelization				0.15
Carmen	0.15	N/A	N/A	
Carmen-DAPECOL Compound Road Channelization				1.018
Carmen	1.018	N/A	N/A	
Total	170.587	67.571	N/A	238.158

Source: DPWH-Engineering District, Province of Davao del Norte

Table No. 4-18: **Provincial Roads, by Type of Pavement**
by City and Municipality Davao del Norte, 2020

Road Name	Length in Kilometers				
	Gravel	Asphalt	Concrete	Earth	Total
Asuncion	105.03	-	22.18	-	127.21
Kapalong	74.24	-	19.09	-	93.31
New Corella	131.05	-	56.03	-	187.08
San Isidro	25.15	-	51.33	-	76.48
Talaingod	37.80	-	14.65	-	52.45
Carmen	96.91	-	30.29	-	127.20
Sto. Tomas	95.15	-	39.53	-	134.68
BE Dujali	41.62	-	11.99	-	53.68
Grand Total	606.95	-	245.09	-	852.02

Source: PEO, Davao del Norte

The table above presents the length of roads by type of pavement within Davao Del Norte. The total road length of Gravel and Concrete roads is 852.02 km (see above table).

Table No. 4-19: **Road Conditions of Provincial Roads**
Province of Davao del Norte, CY 2020

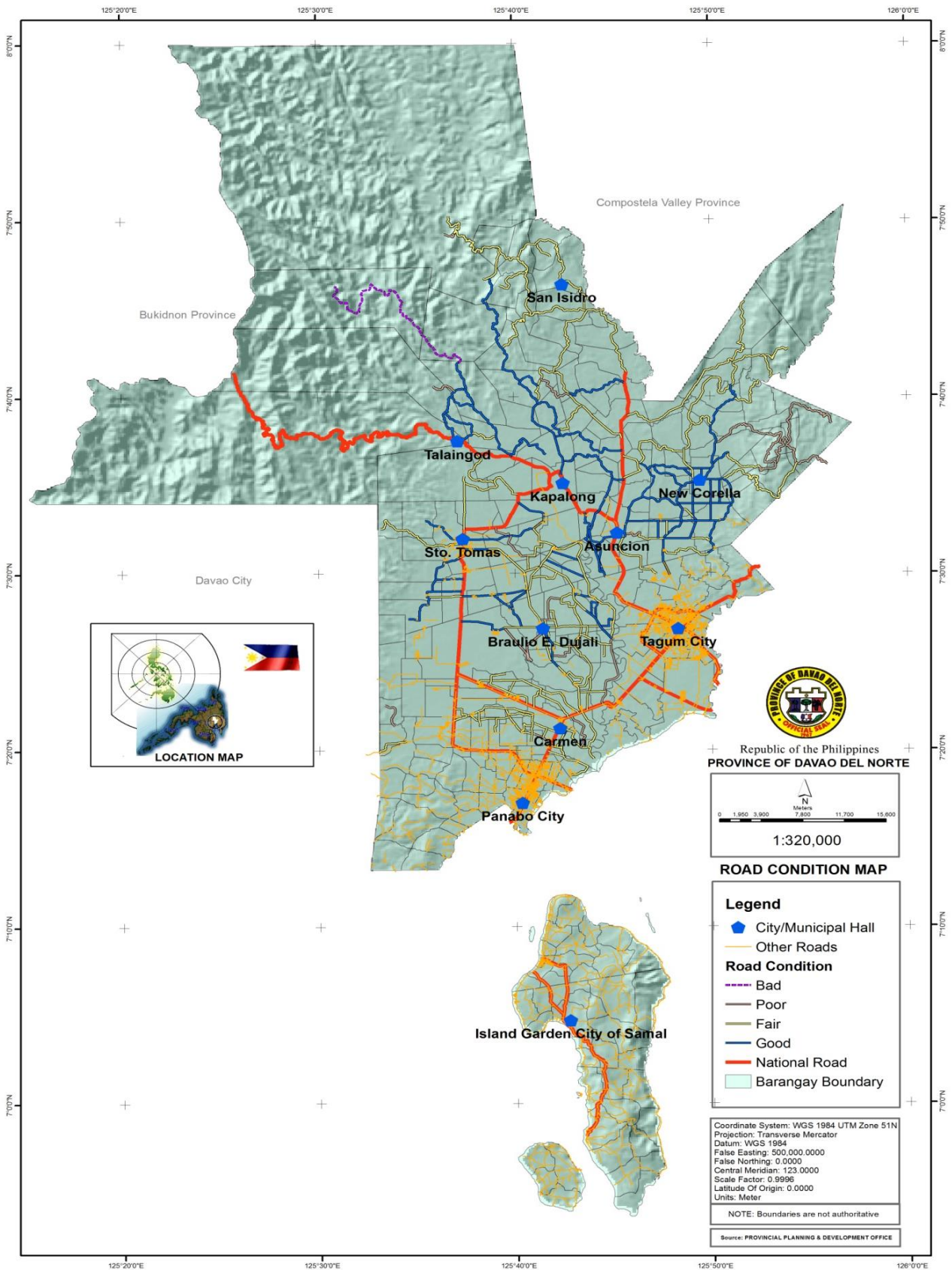
District	Municipality	Surface Road Condition Length(km)				Length(km)
		Good	Fair	Poor	Bad	
District 1	Asuncion	59.56	67.65	-	-	127.21
	Kapalong	6.30	87.01	-	-	93.31
	New Corella	29.08	158.0	-	-	187.08
	San isidro	30.67	45.81	-	-	76.48
	Talaingod	6.16	46.29	-	-	52.45
District 2	Carmen	98.50	28.70	-	-	127.20
	B.E. Dujali	37.13	16.48	-	-	53.61
	Sto. Tomas	99.94	34.74	-	-	134.68
	Total	367.34	484.68	-	-	852.02
	% Distribution	43.11%	56.89%	0	0	100%

Source: PPDO-GIS Division

- The provincial roads have a total of 852.02km, 367.34 kms or 43.11% are in good condition, 484.68 kms or 56.89%% are fair. Improvement and rehabilitation of road sections with poor and bad surface conditions shall be given priority to enhance accessibility and mobility through provision of sufficient funds.

Based on the criteria specified on the Special Local Road Funds (SLRF) – Local Roads Inventory Form 2 of the Department of Interior and Local Government (DILG) “Fair” means the road is smooth riding even if there are visible potholes and cracks. On the other hand, “Poor” means uneven riding, large percentage patching or potholes, cracking and edge damage while “Bad” means very rough riding, extensive damage and potholes, badly broken edges and poor drainage.

Map 2. Road Condition Map, Davao del Norte



Source: GIS Division, PPDO

The road network by type of pavement is being presented in Table No. 4-20. Concrete and asphalt represent the well-paved existing road in the province. Only 28.76 percent of the total roads in the province are paved with concrete. National roads have the highest percentage of paved roads with concrete. Most of the other roads are gravel-paved with a 71.23 percent of the total road network. The condition of barangay roads is either paved, gravel or earth roads. Most of the paved barangay roads are in urban areas.

Table No. 4-20: **Type of Road Pavement by Administrative Function**
Province of Davao del Norte, 2020

Administrative Level	Concrete	Asphalt	Gravel	Earth	Total Length (km)
National Road	168.77	69.381	N/A	N/A	238.158
Provincial Road	245.07	-	606.95	-	852.02
Municipal Road					
City Road					
Barangay Road					
Total					
%Distribution					

Source: DPWH, PEO LGUs

Most of the asphalt road in the province is in Tagum City, where a city government-operated asphalt mixing facility is utilized as an economic enterprise. This scheme opens possible opportunities for other municipalities in finding alternative means for improving the road conditions, because asphalt construction is cheaper than a concrete pavement.

Shown above are the lengths of unpaved provincial roads of the four provinces in the region. Davao del Norte has the most unpaved length of provincial roads compared to other provinces in the region.

b. Road Density

The Road Density is determined based on the total road requirement using the national standard of 1.0 Kilometer of road length per Square Kilometer of the total land area. After establishing the total road requirement, it turns out that, the province has no road requirement or has enough roads with a density of 1.05 km per sq. kilometer. This is 0.073 km./sq.km. higher than the 2007 road density data of 0.977km./sq. km. However, uneven distribution of roads at the LGU level results to additional road requirements among the municipalities, particularly that of Kapalong and Talaingod. A vast area of forestland within these municipalities also contributes to the corresponding road gaps.

Table 4-21: **ROAD DENSITY by City/Municipality in Km/Km²**
Province of Davao Del Norte, 2017

Municipality/City	Total Road Network(Km)	Total Road Requirement Based on National Standard 1 Km / Sq. Km)	Road Density (km/Km ²)	Road Gap (Km)
Tagum City	627.477	182.54	3.43	
Panabo City	459.145	253.63	1.81	
Igacos	498.757	280.71	1.77	
Asuncion	295.537	293.47	1.39	
New Corella	446.78	321.48	1.39	
Kapalong	278.339	945.86	0.29	667.52
San Isidro	201.265	152.49	1.32	
Talaingod	276.732	454.96	0.61	178.22
Sto. Tomas	419.051	320.41	1.31	
Carmen	288.493	166.25	1.73	
B.E. Dujali	132.790	91.00	1.46	
Davao Del Norte	3,924.367	3,462.80	1.13	

Computation based on 2017 Road Inventory and SEP 2016

Table 4-22: **National Road Length by Surface Type per Region and District Engineering Office, 2020**

District Engineering Office/Functional Classification	Paved		Paved Total	Unpaved		Unpaved Total	Grand Total
	Concrete	Asphalt		Gravel	Earth		
Davao del Norte							
Primary	5.646	38.293		-	-	-	43.939
Secondary	161.675	31.088		-	-	-	192.763
Tertiary	1.456	-		-	-	-	1.456
Total	168.777	69.381					238.158

The Davao Regional Development Plan 2014-2016 indicated that the region's total road network of 16,937.43 kilometers is composed of national and local roads wherein local roads (provincial, city, municipal and barangay) make up the bulk of 92 percent of the total length. In spite of this, the 2010 inventory of roads in the region shows that the over- all computed road densities in Davao Region was 0.86 km./sq.km. Relatively, the province of Davao del Norte shall focus to increase road network in the above mentioned Local Government Units (LGUs) with road requirements.

4.2.3 Traffic Volume

Table No. 4-185 represents the average monthly traffic volume on some internal circulation routes in the province. It was observed that the largest traffic volume is at Tagum-Carmen section, Table considering that this section is along the Agusan-Davao Road trunkline. It is also significant to note the volume of truck traffic along the

Sto. Tomas-Panabo section. This road section serves as a collector road for the vast banana production areas in Panabo, Sto. Tomas, Kapalong and Asuncion. This road plays a vital role in the transport of Cavendish banana for export from the production areas to the wharves in Panabo City. Bus traffic is frequent at the Tagum-Carmen section. This bus traffic volume is characterized mainly by inter-provincial routes.

Table No. 4-23: **Traffic Volume on Some Major Internal Circulation Routes Province of Davao del Norte, 2020**

Station	Road Section	Car	Jeepney	Bus	Truck	Total/AADT
Km. 1462+800	Agusan-Davao Road	38.04	12.18	2.71	2.36	20665
Km. 1470+000	Tagum-Panabo Circum. Road	21.5	4.84	1.71	1.01	12154
Km. 1428+700	Surigao-Davao Coastal Road					
Km. 1478+590	Carmen-Dapecol Compound Road	23.05	2.61	1.67	0.33	9150
Km. 1512+000	Babak-Samal-Kaputian Road	8.95	2.4	0.92	0.64	5454

Source: DPWH

4.2.4 Land Transport Infrastructures, Facilities and Utilities

a. Bridge

Table No.4-24: **Summary of Temporary and Permanent Bridges Along Local Roads by City and Municipality, Province of Davao del Norte 2020**

Municipality	Temporary					
	Bailey		Timber		Total	
	No.	Length (m)	No.	Length (m)	No.	Length(m)
Asuncion	1	30.0				
New Corella	1	18.0				
Tagum City						
Kapalong						
San Isidro						
Talaingod						
Sto. Tomas						
Carmen						
B.E. Dujali						
Panabo City						
IGaCoS						
Province						
% Distribution						

**Table 4-25: Reinforced Concrete Deck Girder (RCDG) Bridges
Davao del Norte, 2020**

Municipality	Permanent									
	RCDG-2 lane		STEEL		RCBC		RCDG-1 lane		Total	
	No.	Length(m)	No.	Length (m)	No.	Length (m)	No.	Length (m)	No.	Length (m)
Asuncion	4	177	1	10.0	3	10.50	6	162.60	14	360.10
New Corella	12	300.60	1	36.0	8	43.50	4	54.30	25	434.40
Tagum City										
Kapalong	1	10.0			2	7	5	195.45	8	212.45
San Isidro					1	4	4	90.0		94.0
Talaingod			1	54.0	2	11.50			3	65.50
Sto. Tomas	2	55.0	1	45.40			9	170.80	12	271.20
Carmen	3	118.0					7	134.00		252.0
B.E. Dujali	1	36.0	2	51.60			3	69.50	6	157.10
Panabo City										
IGaCoS										
Province	23	696.60	6	197	16	76.5	36	836.65	81	1,846.75
% Distribution										

Source: PEO, LGU's

The province has been adopting the single lane Reinforced Concrete Deck Girder (RCDG) bridges, which connect provincial roads to barangay roads, and barangay to another. The other bridge design adopted was the two-lane RCDG bridge, which connects one municipality to another. There are also modular steel bridges existing in the province, which were implemented under the foreign assisted President's Bridge Program.

There are 23 units of Two-Lane RCDG Bridges and 36 units of One-Lane RCDG Bridges in the province. Out of the total 1,846.75 linear meters of bridges, 696.60 linear meters are Bailey and Timber bridges which are considered temporary and are located along local roads.

Based on the latest inventory of bridges, there are still road sections traversing river systems in the absence of bridges. Some of these roads are passable only when the river bed is dry, or when water level is low. There are also existing roads that are undeveloped due to the absence of bridges. In areas where bridges are not yet feasible or no roads are present, hanging bridges and cableways are the alternative means of transporting people and goods across the river banks.

Table No.4-26:

**List of River Systems Traversed
by Roads without Bridges,
Province of Davao del Norte, 2018**

Municipality/ City	River System	Name of Road Section where Proposed Bridge will be part of	Proposed Bridge	Length (lm)
Asuncion	Ilog Creek	Cambanogoy-Magatos Road	Cambanogoy/Magatos Br.	31.50
	Saug River	Buclad-New Ibahay Rd	New Ibahay Bridge	80.00
	Macgum River	Napungas-Sonlon Road	Napungas/Sonlon Br.	36.00
	Camansa Creek	Sonlon-Camansa Road	Sonlon/Camansa Br.	24.00
	Saug River	Upper Cabaywa-Cabaywa Proper Rd	Cabaywa Bridge	100.00
	Madgao River	Sagayen-Napungas Rd	Madgao Bridge	38.00
Kapalong	Kapalong River	Langan-Pipisan Rd.	Langan Bridge	100.00
	Gupitan Creek	Monte Dujali-Gupitan Rd.	Gupitan Bridge	12.00
	Kapalong River	Monte Dujali-Kapatagan Rd.	Patel Bridge	50.00
	Libuganon River	Maniki-Mamacao Road	Mamacao Bridge	60.00
Carmen	Buhang Creek	Anibongan-New Maligaya Rd.	Anibongan/New Maligaya	15.00
	Tuganay River	Anibongan-New Maligaya Rd.	Anibongan/New Maligaya	45.00
	Ising River	Lapaz-Lower Tuganay Coastal Rd.	Lapaz/Taba Bridge	90.00
	Ising River	Purok 6 - Purok 1 Ising Road	RCDG	24.00
	Ising River	Purok 8 Ising - Sto Nino	RCDG	30.00
	Ising River	Purok 20 Ising - Mangalcal Rd	Flatslab	12.00
	Buhang Creek	Prk. 4, San Isidro-Dujali Rd.	San Isidro Bridge	24.00
IGaCoS	Bagacay Creek	Tagbitan-ag - Sitio Bagacay Rd.	Tagbitan-ag Bridge	30.00
	Kunghok Creek	Libuak-Balet Road	Libuak/Balet Bridge	20.00
	Madale Creek	Kanaan-Pangubatan Road	Kanaan/Pangubatan Bridge	20.00
	Kanaan Creek	Kanaan-Bandera Road	Kanaan/Bandera Bridge	20.00
	Taglaya Creek	San Antonio-Tagbitan-ag Rd.	Tagbitan-ag Bridge	20.00
	Rabanal Creek	Sitio Tinago Road	Tinago Bridge	30.00
Talaingod	Bunawan Creek	Sto. Niño-Km. 31	Angelo Bridge	40.00
	Bunawan Creek	Sto. Niño-Km. 31	Paiton Bridge	60.00
	Kipaliko River	Tugas-Naseco Road	Naseco Bridge	30.00
	Upper Libuganon River	Angelo-Paiton Road	Angelo/Paiton Bridge	20.00
	Semong River	Paiton-Biasong Road	Paiton/Biasong Bridge	40.00
	Upper Libuganon River	Biasong-Mibulo Road	Bukag Bridge	18.00
	Gabuyan River	Igang-Tambuko Road	Papangi Bridge	15.00
	Gabuyan River	Kuyas-Sto. Niño Road	Kalagutay Bridge	12.00
New Corella	Mandapaan River	Mesaoy-New Bohol(Brgy. Road)	Mandapaan Bridge	18.00
	Mawab Creek	Sta. Fe-Maming Road	Sta. Fe/Maming Bridge	12.00
	Saug River	Cabidianan, New Corella-Buan, Asuncion	Cabidianan/Buan Bridge	80.00
	Saug River	San Roque, New Corella- Napungas, Asuncion	San Roque/ Napungas Bridge	80.00
	NIA Canal	Dasing, Mesaoy-Montecarlo, Del Pilar	Dasing/Montecarlo Bridge	18.00
	Limbaan Creek	P-2, Poblacion	Poblacion Bridge	10.00

		P-5, Poblacion (Along Cemetery)	Poblacion Bridge	18.00
		San Roque - Limbaan	San Roque-Limbaan Bridge	24.00
San Isidro	Madgao River	Pinamuno, San Isidro to Panamurin, Laak, ComVal Road	Pinamuno Bridge	50.00
	Anglas River	Prk Marigold -Pri Palmera (Mamangan)	Mamangan Bridge	36.00
	Igangon Creek	Prk 5, Igangon Road	RCDG Bridge	18.00
	Sabangan River	Prk 6 Sabangan - Bagong Silang	Hanging Bridge	150.00
	Pinamuno Creek	Prk Siabok, Pinamuno Road	RCDG Bridge	24.00
	Mamangan Creek	Prk Sto. Niño Pinamuno Road	RCDG Bridge	24.00
	Kasilak Creek	Agman-Kasilak, Linao Road	RCDG Bridge	30.00
	Sto. Tomas	Tuganay River	Feeder 1-New Visayas Road	Tuganay bridge
Tuganay River		Tulalian - Tibal-og Road	Tulalian Bridge	12.00
BE. Dujali	Matin-ao Creek	Purok 5 Bugtong Talisay Road	Purok 5 Bugtong Talisay Br	24.00
	Mag Creek	Purok 5 New Casay Creek	Purok 5 New Casay Br	24.00
Panabo City	Tulalian River	Homeland Dapco- Natl Highway to Sto Tomas Road	Homeland Dapco Bridge	15.00
	Lasang River	Nanyo-Kaputian Road	Nanyo Bridge	50.00
	Bunawan River	Sta Cruz - Bunawan Road	Sta Cruz RCDG Bridge	24.00
	Upper Licanan River	Upper Licanan-Matignao-Brgy Tagpore Road	Upper Licana Bridge	12.00
	Tulalian River-Packing II	A.O. Floreindo-Nat'l Highway - Carmen	Tulalian Bridge	30.00
	Lower Panaga River	Lower Panaga-Sindaton Road	Lower Panaga Bridge	50.00
	Tagactac River	Mabunao-Sitio Tagactac-San Nicopas	San Nicolas(Tagactac) Bridge	60.00
Total Length				2,468

Source: LGUs

b. Land Transport Terminals for Intra Provincial Circulation

The central bus and jeepney terminal in the province is located in Tagum City. Aside from the inter-provincial public transport, the terminal also caters to intra-provincial routes. The jeepney terminal in Tagum City is located in an open lot adjacent to the bus terminal and it has a passengers' canopy. It has a capacity of 10 bays and can accommodate 1,024 jeepneys in 16 hours. At present, the bus and jeepney terminal is being operated by the City Government of Tagum. In other municipalities, bus and jeepney terminals also exist and are being managed by the local government units.

Aside from the government operated terminal, there are also privately operated terminals for jeepneys and small buses in Tagum City. These are the two buildings opposite to the public terminal, and they can accommodate a total of 17 jeepneys simultaneously.

The capital Tagum City is linked through public land transportation to other municipalities by the following key routes:

1. Tagum-New Corella
2. Tagum-Kapalong via Asuncion

3. Tagum-San Isidro via Asuncion
4. Tagum-Talaingod via Asuncion and Kapalong
5. Tagum-Sto. Tomas
6. Tagum-B.E. Dujali
7. Tagum-Davao City via Carmen and Panabo City

The jeepney terminal in Panabo City has 18 bays capacity for jeepneys. The key destinations include: Davao City, Carmen, B.E. Dujali and some hinter barangays of Panabo City such as DAPCO and Dalisay. In the IGaCoS, bus terminals are located in Babak and Peñaplata with destination to Davao City. Buses in the IGaCoS are transported to Davao City by private ferries.

c. Registered Motor Vehicles

The Table below showed that in CY 2020 the highest registered vehicle is Motor/Tricycles. Please see Table No. 4-27.

Table No.4-27: **Registered Motor Vehicles, Davao del Norte: 2020**

Type of Motor Vehicle	Number of Registered Motor Vehicles	
	Year 2020	Percentage
Cars/ Jeeps	22,873	23.77
Trucks/ Buses	4,656	4.83
Motor/ Tricycles	68,233	70.90
Trailers	479	.50
Total	96,241	100

Source: LTO

Various types of registered vehicles provide the means of transport to public passengers. Basically, large buses ply inter-provincial routes; jeepneys for inter-municipal routes; and tricycles and motorcycles for intra-municipal and city routes. Franchising of tricycles are being processed at the municipal and city level, while the rest are being processed at the Land Transportation Franchising and Regulatory Board.

The jeepney terminal in Panabo City has 18 bays capacity for jeepneys. The key destinations include: Davao City, Carmen, B.E. Dujali and some hinter barangays of Panabo City such as DAPCO and Dalisay. In the IGaCoS, bus terminals are located in Babak and Peñaplata with destination to Davao City. Buses in the IGaCoS are transported to Davao City by private ferries.

4.3 Sea Transport

At present, the efficient means of moving people, goods and commodities from the IGaCoS to the mainland is sea transportation. Government ports are located in the Island Garden City of Samal managed by the city government. These ports are

utilized as terminal ports for sea transport utilities transporting passengers and goods to and from Davao City, and Talikud Island.

No less than 30 motorboats transport passengers and goods from the different coastal barangays of IGaCoS to Davao City. Motorized bancas ferry passengers from various points in the island to Davao City, particularly at Sta. Ana Wharf and Sasa Wharf. The different beach resorts have their own seacrafts, and utilize their private wharves in transporting visitors and tourists. On peak days, it is estimated that about 3,000 to 5,000 visitors troop to various beaches of IGaCoS. Among key destination points of tourists are the Paradise Beach Resort, Samal Casino Resort, the Pearl Farm Resort, and the resorts and eco-tourism spots around the shorelines of Talikud Island.

CHAPTER V

SOCIAL SECTOR

Economic growth of a locality greatly affects the quality of life of the constituents. Employment and income affects expenditures. The ability to access goods and services may be limited to the point that basic needs are not met and will result to poverty. Poverty, in turn, affects the quality of production and eventually economic development. This chapter therefore presents the symptoms of growth particularly on the social dimension of development of the province.

5.1 Health

1. Facilities

As of 2020, there are a total of 27 hospitals and public facilities operating in the Province of Davao del Norte, four (4) of which are government owned and operated hospitals, such as: the Davao Regional Medical Center, which status was upgraded from Davao Regional Hospital in 2015 is located in Tagum City. Three (3) Provincial Hospitals are located in Kapalong, Carmen, and the Island Garden City of Samal. There are also 23 private hospitals of different levels and classification that locate in Kapalong, Tagum City, Carmen, Sto. Tomas, Panabo City and Samal City. Their geographical distribution and classification are shown in the table below.

Table No. 5-1: **List of Public and Private Hospitals**
Davao del Norte: 2020

Name of Hospitals	Location	Available Bed Capacity	Service Capability	Classification
1. Bishop Joseph Regan Memorial Hospital	Tagum City	180	Level 3	General
2. Tagum Doctors Hospital	Tagum City	100	Level 3	General
3. Medical Mission Group Hospital and Health Services Cooperative of Tagum City	Tagum City	150	Level 3	General
4. United Doctors Hospital of Tagum City, Inc.	Tagum City	20	Level 2	General
5. Aquino Medical Specialist Hospital, Inc.	Tagum City	50	Level 2	General
6. Alegre Medical Clinic and Hospital	Kapalong	28	Level 1	General
7. Salomon – Mangilet Maternity Clinic and Hospital	Kapalong	18	Level 1	General
8. Carmen Medical Clinic and Hospital	Carmen	18	Level 1	General
9. Somoso General Hospital	Panabo City	35	Level 2	General
10. Rivera Medical Clinic	Panabo City	100	Level 3	General
11. Zafra Medical Hospital	Panabo City	15	Level 1	General
12. Cainglet Medical Hospital	Panabo City	23	Level 1	General

13. Panabo Polymedic Hospital	Panabo City	36	Level 2	General
14. TADECO Hospital	Panabo City	10	Level 1	General
15. Good Shepherd Medical and Maternity Center	Panabo City	34	Level 1	General
16. Carmelite Hospital	Panabo City	18	Level 1	General
17. Estela Medical Clinic and Pharmacy	Sto. Tomas	10	Level 1	General
18. Rivera Medical Center and Hospital	Sto. Tomas	18	Level 1	General
19. Matutes Medical Clinic and Hospital	Sto. Tomas	12	Level 1	General
20. Bungabong-Sanico Medical Clinic and Maternity Hospital	Sto. Tomas	18	Level 1	General
21. Metropolitan Polyhealth Community Hospital	Sto. Tomas	10	Level 1	General
22. Rivera Medical Center – Satellite Hospital	Sto. Tomas	15	Level 1	General
23. IGACOS General Hospital	Samal	18	Level 1	General
24. PEEDO Davao del Norte Hospital – Carmen Zone	Carmen	25	Level 1	General
25. PEEDO Davao del Norte Hospital – Kapalong Zone	Kapalong	25	Level 1	General
26. PEEDO Davao del Norte Hospital – Samal Zone	Samal	25	Level 1	General
27. Davao Regional Medical Center	Tagum City	600	Level 4	General

Source: Provincial Health Office

On August 26, 2015, by virtue of the Republic Act 10678, signed by President Benigno S. Aquino III, Davao Regional Hospital was converted into Davao Regional Medical Center (DRMC), increasing its bed capacity from 200 to 600.

DRMC serves as the core referral hospital for cluster 1 serving the city of Tagum and municipality of Talaingod in the implementation of Inter Local Health Zone (ILHZ). ILHZ, as a form of inter-LGU cooperation is established in order to better protect the public or collective health of their community, assure the constituents access to a range of services necessary to meet health care needs of individuals, and to manage their limited resources for health more efficiently and equitably.

On the other hand, the PEEDO Davao del Norte Hospital – Kapalong Zone, serves as the core referral hospital of patients and clients from the Health Development Cluster II, that comprises the municipalities of San Isidro, Kapalong, Asuncion and Talaingod or SIKAT Cluster.

Moreover, the Health Development Cluster III comprises the Municipality of Dujali, Carmen, Panabo City and Sto. Tomas or the DCaPs Cluster. And lastly, the Island Garden City of Samal is referred as Cluster IV.

The ratio of hospital beds to the population, usually expressed as the number of available hospital beds for every 1,000 population (PSA). The indicator of hospital bed to total population ratio is expressed by the following formula: number of

hospital beds / total population multiplied by 1,000. Based on the NEDA service standards 1 hospital bed will ideally serve 1,000 population.

The table below shows the hospital bed to population ratio by LGU, by cluster and for the province. In 2020, Davao del Norte with 1,087,096 populations had a ratio of 1:611 beds, higher than the standard of 1 hospital bed for every 1,000 population. Among the four (4) clusters, clusters 2, 3 and 4 are below the hospital bed accommodation standards, while cluster 1 has a higher ratio with 1:305 and with 1:252 beds. Due to the strategic locations of hospitals in the province populations from neighboring provinces also flock to these hospitals to avail of medical services.”

Table No 5-2: **Hospital Population Ratio by Health Development Cluster**
Davao del Norte: 2020

City/ Municipality	Population 2020	No. of Hospitals			Available Bed Capacity	Hospital Bed Ratio by City/Mun.	Hospital Bed to Population Ratio per Cluster
		Gov't.	Private	Total			
New Corella	58,663	0	0	0	0	0	1:305
Tagum City	277,508	1	5	6	1,100	1:252	
San Isidro	28,507	0	0	0	0	0	1:2,859
Kapalong	81,649	1	2	3	71	1:149	
Asuncion	63,452	0	0	0	0	0	
Talaingod	29,395	0	0	0	0	0	
B.E. Dujali	32,200	0	0	0	0	0	1:1,099
Carmen	79,879	1	2	2	43	1:1,857	
Panabo City	197,452	0	8	8	271	1:728	
Sto. Tomas	127,018	0	6	6	83	1:530	
Samal City	111,373	1	1	2	43	1:2,590	1:2,590
Total	1,087,096	4	23	27	1,611	1:674	

Source: Provincial Health Office

To augment these hospital facilities in the province, there are also health centers, barangay health stations which are situated in all cities and municipalities to deliver basic health services, as reflected in table no. 5-3.

Table 5-3: **Main Health Centers, Barangay Health Stations and Brgy. Health Workers**, Davao del Norte: CY 2020

AREA	Health Centers		Barangay Health Stations	
	No. of Health Center	Number of Barangays	Number of Brgy. Health Stations	Number of Brgy. Health Workers
Tagum City	1	23	29	305
New Corella	1	20	20	230
San Isidro	1	13	11	186
Kapalong	1	14	14	190
Asuncion	1	20	16	410
Talaingod	1	3	5	102
B.E. Dujali	1	5	4	75
Carmen	1	20	18	203
Panabo City	1	40	36	267
Sto. Tomas	1	19	18	209
Babak	1	16	15	150
Kaputian	1	15	14	201
Samal City	1	15	15	217
Total	13	223	215	2,745

Source: Provincial Health Office

2. Health Manpower

According to World Health Organization (2011), health workers are defined as all persons eligible to participate in the national health labor market by virtue of their training, accreditation, skills, and, where required, by age. The most complete and comparable data currently available on the health workforce globally pertain to physicians, nurses and midwives. However, the health workforce includes a wide range of other categories of service providers (e.g., dentists, pharmacists, physiotherapists, community health workers), as well as management and support workers. Information should be captured on all of these categories of human resources for health.

In Davao del Norte, health workers include doctors, nurses, dentists, midwives, medical technologists and sanitary inspectors. The table below presents the existing number of health workers in the province:

Table No. 5-4: **Number of Health Workers by City and Municipality**
Davao del Norte: CY 2020

LGU	No. of Health Workers					
	Doctors	Nurses	Dentists	Midwives	Med Tech	Sanitary Inspectors
Asuncion	1	1	1	3	1	1
BE Dujali	1	1	0	5	1	1
Carmen	1	1	1	5	1	1
Kapalong	1	2	0	14	1	2
New Corella	1	1	0	5	1	1
San Isidro	1	1	0	5	0	1
Sto. Tomas	3	2	1	13	2	2
Talaingod	1	1	0	5	1	0
Panabo City	3	4	1	33	5	3
Tagum City	3	4	4	15	7	5
IGaCoS	4	5	3	19	13	3
Total	20	23	11	122	23	20

Source: Provincial Health Office

By definition, the number of health workers available is relative to the total population subset by type of health worker.

This indicator is calculated as: The number of health workers at a given time in a given country or region / total population for the same geographical area.

The ratio can be adjusted to per 20,000 populations by multiplying the numerator and denominator by the same factor required for the denominator to equal 20,000. However, the standard for dentists is 1 for every 50,000 population while 1 for every 5,000 for midwives. The table below shows the available health workers, ratio to population and the existing need for Davao del Norte.

Table No. 5-5: **Number of Human Resources for Health**
Davao del Norte: CY 2020

Category	Number of HRH	Ratio to Population	Average No. of HRH to meet the Standard (DOH Target)	National Standard Ratio (DOH)
Physician	20	1:57,215	54	1:20,000
Nurses	23	1:47,265	54	1:20,000
Midwives	122	1:8,902	217	1:5,000
Dentists	14	1:77,649	21	1:50,000
Medical Technologists	20	1:54,354	21	1:50,000
Pharmacists	10	1:108,709	21	1:50,000
Nutritionists and Dieticians	10	1:108,709	21	1:50,000
Sanitation Inspectors	18	1:60,394	54	1:20,000
Population Program Officers	19			1 per C/MLGU
Health Educ. Promotion Officers	11			1 per C/MLGU

Source: Provincial Health Office

3. Other Health Indicators

a. Mortality

Why counting the dead matters? Measuring how many people died each year and why they have died is one of the most important means of assessing the effectiveness of a country's health system, as well as in determining how various diseases and injuries are affecting the living. Having those numbers helps health authorities determine whether they are focusing on the right kinds of public health actions. A country where deaths from heart disease and diabetes rapidly rise over a period of a few years, for example, has a strong interest in starting a vigorous program to encourage lifestyles that will help prevent these illnesses. Similarly, if a country recognizes that many children are dying of malaria, but only a small portion of the health budget is dedicated to providing effective treatment, an adjustment can be made. Industrialized countries have systems in place for assessing causes of death in the population. Most developing countries do not have such systems, and the numbers of deaths from specific causes have to be estimated from incomplete data. It is widely acknowledged that progress in this realm is crucial for improving health and reducing preventable deaths.

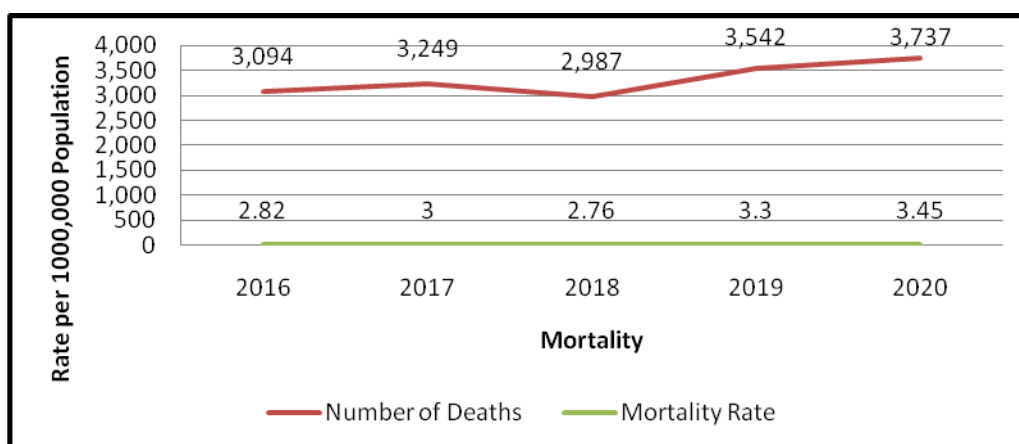
The five year trend of Davao del Norte's mortality rate per 100,000 population shows that 2020 was at its highest rate at 3.45 with 3,737 numbers of deaths. It is observed that in year 2018 was recorded the lowest mortality rate at 2.76. The trend is also clearly illustrated in the succeeding figure.

Table No. 5-6: **Mortality Rate, Number and Rate per 100,000 Population**
Davao del Norte: CYs 2016-2020

Year	Number of Deaths	Mortality Rate per 100,000 Population
2016	3,094	2.82
2017	3,249	3.00
2018	2,987	2.76
2019	3,542	3.30
2020	3,737	3.45

Source: Provincial Health Office

Figure No. 5-1: **Mortality Rate, Number and Rate per 100,000 Population**
Davao del Norte: CYs 2016-2020



Source: Provincial Health Office

The following table shows the breakdown of total number of deaths and the crude death rates by city and municipality for CY 2020. It can be observed that more urbanized areas have higher incidence of deaths compared to less urbanized areas. Tagum City had 1,296, followed by Panabo City with 761 and Samal City with 647. Talaingod had the least with only 85 deaths.

Table No. 5-7: **Total Number of Deaths and Crude Death Rates, by City and Municipality**
Davao del Norte: CY 2020

LGU	Total Number of Deaths	Crude Death Rate
Asuncion	258	4.18%
Braulio E. Dujali	99	3.07%
Carmen	291	3.64%
Kapalong	242	2.96%
New Corella	211	3.59%
San Isidro	102	3.57%
Sto. Tomas	437	3.50%
Talaingod	85	2.89%
Panabo City	761	3.96%
Samal City	647	5.00%
Tagum City	1,296	4.67%
Davao del Norte	3,737	3.45%

Source: Provincial Health Office

Based on World Health Organization (2011) report, chronic diseases, such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, are by far the leading cause of mortality in the world, representing 60% of all deaths. Out of the 35 million people who died from chronic disease in 2005, half were under 70 and half were women.

This invisible epidemic is an under-appreciated cause of poverty and hinders the economic development of many countries. Contrary to common perception, 80% of chronic disease deaths occur in low and middle income countries.

Poor lifestyle choices, such as smoking, overuse of alcohol, poor diet, the lack of physical activity and inadequate relief of chronic stress are key contributors in the development and progression of preventable chronic diseases. Although these diseases are the most common and costly, but they are also the most preventable of all health problems.

In Davao del Norte the leading causes of death are mostly caused by chronic diseases as shown in the table below:

Table No. 5-8: **Mortality, Leading Causes Number and Rate per 100,000 Population, Davao Del Norte: 2020**

Causes	Number	Rate
1. Disease of the Heart	505	46.45
2. Myocardial Infarction	464	42.68
3. Hypertensive	353	32.47
4. Senility	329	30.26
5. Undetermined	193	17.75
6. Cerebrovascular Disease	190	17.47
7. Pneumonia	183	16.83
8. Chronic Kidney Disease	81	7.45
9. Diabetes Mellitus	71	6.53
10. Assault	65	5.97

Source: Provincial Health Office

On the other hand, the top three most leading causes of mortality among persons in the cities and municipalities are pneumonia (421), heart disease unspecified (174) and senile debility (1411). These figures are dominant during the year 2020. Please see the following table:

Table No. 5-9: **Mortality, Leading Causes, Number and Rate per 100,000 Population by City and Municipality Davao del Norte: CY 2020**

City/Municipality	Causes	Number	Rate
B.E. Dujali	Acute Myocardial Infarction	15	15%
Sto. Tomas	Disease of the Heart	140	1.10%
Carmen	Disease of the Heart	52	6.50%
Talaingod	Pneumonia	25	8.50%
Kapalong	Pneumonia	61	7.47%
San Isidro	Disease of the Heart	42	14.73%
Asuncion	Disease of the Heart	80	12.97%
New Corella	Pneumonia	67	11.42%
Tagum City	Pneumonia	421	1.51%

Panabo City	Senile Debility	141	16.28%
IGCS	Heart Disease Unspecified	174	16.07%
Davao del Norte	Disease of the Heart	505	46.45%

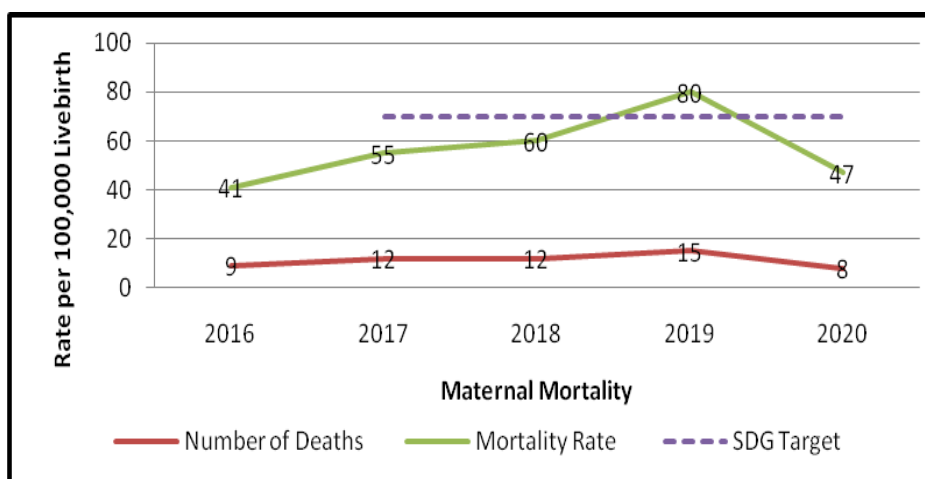
Source: Provincial Health Office

b. Maternal Mortality

According to World Health Organization (WHO), maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

Since 2016, a rising trend is observed in the incidence of maternal deaths in Davao del Norte, the highest of which is in 2019 with 15 deaths with a ratio of 80 per 100,000 live births. However, improvement was seen in 2020 with only 8 maternal deaths or a ratio of 47. Figure No. 5-2 presents the 5-year trend for maternal deaths.

Figure No. 5-2: **Maternal Mortality Ratio Per 100,000 Livebirth**
Davao del Norte: 2016-2020



Source: Provincial Health Office

The Sustainable Development Goal (SDG) target of reducing the maternal mortality ratio to less than 70 per 100,000 live births by 2030, Davao del Norte was able to meet the target maternal mortality rate (MMR) in 2020, assuming the rate of reduction of maternal mortality since 2015 will remain constant. This is reckoned from the 2017 level which was used as the baseline data for the target.

The leading causes that were commonly identified for maternal deaths are shown in the table below.

Table No. 5-10: **Maternal Mortality Leading Causes**
Davao del Norte: CY 2020

Leading Causes	Number	Rate
1. Pre-Eclampsia	1	5.67
2. Hemorrhage	4	22.71
3. Septic Shock	1	5.67
4. Respiratory Failure	1	5.67
5. Severe Pulmonary HPN	1	5.67

Source: Provincial Health Office

One of the major threats to a woman in a developing country is childbirth. Those who suffer are poor, illiterate and live in remote areas. The worse outcome is maternal death from pregnancy-related complications. However, maternal deaths are preventable because the causes are treatable. The loss of a mother due to childbirth is a loss to her family and her community being herself a pillar of strength and an essential partner in development.

The dividend of a woman's better health is in producing an improved future generation (Winikoff 1988). Hence, a country with a high maternal mortality rate does not only reflect a poor health care system but also reveals its low regard on women's dignity and low respect on women's right to life and well-being (Kristoff and WuDunn 2009).

c. Live births and Crude Birth Rate

As of CY 2020, there were a total of 17,611 reported live births in Davao del Norte, which realized a crude birth rate of 16.20%. The crude birth rate (CBR) is almost always reported per 1000 living people. The calculation for determining crude birth rate is $(\text{number of births}) \times 1000 / \text{estimated population at mid-year}$. Tagum City has the most number of live births, while B.E. Dujali has the least number of live births. However, Samal City has the highest CBR of 20.00 and Braulio E. Dujali had the least CBR. The table below presents the total births and crude birth rates of cities and municipalities in 2020.

Table No. 5-11: **Total Number of Live Births and Crude Birth Rates, By City and Municipality**
Davao del Norte: CY 2020

City/Municipality	Live Births	Crude Birth Rate
Asuncion	909	14.74%
Braulio E. Dujali	416	12.91%
Carmen	1,571	19.66%
Kapalong	1,452	17.78%
New Corella	976	16.63%
San Isidro	421	14.76%

Sto. Tomas	2,127	17.20%
Talaingod	468	15.92%
Panabo City	2,499	13.02%
Samal City	2,179	20.00%
Tagum City	4,746	17.10%
Davao del Norte	17,611	16.20%

Source: Provincial Health Office

d. Infant and Under 5 Mortality

The death of a baby before his or her first birthday is called infant mortality. The infant mortality rate is the number of infant deaths that occur for every 1,000 live births. On the other hand, the under-five mortality rate refers to the probability of dying between birth and exactly five years of age expressed per 1,000 live births. The rates are often used as indicators to measure the health and well-being of a nation, because factors affecting the health of entire populations can also impact the mortality rate of infants and children below 5 years of age.

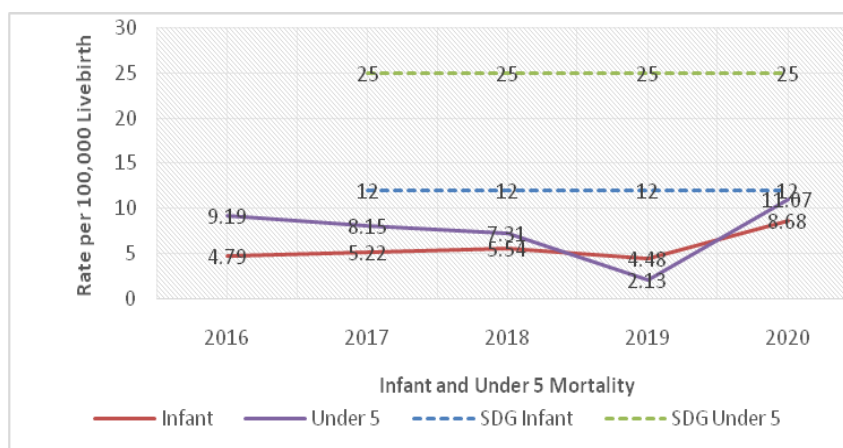
Table No. 5-12: **Infant and Under-5 Mortality Rates**
Davao del Norte: CY 2016-2020

Year	Infant Mortality Rate		Under-5 Mortality Rate	
	Number	Rate	Number	Rate
2016	103	4.79	181	9.19
2017	112	5.22	175	8.15
2018	110	5.54	145	7.31
2019	84	4.48	40	2.13
2020	153	8.68	195	11.07

Source: Provincial Health Office

The figure below can better illustrate the trend of infant and under 5 mortality rates in Davao del Norte as compared to the targets that were set for the Sustainable Development Goals.

Figure No. 5-3: **Infant and Under-5 Mortality**
Davao del Norte, CY 2016-2020



Source: Provincial Health Office

The top three (3) leading causes of infant death in the province are pneumonia, septicemia and respiratory failure. (please see the table below).

Table No. 5-13: **Infant Mortality Leading Causes**
Number and Rate per 1,000 Live Births
Davao del Norte: 2020

Causes	Number	Rate
1. Pneumonia	15	0.85
2. Septicemia	13	0.73
3. Respiratory Failure	10	0.56
4. Neonatal Sepsis	6	0.34
5. Fetus and newborn affected by maternal factors and by complications of pregnancy, labor and delivery	4	0.22
6. Sudden Infant Death Syndrome	5	0.28
7. Congenital Heart Disease	4	0.22
8. Neonatal Tetanus	3	0.17
9. Obstructive Hydrocephalus	2	0.11
10. Gastroenteritis	2	0.11

Source: Provincial Health Office

The leading causes of Under Five Mortality per 1,000 live births are closely similar to causes of infant mortality as shown in the table below:

Table No. 5-14: **Under Five Mortality Leading Causes
Number and Rate per 1,000 Live Births**
Davao del Norte: 2020

Causes	Number	Rate
1. Pneumonia	32	1.81
2. Septicemia	28	1.58
3. Respiratory Failure	17	0.96
4. Acute Lower Respiratory Failure	9	0.51
5. Accidental Injury	9	0.51
6. Sudden Infant Death Syndrome	5	0.28
7. Congenital Heart Disease	4	0.22
8. Fetus and newborn affected by maternal factors and by complications of pregnancy, labor and delivery	4	0.22
9. Assault	4	0.22
10. Gastroenteritis	3	0.17

Source: Provincial Health Office

e. Morbidity

Morbidity refers to the unhealthy state of an individual. A morbidity rate looks at the incidence of a disease across a population and/or geographic location during a single year. Morbidity and mortality are often used together to calculate the prevalence of a disease — e.g., measles — and how likely that disease is to be deadly, particularly for certain demographics.

Table No. 5-15: **Leading Causes of Morbidity**
Davao del Norte: CY 2020

Causes	Number	Rate
1. Acute Upper Respiratory Infection	8,061	741.51
2. Hypertensive	5,888	541.62
3. Wounds (all forms)	4,717	433.90
4. Cough	3,783	347.99
5. Urinary Tract Infection	2,382	219.11
6. Influenza like Illness	2,140	196.85
7. Gastroenteritis	2,041	187.74
8. Infection of the Skin	2,032	186.91

9. Pneumonia	1,707	157.02
10. Diabetes Millitus	1,550	142.58

Source: Provincial Health Office

Infectious diseases remain to be the significant cause of morbidity such as acute upper respiratory infection. Hypertension and other life-style related diseases are however preventable. The prevalence of these illnesses can be attributed to lack of health providers, inadequate health service facilities and patient's lack of awareness on health and nutrition. There is a need to intensify advocacy, promote and adopt behavioral change for healthy lifestyle.

e. Operation Timbang

The Operation Timbang (OPT) Plus of the National Nutrition Council is the annual weighing of all preschoolers 0-71 months old or below six year old in a community to identify and locate the malnourished children. Data generated through OPT Plus are used for local nutrition action planning, particularly in quantifying the number of malnourished and identifying who will be given priority interventions in the community. Moreover, results of OPT Plus provide information on the status of the preschoolers and the community in general, thus providing on the effectiveness of the local nutrition program.

In Davao del Norte, the nutritional status of children below seven years old was determined through the conduct of Operation Timbang by Municipality/City. In 2020, there were estimated 119,846 preschoolers with 105,274 or 87.84% actual preschoolers weighed. Wherein 101,281 were with normal weight, 2,423 were identified as underweight; 560 were severely underweight and 1,010 were overweight. Most of the children falling under underweight and the overweight came from Panabo City and Tagum City while most of the severely underweight came from Panabo City and San Isidro.

The over-all result for Davao del Norte points out that the prevalence rate of malnourished among pre-school children is 2.83% and among the municipalities, Talaingod has the highest percentage rate of malnourished with 9.30% followed by 5.06% of San Isidro and 4.33% of Kapalong. Inadequate intake of food due to large families; under employment of parents as well as inadequate food production, were considered as the main causes of malnutrition. The presence of diseases and poor maternal care were also identified as contributory factors in malnutrition particularly to low birth weight among 0-6 month infants.

Table No. 5-16: **Operation Timbang Result
By City/Municipality
Davao del Norte: 2020
Weight-for-Age**

Name of LGU	Estimated No. of PS	Actual PS Weighed	OPT Coverage (%)	No. of Normal PS	No. of Under-weight PS	No. of Severely Under-weight PS	No. of Over weight PS	Total No. of Under weight + Severely Under weight PS	Prevalence Rate (%)	RANK
Talaingod	3,241	2,978	91.90%	2,683	197	80	18	277	9.30%	1 st
San Isidro	3,143	2,292	72.93%	2,104	28	88	72	116	5.06%	2 nd
Kapalong	9,001	7,577	84.18%	7,164	275	53	85	328	4.33%	3 rd
Panabo City	21,768	18,220	83.70%	17,318	545	124	233	669	3.67%	4 th
Sto. Tomas	14,003	11,376	81.24%	10,899	307	42	128	349	3.07%	5 th
Carmen	8,806	8,227	93.42%	7,961	170	27	69	197	2.39%	6 th
Asuncion	6,995	6,025	86.13%	5,800	120	16	89	136	2.26%	7 th
Samal City	12,278	10,628	86.56%	10,297	207	28	96	235	2.21%	8 th
New Corella	6,467	5,989	92.61%	5,844	103	19	23	122	2.04%	9 th
Tagum City	30,594	29,599	96.75%	28,895	444	82	178	526	1.78%	10 th
BE Dujali	3,550	2,363	66.57%	2,316	27	1	19	28	1.18%	11 th
Total	119,846	105,274	87.84%	101,281	2,423	560	1,010	2,983	2.83%	

Source: Provincial Health Office

Table No. 5-17: **Operation Timbang Result
By City/Municipality
Davao del Norte: 2020
Length/Height-for-Age**

Name of LGU	Projected Population	Estimated No. of PS	Actual PS Measured	OPT Coverage (%)	No. of Normal PS	No. of Stunted / Short PS	No. of Severely Stunted PS	No. of Tall PS	Prevalence Rate Tall (%)	Total No. Of Stunted + Severely Stunted PS	Prevalence Rate ST+SST (%)	RANK
San Isidro	28,541	3,143	2,292	72.93%	1,885	209	113	85	3.71%	322	14.05%	1 st
Talaingod	29,431	3,241	2,978	91.90%	2,598	239	130	11	0.37%	369	12.39%	2 nd
Kapalong	81,748	9,001	7,577	84.18%	6,615	642	106	214	2.82%	748	9.87%	3 rd
Panabo City	197,452	21,768	18,220	83.70%	16,429	1,146	299	346	1.90%	1,445	7.93%	4 th
B.E Dujali	32,239	3,550	2,363	66.57%	2,183	114	29	37	1.57%	143	6.05%	5 th
Sto. Tomas	127,173	14,003	11,376	81.24%	10,464	582	103	227	2.00%	685	6.02%	6 th
Carmen	79,976	8,806	8,227	93.42%	7,684	353	58	132	1.60%	411	5.00%	7 th
New Corella	58,734	6,467	5,989	92.61%	5,607	241	19	122	2.04%	260	4.34%	8 th
Asuncion	63,530	6,995	6,025	86.13%	5,688	205	47	85	1.41%	252	4.18%	9 th
Samal City	111,509	12,278	10,628	86.56%	10,149	369	45	65	0.61%	414	3.90%	10 th
Tagum City	277,847	30,594	29,599	96.75%	28,793	485	183	138	0.47%	668	2.62%	11 th
Total	1,088,180	119,846	105,274	87.84%	98,095	4,585	1,132	1,462	1.39%	5,717	5.43%	

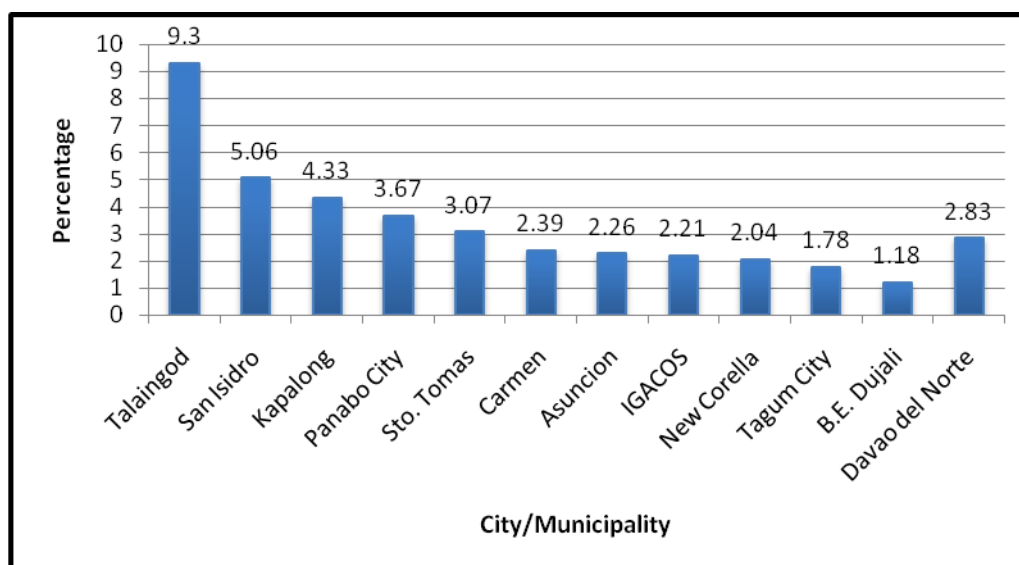
Table No. 5-18: **Operation Timbang Result
By City/Municipality**
Davao del Norte: 2020
Weight-for-Length/Height

Name of LGU	Projected Population	Estimated No. of PS	Actual PS Measured	OPT Coverage (%)	No. of Normal PS	No. of Wasted PS	No. of Severely Wasted PS	No. of Over Weight PS	No. of Obese PS	Total No. of Wasted + Severely Wasted PS	Prevalence Rate (%)
Talaingod	29,431	3,241	2,978	91.90%	2,821	51	35	38	33	86	2.89%
Kapalong	81,748	9,001	7,577	84.18%	7,216	206	1	92	62	207	2.73%
San Isidro	28,541	3,143	2,292	72.93%	2,083	19	34	85	71	53	2.31%
Panabo City	197,452	21,768	18,220	83.70%	17,427	353	18	251	171	371	2.04%
Carmen	79,976	8,806	8,227	93.42%	7,914	98	29	140	46	127	1.54%
Sto. Tomas	127,173	14,003	11,376	81.24%	11,048	114	10	136	68	124	1.09%
BE Dujali	32,239	3,550	2,363	66.57%	2,303	14	7	25	14	21	0.89%
News Corella	58,734	6,467	5,989	92.61%	5,893	38	9	33	16	47	0.78%
Samal City	111,509	12,278	10,628	86.56%	10,413	59	4	86	66	63	0.59%
Tagum City	277,847	30,594	29,599	96.75%	29,200	116	8	151	124	124	0.42%
Asuncion	63,530	6,995	6,025	86.13%	5,872	22	2	79	50	24	0.40%
Total	1,088,080	119,846	105,274	87.84%	102,190	1,090	157	1,116	721	1,247	1.18%

Figure No. 5-4 below demonstrates that the municipality with the highest malnutrition rate is Talaingod (9.30%). To answer this felt need, intervention such as the implementation of Gulayan sa Paaralan at Kabahayan needs to be facilitated. Another interventions are the provision of Salter Weighing scales for hard to reach sitios, strengthening of partnership with Municipal Social Welfare and Development Office in their Nutrition Month celebration in Day Care Centers and close coordination with DepEd in Nutrition Month celebration in elementary schools.

Moreover, San Isidro (5.06%) and Kapalong (4.33%) need to strengthen regular monitoring and supervision of nutrition programs, conduct of trainings on nutrition and provision of supplemental feeding and procurement of OPT equipment.

Figure No. 5-4: **Prevalence Rate on Malnutrition**
By City/Municipality
Weight-for-Age
Davao del Norte: 2020



Source: Provincial Health Office

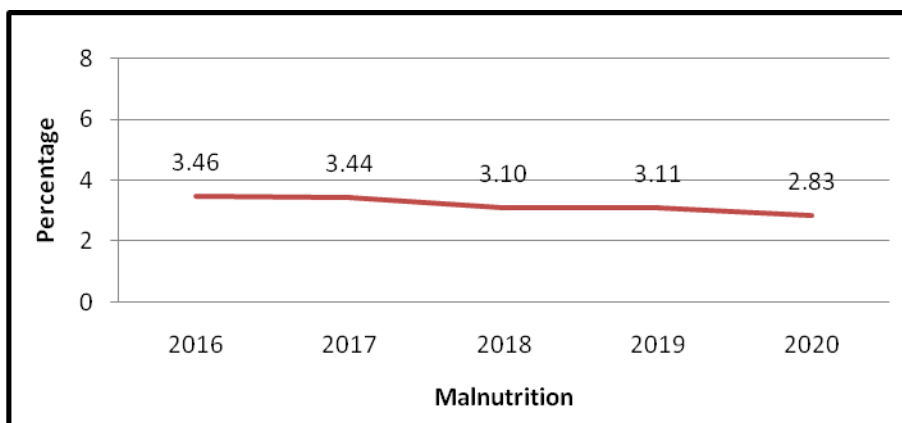
Table No. 5-19: **Prevalence Rate on Malnutrition**
By City/Municipality
Davao del Norte: 2020

City/Municipality	Weight-for-Age		Length/Height-for-Age		Weight-for-Length/Height	
	No.	Rate	No.	Rate	No.	Rate
Talaingod	277	9.30%	369	12.39%	86	2.89%
San Isidro	116	5.06%	322	14.05%	53	2.31%
Kapalong	328	4.33%	748	2.82%	207	2.73%
Panabo City	669	3.67%	1,445	1.90%	371	2.04%
Sto. Tomas	349	3.07%	685	6.02%	124	1.09%
Carmen	197	2.39%	411	5.00%	127	1.54%
Asuncion	136	2.26%	252	4.18%	24	0.40%
Samal City	235	2.21%	414	3.90%	63	0.59%
New Corella	122	2.04%	260	4.34%	47	0.78%
Tagum City	526	1.78%	668	2.26%	124	0.42%
B.E. Dujali	28	1.18%	143	6.05%	21	0.89%
Davao del Norte	2,983	2.83%	5,717	5.43%	1,247	1.18%

Source: Provincial Health Office

Figure No. 5-5 shows the 5-year (2016-2020) trend on malnutrition rate in Davao del Norte. A decreasing trend is noted from 3.11% in 2019 to 2.83% in 2020.

Figure No. 5-5: **5-Year Trend on Malnutrition Rate (0-71 Months Old Preschool Children) Weight-for-Age**
Davao del Norte: CY 2016-2020



Source: Provincial Health Office

The significant improvement on the nutrition status of pre-school children can be accredited to the active support and involvement of the Barangay Nutrition Scholars, Provincial Nutrition Council (PNC) and other stakeholders. To end hunger and achieve food security and improved nutrition and promote sustainable agriculture is the number 2 Goal of the Sustainable Development Goals (SDG). Achievements in reducing malnutrition need to be sustained through the collaborative effort of every sector by continuously advocating the implementation of service delivery.

5.2 Education Services

1. Facilities

Davao del Norte has a total of 308 purely elementary and 9 purely junior high schools, 81 JHS and SHS and 8 purely SHS. As expected the cities have more schools since they are highly urbanized. On the other hand, integrated ES and JHS has 28 and integrated ES, JHS and SHS has 16. This suggests that basic education both in elementary and high school has become more accessible in Davao del Norte. The breakdown of the number of schools can be gleaned at the table below.

Table No. 5-20: **Education Facilities, by Level,**
By City and Municipality
Davao del Norte: SY 2020-2021

Division/ City/ Municipality	Purely ES	Purely JHS	JHS and SHS	Purely SHS	Integrated ES and JHS	Integrated ES, JHS and SHS	Total
Davao del Norte							
- Asuncion	25	0	3	0	2	0	30
- B.E. Dujali	10	0	3	0	1	0	14
- Carmen	21	1	6	0	0	0	28
- Kapalong	50	0	10	0	5	3	68
- New Corella	25	0	4	0	1	1	31
- San Isidro	14	0	4	0	0	1	19
- Sto. Tomas	23	0	7	0	1	2	33
- Talaingod	23	1	3	0	11	0	38
- Tagum City	0	0	1	0	0	0	1
Samal City	52	4	19	3	1	4	83
Panabo City	59	3	12	5	6	5	90
Tagum City	26	0	9	0	0	0	38
Total	328	9	81	8	28	16	473

Source: DepEd Divisions of TC, PC, IGCS and DDN

There are 25 tertiary educational facilities in Davao del Norte in 2020. Most of which are located in Tagum City. There are two state universities and colleges (SUCs) and two medical school operated in Davao del Norte. All higher education institutions offer various courses and degrees. Please see the following table:

Table No. 5-21: **Educational Facilities, Tertiary**
Davao del Norte: 2020

	INSTITUTION	LOCATION
1.	ACES Polytechnic College	Panabo City
2.	ACES Tagum College	Tagum City
3.	ACLC College of Tagum	Tagum City
4.	Arriesgado College Foundation Incorporated	Tagum City
5.	CARD-MRI Development Institute	Tagum City
6.	Davao del Norte State College	Panabo City
7.	Davao Winchester Colleges, Inc.	Sto. Tomas
8.	Kapalong College of Agriculture, Sciences & Technology	Kapalong
9.	Liceo de Davao	Tagum City
10.	Maryknoll College of Panabo, Inc.	Panabo City
11.	NDC Tagum Foundation	Tagum City
12.	North Davao Colleges	Panabo City
13.	Northlink Technological College	Panabo City
14.	Queen of Apostles College Seminary	Tagum City

15.	Samal Island City College	Samal City
16.	Saint Mary's College of Tagum	Tagum City
17.	St. Thomas More School of Law and Business	Tagum City
18.	STI College Tagum	Tagum City
19.	Sto. Tomas College of Agriculture, Sciences and Technology	Sto. Tomas
20.	Tagum City College of Science and Technology Foundation	Tagum City
21.	Tagum Doctors College	Tagum City
22.	UM Panabo College	Panabo City
23.	UM Peñaplata College	Samal City
24.	UM Tagum College	Tagum City
25.	University of Southeastern Philippines- Tagum Mabini	Tagum City

Source: CHED XI

For SY 2020-2021, a total of 48 public and private technical vocational institutions (TVIs) were registered with the Technical Education and Skills Development Authority (TESDA). These provided post-secondary technical vocational education and training (TVET) programs. Tagum City, the economic hub and capital city of the province has the most number of TVIs, followed by Panabo City. The Island Garden City of Samal had registered programs along tourism sector, being a tourism destination in the region. The increasing enrolment trend of TVIs can be attributed to the growing demand of skilled workers in local and international labor market.

Table No. 5-22: **Technical Vocational Institutions**
Davao del Norte: SY 2020-2021

City/Municipality	No. of Technical Vocational Institutions
Asuncion	2
B.E. Dujali	0
Carmen	2
Island Garden City of Samal	3
Kapalong	4
New Corella	1
Panabo City	7
San Isidro	0
Sto. Tomas	3
Talaingod	0
Tagum City	26
Total	48

Source: TESDA, DDN

Table No 5-23: **Courses Offered by Technical Vocational Schools**
Davao del Norte: SY 2020-2021

Technical/ Vocational Institutions	Courses Offered
DISTRICT I	
A.B.A. Cosmetology Career Center, Inc.	Beauty Care NC II Beauty Care Services (Nail Care) NC II Hairdressing NC II
Aces Tagum College Inc.	Bartending NC II Food and Beverage Services NC II Automotive Servicing NC II Housekeeping NC II
ARC Agri-Venture and Learning Hub	Organic Agriculture Production NC II Production of High Quality Inbred Rice, and Seed Certification, and Farm Mechanization
Arriego College Foundation, Inc.	Caregiving NC II Food and Beverage Services NC II Housekeeping NC II Shielded Metal Arc Welding (SMAW) NC I
Cristo Rey Technical Learning Institute, Inc.	Heavy Equipment Operation (Hydraulic Excavator) NC II Heavy Equipment Operation (Forklift) NC II Heavy Equipment Operation (Wheel Loader) NC II
DPWH Training Center	Heavy Equipment Operation (Forklift) NC II Heavy Equipment Operation (Hydraulic Excavator) NC II Heavy Equipment Operation (Wheel Loader) NC II Heavy Equipment Operations Technology (HEO (Forklift) NC II, HEO (Hydraulic Excavator) NC II, HEO (Wheel Loader Operator) NC II)
Global Education Technology of Kapalong, Inc.	Food and Beverage Services NC II Housekeeping NC II
Inquirinity Corporation	Computer System Servicing NC II
Kapalong College of Agriculture, Sciences and Technology	Bookkeeping NC II
Luwil Institute of Technology Inc.	Shielded Metal Arc Welding (SMAW) NC II Shielded Metal Arc Welding (SMAW) NC I
Mea Natural Farm	Organic Agriculture Production NC II Production of High Quality Inbred Rice, and Seed Certification, and Farm Mechanization Animal Production (Swine) Inc II
Mindanao Skills Language and Training Center, Inc.	Korean Language and Culture
Mindtechs Institute of Technology Inc.	Bread and Pastry Production NC II Cookery NC II Food and Beverage Services NC II Front Office Services NC II Housekeeping NC II Local Guiding Services NC II Trainers Methodology Level I
Mother Rosario School of Tagum, Inc.	Food and Beverage Services NC II Front Office Services NC II Housekeeping NC II Bread and Pastry Production NC II

	Cookery NC II
NDC Tagum Foundation, Inc.	Health Care Services NC II
Ohayo Japanese Training Center, Inc.	Foreign Language (Nihongo)
	Japanese Language and Culture
	Housekeeping NC II
OJTC –Oparu Japanese Tutorial Center, Inc.	Japanese Foreign Language - NTR
Provincial Training Center – Davao del Norte	Driving NC II
	Trainers Methodology Level I
	Barangay Health Services NC II
	Produce Organic Vegetable Leading to Organic Agriculture Production NC II
	Produce Organic Fertilizer Leading to Organic Agriculture Production NC II
	Produce Organic Concoctions and Extracts leading to Organic Agriculture Production NC II
	Process Food by Sugar Concentration leading to Food Processing NC II
	Contact Tracing Level II
	Hollow Blocks Production
	Japanese Language and Culture
	Raise Organic Chicken leading to Organic Agriculture Production NC II
	Driving NC II (MTP)
	Entrepreneurs
	Organic Agriculture Production NC II
	Quicktrain Learning Center, Inc.
Automotive Servicing NC II	
Driving NC II	
Shielded Metal Arc Welding (SMAW) NC I	
Shielded Metal Arc Welding (SMAW) NC II	
St. Mary's College of Tagum, Inc.	Food and Beverage Services NC II
	Housekeeping NC II
St. Therese Institute of Technology and Driving School Inc.	Driving NC II
STI College Tagum Inc.	Cookery NC II
	Food and Beverage Services NC II
Tagum Allied Skills Institute, Inc.	Electrical Installation and Maintenance NC II
Tagum City College of Science and Technology Foundation, Inc.	Automotive Servicing NC II
	Bookkeeping NC III
	Driving NC II
	Food and Beverage Services NC II
	Motorcycle/Small Engine Servicing NC II
Tagum City Trade School	Automotive Servicing NC I
	Automotive Servicing NC II
	Cookery NC II
	Dressmaking NC II
	Food and Beverage Services NC II
	RAC Servicing (DomRAC) NC II
	Technical Drafting NC II
	Trainers Methodology Level I
	Restaurant Services Technology (Cookery NC II, Food and Beverage Services NC II)
	Automotive Technology (Automotive Servicing NC I,

	Automotive Servicing NC I
	Technical Drafting NC II
	Masonry NC II
	Carpentry NC II
	Computer System Servicing NC II
Tagum Doctor's College, Inc.	Bookkeeping NC II
	Health Care Services NC II
Tagum Longford College, Inc.	Housekeeping NC II
Toyokuni Japanese Language and Skills Training Center, Inc.	Japanese Language
	Japanese Language and Culture
UMAYERDE Farm Learning Center	Organic Agriculture Production NC II
Ventura College of Natural Therapeutic Health and Sciences	Hilot (Wellness Massage) NC II
White Lamp School, Inc.	Health Care Services NC II
	Caregiving NC II
District II	
ABA Technical School of Sto. Tomas	Automotive Servicing NC I
	Automotive Servicing NC II
Aces Polytechnic College, Inc.	Automotive Servicing NC I
	Automotive Servicing NC II
	Bartending NC II
	Food and Beverage Services NC II
	Organic Agriculture Production NC II
D' New Orleans Training Center Phils., Inc.	Slaughtering Operations (Swine) NC II
Davao Winchester Colleges, Inc.	Food and Beverage Services NC II
Hikari Japanese Learning Center, Corp.	Japanese Language and Culture
IGB College of Technology and Assessment Center, Inc.	Housekeeping NC II
	Driving NC II
	Food and Beverage Services NC II
Leona Agri Business Vocational School, Inc.	Animal Production (Poultry-Chicken) NC II
	Animal Production (Swine) NC II
Maryknoll College of Panabo Inc.	Cookery NC II
	Food and Beverage Services NC II
	Housekeeping NC II
	Shielded Metal Arc Welding (SMAW) NC I
	Shielded Metal Arc Welding (SMAW) NC II
North Davao Colleges, Inc.	Health Care Services NC II
Northlink Technological College, Inc.	Bookkeeping NC II
	Cookery NC II
	Food and Beverage Services NC II
	Housekeeping NC II
	Trainers Methodology Level I
	Visual Graphic Design NC III
Prestige School of Technology, Inc.	Bartending NC II
	Food and Beverage Services NC II
	Front Office Services NC II
	Housekeeping NC II

Santo Niño Agriculture and Machinery Technical Institute, Inc.	Heavy Equipment Operation (Forklift) NC II
	Heavy Equipment Operation (Hydraulic Excavator) NC II
	Shielded Metal Arc Welding (SMAW) NC I
	Shielded Metal Arc Welding (SMAW) NC II
	Agricultural Crops Production NC I
TJL Learning Center Corporation	Japanese Language and Culture
University of Mindanao, Inc. - Peñaplata Branch	Bartending NC II
	Food and Beverage Services NC II
Valiant Technical Institute and Assessment Center, Inc.	Automotive Servicing NC I
	Automotive Servicing NC II
	Driving NC II
	Rice Machinery Operations NC II

Source: TESDA DDN

2. Enrolment

Public elementary school enrolment for school year 2020-2021 totaled 152,029 for all schools divisions in the province. The Davao del Norte Division has the most enrolment since the division covers 8 component municipalities of Davao del Norte. Among cities, Tagum City had the biggest enrolment population while Samal City got the smallest number. More males (51.57%) than females are enrolled during the school year. Enrolment data for public elementary is presented in the following table.”

Table No. 5-24: **Enrolment, by Division
Public Elementary Schools**
Davao del Norte: SY 2020-2021

Division	Public Elementary		
	Male	Female	Total
Davao del Norte	37,293	34,818	72,111
Tagum City	18,751	17,526	36,277
Panabo City	14,071	13,320	27,391
Samal City	8,297	7,953	16,250
Total	78,412	73,617	152,029

Source: DepEd Divisions of TC, PC, IGCS and DDN

Enrolment for public secondary schools for SY 2020-2021 totaled 107,564 where 53,330 (49.58%) are males and 52,234 (50.42%) are females. The Davao del Norte topped the number of enrollees among the 4 schools divisions since it has more schools compared to the cities. The table below presents the enrolment data by division.

Table No. 5-25: **Enrolment, by Division
Public Secondary Schools**
Davao del Norte: SY 2020-2021

Division	Public Secondary		
	Male	Female	Total
Davao del Norte	24,961	25,293	50,254
Tagum City	13,345	13,691	27,036
Panabo City	9,420	9,592	19,012
Samal City	5,604	5,658	11,262
Total	53,330	54,234	107,564

Source: DepEd Divisions of TC, PC, IGCS and DDN

As reported by the schools divisions, enrolment in private elementary and secondary schools is lesser than the enrolment in public schools. In elementary schools, enrolment was 7,693 while in secondary schools, enrolment was 23,363.

Table No. 5-26: **Enrolment, by Division
Private Elementary and Secondary Schools**
Davao del Norte: SY 2020-2021

Division	Enrolment in Private Schools					
	Elementary			Secondary		
	Male	Female	Total	Male	Female	Total
Davao del Norte	1,083	899	1,982	1,571	2,265	4,836
Tagum City	1,721	1,595	3,316	4,798	5,487	10,285
Panabo City	1,083	1,000	2,083	3,196	3,553	6,749
Samal City	168	144	312	730	763	1,493
Total	4,055	3,638	7,693	10,295	12,068	23,363

Source: DepEd Divisions of TC, PC, IGCS and DDN

As of SY 2020-2021, a total of 30,698 students were enrolled in various higher colleges and universities in the province. The biggest number are enrolled in UM Tagum College with 8,120 where 3,472 were males and 4,648 were females. In the over-all there were more female college students (18,544 or 60.41%) than male students (12,154 or 39.59%) as reflected in the table below. The enrolment data however, do not solely represent the students who are residents of Davao del Norte, but also those who came from neighboring provinces. There is a decrease in enrolment compared last school year mainly because of the pandemic.

Table No. 5-27: **Tertiary Education Enrolment, by Sex**
Davao del Norte: SY 2020-2021

Higher Education Institution	Male	%	Female	%	Total
ACES Polytechnic College	237	62.20%	144	37.8%	381
Aces Tagum College	177	44.47%	221	55.53%	398
Arriesgado College Foundation	165	20.22%	651	79.78%	816
Card-MRI Development Institute	244	31.12%	540	68.88%	784
Davao del Norte State College	1725	39.62%	2629	60.38%	4354
Davao Winchester Colleges	31	22.30%	108	77.70%	139
Kapalong College of Agriculture, Sciences and Technology	1361	40.42%	2006	59.58%	3367
Liceo de Davao	145	31.18%	320	68.82%	465
Maryknoll College of Panabo	6	37.50%	10	62.50%	16
NDC Tagum Foundation	309	28.45%	777	71.55%	1086
North Davao Colleges	157	22.02%	556	77.98%	713
Northlink Technological College	37	58.73%	26	41.27%	63
Queen of Apostles College Seminary	86	100.00%	0	0.00%	86
Samal Island City College	308	46.18%	359	53.82%	667
St. Mary's College of Tagum	676	36.90%	1156	63.10%	1832
St. Thomas More School of Law and Business	601	54.34%	505	45.56%	1106
STI College - Tagum	60	45.80%	71	54.20	131
Sto. Tomas College of Agriculture, Sciences & Technology	968	42.42%	1314	57.58%	2282
Tagum City College of Science & Technological Foundation	168	61.76%	104	38.24%	272
Tagum Doctors College	157	25.74%	453	74.26%	610
UM Panabo College	326	33.27%	654	66.73%	980
UM Peñaplata College	191	35.44%	348	64.56%	539
UM Tagum College	3472	42.76%	4648	57.24%	8120
University of Southeastern Philippines-Tagum Mabini Campus	547	36.69%	944	63.31%	1491
Grand Total	12154	39.59%	18544	60.41%	30698

Source: CHED XI

The courses being offered by the colleges and universities encourage students to stay and study locally. This is considered a more practical option because of the existing problems in traffic and congestion in the regional center. It can be observed that more students enrolled in Business Administration and Related Courses as well as Education Science and Teacher Training. The following table presents the list of courses:

Table No. 5-28: **Tertiary Education Enrolment, by Discipline and Gender**
Davao del Norte: SY 2020-2021

Discipline Group	Male	%	Female	%	Total
Agriculture, Forestry, Fisheries	1167	53.95%	996	46.05%	2163
Business Administration and Related	3916	37.08%	6644	62.92%	10560
Criminology	2096	66.10%	1075	33.90%	3171
Education Science and Teacher Training	2298	26.76%	6288	73.24%	8586
Engineering and Technology	759	69.51%	333	30.49%	1092
General	192	45.82%	227	54.18%	419
Humanities	34	47.22%	38	52.78%	72
IT-Related Disciplines	882	62.69%	525	37.31%	1407
Law and Jurisprudence	124	49.80%	125	50.20%	249
Medical and Allied	215	20.12%	808	78.98%	1023
Natural Science	0	0.00%	0	0.00%	0
Other Disciplines	52	17.22%	250	82.78%	302
Service Trades	314	25.00%	942	75.00%	1256
Social and Behavioral Sciences	105	26.38%	293	73.62%	398
Grand Total	12154	39.59%	18544	60.41%	30698

Source: CHED XI

At present, TVET provides education and training opportunities that prepare students and other clients for employment. It also addresses the skills training requirements of those who are already in the labor market and would need to upgrade or develop new competencies to enhance employability and improve productivity.

The potential clientele of TVET includes primarily the high school graduates, secondary school leavers, college undergraduates and graduates who want to acquire competencies in different occupational fields. Other potential clientele of TVET are the unemployed persons who are actively looking for work. These include the displaced workers who lost their jobs because of closure of establishments, retrenchment or laying-off of workers due to economic and other related reasons. Returning overseas Filipino workers who decide to discontinue working abroad are also clients of TVET as well as those currently employed who want to upgrade their skills or acquire new skills. For SY 2020-2021, a total of 11,455 students were enrolled in various vocational and technical courses shown in Table No. 5-29, where 5,562 were males and 5,893 were females.

Craft vocations are usually based on manual or practical activities and are traditionally non-academic but related to a specific trade or occupation. Vocational education is sometimes referred to as career education or technical education.

Skills are vital for poverty reduction, economic recovery and sustainable development. Hence, policy attention to technical and vocational education and training (TVET) should be made a priority and be given utmost support.

Table No. 5-29: **Voc Tech Enrolment**
Davao del Norte: 2020-2021

Course / Degree Program		Enrolment					
		Total	Female		Male		
			No	%	No	%	
Agriculture, Forestry and Fishery	Animal Production (Poultry-Chicken) II	75	24	32%	51	68%	
	Animal Production (Swine)	75	30	40%	45	60%	
	Corn Production	72	23	32%	49	68%	
	Grow and Harvest Chicken	85	85	100%		0%	
	Organic Agriculture Production II	817	397	49%	420	51%	
	Perform Disease Control on Banana Cardava Production	16	2	13%	14	88%	
	Perform Proper Harvesting	16	2	13%	14	88%	
	Prepare and Select Tools and Materials for Harvesting	16	2	13%	14	88%	
	Produce Organic Concoctions and Extract (leading to Organic Agriculture Production NC II)	374	187	50%	187	50%	
	Produce Organic Fertilizer (leading to Organic Agriculture Production NC II)	399	207	52%	192	48%	
	Produce Organic Vegetables (leading to Organic Agriculture Production NC II)	374	186	50%	188	50%	
	Production of High Quality Inbred Rice, and Seed Certification, and Farm Mechanization	100	33	33%	67	67%	
	Proper Bud Cutting	16	2	13%	14	88%	
	Proper Harvesting Period	16	2	13%	14	88%	
	Raise Organic Chicken (leading to Organic Agriculture Production NC II)	374	187	50%	187	50%	
	Raise Organic Vegetable (Bell Pepper)	115	1	1%	114	99%	
	Raise Organic Vegetable (Bitter Gourd)	115	1	1%	114	99%	
	Raise Organic Vegetable (Eggplant)	115	1	1%	114	99%	
	Raise Organic Vegetable (Tomato)	114	1	1%	113	99%	
	Rice Machinery Operations II	125	19	15%	106	85%	
	Set Up Cage and Suitable Housing for Chicken	85	85	100%		0%	
		Total	3494	1477	42%	2017	58%
	Automotive and Land Transportation	Automotive Servicing I	56	6	11%	50	89%
Automotive Servicing II		128	7	5%	121	95%	
Driving II		247	91	37%	156	63%	
Driving NC II		88	57	65%	31	35%	
Motorcycle/Small Engine Servicing II		81		0%	81	100%	
Theoretical Driving Course (TDC)		217	99	46%	118	54%	
		Total	817	260	32%	557	68%
Construction	80 Hours Plumbing NC II	17	2	12%	15	88%	
	Carpentry II	25	5	20%	20	80%	

	Construction Painting	8	1	13%	7	88%
	HEO (Forklift) II	50	1	2%	49	98%
	HEO (Hydraulic Excavator) II	40	2	5%	38	95%
	Hollow Blocks Making	21		0%	21	100%
	Install PV System	20	2	10%	18	90%
	Masonry II	25	1	4%	24	96%
	Masonry NC II	18	1	6%	17	94%
	PV Systems Installation II	75	6	8%	69	92%
	Total	299	21	7%	278	93%
Electrical and Electronics	80 Hours Electrical Installation and Maintenance NC II	23	2	9%	21	91%
	Electrical Installation and Maintenance II	22	2	9%	20	91%
	Electrical Installation and Maintenance NC II	19	3	16%	16	84%
	Install and Configure Computer Systems (leading to Computer Systems Servicing NC II)	478	266	56%	212	44%
	Maintain and Repair Computer Systems and Networks (leading to Computer Systems Servicing NC II)	468	261	56%	207	44%
	Set-up Computer Networks (leading to Computer Systems Servicing NC II)	457	258	56%	199	44%
	Set-up Computer Servers (leading to Computer Systems Servicing NC II)	457	258	56%	199	44%
	Total	1924	1050	55%	874	45%
Furniture and Fixtures	Bamboo Furniture Making	27	4	15%	23	85%
	Bamboo Handicrafts Making	27	4	15%	23	85%
	Bamboo Processing	27	4	15%	23	85%
	Total	81	12	15%	69	85%
Garments	Draft and Cut Pattern for Casual Apparel (leading to Dressmaking NC II)	10	10	100%		0%
	Dressmaking II	26	25	96%	1	4%
	Prepare and Cut Materials for Casual Apparel (leading to Dressmaking NC II)	10	10	100%		0%
	Total	46	45	98%	1	2%
Human Health / Health Care	Caregiving II	31	25	81%	6	19%
	Contact Tracing Level II	15	10	67%	5	33%
	Health Care Services II	63	43	68%	20	32%
	Hilot (Wellness Massage) II	1	1	100%		0%
	Massage Therapy and Reflexology	25		0%	25	100%
	Perform Manicure and Pedicure (leading to Beauty Care Services (Nail Care) NC II)	54	54	100%		0%
	Total	189	133	70%	56	30%
Metals and Engineering	Shielded Metal Arc Welding (SMAW) I	184	18	10%	166	90%
	Shielded Metal Arc Welding (SMAW) II	69	6	9%	63	91%
	Shielded Metal Arc Welding (SMAW) NC II	111	8	7%	103	93%
	Total	364	32	9%	332	91%

Others	Abaca Processing	20	20	100%		0%
	Abaca Twining	20	20	100%		0%
	Banana Chips Making	70	39	56%	31	44%
	Banana Fiber Weaving	18	17	94%	1	6%
	Beads Making	20	19	95%	1	5%
	Bukayo Making	21	13	62%	8	38%
	Detergent Powder, Fabric Conditioner, Dishwashing Liquid Making	15	13	87%	2	13%
	Dishwashing Liquid Making	24	21	88%	3	13%
	Entrepreneurship	120	58	48%	62	52%
	Entrepreneurship Development Training	234	103	44%	131	56%
	Entrepreneurship Training	338	153	45%	185	55%
	Field Exposure on Permaculture Farming System	41	12	29%	29	71%
	Financial Literacy Lecture (Online Banking Management)	12	7	58%	5	42%
	Foreign Language	58	38	66%	20	34%
	Guide on the Implementation of DOST PINOY (Package for the Improvement of Nutrition of Young Children)	72	71	99%	1	1%
	Herbal Oil Making	42	26	62%	16	38%
	Japanese Language	36	20	56%	16	44%
	Japanese Language and Culture	160	111	69%	49	31%
	Kakanin Making	48	32	67%	16	33%
	Korean Language and Culture	50	18	36%	32	64%
	Lemon Concentrate Making	42	26	62%	16	38%
	Livelihood Training in Vulcanizing	102		0%	102	100%
	Marketing	11	4	36%	7	64%
	Online Training on Concrete Vase Making	25	19	76%	6	24%
	Online Training on Embutido Making	58	49	84%	9	16%
	Orientation on TESDA's Programs and Services	107	38	36%	69	64%
	Pasalubong Goodies Making	18		0%	18	100%
	Perform Basic Hair Cutting	60	34	57%	26	43%
	Perfume Making	20	14	70%	6	30%
	Seminar/Workshop on Candle Making	57	40	70%	17	30%
	Seminar/Workshop on Flower Arrangement	57	40	70%	17	30%
	Training on Banana Textile Weaving Enhancement	57	40	70%	17	30%
	Training on Chili Powder Making	25	24	96%	1	4%
	Training on Chili Sauce Making	25	24	96%	1	4%
	Training on Dishwashing Liquid Making	53	53	100%		0%
	Training on Food Processing by Sugar Concentration (Jam Making)	50	50	100%		0%
	Training on Sweet Potato Chips Making	25	24	96%	1	4%
	Training/Workshop on Backyard Vegetable Raising (Halina't Mag-gulayan Tayo sa Bakuran)	72	71	99%	1	1%

	Training/Workshop on Food Security (Pag-aalalay Pawiin, Gawing Ligtas ang Pagkain)	71	70	99%	1	1%	
	Training/Workshop on Food Sufficiency (Ok an Ok! sa Pagbibigay ng Karagdagang Pagkain)	72	71	99%	1	1%	
	Training/Workshop on Good Nutrition (Bantayang Nutrisyon, Madaling Pag-aralan)	72	71	99%	1	1%	
	Training/Workshop on Meal Planning (Meal Plan ni Nanay)	72	71	99%	1	1%	
	Training/Workshop on Proper Breastfeeding (Pagpapasuso, Tanging the Best kay Beybi)	72	71	99%	1	1%	
	Traning/Workshop on Safe and Healthy Pregnancy (Maayos at Ligtas na Pagbubuntis, Ating Tiyakin)	72	71	99%	1	1%	
	Total	2695	1767	66%	928	34%	
Processed Food and Beverages	Food Processing II	25	24	96%	1	4%	
	Fruits and Vegetable Processing (Atsara)	29	25	86%	4	14%	
	Fruits and Vegetable Processing (Rice Wine Vinegar)	29	25	86%	4	14%	
	Meat Processing (Barbeque)	29	25	86%	4	14%	
	Meat Processing (Chorizo)	15	13	87%	2	13%	
	Meat Processing (Embutido)	29	25	86%	4	14%	
	Meat Processing (Tocino)	29	25	86%	4	14%	
	Mushroom Processing (Atsara)	17	2	12%	15	88%	
	Mushroom Processing (Crackers)	17	2	12%	15	88%	
	Mushroom Processing (Patty)	17	2	12%	15	88%	
	Mushroom Production	32	11	34%	21	66%	
		Total	268	179	67%	89	33%
	Social, Community Development and Other Services	Bookkeeping	39	34	87%	5	13%
		Bookkeeping NC III	47	26	62%	18	38%
Entrepreneurship Training		50	2	4%	48	96%	
Hilot (Wellness Massage)		44	38	86%	6	14%	
		Total	180	103	57%	77	43%
Tourism (Hotel and Restaurant)	Bartending II	12	8	67%	4	33%	
	Bread and Pastry Production II	151	123	81%	28	19%	
	Bread and Pastry Production NC II	50	46	92%	4	8%	
	Bead Making (leading to Bread and Pastry Production NC II)	73	53	73%	20	27%	
	Cake Making (leading to Bread and Pastry Production NC II)	73	53	73%	20	27%	
	Cookery II	82	71	87%	11	13%	
	Food and Beverage Services II	99	78	79%	21	21%	
	Food and Beverage Services NC II	39	28	72%	11	28%	

	Housekeeping II	106	78	74%	28	26%
	Housekeeping NC II	63	43	68%	20	32%
	Pastry Making (leading to Bread and Pastry Production NC II)	73	53	73%	20	27%
	Prepare and Cook Hot Meals (leading to Cookery NC II)	56	38	68%	18	32%
	Prepare Cold Meals (leading to Cookery NC II)	56	38	68%	18	32%
	Prepare Sweets (leading to Cookery NC II)	56	38	68%	18	32%
	Total	989	748	76%	241	24%
TVET	Trainers Methodology Level I	93	50	54%	43	46%
	Total	93	50	54%	43	46%
			5893		5562	

Source: TESDA, DDN

3. Performance Indicators

A performance indicator refers to the means by which an objective can be judged to have been achieved or not achieved. Indicators are therefore tied to goals and objectives and serve simply as 'yardsticks' by which to measure the degree of success in goal achievement. In basic education, performance of pupils/students is measured by the following indicators (please see Tables No. 5-30 and 5-31):

a. Gross Enrolment Rate (GER)

The United Nations Educational, Scientific and Cultural Organization (UNESCO), describes 'Gross Enrolment Ratio' as the total enrolment within a country "in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education."

This indicator shows the overall coverage of an educational system in relation to the population eligible for participation in the system. This ratio is useful for those who are interested in the overall participation of the school-age population, including both primary and secondary levels. It can be used for comparing two or more countries and urban and rural areas.

A high GER indicates high degree of participation, regardless of age GER \geq 100% indicates that a country is, in principle, able to accommodate all of its elementary and secondary school-age population, but does not indicate the proportion of that population actually enrolled. The achievement of GER of 100% is a necessary but not sufficient. The official school age for elementary is 6-11 and 12-17 for secondary.

b. Net Enrolment Rate (NER)

Net Enrolment Ratio is the ratio of the enrolment for the age group corresponding to the official school age in the elementary/secondary level to the population of the same age group in a given year, also known as Participation Rate.

A high NER denotes a high degree of coverage for the official school-age population. The theoretical maximum value is 100%. Increasing trends can be considered as reflecting improving coverage at the specified level of education. When the NER is compared with the GER, the difference between the two highlights the incidence of under-aged and over-aged enrolment. If the NER is below 100%, then the complement i.e. the difference with 100%, provides a measure of the proportion of children not enrolled at the specified level of education.

Table No. 5-30: **Gross Enrolment Ratio and Net Enrolment Ratio Elementary and Secondary**
Davao del Norte: SY 2019-2020

Division Name	Gross Enrolment Ratio (GER)			Net Enrolment Ratio (NER)		
	Male	Female	Total	Male	Female	Total
Elementary Schools						
Davao del Norte	104.90%	100.99%	102.98%	94.87%	93.98%	94.44%
Samal City			104.58%			100.16%
Panabo City	108.50%	103.13%	105.83%	101.78%	99.32%	100.56%
Tagum City	113.04%	106.39%	109.75%	105.19%	101.91%	103.57%
Secondary Schools (JHS, SHS)						
Davao del Norte	101.07%	106.17%	103.52%	78.12%	87.61%	82.69%
	52.54%	66.88%	59.10%	25.21%	40.54%	32.22%
Samal City			104.71%			86.48%
			71.24%			42.56%
Panabo City	122.67%	126.26%	124.44%	97.99%	106.88%	102.36%
	78.39%	104.30%	90.28%	41.50%	65.59%	52.42%
Tagum City	124.10%	127.60%	125.83%	99.40%	107.89%	103.61%

Source: DepEd Divisions of TC, PC, IGCS and DDN

c. Promotion Rate

The percentage of pupils/students promoted to the next grade/year level in the following school year.

d. Repetition Rate

It refers to the number of repeaters in a given grade in a given school year, expressed as a percentage of enrolment in that grade the previous school year.

e. Dropout Rate

Dropout rate refers to the percentage of students failing to complete a particular school or college course.

f. School Leaver Rate

This refers to a pupil who is about to leave or has recently left school, especially at the minimum school-leaving age.

g. Completion Rate

Completion rate is the percentage of students completing the last year of elementary school. It is calculated by taking the total number of students in the last grade of elementary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age.

h. Retention Rate

It is the percentage of a school's first-time, first-year undergraduate students who continue at that school the next year. For example, a student who studies full-time in the fall semester and keeps on studying in the program in the next fall semester is counted in this rate.

i. Graduation Rate

It is the percentage of a school's first-time, first-year undergraduate students who complete their program within 150% of the published time for the program. For example, for a four-year degree program, entering students who complete within six years are counted as graduates.

Table No. 5-31: **Performance Indicators, Elementary and Secondary**
Davao del Norte: SY 2018-2020

Indicators	Division							
	Davao del Norte (2018-2019)		Samal City (2019-2020)		Panabo City (2019-2020)		Tagum City (2019-2020)	
	M	F	M	F	M	F	M	F
Elementary								
Cohort Survival Rate	94.39%	93.30%	98.51%		100%	99.25%	99.62%	100.00%
Completion Rate	93.60%	92.94%	97.08%		99.61%	98.59%	98.81%	100.00%
Dropout Rate	1.31%	1.47%	1.03%		0.98%	0.62%	0.20%	0.00%
Secondary			JHS	SHS				
Cohort Survival Rate	75.84%	85.51%	81.06%	74%	74.96%	83.76%	82.31%	91.14%
Completion Rate	73.60%	84.01%	75.08%	100%	73.56%	82.48	80.42%	89.30%
Dropout Rate	8.62%	4.94%	4.99%	6.46%	0.79%	0.53%	3.44%	1.83%

Source: DepEd Divisions of TC, PC, IGCS and DDN

The high rates of completion, retention, graduation and cohort survival are positive manifestations that schools in Davao del Norte have strengthened its holding capacity to retain and produce graduates. This performance can be attributed to some interventions made by the government such Drop-out Rate Reduction Program (DORP), Pantawid Pamilyang Pilipino Program or the 4Ps' and other schools' initiative. Meanwhile, each division is currently conducting researches to address this concern.

4. Literacy

As presented in Table No. 5-32 shows the five (5) year comparison, literacy in the province shows irregular trend and an indication that the target of 2% yearly increase was not be attained. Illiteracy rate on the other hand, was also increasing though a reduced rate was attained in Calendar Year 2010. Over the years, both literacy and illiteracy has been fluctuating. The inversely relationship of literacy and illiteracy shows that as the illiteracy increases the literacy decreases. In CY 2013, it registered a huge increase to 14% while in CY 2014 it posted a minimal decrease to 2%. Reasons to be considered are more children unable to go to school, and with those in school dropping out. While the fluctuating pattern indicates that some improvements were made in educating the children in the province. Further, it must also be noted that the government has been partially successful in reducing illiteracy but likewise it also revealed that the government needs to put more efforts in bringing education to sustain the improvements made.

Table No. 5-32: **Literacy and Illiteracy Rate, by Year**
Davao del Norte: 2010-2014

Calendar Year	Literacy Rate	Illiteracy Rate
2010	96.64	4.02
2011	96.04	3.96
2012	96.23	3.77
2013	86.00	14.00
2014	88.00	12.00

Source: DepEd Divisions of TC, PC, IGCS and DDN

The Alternative Learning System (ALS) of the Department of Education and the LGUs plays an important role in attaining the goal of “Education for All”. It aims toward the attainment of functional literacy especially the out of school youth, the adult and the indigenous people.

To raise the literacy and numeracy skills of the poor and also to expand access to basic education, ALS education has been established. Notably, from 2016 to 2020, a total of 1,262 facilitators were organized with a total enrollment of 6,999 for BLP, 10,999 for A & E Elementary and 45,431 for A & E Secondary. The increase in ALS classes indicates that more out-of school-youth, adult and IP’s were served and captured in the ALS program that makes the program more accessible to marginal sector both OSY and Adult, and IP. Table No. 5-33.

Table No. 5-33: **Literacy Classes and Enrolment (Alternative Learning System)**
Davao del Norte: 2016-2020

Year	No. of Learning Facilitator	No. of Enrollees											
		Basic Literacy Program				A & E Elementary				A & E Secondary			
		M	F	M/F	T	M	F	M/F	T	M	F	M/F	T
2016	221	644	922		1,566	726	527		1,253	3,004	2,742		5,746
2017	171	714	851		1,565	976	571		1,547	3,559	3,286		6,845

2018	249	567	751		1,318	1,241	824		2,065	5,268	4,479		9,747
2019	309	828	771		1,299	1,775	1,525		3,300	6,760	5,551		12,314
2020	312	727	520	4	1,251	1,693	962	179	2,834	5,603	5,176	632	10,779
Total	1262	3480	3815	4	6999	6411	4409	179	10999	24194	21234	632	45431

Source: DepEd Divisions of TC, PC, IGCS and DDN

5. Resource Indicators

a. Teaching Force

The available teachers totaled 5,443 for elementary level and 3,923 for secondary level as shown in Tables No.5-34 and No. 5-35, respectively.

Taking into account the current enrolment (SY 2020-2021) of 152,086 in the elementary and 107,773 in the secondary, the teacher – pupil/ student ratio is placed at 1:28 (elementary) and 1.25 (secondary) respectively. This ratio is within the national standard of 1 teacher for every 40 pupils for elementary and 1 teacher for every 40-45 students for secondary. Data reveal that there seems to be sufficient number of teachers in both levels however, if we look closely the school to school requirements, there still a need to hire more teachers to fill the gap of the teacher resources in both elementary and secondary. The teacher-resources gap was attributed to a dramatic increase of enrolment in schools annexes. This gap wasn't seen in the reservoir of data- EBEIS because it was incorporated in the mother school.

Table No. 5-34: **Public Elementary Resource Indicators**
Davao del Norte: CY 2020-2021

Division	Current Enrolment	Actual Number of Teachers	Teacher Pupil Ratio	Actual No. of Class rooms	Class room-Pupil Ratio
Davao del Norte	72,111	2,704	1:27	1,594	1:45
Samal City	16,364	670	1:24	517	1:45
Panabo City	27,334	893	1:30	815	1:33
Tagum City	36,277	1,176	1:31	736	1:49
Total	152,086	5,443	1:28	3,662	1:43

Source: DepEd Divisions of TC, PC, IGCS and DDN

Table No. 5-35: **Public Secondary (JHS & SHS) Resource Indicators**
Davao del Norte: CY 2020-2021

Division	Current Enrolment		Actual Number of Teachers		Teacher Student Ratio		Actual No. of Class rooms		Class Room-Student Ratio	
	JHS	SHS	JHS	SHS	JHS	SHS	JHS	SHS	JHS	SHS
Davao del Norte	37,940	12,314	1,361	404	1:28	1:36	842	209	1:45	1:59
Samal City	8,602	2,936	408	111	1:26		331		1:28	
Panabo City	14,202	4,743	528	127	1:26	1:37	253	96	1:56	1:49
Tagum City	21,283	5,753	789	195	1:27	1:30	657	174	1:32	1:33
Total	82,027	25,746	3,086	837	1:26	1:32	2,562		1:40	1:42

Source: DepEd Divisions of TC, PC, IGCS and DDN

2. Classrooms

The available classrooms for SY 2020-2021 were 3,662 in the elementary and 2,562 in the secondary. The classroom – pupil ratio was computed at 1:43 while the classroom-student ratio was 1:40 and 1:42 for elementary and secondary (JHS and SHS) respectively. The ratio for elementary is not within the national standard of 1 classroom for every 40 pupils, while JHS and SHS ratio are within the national standard with 1 classroom for every 45 students. However, on a school to school requirement, areas such as in Sto. Tomas, Talaingod and Dujali still need additional classrooms at the elementary level. At the secondary level, additional classrooms are needed in B.E. Dujali.

In response to the safety and security of children in calamity, the Divisions of Davao del Norte and Panabo City (No Data available for Tagum City and Samal City) have built a total of 169 risk resilient classrooms for both elementary and secondary level. Thus, this number calls a closer look for those in dire need to build more classrooms that are resilient to calamities.

3. Chairs/ Armchairs

Pupils/students sit in classroom chairs for close to 80 percent of their time. Even preschoolers spend a considerable amount of time in chairs. Poor classroom furniture can impact on cognitive ergonomics, that is, how our minds work and other mental processes. Examples include lack of attention, poor concentration, poor memory and lower achievement levels. It is clear that even teachers, administrators, parents and others are also affected by the availability and the quality of classroom furniture, particularly the armchairs.

Data reveal additional chairs/armchairs needed in both levels based on data presented in Table Nos. 36 and 37. The shortage of chairs/armchairs is due to the failure of bidding when no suppliers participated, thus, resulting to failure to procure.

The standard is 1 pupil/student for every armchair or sitting furniture. A ratio below 1 indicates a surplus of armchairs, while a ratio more than 1 indicates a shortage of armchairs. The shortage of school facilities including armchairs is very understandable because of the rapid increase of population, particularly the school-age group. It is a challenge to anticipate increases in enrolment of succeeding school years.

Table No.5-36: **Public Elementary Resource Indicators**
Davao del Norte: SY 2020-2021

Division	Current Enrolment	Actual No. of Armchairs	Armchair – Pupil Ratio
Davao del Norte	72,111	61,471	1:1.17
Samal City	16,364	11,358	1:1.44
Panabo City	27,334	27,696	1:0.97
Tagum City	36,277	36,277	1:1
Total	152,086	136,802	

Source: DepEd Divisions of TC, PC, IGCS and DDN

Table No. 5-37: **Public Secondary Resource Indicators (JHS and SHS)**
Davao del Norte: SY 2020-2021

City/ Municipality	Current Enrolment	Actual No. of Arm-chairs	Armchair - Pupil Ratio
Davao del Norte	50,254	43,730	1:1 / 1:2.13
Samal City	11,538	9,199	1:1.25
Panabo City	18,945	16,675	1:1.17
Tagum City	27,036	27,036	1:1
Total	107,773	96,640	

Source: DepEd Divisions of TC, PC, IGCS and DDN

5.3 Employment

The table below shows that in October 2020, Davao del Norte had a projected population 15 years old and over of 688,916 of which 352,775 are males and 336,141 are females. About 389,238 joined the labor force giving a labor force participation rate (LFPR) of 56.5%. Out from those who joined the labor force, 362,769 are employed providing an employment rate of 93.2%, while unemployment rate was 6.8% for the 26,468 persons who are still looking for work. The population who are not in the labor force are those who are confined in institutions, students, persons with disabilities, housewives and those who chose not to get employed. About 299,678 belonged to this category.

The existence of the agriculture industry and the growth of the services sector have created job opportunities for women. Over the years gender equality is evident in education, which gave women adequate qualification and opportunities for career advancement. About 48.79% of the population 15 years old and over in 2020 are women out of which 189,920 have joined the labor force. Likewise, 177,005 are gainfully employed.

Table No. 5-38: **Labor Force**
Province of Davao del Norte: 2020

	Total	%	Male	%	Female	%
15 yrs. old & above	688,916	100	352,775	51.21	336,141	48.79
In the labor force	389,238		199,318		189,920	
Employed	362,769		185,764		177,005	
Unemployed	26,468		13,554		12,915	
Not in the labor force	299,678		153,457		146,221	

Source: Philippine Statistical Agency

The Public Employment Service Office or PESO is a non - fee charging multi-employment service facility or entity established or accredited pursuant to Republic Act 8759 otherwise known as the PESO Act of 1999. The main purpose is to strengthen and expand the existing employment facilitation service machinery of the government particularly at the capital towns of provinces, key cities, and other strategic areas a Public Employment Service Office.

The PESO functions as a venue for people to explore employment options and other related assistance as well as provide information on the services and programs of the Department of Labor and Employment and its allied agencies.

As of 2020 the data on employment generation facilitated by PESO in the province of Davao del Norte are shown in the following table:

Table No. 5-39: **Employment Generation by the PESO**
Davao del Norte: 2020

Particular	Number	
	F	M
Applicants Registered	18,612	10,699
Applicants Referred	13,412	8,756
Applicants Placed	11,964	8,662

Source: PESO, Davao del Norte

5.4 Family Income

Family income considers only households occupied by two or more people related by birth, marriage or adoption. It is the basic gauge of the living condition of the populace that should therefore be considered in addressing the economic and other development of the province.

The Family Income and Expenditure Survey (FIES) is a survey conducted every 3 years. In the 2018 FIES round, results showed that the average annual family income of Filipino families was at Php 313,000.00. In comparison, the average annual family expenditure for the same year was Php 239,000.00. Hence, Filipino families have savings of Php 74,000.00 in a year, on average. Translating these on a monthly basis, the average Filipino income is Php 26,083.00 while the average Filipino family expenditure is Php 19,916.00 realizing an average savings of Php 6,166.00.

All regions showed increases in the average annual family income at 2018 prices. Families in the National Capital Region (NCR), had the highest average annual family income for both years at Php 460,000.00 in 2018 and Php 425,000.00 in 2015. Meanwhile, families in Davao Region, had an average annual income of Php 268,000.00 (Php 22,333.00/month), an increase of Php 21,000.00 (Php 1,750/month) in 2018 from the 2015 annual income of Php 247,000.00 (Php 20,583/month). The average family income of Davao del Norte is pegged at the region's data.

Talking about the ideal Filipino family income, the National Economic and Development Authority (NEDA) conducted a survey, which result showed that a

Filipino household of 4 should have a gross monthly income of P120,000.00 in order to live a “simple, comfortable life”. A "simple, comfortable life" means having enough money for day-to-day needs, owning a medium-sized home, owning one car, educating two children until college, taking occasional trips around the country, and relaxing with family and friends.

The P120,000 gross monthly income will translate to about \$11,000 per capita income, which in turn would eliminate poverty in the Philippines. Such is the core in the wordplay of “ambition” and “vision” embodied in the AmBisyon Nation 2040.

5.5 Poverty

As defined in the National Strategy to Fight Poverty by the UN Joint Consultative Group on Policy, Poverty connotes a deprivation to a social standard, or the lack of the minimum entitlements of households in society which the government must seek to provide, either directly or indirectly.

Poverty Threshold or Poverty Line refers to the minimum income/expenditure required for a family or individual to meet the basic food and non-food requirements. It is equal to the cost of minimum basic food + non-food requirements. On the other hand, Food Threshold refers to the minimum income/expenditure required for a family or individual to meet the basic food needs, which satisfies the nutritional requirements for economically necessary and socially desirable physical activities. It is also referred to as the subsistence threshold or the food poverty line.

Table No. 5-40: **Annual Per Capita Poverty and Food Thresholds**
Davao del Norte: FIES 2006, 2009, 2012, 2015 and 2018

FIES	Annual Per Capita Poverty Threshold	% Increase/ Decrease	Annual Per Capita Food Threshold	% Increase/ Decrease
2006	13,214		9,244	
2009	16,863	21.64	11,775	21.49
2012	20,841	19.09	14,497	18.78
2015	24,424	14.67	17,073	15.09
2018	27,031	13.5	19,030	14.2

Source: Philippine Statistical Authority

If we have to interpret the data shown in the following table, in 2018, the annual per capita poverty threshold for Davao del Norte is Php 27,031.00. This represents the income of an individual for the whole year of 2018. Considering that a family has 5 members, the income is further multiplied by 5 to realize a combined income of Php 135,155.00. From this, the monthly income is Php 11,262 or P 375/day, which is slightly higher than the minimum daily wage of P 309.00/day.

On the other hand, the food threshold for an individual in 1 year is Php 19,030.00. Multiplied by 5 members will yield a combined value of Php 95,150.00, which when apportioned into 12 months will give a monthly subsistence of Php 7,929.00 or a Php 264.00/day to be able to meet the daily food requirements.

Table No. 5-41: **Annual, Monthly and Daily Per Capita Poverty and Food Threshold**
Davao del Norte: FIES 2006, 2009, 2012, 2015, 2018

FIES	Annual Per Capita Poverty Threshold	For a family of five	Monthly Income	Income per day	Annual per Capita Food Threshold	For a family of five	Monthly Income	Income per day
2006	13,214	66,070	5,506	183	9,244	46,220	3,852	128
2009	16,863	84,315	7,026	234	11,775	58,875	4,906	164
2012	20,841	104,205	8,684	289	14,497	72,485	6,040	201
2015	24,424	122,120	10,177	339	17,073	85,365	7,114	237
2018	27,031	135,155	11,262	375	19,030	95,150	7,929	264

Source: Philippine Statistical Authority

To further define the poverty and food threshold of Davao del Norte, the following table shows the incidence (%) and the magnitude (number) of population and families that are considered poor. It can be noted that poverty and subsistence incidence in the province have declined from 2009 suggesting that improvements in the quality of life had been made to alleviate the poverty situation in the province.

Table No. 5-42: **Incidence and Magnitude of Poor Families and Population**
Davao del Norte: CYs 2006, 2009, 2012, 2015 and 2018

FIES	Poverty Threshold Incidence				Food Threshold Incidence			
	Families		Population		Families		Population	
	No.	%	No.	%	No.	%	No.	%
2006	48,669	26.2	271,315	31.7	22,816	12.3	141,589	16.6
2009	55,869	27.2	285,271	32.0	26,323	12.8	140,483	15.7
2012	60,652	26.7	328,442	33.4	21,605	9.5	124,053	12.6
2015	52,665	26.1	299,673	33.2	18,054	9.0	113,736	12.6
2018	24,900	10.2	139,500	13.4	5,500	2.2	34,000	3.3

Source: Philippine Statistical Authority

At the regional level, Davao del Norte together with Davao Occidental was noted to have improved in poverty incidence from 2015 to 2018, with the respective reduction of 14.1% and 20.2%. The decline in poverty incidence in Davao Region was recorded at 13.7 percent. The table below shows the comparison between provinces.

Table No. 5-43: **Poverty Incidence among Provinces in Region XI: CY 2018**

Region/Province	Poverty Threshold (Php)	Incidence Among Families (%)	Incidence Among Population (%)
Region XI	25,912	13.7	18.9
Davao del Norte	27,031	10.2	13.4
Davao del Sur	25,965	8.1	11.4
Davao Oriental	26,299	27.7	37.7
Compostela Valley	22,793	18.5	25.1
Davao Occidental	25,063	30.9	39.3

Source: Philippine Statistical Authority

Dissecting the annual per capita poverty and food thresholds across provinces in Region XI, we can deduce that although the cost of living is higher in Davao del Norte but it also offers better income opportunities for the low income population as measured by the daily income which they receive. The table below is a comparative information as to the poverty and subsistence status of provinces in the region.

Table No. 5-44: **Annual, Monthly and Daily Poverty and Food Threshold of Provinces Region XI: 2018**

LGUs	Annual Per Capita Poverty Threshold	For a family of 5	Monthly Income	Daily Income	Annual Per Capita Food Threshold	For a family of 5	Monthly Income	Daily Income
Region XI	25,912	129,560	10,796	359	18,079	90,395	7,532	251
Davao del Norte	27,031	135,155	11,262	375	19,030	95,150	7,929	264
Davao del Sur	25,965	129,825	10,818	360	18,137	90,685	7,557	251
Davao Oriental	26,299	131,495	10,957	365	18,271	91,355	7,612	253
Compostela Valley	22,793	113,965	9,497	316	18,029	90,145	7,512	250
Davao Occidental	25,063	125,315	10,442	348	17,501	87,505	7,292	243

Source: Philippine Statistical Authority

Based on the Statement on the Full Year 2018 Official Poverty Statistics, which was prepared by NEDA Regional Director Maria Lourdes D. Lim, Davao Region's poverty incidence has decreased substantially, surpassing the 2018 target and coming very close to the 2022 end-of-plan target, thanks to sustained implementation of social protection programs, high economic growth and bullish investments that have translated to employment generation, improved labor market conditions and enhanced incomes and wages of the poor.

Moreover, improvements in the quality of living conditions may be credited to government's programs and projects one of which is the Conditional Cash Transfer Program or Pantawid Pamilyang Pilipino Program, which is more commonly known as 4Ps. The regularity of the cash transfer has sustained the beneficiaries to tide the hard times, which in turn induced more economic activity in poorer barangays and the opportunity to diversify livelihood sources. The table below shows the 4Ps beneficiaries by province in Region XI.

Table No. 5-45: **4Ps Beneficiaries in Provinces, Region XI, 2020**

LGUs	RCCT			MCCT		
	F	M	Total	F	M	Total
Davao de Oro	47,132	10,373	57,505	5,296	1,732	7,028
Davao del Norte	40,796	9,382	50,178	6,926	1,666	8,592
Davao del Sur	22,945	5,549	28,494	1,442	486	1,928
Davao Occidental	29,059	5,229	34,288	181	16	197
Davao Oriental	31,906	8,680	40,586	113	87	210
TOTAL	171,838	39,213	211,051	13,958	3,987	17,955

Source: DSWDO XI

The Small Area Estimates (SAE) on poverty incidence for cities and municipalities are comparatively presented in the following table using the results of the 2006 and 2012 survey rounds. It can be gleaned that except for the cities and the newly created municipality of San Isidro, all LGUs have made improvements in the quality of living standards in their locality as evidenced by the declining poverty incidence rates in 2012 from 2006. Kapalong and Carmen made the most significant decline with 17% and 155, respectively.

Table No. 5-46: **Poverty Incidence by City/Municipality**
Davao del Norte, 2006 and 2012

CITY/ MUNICIPALITY	POVERTY INCIDENCE Per 100 Families	
	2006	2012
Asuncion	50.72	39.2
Braulio E. Dujali	31.98	29.4
Carmen	41.59	26.7
IGaCOS	-	28.5
Kapalong	50.23	33.4
New Corella	50.59	41.6
Panabo City	-	16.6
Sto. Tomas	32.67	21.7
San Isidro	-	43.2
Tagum City	-	13.8
Talaingod	69.35	68.8

Source: PSA, Estimation of Local Poverty in the Philippines

Meanwhile, the 2012-2017 data of DSWD-NHTS revealed that out of the 112,227 households administered, a total of 58,934 are assessed as poor.

Poverty incidence in Davao del Norte has been increasing for the last two (2) reporting periods and has been demonstrating higher occurrences than the regional and national data. Increasing poverty incidence cuts across all sectors in development and must be afforded necessary and appropriate action.

Table 5-47: **Poverty Incidence and National Household Targeting System (NHTSPR) Davao del Norte, CY 2012-2017**

City/ Municipality	Poverty Incidence (NSCB Data)	No. of HHs Assessed through NHTSPR	No. of Poor HHs from NHTSPR	Provincial Share	Municipal / City Share (percentage of HHs assessed)
Asuncion	44.94	12,467	3,914	8.66 %	31.39 %
BE Dujali	36.22	4,762	1,193	2.64 %	25.05 %
Carmen	32.07	14,855	3,285	7.27 %	22.11 %
IGaCoS	44.48	22,594	6,855	15.17 %	30.34 %
Kapalong	51.28	13,393	5,089	11.26 %	38.00 %
New Corella	49.62	12,083	3,465	7.67 %	28.68 %
Panabo City	22.74	30,429	5,497	12.16 %	18.07 %
San Isidro	-	6,028	2,612	5.78 %	43.33 %
Sto. Tomas	26.3	21,264	4,211	9.32 %	19.80 %
Tagum City	15.42	38,468	5,356	11.85 %	13.92 %
Talaingod	78.56	5,149	3,713	8.22 %	72.11 %
TOTAL		112,277	58,934	100.00%	

Source: PSWDO

Among the cities and municipalities, Samal City has the highest magnitude of poor households followed by Tagum City with 6,855 and 5,356 respectively, while BE Dujali and San Isidro has the lowest magnitude of poor households with 1,193 and 2,612 respectively.

But out of the total assessed households per LGU, Talaingod has the highest number of poor households out of 5,149 HHs assessed, 72.11% or 3,713 were considered poor while Tagum City has the lowest, out of the total 38,468 HHs assessed 13.92% or 5,356 were assessed as poor.

Table No. 5-48: **Pantawid Pamilyang Pilipino Program Beneficiaries Davao del Norte: 2020**

City/Municipality	CCT-Regular	MCCT-IP	Total
Asuncion	4,994	1,035	5,979
BE Dujali	1,521	108	1,629
Carmen	4,097	762	4,859
IGaCoS	5,824	871	6,695
Kapalong	5,256	780	6,036
New Corella	4,594	316	4,910
Panabo City	5,050	1,882	6,932
San Isidro	2,535	246	2,781
Sto. Tomas	4,160	849	5,009
Tagum City	6,234	1,417	7,651
Talaingod	2,664	488	3,152
Davao del Norte	46,879	8,754	55,633

Source: PSWDO

Considering the growing magnitude of poverty in the province, there were reported increasing number of Pantawid Pamilyang Pilipino Program also known as 4Ps beneficiaries from 45,859 in 2014 to 55,633 households benefited. A total amount of PhP 640,287,600 million was disbursed in Davao del Norte from 2017 to 2018. The families were given PhP1,400.00 cash assistance every two months for the whole year.

The 4Ps also helps the Philippine government fulfill its commitment to the Sustainable Development Goals (SDGs) - specifically in eradicating extreme poverty and hunger, in achieving universal primary education, in promoting gender equality, in reducing child mortality, and in improving maternal health care.

5.6 Sports Development

Youth and sports development program in Davao del Norte through the construction of the Davao del Norte Sports and Tourism Complex endeavors to provide sustainable scientific base training to all Dabaonon athletes. Since its establishment in 2012, it increased the activities of grassroots trainings and exposure of athletes to higher athletic undertakings such as Palarong Pambansa, Regional Batang Pinoy, National Batang Pinoy and other elite games sponsored by private organizations.

Sports have been integrated in the development of the province and in different special sectors. Six scientific-based projects namely: TRAIN project, COMPETE project, HOST project, LEARN project, LEAD project and ACT project have been afforded full support to fortify the program. To cultivate evidence-based practices, the program incorporated sports science in the sports development program.

Table No. 5-49 shows the performance of Davao del Norte in the Batang Pinoy Mindanao Qualifying Leg. In 2019, Davao de Norte got 25 gold medals, 26 silver medals and 25 bronze medals.

Table No. 5-49: **Performance of Top Ten Participating LGUs
Batang Pinoy Mindanao Qualifying Leg
Davao del Norte: 2019**

LGU	Gold	Silver	Bronze
Davao City	58	40	58
Cagayan de Oro	33	23	42
General Santos City	27	34	33
Davao del Norte	25	26	25
Koronadal City	22	12	9
South Cotabato	20	24	21
Cotabato Province	19	13	9
Zamboanga City	15	20	29
Iligan City	14	21	29
Tacurong City	14	13	11

Source: PSYDO

Table No. 5-50 reflects the four year comparative standing of DavNor participation to Batang Pinoy National Championship.

Table No. 5-50: **Comparative Standing of DavNor Participation to Batang Pinoy National Championship**
 Davao del Norte: 2019

Year	Venue	Gold	Silver	Bronze
2019	Puerto Princesa City, Palawan	4	6	18
2018	Baguio City	Team Davnor Participation was cancelled due to typhoon		
2017	PSC did not held a Batang Pinoy Competition			
2016	Davao del Norte	10	11	11

Source: PSYDO

Through the establishment and operationalization of the DavNor Sports Academy it is likely that over-all performance of athletes in regional, national and international competitions be improved.

5.7 Housing

Housing is an essential component of the nation's economy, the importance of adequate housing has become a primordial aspect of people's lives. Moreover, the need for adequate housing is recognized under the Millennium Development Goals (MDG) which aims to improve the lives of poor people.

On the other hand, home ownership is usually the basic way of obtaining adequate housing unit. And this has also become a major form of investment for individuals and households as assurance to financial stability and social living condition.

The National Urban Development and Housing Framework (NUDHF) 2009-2016 finds the housing problem to be serious and is a largely urban phenomenon. The magnitude of housing need, defined as the housing backlog plus new households, is enormous and is estimated to reach about 5.8 million housing units in 2016.

In the Province of Davao del Norte, housing units occupied has increased significantly from 147,427 in 2000 to 207,179 in 2010 with an average rate of 4.38% annually this can be attributed to increased number of population.

Table No.5-51: **Housing Units, Occupied and Vacant by Censal Year 1970, 1980, 1990, 2000, 2010, Davao del Norte**

Year	No. of Housing units	No. of Occupied Units	% Occupied
1970	42,595	41,827	98.20
1980	75,565	72,443	95.20
1990	109,765	105,442	96.10
2000	147,989	147,427	99.60
2010		207,179	

Source: National Statistics Office, 2000-2010

As per NSO Report in 2010 demand of housing units had more than doubled between year 2000 and 1970 due to increases in populations with an average rate of 4.38%, almost all housing units in 2000 were occupied at 99.6% rate (please see Table No. 5-52)

Table No. 5-52: **Comparison of Occupied Units, Households and Household Populations, by type of Building, 2000 and 2010, Davao del Norte**

Type of Building	Occupied Housing Unit		Number of Households		Household Population	
	2000	2010	2000	2010	2000	2010
Single House	147,427	207,179	150,844	211,099	742,206	937,785
Duplex	137,809	193,076	140,465	196,590	694,880	881,309
Multi Residential	2,907	5,884	3,055	5,991	14,263	24,086
Comm./Industrial/Agri.	4,644	6,937	5,222	7,211	22,431	27,247
Institutional Living Qts	421	827	444	841	1,865	3,334
Other Housing Units	20	6	20	6	58	20
Not reported	1,589	358	1,601	361	8,578	1,396

Source: National Statistics Office, 2010

Table 5-52 shows Total Occupied housing units increased by 38.50% between 2000 and 2010. Duplex housing units increased by 102% between 2000-2010 more than single houses at 40%. There were 3,514 households in 2010 shared shelter with other households, occupying single houses (196,590-193,076). The household population in all types of housing unit ranges between 4 to 5 persons per unit.

Table No. 5-53: **Household by type of Building Tenure, Status of the Lot, Unit, Province of Davao del Norte: CYs 2000 and 2010**

Tenure Status of Housing Unit	Number		Single Houses		Duplex		Multi-Residential	
	2000	2010	2000	2010	2000	2010	2000	2010
Total								
Owned/being amortized	150,884	211,099	140,465	196,590	3,055	5,991	5,222	7,211
Rented	79,424	126,257	77,486	122,370	976	2,166	735	1,307
Rent free with owner consent	19,723	24,037	16,989	18,654	957	1,898	1,610	3,046
Rent free without owner	40,710	51,788	37,531	47,265	823	1,651	2,150	2,501

consent								
Not applicable	7,983	5,242	5,806	4,787	201	122	499	274
Not reported		38		35		2		1

Source: National Statistics Office, 2010

Table No. 5-53 shows more households construct houses in lots they owned/ amortized. Single Houses either duplex or multi-residential types. There were still households constructing houses in lots they do not owned and without consent of the rightful owners could be evicted anytime and maybe considered squatters. Households constructing houses in lots they don't own with and without owner's consent (43,714 in 2000 & 55,525 in 2010) moreover at the rate of 2.70% annually.

Table No. 5-54: **Inventory of Subdivisions and Resettlement**
Province of Davao del Norte: CY 2019

City/Municipality	No. of Subdivisions	No. of Resettlements Sites Owned by LGU	Government Owned Housing Projects
Asuncion	0	1	1
B. E. Dujali	1	-	-
Carmen	6	6	-
IGCS	18	10	-
Kapalong	2	1	5
New Corella	2	3	3
Panabo City	97	-	14
San Isidro	0	-	-
Sto. Tomas	10	2	-
Tagum City	81	-	-
Talaingod	0	-	-
Total	217	23	23

Source: SEPS, 2019 and PAdO-Housing

The data derived from the SEPS of 2019 there is a continuing growth of subdivisions and resettlements in the province as it is spearheaded by the NGO's GO's and the private sector which put their hand in expanding and developing housing projects.

The definition of an informal, or squatter, settlement varies by country and depends on a number of different parameters. Generally, an informal settlement is an area in an urban location that is inhabited by poor people who have no access to land or a home. Because many of the settlers have very little resources or work skills, they often feel they have no choice but to occupy vacant land in order to build a shelter.

An informal settlement typically has services that are below legally required standards. This includes electricity, roads, schools, sanitation and water supply, although water may be available by using a hand pump or community standpipes. Informal settlements may also be able to make arrangements to use community electricity or toilet facilities, but in general, these settlements do not depend on public authorities. Informal settlements are largely defined because of the lack of ownership the settlers have on the land in which they have erected shelter. The land is usually located in an undesirable location where housing may not otherwise be present.

The table below shows the number of informal settlers in the province of Davao del Norte. The numbers show that they continue to grow significantly due to rapid population growth, urbanization and migration coupled with the lack of income opportunities and skills to be absorbed in the labor force.

Table No. 5-55: **Informal Settlers by Municipality/City**
Davao del Norte: 2019

City/Municipality	No. of Dwelling Units	No. of Families
Asuncion	1505	1505
BE Dujali	46	157
Carmen	1226	1282
Kapalong	2491	2491
New Corella	963	963
San Isidro	0	0
Sto. Tomas	1,613	-
Talaingod	398	398
Samal City	Not determined during the brgy. registration process	1548
Panabo City	582	1252
Tagum City	832	1063
Total		15,081

Source: SEPS, 2019 and PAdO-Housing

5.8 Schools as Evacuation Shelters

Schools are oftentimes used as evacuation centers. For whatever reason, whether it is due to natural calamities such as typhoons or flooding, or as a result of accidents such as fires, schools have traditionally been used to serve as evacuation centers for displaced victims. It is because it can accommodate a large number of people. It is strategically located. Schools can offer good shelter and protection. They have the most basic amenities for personal necessities. And they are accessible for the delivery of aid and other needs required.

In the Province of Davao del Norte's eight (8) municipalities, all of which are likely to experience calamity. Hence, each Municipal DRRM Office determined the location of evacuation centers in their respective areas.

Table No. 5-56: **Schools Identified as Evacuation Shelters**
Davao del Norte: CY 2020

Municipality/District	Barangay	Evacuation Center
Asuncion	Cabaywa	Brgy. Evacuation Center
	Canatan	Brgy. Covered Court
	Sagayen	Brgy. Covered Court
		Sagayen National High School
	Doña Andrea	Brgy. Covered Court
	Magatos	Brgy. Hall
	San Vicente	Brgy. Hall
		Covered Court
	Pamacaun	Brgy. Hall
		Covered Court
	New Loon	Covered Court
	Buclad	Covered Court
	Sta. Felomina	Brgy. Hall
		Covered Court
	Binancian	Brgy. Hall
		Covered Court
	Camansa	Brgy. Hall
		Covered Court
	Buan	Brgy. Hall
		Covered Court
	Sonlon	Covered Court
		Sonlon National High School
	Cambanogoy	Municipal Gymnasium
	Municipal Evacuation Center	
	Asuncion National High School	
B. E. Dujali	Poblacion	Municipal Gymnasium
		Dujali National High School
	Tanglaw	Covered Court
	New Casay	Covered Court
	Cabayangan	Covered Court
	Magupising	Covered Court
Carmen	Anibongan	Covered Court
		Elementary School
	Tuganay	Covered Court
	Mabaus	Covered Court
	Guadalupe	Covered Court
	Salvacion	Covered Court
	San Isidro	Covered Court
	Alejal	Covered Court
	Taba	Covered Court
	Ising	Municipal Gymnasium
		Carmen National High School
	New Camiling	Covered Court
	La Paz	Covered Court

	Asuncion	Covered Court
IGaCoS	Peñaplata	City Gymnasium
		Samal National High School
	Babak	Covered Court
		Babak National High School
	Kaputian	Covered Court
Kapalong	Maniki	KCAST Gymnasium
		Kapalong National High School
		Kapalong Activity Hall
	Gupitan	Brgy. Hall
		Covered Court
	Capungagan	Covered Court
		Capungagan National High School
	Pag-asa	Covered Court
	Tiburcia	Covered Court
New Corella	Poblacion	Municipal Gymnasium
		New Corella National High School
	Mesaoy	Brgy. Hall
		Mesaoy Elementary School
	Limbaan	Limbaan National High School
	Sambog	Covered Court
	Sta. Cruz	Covered Court
		Brgy. Hall
	San Roque	Covered Court
		Brgy. Hall
	Macgum	Covered Court
		Brgy. Hall
	Carcor	Covered Court
	New Bohol	Covered Court
	Suwaon	Covered Court
	Sto. Niño	Covered Court
		Brgy. Hall
Panabo City	Cagangohan	City Gymnasium
		Panabo City National High School
San Isidro	Sawata	Municipal Gymnasium
		Sawata National High School
	Monte Dujali	Monte Dujali National High School
		Covered Court
	San Miguel	Covered Court
	Pinamuno	Covered Court
	Kipalili	Covered Court
	Igangon	Brgy. Hall
		Igangon Integrated School
Sto. Tomas	Tibal-og	Municipal Gymnasium
		Sto. Tomas National High School
		Municipal Evacuation Center
	Talomo	Covered Court
	Esperanza	Covered Court

	San Miguel	Covered Court
	New Katipunan	Covered Court
	Salvacion	Covered Court
	Balagunan	Covered Court
	Casig-ang	Covered Court
Tagum City	Pagsabangan	Brgy. Hall
		Covered Court
	Mankilam	Covered Court
	San Miguel	Laureta National High School
		Covered Court
	Cuambugan	Covered Court
	Busaon	Covered Court
	Libuganon	Covered Court
		Brgy. Hall
	Bincungan	Covered Court
		Elementary School
	Canocotan	Regional Evacuation Center
Talaingod	Sto. Niño	Brgy. Hall
		Covered Court
		Talaingod National High School
	Palma Gil	Covered Court
	Dagohoy	Covered Court

Source: PDRRMD

The utilization of schools as shelter for displaced families during calamities is not a bad idea. However, this has affected the regular conduct of classes and even suspension of classes that compromise the quality of education of school children. Hence, there is a need to limit the use of schools as evacuation centers and identify safe alternate evacuation sites such as: gym, sports and cultural centers, barangay halls and other safe places. Local government units need to give priority legislation and funding for the establishment and construction of permanent evacuation centers.

5.9 Security

Davao del Norte remains peaceful and emerging as among the most favored place for business-trade, tourism, and sports event in Mindanao. Despite some incidents caused by Lawless Armed Group (LAG)/New People's Army (NPA) and other lawless elements criminality situation remains to be manageable.

a. Crime Incidence

Total crimes reported for 2020 was 5,140 of which 585 were index crimes, while 4,061 were non-index crimes and 494 for reckless imprudence. Please refer to Table No. 5-57.

Table No. 5.57: **Crime Incidence**
Davao del Norte: CY 2020

Type of Crime	Volume of Crime by Type
Index Crimes	585
Non Index Crimes	4,061
Reckless Imprudence	494

Source: PNP, DDN

Index crimes are defined as reported crimes against person and properties. Tagum City registered the highest number of index crime cases in 2020, while San Isidro has the lowest reported cases.

Table No. 5-58: **Index Crime by LGU**
Davao del Norte: CY 2020

UNIT/STN	MUR	HOM	PHY INJ	RAPE	ROB	THEFT	TOTAL
Asuncion	3	0	2	6	4	9	24
BE Dujali	2	2	2	4	3	2	15
Carmen	3	0	17	12	4	10	46
IGCS	9	2	17	10	9	8	55
Kapalong	5	0	3	11	4	6	29
New Corella	9	0	0	7	0	1	17
Panabo	10	5	24	17	8	33	97
San Isidro	2	0	3	3	1	0	9
Sto. Tomas	10	2	8	7	2	11	40
Tagum City	37	3	37	28	44	51	200
Talaingod	4	0	5	2	0	6	17
TOTAL	94	14	118	107	79	137	549

Source: PNP, DDN

According to Violence against Women and Children (VAWC's) desk statistics that in 2019, RA 9262 had the highest reported cases with 76 cases followed by rape with 16 reported cases.

Table No. 5-59: **Reported Crimes Against Women**
Davao del Norte: 2019

Type of Cases	Number
Rape	16
Acts of Lasciviousness	12
RA 9262	76
Unjust Vexation	5
Concubinage	2
Robbery with Rape	2
Attempted Homicide	1
Attempted Rape	2
Sexual Harassment RA 7877	3
Frustrated Homicide	1
TOTAL	120

Source: PNP, DDN

As shown in Table No. 5-60, data on violence against women committed in 2019 shows that majority of the perpetrators are known to the victims. In fact, 35.2% of the reported cases are committed by the husbands. The reported cases were usually committed inside the house, thus, Violence against Women (VAW) cases are domestic in nature.

Table No. 5-60: **Number of Perpetrators of Violence against Women, by Relation to Victim, Davao del Norte: 2019**

Relation to Victim	No. of Perpetrators	%
Husband	44	35.2%
Live-in Partner	32	25.6%
Ex Boyfriend	2	1.6%
Boyfriend	2	1.6%
Neighbor/Acquaintance	11	8.8%
Stepfather	1	0.8%
No Relation	17	13.6%
Stranger	1	0.8%
Friends	4	3.2%
Ex Live-in Partner	2	1.6%
Relative	4	3.2%
Employer	5	4%
Total	125	100%

Source: PNP, DDN

Aside from wife battering being treated as a domestic violence, the time of such cases were usually committed was at nighttime. See Table below.

Table No. 5-61: **Cases on Violence against Women by Place and Time of Commission, Davao Del Norte: 2019**

Type of Cases	Total No. of Cases	Place of Commission						Time of Commission			
		Inside the House		Outside the House		Public Place		Daytime		Nighttime	
		No.	%	No.	%	No.	%	No.	%	No.	%
Rape	16	15		9				8		16	
Acts of Lasciviousness	12	4		5		3		6		6	
RA 9262	76	63		16				37		42	
Unjust Vexation	5	2		3				1		4	
Concubinage	2	2		0				2			
Robbery with Rape	2	2		0						2	
Attempted Homicide	1	0		0				1			
Attempted Rape	2	2						1		1	
Sexual Harassment RA 7877	3	2		1				3			
Frustrated Homicide	1	0		0		1				1	
Total	120	92		35		4		59		72	

Source: PNP, DDN

The ages of women who suffer from battering are more on the 21-30 years old range although women across all ages are victims of such kind of maltreatment.

Table No. 5-62: **No. of Victims of Violence Against Women, by Age Group, Davao del Norte, CY 2019**

Type of Cases	Age of Victims					Total
	18-20	21-30	31-40	41-50	51 & above	
Rape	9	4	2			15
Acts of Lasciviousness	4	6	2		8	12
RA 9262	3	29	21	16		77
Unjust Vexation		3	1			4
Concubinage			1		1	2
Robbery with Rape	2					2
Attempted Homicide			1	1		2
Attempted Rape		1				1
Sexual Harassment RA 7877	2	1				3
Frustrated Homicide		1				1
Total	20	45	28	17	9	119

Source: PNP, DDN

Crime solution efficiency is defined as the percentage of solved cases out of the total number of crime incidents handled by law enforcement agencies for a given period of time.

In 2020, peace and order had the highest percentage of solved out cases at 89.28%, while public safety solved out cases at 83.20%

Table No. 5-63: **Crime Solution Efficiency**
Davao del Norte: CY 2020

Crime Indicator	(%)
Peace and Order Indicator	89.28%
Public Safety Indicator	83.20%

Source: PNP, DDN

b. Police Force

Davao del Norte has a total 660 police force, 516 or 78% are male officers while 144 or 22% are female officers. Women law enforcers are holding positions from Police Officer I up to Police Senior Officers. Majority of the female police officers are assigned as Women's and Children's Desk Officers of the existing Police Stations in the province.

Translated into personnel deployed to the LGUs to population ratio, each police officer is protecting 1,539 persons from various crimes. This does not meet the standard requirement of one law enforcer for every 1,000 persons in municipalities and one law enforcer for every 750 persons in component cities, as set forth in Republic Act 6975, the Philippine National Police Law, as amended by Republic Act No. 8551. Please refer to Table No. 5-64.

Table No. 5-64: **Protective Personnel/ Services/ Police, Ratio to Population,**
By City/Municipality, Davao del Norte: 2020

City/ Municipality	2015 Population	POLICE FORCE				
		Current Force			Ratio to Population	No. of Stations
		F	M	Total		
Tagum City	273,524	21	86	107	1:2,556	1
New Corella	54,844	8	36	44	1:1,246	1
Asuncion	61,380	12	29	41	1:1,497	1
San Isidro	27,154	5	27	32	1:849	1
Sto. Tomas	126,112	17	42	59	1:2,137	1
Kapalong	81,364	10	34	44	1:1,849	1
Talaingod	27,482	7	32	39	1:705	1
Panabo City	189,019	16	62	78	1:2,423	1
Carmen	80,000	12	32	44	1:1,818	1
B.E. Dujali	31,148	9	29	38	1:820	1
IGaCoS	104,123	27	107	134	1:1,046	1
Sub Total	1,016,332	144	516	660	1:1,539	11

Source: PNP, DDN

To augment the existing police forces, Community-Oriented Policing System (COPS) has been established primarily to ensure that police assistance can be easily extended. Anti-crimes group are also organized which are voluntary in nature and mostly civilians and private organizations.

c. Police Equipment and Facilities

The table below shows the available police equipment and facilities in the entire province. It can be gleaned that these equipment and facilities are insufficient and need upgrading in consideration with the population that has to be secured and protected from lawlessness.

Table No. 5-65: **Summary of Police Equipment Facilities,**
Davao del Norte, 2020

UNIT	Short Firearms			Long Firearms			No. of Vehicle
	Cal. 38	Cal. 45	9 mm	M16	M14	Shotgun	Patrol Cars
1 st DNPMFC		2	105		3		
2 nd DNPMFC			91				
Asuncion PS		2	33	19	1		
BE Dujali PS			31	17	2		
Carmen PS		1	34	23	2		
IGCS PS		1	92	18			
Kapalong PS			35	22			
New Corella PS			38	20	2		
San Isidro PS		3	33	13	4		
Panabo PS			66	19	1		
Sto. Tomas PS			51	28			
Tagum PS		1	82	12			1
Talaingod PS		1	32	19	2		
PHQ, DNPPPO		14	61	23	5		
TOTAL		25	784	233	22		1

Source: PNP, DDN

To be able to address the need for peace and public safety, the existing security force in Davao del Norte has to double its efforts in combating criminalities and other lawless elements in the society.

d. Fire Force/ Facilities

The current fire force of the province is 215, with eight (8) fire officers, 203 non-commissioned officers and four (4) non-uniformed personnel. When translated into fire force and population ratio, each fire officer is serving 4,727 populations, which is beyond the standard set by Republic Act No. 6975 of one (1) fire officer for every 2,000 population.

There are now fifteen (15) fire stations operating in the province. These include the Tagum City Fire Station with five (5) units fire trucks; IGaCoS Fire Station with six

(6) units fire truck; Panabo City Fire Station with seven (7) units fire truck; Kapitalong (3) units fire truck; Sto. Tomas Fire Station with two (2) units fire truck; Carmen with two (2) units fire truck; Asuncion, New Corella, San Isidro, Talaingod and B.E. Dujali with one (1) fire truck each.

The existing fire station in Tagum City is augmented by the City Disaster Risk Reduction Management Office, (CDRRMO) of Tagum City and Provincial DRRMO.

Further, the office of the Provincial Fire Marshal is temporarily located/situated inside the compound of the Davao del Norte Provincial Jail.

e. Fire Incidence

The following table shows that fire incidence in 2020 compared to the 3 preceding years had increase. Likewise, the damage it rendered in 2017 was higher compared to 2020 in the amount of Php735 Million. According to the report of the Provincial Fire Marshal, most of the causes of these fire incidents were due to electrical faulty wiring and majority of its zoning classification are in residential areas. Please refer to Table No. 5-66.

Table No. 5-66: **Fire Incidence**
Davao del Norte: 2016-2020

Year	Particular	
	Fire Incidence Reported	Fire Damage Reported
2016	185	115,863,281.05
2017	125	735,421,507.00
2018	195	44,432,000.00
2019	207	13,240,750.00
2020	235	23,576,600.00

Source: Bureau of Fire Protection, Davao del Norte

5.10 Social Welfare

In its efforts to alleviate poverty, Davao del Norte continues to provide social welfare programs for the disadvantaged children, youth, elderly and disabled persons and the indigenous peoples and other disadvantaged groups.

1. Children and Youth Welfare

a. Child Development Service Program

Child Development Centers offer a formal and structured environment where children 6 years of age undergo early childhood education to be able to develop and nurture growing skills. Republic Act 6972 or the Barangay-Level Total Development and Protection of Children Act, aims to establish a day care center in every barangay to institute the total development and protection of children program.

All barangays in the province have already an established child development center. In fact, there are barangays that have more than 1 child development center. All in all, there are 551 child development centers operating in the province, manned by

545 child development workers. As of 2019, there are about 212 child development centers that were accredited, while out of the 536 child development workers, 219 are accredited. The following table shows the profile of child development centers by city and municipality in the province:

Table No. 5-67: **Child Development Centers Profile**
Davao del Norte: 2020

Municipality / City	No. of Brgy.	No. of Child Dev't. Centers	No. of Child Dev't. Workers/Teachers
Asuncion	20	30	30
Kapalong	14	76	76
New Corella	20	37	35
San Isidro	13	22	22
Talaingod	3	33	33
Tagum City	23	100	100
BE Dujali	5	19	19
Carmen	20	35	35
IGaCoS	46	59	59
Panabo City	40	88	88
Sto. Tomas	19	52	48
Total	223	551	545

Source: PSWDO

Shown in the next table is the data on the local child development service program in Davao del Norte. As of SY 2020-2021 a total of 24,241 children are enrolled in the child development centers, where 12,137 are males and 12,104 are females. We can see the gender balance in pre-school enrolment.

Table No.5-68: **Statistics on Child Development Service Program**
Davao del Norte: SY 2020-2021

City/ Municipality	No. of Child Dev't. Centers	No. of Child Development Workers			Number of Learners		
		Male	Female	Total	Male	Female	Total
Asuncion	30			30	753	670	1,423
B.E. Dujali	19			19	236	236	472
Carmen	35			35	540	536	1,076
Kapalong	76			76	1,117	1,138	2,255
New Corella	37			35	667	633	1,300
San Isidro	22			22	400	352	752
Sto. Tomas	52			48	644	760	1,404
Talaingod	33			33	795	735	1,530
IGACOS	59			59	1,389	1,196	2,585
Panabo City	88			88	2,164	2,319	4,483
Tagum City	100			100	3,432	3,529	6,961
Total	551			545	12,137	12,104	24,241

Source: PSWDO

b. Youth Sector

As of the 2010 census of population, the youth aging 15-24 years old totaled 221,250 or 18.75% of the total population of the province. We recognize the fact that the youth is the driving force in any economy and if trained to their full capacity, can play a vital in growth of the country. By training them into varied skills, the youth are given the opportunity to jumpstart their career, prepping them up to become career-ready and employable.

Our youth today is facing a serious problem in unemployment and underemployment. There are many causes for this, some of which include - dropping out of high school, needing to support one's family at an early age, lack of quality education, lack of information on the job market, and, most importantly, not possessing the basic skills required by employers today. Hence, the Pag-asa Youth Association of the Philippines, Inc. (PYAP) has been formed as a barangay-based organization of the out-of-school youth. The PYAP was organized nationwide and is federated from the Municipal/City, Provincial, Regional and National levels. It serves as a strategy that provides forum to discuss youth issues and concerns related to their projects to come up with solutions addressed to the youth and other systems. The DSWD assists the PYAP through its programs and services for the youth, which is known as Unlad Kabataan Program (UKP). Through this program, the youth are incapacitated through skills and trainings to become active participants to development.

As of 2020, the PYAP had registered a total of 9,503 out-of-school youth members in Davao del Norte. The most number is in Carmen, while the least is in B.E. Dujali (please see Table below).

Table No.5-69: **Registered Youth Members of Pag-asa Youth Association of the Philippines (PYAP)**
Davao Del Norte Chapter: CY 2020

City/ Municipality	Sex		Total
	Male	Female	
Asuncion	246	54	300
B.E. Dujali	10	3	13
Carmen	1,520	1,738	3,258
Kapalong	395	370	765
New Corella	271	225	496
San Isidro	608	584	1,192
Sto.Tomas	118	127	245
Talaingod	337	289	626
Panabo City	966	798	1,764
Samal City	392	248	640
Tagum City	110	93	203
Total	4,973	4,529	9,503

Source: PSWDO

2. Persons with Disabilities

Persons with disabilities (PWDs), according to the UN Convention on the Rights of Persons With Disabilities, include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.

In the province of Davao del Norte, the PWDs were organized at the municipal and city levels and federated at the provincial level. From the table below, we can deduce that there are 14,374 PWDs registered province-wide as of 2020. Tagum City had the most number of members, while B.E. Dujali had the least number.

Table No. 5-70: **Davao Del Norte Federation of Persons with Disability**
Total Registered Members as of 2020

City/ Municipality	Male	Female	Total
Asuncion	698	162	860
B.E. Dujali	143	95	238
Carmen	934	711	1,645
Kapalong	969	666	1635
New Corella	577	412	989
San Isidro	417	271	688
Talaingod	327	349	676
Sto. Tomas	1,126	748	1,847
Samal City	528	406	934
Panabo City	1,241	875	2,116
Tagum City	1,605	1,141	2,746
TOTAL	8,565	5,836	14,374

Source: PSWDO

3. Senior Citizens

People who are more than sixty years of age are commonly referred to as *senior citizens* or *seniors*. These terms refer to people whose stage in life is generally called old age, though there is no precise way to identify the final stage of a normal life span. People are said to be senior citizens when they reach the age of sixty or sixty-five because those are the ages at which most people retire from the workforce.

The table below shows that as of 2020, there are 11 senior citizens associations in Davao del Norte with a total of 77,898 members. Panabo City has the most number of senior citizens, while Talaingod has the least. There are more female senior citizens than males.

Table No. 5-71: **Profile of Registered Senior Citizens
Province of Davao del Norte: CY 2020**

City/Municipality	Male	Female	Total
Asuncion	3,820	3,941	7,761
B.E. Dujali	983	1,125	2,108
Carmen	2,455	3,074	5,529
Kapalong	3,353	3,657	7,010
New Corella	2,927	3,023	5,950
San Isidro	1,176	2,424	3,600
Sto. Tomas	2,985	3,925	6,910
Talaingod	869	926	1,795
Panabo City	5,696	7,699	13,395
Samal City	5,272	6,001	11,273
Tagum City	5,462	7,105	12,567
Total	34,798	42,900	77,898

Source: PSWDO

Pursuant to the Philippine Senior Citizens Act 7876, which is an act of establishing a senior citizens center in all cities and municipalities, the province in its desire to improve the lives of the elderly has set up the elderly centers or senior citizen's office in order to cater to their needs. These centers are strategically located in cities and municipalities throughout the province as shown in the table below.

Table No. 5-72: **Inventory of Elderly Day Center and Office
Davao del Norte: CY 2019**

OFFICE	JOINT	OFFICE	LOCATION
Separate Federation		OSCA/MSWDO	Asuncion
	Federation/OSCA/MSWDO		Kapalong
S.C. Day Center (for Accri)		OSCA/MSWDO	New Corella
Separate Federation		OSCA/MSWDO	Talaingod
	Federation/OSCA/MSWDO		San Isidro
S.C. Day Center (Accri for Renewal)		Federation/OSCA/CSWDO	Tagum
Separate Federation		OSCA/CSWDO	Panabo
S.C. Day Center/Federation		OSCA/MSWDO	Carmen
	Federation/OSCA/MSWDO		Sto. Tomas
Separate Federation		OSCA/MSWDO	Dujali
Federation/OSCA		CSWDO	IGaCoS

Source: PSWDO

Retirement most of the time refers to older people who leave paid employment. But even when retired, older people can actively participate in and contribute to community development as workers, as volunteers and as caregivers of grandchildren, people with disabilities and their own ageing relatives. Hence, social inclusion

should also be extended to the elderly particularly in policy and development processes to make use of their life and career experiences, knowledge and skills as well as wisdom. In such manner, we promote self-worth of the elderly and improve their well-being.

4. Marginalized Groups

To respond to the needs of the marginalized groups, the Provincial Government established residential facilities to support women who are victims of all forms of abuse. The Women Development Center was able to assist 22 abused women in 2020. The province also provided case management for psychological, residential and legal assistance for the admitted women for them to recover from their traumatic experiences.

With the aim to assist women and men including minors who are victims of illegal drugs, alcohol and other conflicts, The Provincial Government established various residential facilities.

The Women Development Center housed women who are VAW victims. It provides psychological, legal and other assistance to the victims.

The Luntiang Paraiso Regional Rehabilitation Center (LPRRC) provides psychological management to its residents. In 2015, 138 were admitted 125 of which were males while 13 were females. In 2020, a decrease of 95% admission is registered in LPRRC. Out of the 132 admissions, 123 were males while 9 were females.

With the increasing incidence of minor committing crimes, Bahay Pag-asa was established on September 2014 to cater the Children in Conflict with the Law (CICL). Within six (6) years of operation, the Bahay Pag-asa was able to assist 27 CICLs in 2020. Bahay Pag-asa implements various programs and services, such as homelife, recreation activities, social services, alternative learning system, health services and legal assistance.

Table No. 5-73: **Residential Facilities**
Davao del Norte, 2015-2020

Year	Name of Residential Care Facility								
	Women Development Center			Luntiang Paraiso Regional Rehabilitation Center			Bahay Pag-asa		
	Number of Admitted Clients								
	F	M	Total	F	M	Total	F	M	Total
2015	21	-	21	13	125	138	-	26	26
2016	29	-	29	12	117	129	-	9	9
2017	-	-	-	9	63	72	2	7	9
2018	22	-	22	27	206	233	-	41	41
2019	22	-	22	37	190	227	-	27	27
2020	22	-	22	9	123	132	-	27	27

Source: PSWDO/PEEDO

The crisis intervention services cater the basic needs of the disadvantaged individuals/families in crisis situation in order to restore their social functioning. Further, medical and financial assistance was provided to 5,332 and 1,225 individuals/families, respectively who were diagnosed and admitted in public hospitals due to ailments. Furthermore, financial/transportation assistance was provided to walk-in indigents whose were confined at any government hospitals and those whose social function was impaired. And pauper's burial assistance was also provided to 3,966 beneficiaries province-wide.

Table No. 5-74: **Crisis Intervention Services**
Davao del Norte, 2020

Types of Assistance to Individuals in Crisis Situation (AICS)	Male	Female	Total
Medical Assistance	2,600	2,732	5,332
Financial Assistance	576	649	1,225
Burial Assistance	1,955	2,011	3,966
Emergency Shelter Assistance	119	130	249
OFW Distress Assistance	14	87	101
Transportation Assistance	54	21	75
Food Assistance	26	43	69
Malasakit Center (3 Prov'l. Hospital)	13,211	16,627	29,838

Source: PSWDO

5. Indigenous Peoples

Indigenous people are people defined in international or national legislation as having a set of specific rights based on their historical ties to a particular territory, and their cultural or historical distinctiveness from other populations that are often politically dominant. Table No. 5-75 shows that there are various indigenous groups in Davao del Norte but the major tribe includes the Cebuano. The rest of the tribes are considered migrant Indigenous People (IPs).

Table No. 5-75: **Indigenous Tribes in**
Davao del Norte: CY 2014

GROUP	Population	GROUP	Population
Cebuano	726,584	Kalagan	7,236
Boholano	66,724	Waray	6,925
Hiligaynon, Ilonggo	65,651	Tagalong	6,334
Ilokano	27,318	Dibabawon	4,069
Davaweño	25,525	Maranao	3,487
Ata-Manobo	13,386	Surigaonon	3,182
Davao-Chavacano	13,185	Tausug	2,962
Ata	10,202	Other Local Dialect	23,501
Mandaya	9,269	No Stated	2,763
Isamal Kanlaw	8,530		

Source: PDPFP, Davao del Norte

Government and non-government initiatives have been in place towards the welfare of the Indigenous Peoples (IPs), however, a lot of work is yet to be undertaken for them to have a better quality of life.

The indigenous people are highly vulnerable and have the lowest socio-economic status according to the Regional Development Plan (2004 - 2010). They are not involved in the decision making process and are very much disadvantaged in terms of educational status, health and access to employment.

Table No. 5-76: **Enrolment in Public Elementary Schools, by Sex, by Division, Davao del Norte: SY 2020-2021**

School Name	Enrolment		
	M	F	T
DAVAO DEL NORTE DIVISION			
Buan ES	71	69	140
Buclad ES	116	100	216
Cabaywa ES	173	171	344
Cabaywa Upper ES	96	83	179
Camansa ES	86	84	170
Cambanogoy CES	705	641	1346
Camoning ES	212	186	398
Canatan Elementary School	158	127	285
Concepcion ES	203	175	378
Katipunan ES	299	284	583
Liguyon ES	91	90	181
Magbaad ES	160	129	289
Mahayahay ES	57	42	99
Napungas ES	154	137	291
New Bantayan ES	205	204	409
New Loon ES	143	138	281
New Santiago ES	68	59	127
New Talisay ES	107	114	221
New Visayas ES	43	47	90
Pamacaun ES	168	156	324
Sagayen ES	307	318	625
San Vicente ES	140	115	255
Sonlon ES	173	167	340
Sta. Filomena ES	38	30	68
Camansa Lower Elementary School	22	17	39
Magatos Integrated School	466	450	916
Rizal Integrated School	100	94	194
Adelanto ES	119	90	209
Clementa F. Royo ES	327	318	645
Domingo F. Hain Elementary School	229	238	467
Dr. Vislumino Y. Tamondong ES	147	111	258
Kilantang Primary School	33	27	60
Luan ES	81	81	162
Mabantao Elementary School	188	162	350

Mabuhay ES	81	74	155
Maniki CES SPED Center	1159	1085	2244
Marcos P. Estoque ES	310	329	639
Rogelio P. Macadangdang ES	28	20	48
New Boholano ES	68	66	134
Pandulian Elementary School	65	57	122
Sambayon ES	70	40	110
Sua-on ES	119	93	212
Upper and Lower Mabini ES	65	51	116
Kamansi Integrated School	55	40	95
Aninipot ES	62	58	120
Banualay Elementary School	61	63	124
Balulon Elementary School	44	42	86
Dibabawon I Elementary School	52	48	100
Dibabawon II ES	46	51	97
Dugayan ES	130	111	241
Kawayan Elementary School	15	18	33
Kamunuan Elementary School	28	25	53
Kapogi Elementary School	32	41	73
Kim-Isog Elementary School	20	10	30
Lapangon Elementary School	19	19	38
Lower Tagasan Primary School	22	16	38
Luno-Luno Primary School	27	43	70
Maguimon Elementary School	42	39	81
Mansalinao Elementary School	31	22	53
Moling Elementary School	42	34	76
Nasinabong Elementary School	68	51	119
Ngan Elementary School	37	36	73
Patel Elementary School	88	109	197
Pipisan Elementary School	65	70	135
Taongatok Elementary School	24	47	71
Tapayanon Elementary School	108	117	225
Tawinian Elementary School	59	76	135
Tiapo Elementary School	48	47	95
Gupitan Integrated School	142	156	298
Kapatagan Integrated School	81	83	164
Langan Elementary School	94	84	178
Mangkay Integrated School	102	86	188
Mambago Integrated School	74	76	150
Upper Tagasan Integrated School	38	44	82
Sagana Elementary School	86	63	149
Luna ES	285	297	582
Bunawan ES	84	106	190
Doña Carmen Soriano ES	194	204	398
Gabuyan CES	305	256	561
Pedro G. Colita Sr. ES	123	89	212
Mangulibas ES	182	171	353
Pag-asa ES	165	129	294

Semong ES	235	233	468
Tiburcia ES	93	120	213
Sampao IS	349	313	662
Cabidianan ES	142	104	246
Carcor ES	116	90	206
Dasing ES	132	145	277
Del Pilar ES	276	286	562
El Salvador ES	70	75	145
El Unido ES	107	79	186
Guadalupe ES	89	72	161
Kauswagan ES	68	50	118
Lataban ES	52	60	112
Limbaan ES	299	293	592
Mambing ES	86	89	175
Mesaoy ES	552	482	1034
New Bohol ES	127	134	261
New Corella CES SPED Center	807	716	1523
New Cortez ES	235	187	422
New Sambog ES	60	66	126
Patrocenio ES	65	68	133
San Jose ES	62	63	125
San Roque ES	252	226	478
Saug Elementary School	47	50	97
Sta. Cruz Elementary School	104	85	189
Sta. Fe ES	114	100	214
Sto. Niño ES	86	63	149
Suawon ES	132	129	261
Silangan Elementary School	51	61	112
Macgum Integrated School	148	105	253
Manguangan IS	55	54	109
Kipalili ES	193	197	390
Mamangan ES	163	153	316
Sabangan ES	119	118	237
San Miguel ES	95	90	185
Sawata Adecor ES	97	82	179
Sawata Ernandcor CES	298	296	594
Agman PS	55	59	114
Dacudao ES	118	138	256
Datu Balong ES	129	111	240
Gov. Dujali ES	123	91	214
Libuton ES	73	94	167
Linao ES	144	115	259
Pinamuno ES	178	170	348
San Miguel ES	97	72	169
Igangon Integrated School	234	232	466
Ibuyag Lamburan ES	101	90	191
Ibuyag Pocapoc PS	28	23	51
Kamingawan ES	34	26	60

Malapanit Primary School	66	53	119
Dagohoy Elementary School	110	89	199
Sto. Niño CES	377	342	719
Tibi-Tibi ES	223	208	431
Igang Elementary School	65	53	118
Sambolungan Elementary School	33	51	84
Lambid Elementary School	44	43	87
Datu Felino Dagwaan Elementary School	43	33	76
Pongpong Elementary School	30	30	30
Natulinan ES	69	77	146
Barobo Elementary School	39	46	85
Gatong ES	25	36	61
Banaog Elementary School	61	55	116
Basak Elementary School	71	78	149
KM 31 Primary School	104	99	203
Kuyas Elementary School	75	81	156
Milyong Elementary School	58	96	154
Napisulan Elementary School	38	48	86
Lomondong ES	89	95	184
Napunong Elementary School	52	48	100
Nasilaban Integrated School	82	98	180
Butay Integrated School	59	44	103
Tibucag Integrated School	107	83	190
Lumabag Integrated School	49	61	110
Naseco Integrated School	76	70	146
Paiton Integrated School	53	66	119
Mesolong Integrated School	120	107	227
Cabadiangan Integrated School	113	94	207
Palma Gil Integrated School	103	81	184
Dulyan Integrated School	52	35	87
Central Baugan Integrated School	100	99	199
Bacale Elementary School	58	57	115
Balisong ES	99	60	159
Cabayangan ES	229	183	412
Dapecol ES	60	59	119
Dujali Central ES	564	542	1106
East Cabayangan ES	121	109	230
Magupising ES	84	111	195
Talisay ES	92	87	179
Tanglaw ES	328	326	654
Tanglaw 3A ES	69	70	139
New Casay Integrated School	121	116	237
Alejal ES	418	404	822
Anibongan ES	272	215	487
Asuncion ES	124	92	216
Carmen CES SPED Center	1255	1056	2311
New Maligaya ES	106	84	190
Cebulano ES	167	155	322

Guadalupe ES	151	149	300
Pinta Sabarat ES	198	189	387
Mabaus ES	113	99	212
Mabuhay ES	141	127	268
Magsaysay ES	672	648	1320
Mangalcal ES	218	225	443
Minda ES	67	55	122
New Camiling ES	157	134	291
Salvacion ES	111	152	263
San Isidro ES	154	144	298
Sto. Niño ES	345	328	673
Taba ES	157	129	286
Tibulao ES	144	122	266
Tubod ES	603	551	1154
Tuganay ES	251	233	484
Apitong ES	115	112	227
Balisong ES	115	72	187
Casig-ang Elementary School	186	194	380
Esperanza ES	199	190	389
Jesus Lumain ES	149	115	264
Kimamon ES	542	527	1069
La Libertad ES	328	280	608
Lunga-og ES	344	336	680
Nafco CES	516	510	1026
Pantaron ES	201	212	413
Salvacion ES	398	418	816
San Miguel ES	208	192	400
Talomo ES	178	170	348
Kinamayan IS	430	433	863
Balagunan ES	457	374	831
Bobongon Elementary School	203	206	409
Marsman ES	176	145	321
New Katipunan ES	459	422	881
New Visayas ES	224	205	449
San Isidro ES	109	85	194
San Jose ES	152	145	297
Sto. Tomas CES SPED Center	2491	2387	4878
Talos Elementary School	49	41	90
Tulalian Elementary	472	417	889
Magwawa Integrated School	149	161	310
Maguintalunan Integrated School	68	58	126
ISLAND GARDEN CITY OF SAMAL			
Angel Villarica Central ES	1112	1143	2255
Balet ES	175	194	369
Caliclic ES	236	204	440
Camudmud ES	142	131	273
Cogon ES	287	262	549
Kila ES	54	32	86

Kinawitnon ES	103	93	196
Libuak ES	104	113	217
Mambago B ES	216	245	461
San Agustin ES	111	113	224
San Antonio ES	179	187	366
Sto. Niño ES	88	91	179
Tagpopongan ES	105	85	190
Jose N. Cabunilas ES	216	191	407
Toril ES	161	180	341
San Isidro Integrated School	275	242	517
Adecor ES	111	91	202
Anonong ES	230	217	447
Bandera ES	123	165	288
Buhangin ES	133	148	281
Cogon ES	161	148	309
Dadatan ES	130	105	235
Don Esteban Dasalla ES	162	118	280
Guadalupe ES	77	90	167
Kaputian Central ES	381	383	764
Libertad ES	166	142	308
Linosotan ES	97	70	167
Matanos ES	95	80	175
Pangubatan ES	50	54	104
San Isidro ES	72	76	148
San Remegio ES	108	112	220
Sion ES	55	28	83
Sta. Crus ES	334	326	660
Tagbaobo ES	74	49	123
Aumbay ES	131	121	252
Aundanao ES	55	59	114
Catagman ES	79	65	144
Cawag ES	86	72	158
Del Monte ES	104	112	216
Guilon ES	179	119	298
Limao ES	157	158	315
Magamomo ES	81	86	167
Mambago A ES	137	141	278
Peñaplata CES SPED Center	623	597	1220
San Jose ES	167	157	324
Tagbay ES	117	111	228
Tagbitanag ES	132	109	241
Tagdaliao ES	64	55	119
Tagluno ES	45	34	79
Tayapoc ES	39	36	75
Licup ES	48	57	105

PANABO CITY			
Cabili ES	329	339	668
Doña Nenita R. Floirendo ES	394	379	773
Gredu ES	680	646	1326
Panabo Central Elem. School SPED Center	1131	1217	2348
Rizal ES	2029	1942	3971
Salvacion ES	663	589	1252
San Pedro ES	271	289	560
San Vicente ES	708	588	1296
Sto. Niño Elementary School	231	231	462
San Francisco ES	293	273	566
Antonio O. Floirendo Elementary School II	258	245	503
AO Floirendo Elem. School	383	345	728
P. Changco ES	88	96	184
Concordia A.Sison ES	113	102	215
Dalisay Village ES	214	190	404
Valentin N. Daquio ES	465	439	904
Don Manuel A. Javellana Memorial School	106	93	199
Nanyo Central ES	415	386	801
Rodrigo D. Mabitad Sr. ES	385	356	741
Roxas ES	61	60	121
Sindaton ES	192	167	359
Southern Davao ES	582	558	1140
Tibungol ES	86	69	155
Buenavista ES	58	71	129
Consolacion ES	151	117	268
Datu Abdul ES	180	160	340
Glecerio L. Dondoy CES	620	584	1201
J.P. Laurel ES	192	181	373
Kasilak ES	181	162	343
Katipunan ES	122	119	241
Katualan Elementary School	45	34	79
Teofanis G. Gerona Sr. ES	187	156	343
Kiotoy ES	142	146	288
Licanan ES	123	114	237
Little Panay ES	250	246	496
Mabunao ES	183	146	329
Malativas ES	215	195	410
Namuag ES	98	95	193
Narciso B. Galapin ES	302	293	595
New Visayas Elementary School	394	334	728
San Roque ES	51	61	112
Sta.Cruz ES	160	136	296
Tagpore Integrated School	117	99	216
Tagurot ES	149	165	314
Waterfall ES	58	66	124

TAGUM CITY			
Apokon Elementary School	1180	1043	2223
Babanganan Elementary School	39	30	69
Bincungan Elementary School	286	237	523
Busaon Integrated School	187	149	336
Cabugan Elementary School	87	79	166
Col. Rosalio C. Saludaes Elementary School	378	357	735
Don Ricardo Briz Central Elementary School	975	916	1891
F. Dela Cruz-P. Sagun Elementary School	1063	952	2015
Florentino Catalan Elementary School	832	759	1591
Herculina L. Edig Elementary School	183	169	352
Ignacio Xavier A. Tuason Elementary School	220	206	426
La Filipina Elementary School	1164	1076	2240
Laureta Elementary School	818	725	1543
Liboganon Integrated School	174	177	351
Luis L. Lina Elementary School	262	278	540
Madaum Elementary School	430	421	851
Magugpo Pilot Central Elementary School	2361	2284	4645
Magugpo Pilot Imelda Elem. Sch. SPED Center	2162	2125	4287
Mangga Elementary School	1284	1227	2511
Mankilam Elementary School	609	572	1181
New Balamban Elementary School	175	139	314
Nueva Fuerza Elementary School	189	183	372
Pagsabangan Elementary School	358	360	718
Pandapan Integrated School	150	153	303
Rizal I Elementary School	743	699	1442
San Agustin Elementary School	113	106	219
San Isidro Elementary School	340	323	663
Suaybaguio-Riña Elementary School	779	675	1454
Visayan Village Central Elementary School	1210	1106	2316

Source: DepEd Divisions of TC, PC, IGCS and DDN

Table No. 5-77: **Enrolment in Public Junior and Senior High Schools By Sex and Division, Davao del Norte: 2020-2021**

School Name	Total		
	M	F	T
JUNIOR HIGH SCHOOL			
DAVAO DEL NORTE			
Asuncion National High School	1062	1020	2082
Sagayen National High School	750	696	1446
Sonlon National High School	323	294	617
Rizal Integrated School	72	62	134
Magatos Integrated School	191	168	359
Davao del Norte Regional Sports Academy	61	18	79
Kapalong National High School	988	1137	2125
Baltazar Nicor Valenzuela National High School	213	198	411
Sua-on National High School	139	136	275
Mabantao National High School	197	159	356

Ramon S. Segundo Sr. National High School	122	103	225
Kamansi Integrated School	42	40	82
Doña Carmen Soriano National High School	283	298	581
Luna National High School	215	230	445
Semong National High School	140	117	257
Sampao Integrated School	211	234	445
Dugayan NHS	92	115	207
Benigno Q. Martir NHS	120	134	254
Kapatagan Integrated School	88	104	192
Gupitan Integrated School	107	92	199
Langan Integrated School	58	56	114
Mangkay Integrated School	34	40	74
Mambago Integrated School	44	25	69
Upper Tagasan Integrated School	47	58	105
Limbaan National High School	370	349	719
New Corella National High School	1273	1297	2570
Mesaoy National High School	260	258	518
Sta. Fe National High School	92	87	179
Macgum Integrated School	99	79	178
Manguangan Integrated School	62	74	136
Datu Balong National High School	179	196	375
Linao National High School	267	207	474
Sawata National High School	557	516	1073
Pinamuno National High School	115	118	233
Igangon Integrated School	145	126	271
Datu Jose A. Libayao Memorial NHS	158	132	290
Dagohoy National High School	48	57	105
Natulinan National High School	69	77	146
Sto. Niño NHS	275	302	577
Butay Integrated School	43	44	87
Cabadiangan Integrated School	88	89	177
Central Baugan Integrated School	27	23	50
Dulyan Integrated School	16	9	25
Lumabag Integrated School	43	46	89
Mesolong Integrated School	107	122	229
Naseco Integrated School	37	29	66
Nasilaban Integrated School	35	41	76
Paiton Integrated School	55	44	99
Palma Gil Integrated School	42	47	89
Tibucag Integrated School	47	38	85
Antonio V. Fruto Sr. National High School	334	289	623
Dujali National High School	533	485	1018
Tanglaw National High School	275	246	521
New Casay Integrated School	54	48	102
Alia National High School	129	122	251
Alejal National High School	292	283	575
Carmen National High School	1393	1478	2871
Mabuhay National High School	116	104	220

Tubod National High School	439	405	844
Anibongan National High School	335	271	606
La Paz National High School	227	194	421
Kimamon National High School	673	661	1334
La Libertad National High School	279	277	556
Salvacion National High School	359	327	686
Kinamayan Integrated School	321	313	634
Balagunan National High School	284	249	533
Marsman National High School	128	108	236
Sto. Tomas National High School	2482	2601	5083
Tulalian National High School	288	258	546
Maguintalunan Integrated School	15	19	34
Magwawa Integrated School	108	89	197
ISLAND GARDEN CITY OF SAMAL			
Balet National High School	104	98	202
Cogon National High School	282	275	557
Mambago B National High School	410	370	780
Nieves Villarica National High School	904	992	1896
San Antonio National High School	89	75	164
Tagpopongan National High School	72	61	133
San Isidro Integrated School	153	131	284
Gamban Dadatan National High School	68	70	138
Anonang National High School	237	249	486
Don Esteban Dasalla National High School	107	94	201
Kaputian National High School	229	230	459
Matanos National High School	114	120	234
Sta. Cruz National High School	248	206	454
Remedios C. Ortiz National High School	32	38	70
Diosdado Alorro Sr. National High School	128	98	226
Bandera National High School	117	111	228
Libertad Nationa High School	100	91	191
Lima National High School	114	119	233
Samal National High School	487	459	946
Tagbitan-ag National High School	115	112	227
Leonardo B. Canillo National High School	27	23	50
Del Monte National High School	126	144	270
San Jose National High School	92	81	173
PANABO CITY			
Panabo City National High School	2685	2888	5573
Kasilak National High School	97	94	191
Cagangohan National High School	415	409	824
Desiderio F. Dalisay Sr. National High School	100	92	192
San Vicente National High School	611	678	1289
Quezon National High School	237	235	472
A.O. Floirendo National High School	630	650	1280
Sindaton National High School	182	176	358
Don Manuel A. Javellana Memorial Nat'l. High School	417	436	853
Manay National High School	218	198	416

Southern Davao National High School	748	791	1539
Malativas National High School	122	119	241
Little Panay National High School	176	144	320
Kauswagan National High School	194	196	390
Mabunao National High School	115	118	233
Tagpore National High School	21	10	31
TAGUM CITY			
Laureta National High School	636	578	1214
Tagum City National High School	2874	3185	6059
Tagum City National Trade School	1458	1283	2741
Magdum National High School	354	408	762
Busaon Integrated School	127	142	269
Liboganon Integrated School	136	93	229
Pandapan Integrated School	177	149	326
Tagum City National Comprehensive High School	2022	2046	4068
La Filipina National High School	1769	1904	3673
Jose Tuason Jr. Memorial National High School	463	438	901
Pipisan Maug National High School	209	216	425
Canocotan National High School	334	282	616
SENIOR HIGH SCHOOL			
DAVAO DEL NORTE			
Asuncion National High School	330	414	744
Sagayen National High School	263	299	562
Sonlon National High School	108	104	212
Rizal Integrated School	0	0	0
Magatos Integrated School	0	0	0
Davao del Norte Regional Sports Academy	10	7	17
Kapalong National High School	517	616	1133
Baltazar Nicor Valenzuela National High School	0	0	0
Sua-on National High School	27	45	72
Mabantao National High School	50	51	101
Ramon S. Segundo Sr. National High School	23	24	47
Kamansi Integrated School	0	0	0
Doña Carmen Soriano National High School	84	94	178
Luna National High School	42	45	87
Semong National High School	42	30	72
Sampao Integrated School	25	38	63
Dugayan National High School	19	28	47
Benigno Q. Martir High School	23	23	46
Gupitan Integrated School	23	17	40
Kapatagan Integrated School	7	15	22
Langan Integrated School	0	0	0
Mangkay Integrated School	0	0	0
Mambago Integrated School	0	0	0
Upper Tagasan Integrated School	0	0	0
Limbaan National High School	104	105	209
New Corella National High School	453	528	981
Mesaoy High School	46	87	133

Sta. Fe National High School	48	30	78
Macgum Integrated School	24	21	45
Manguangan Integrated School	0	0	0
Datu Balong High School	75	69	144
Linao National High School	69	77	146
Sawata High School	194	207	401
Pinamuno National High School	28	34	62
Igangon Integrated School	42	28	70
Datu Jose A. Libayao Memorial NHS	55	79	134
Dagohoy National High School	27	42	69
Natulinan National High School	112	176	288
Sto Niño High School	112	176	288
Butay Integrated School	0	0	0
Cabadiangan Integrated School	0	0	0
Central Baugan Integrated School	0	0	0
Dulyan Integrated School	0	0	0
Lumabag Integrated School	0	0	0
Mesolong Integrated School	0	0	0
Naseco Integrated School	0	0	0
Nasilban Integrated School	0	0	0
Paiton Integrated School	0	0	0
Palma Gil Integrated School	0	0	0
Tibucag Integrated School	0	0	0
Antonio V. Fruto Sr. National High School	133	102	235
Dujali National High School	186	243	429
Tanglaw National High School	168	140	308
New Casay Integrated School	0	0	0
Alejal National High School	69	63	132
Alia National High School	0	0	0
Anibongan High School	94	103	197
Carmen High School	459	577	1036
La Paz National High School	59	45	104
Mabuhay National High School	54	46	100
Tubod National High School	101	113	214
Kimamon National High School	171	158	329
La Libertad National High School	96	70	166
Salvacion High School	95	132	227
Kinamayan Integrated School	63	56	119
Balagunan National High School	82	81	163
Marsman High School	37	33	70
Sto. Tomas High School	945	1132	2077
Tulalian High School	84	78	162
Maguintalunan Integrated School	0	0	0
Magwawa Integrated School	23	24	47
ISLAND GARDEN CITY OF SAMAL			
Balet National High School	30	21	51
Cogon National High School	47	99	146
Mambago B National High School	147	126	273

Nieves Villarica National High School	424	476	900
San Antonio National High School	5	8	13
Tagpopongan National High School	23	29	52
San Isidro Integrated School	27	23	50
Gamban Dadatan National High School	29	25	54
Anonang National High School	109	134	243
Don Esteban Dasalla National High School	11	42	53
Kaputian National High School	47	55	102
Matanos National High School	39	31	70
Sta. Cruz National High School	101	94	195
Diosdado Alorro Sr. National High School	31	37	68
Bandera National High School	41	25	66
Libertad National High School	37	48	85
Limao National High School	21	21	42
Tagbitan-ag National High School	17	19	36
Del Monte National High School	40	41	81
San Jose National High School	31	23	54
SHS w/in Peñaplata Central ES	142	160	302
PANABO CITY			
Panabo City National High School	836	572	1408
San Vicente National High School	136	111	247
Panabo City Senior High School	640	860	1500
A.O. Floirendo National High School	251	264	515
Sindaton National High School	49	56	105
Don Manuel A. Javellana Memorial NHS	92	95	187
Manay National High School	71	81	152
Malativas National High School	33	40	73
Little Panay National High School	44	38	82
Kauswagan National High School	50	73	123
Mabunao National High School	27	26	53
TAGUM CITY			
Laureta National High School	148	169	317
Tagum City National High School	845	1111	1956
Tagum National Trade School	914	540	1454
Magdum National High School	6	24	30
Busaon Integrated School	37	41	78
Liboganon Integrated School	45	40	85
Pandapan Integrated School	51	42	93
Tagum City National Comprehensive High School	118	175	293
La Filipina National High School	316	507	823
Jose Tuason Jr. Memorial National High School	146	165	311
Pipisan Maug National High School	44	70	114
Canocotan National High School	116	83	199

Source: DepEd Divisions of TC, PC, IGCS and DDN

CHAPTER VI

UTILITIES AND/ INFRASTRUCTURE SERVICES

Infrastructure development is a vital component in community growth and progress. Adequate and sustainable infrastructure has to be in place to ensure high quality of life of the constituents. Access to safe and potable water supply, sanitation facilities and electrification must be afforded accordingly.

6.1 Water

Water services in component cities and even in some municipalities are provided by the Local Water Districts which are operating under the technical and financial assistance of the Local Water Utility Administration (LWUA). Government constructed water systems are also catering the water needs of the other areas which are operated and managed either by the Rural Waterworks and Sanitation Associations (RWSAs), municipal and barangay government, water committees or merely association.

Table No. 6-1 **List of Existing Water Districts
Davao del Norte, as of 2019**

Water District	Category	No. Water Source		Production m ³ /month	Service Connection				Ave. Consumption/ Month	Minimum Charge
		Wells	Spring		Residential	Gov't.	Commercial	Total		
1. Tagum City	Medium	10	-	1,060,606 (Sept. 2019)	33,022	159	2,793	35,974	21.40	198.60
2. Asuncion	Small			40,236 (Sept. 2019)	2,418	51	75	2,544	29.00	230.00
3. BE Dujali	Small	2		13,655 (Dec. 2015)	484	0	62	546	25.00	238.30
4. Carmen	Small	1		15,758 (Dec. 2011)	479	0	162	641	25.65	248.50
5. IGaCoS	Small	16	4	94,781 (Dec. 2012)	3,564	0	80	3,644	17.70	155.90
6. Kapalong	Small	2	-	45,350	1,247	30	279	1,556	20.37	192-r 384I-c
7. New Corella	Small		4	31,104 (Oct. 2018)	1,637	61	97	1,795	21.95	187.56
8. Panabo City	C/Small	7		172,122 (2015)	4,923	0	744	5,682	19.80	194.35

Source: Local Water Utility Administration (LWUA)

Table No. 6-2 showed the households served by level of water services, Level I had 1,532 units that are accessed by a total of 31,686 households; Level II had 356 units that served 25,055 households; and 180 Level III units that served a total of 68,273 households province-wide. All in all there are 125,011 households that have access to potable water and a total of 197 units that rely on water refilling sources. Details can be gleaned in the following table:

Table No. 6-2: **Existing Water Supply Source by Cities/Municipalities Province of Davao del Norte: CY 2020**

City/ Municipality	No. of HH	Population	WATER SUPPLY SOURCES													Total
			No. of L-1	HH w/ Access	No. of L-2	HH w/ Access	No. of L-3	HH w/ Access	WRS	HH with Access	HH w/ access to safe water	%	Doubtful source	HH with access	%	
Asuncion	16,311	62,008	149	5,560	13	2,665	1	3,171	6	2,895	14,291	88	101	2,020	12	16,311
BE Dujali	6,379	26,689	5	211	0	0	1	18	8	4,174	4,403	69	95	1,976	31	6,379
Carmen	20,790	83,331	28	312	1	128	3	219	16	14,060	14,719	71	492	6,071	29	20,790
IGACOS	27,895	115,845	51	978	66	9,563	55	7,067	17	9,671	33,065	100	90	90	0	33,155
-Babak *	11,676	51,117	7	214	17	3,221	30	2,245	14	4,902	10,582	91	4	4	0	10,586
-Kaputian *	8,168	34,766	6	614	16	3,986	6	3,486	4	1,720	9,806	120	78	78	1	9,884
-Samal *	8,051	32,471	22	832	30	2,862	15	4,349	4	4,634	12	100	8	8	0	12,685
Kapalong	18,797	79,715	334	5,704	36	2,472	35	1,442	23	8,931	18,549	99	44	50	0	18,599
New Corella	14,464	61,180	42	2,089	34	3,881	15	2,033	15	6,061	14,064	95	148	700	5	14,764
Panabo City	23,909	100,554	61	1,369	2	485	51	1,891	71	18,135	21,880	92	78	1,647	7	23,527
San Isidro	7,133	29,670	8	1,464	19	2,440	10	1,662	4	806	6,372	89	62	761	11	7,133
Sto. Tomas	28,694	127,509	234	4,251	9	388	21	9,152	28	12,468	26,066	91	166	2,683	9	28,942
Tagum City	63,446	291,450	8	2,198	6	1,486	18	53,445	23	5,285	62,414	98	12	1,032	2	63,446
Talaingod	5,703	23,500	82	2,522	35	1,704	4	653	2	50	4,929	86	37	774	14	5,703
Total	232,886	1,001,451	1,002	26,658	221	25,212	214	80,753	213	84,121	220,945	92	1,325	17,804	8	238,749

Source: Provincial Health Office

6.2 Sanitation

Adequate sanitation and toilets are basic necessities that ensure and promote the health of people. The importance of sanitation and toilets lies in helping reduce the spread of diseases.

There are no sewerage facilities with treatment plant in the province. Domestic wastewater is disposed through septic tanks, storm drainage, canals and other disposal system without treatment. Excreta are commonly disposed by households through septic tanks and closed pits. As of 2018, 90% of the total households are using sanitary toilets. Tagum City, New Corella, Panabo City and Isidro have the highest number of households using sanitary toilets, while Talaingod has the least number of households using sanitary toilets.

Table No 6-3: Toilet Facilities, Davao del Norte, CY 2020

Municipalities/ Cities	No. of HH	Population	Status of Toilet Facilities per HH**						TOTAL
			HH** using Sanitary Toilets	%	HH** using Unsanitary Toilets	%	No. of HH** w/o toilet	%	
Asuncion	16,311	62,008	15,351	94	499	3	461	3	16,311
B.E. Dujali	6,379	26,689	6,342	99	37	1	417	7	6,796
Carmen	20,790	83,331	20,037	96	462	2	291	1	20,790
IGaCos	27,895	115,845	25,492	94	214	1	1,651	9	27,237
- Babak	11,676	51,117	10,586	90	61	1	425	4	11,018
- Kaputian	8,168	34,766	7,474	92	0	0	694	8	8,168
- Samal	8,051	32,471	7,486	93	33	0	531	7	8,051
Kapalong	18,797	79,715	16,276	87	320	2	2,428	13	19,024
New Corella	14,764	61,180	14,294	97	172	1	298	2	14,764
Panabo City	23,909	100,554	22,362	94	509	3	1,044	4	23,915
San Isidro	7,133	29,670	6,169	86	824	12	140	1	7,133
Sto. Tomas	28,694	127,509	25,507	89	346	1	3,213	11	28,694
Tagum City	63,446	291,450	62,503	99	0	0	943	1	63,446
Talaingod	5,703	23,500	3,336	58	713	13	1,654	29	5,703
Davao del Norte	232,886	1,001,451	217,669	93	3,976	3	12,540	9	234,185

Source: Provincial Health Office (PHO)

(Note: HH** - Actual household survey conducted by PHO Field workers)

6.3 Power/Electricity

a. Power Supply

Panabo City and municipalities of Carmen, Sto. Tomas and B.E. Dujali, the electricity are being provided by Davao Light and Power Company (DLPC), while Tagum City, Island Garden City of Samal, municipalities of Asuncion, Kapalong, Talaingod, San Isidro and New Corella are covered with Davao del Norte Electric Cooperative (DANECO).

Both distributors obtained their electric power from Mindanao's power grid of the National Power Corporation (NPC). DANECO has a power capacity of 98.66 MW comprising eleven (11) substations of its entire coverage including Compostela Valley Province. There are four (4) sub-stations located in Tagum City with a total capacity of 60 MVA and one (1) in Asuncion with 20 MVA in 2017. The DLPC has four (4) sub-stations with a total capacity of 80 MVA.

Table No. 6-4: Existing Power Sub-Stations, Davao del Norte, as of 2020

Power Distributor		Location of Station	Capacity
NORDECO	M1	Mirafuentes, Tagum City	10 MVA
	M9	Mirafuentes, Tagum City	10 MVA
	M7	Canocotan, Tagum City	20 MVA
	M11	Apokon, Tagum City	20 MVA
	M13	Km. Zero, Asuncion	20 MVA
		Total	80 MVA
DLPC	Panabo Substation	Km. 30, Prk. Avocado, Cagangohan, Panabo City	10 MVA
	San Vicente Substation	Prk 3, San Vicente, Panabo City	33 MVA

	Tadeco Substation	Inside Tadeco compound near Dapacor plastic plant Brgy. Dapco, Panabo City	33 MVA
	Sto. Tomas Substation	Inside Marsman Compound near Marsman Elementary School, Sto. Tomas	15 MVA
		Total	70 MVA
NPC		Tindalo Station, Nabunturan Maco Sub-Station, Maco	100 MVA 100 MVA
		Total	200 MVA

Source: *Davao Light and Power Company, Davao del Norte Electric Cooperative National Power Corporation, Davao del Norte Sub-Office*

In terms of household connection, 72.95% households in the province were energized. Davao Light and Power Company (DLPC) has a coverage of 69% were energized while DANECO has 76.90% coverage as of December 2020. (see below table)

Table No. 6-5: **Service area connection of NORDECO and DLPC (e.g. Barangay Served / Unserved), CY 2020**

Cities/Municipalities	No. of Barangays		No. of Connections (%)	No. of Connections		Actual Household Energized (%)
	Covered	Energized		Potential Household (source NSO)	Actual Household Energized	
NORDECO:						
Asuncion	20	20	100	14,000	7,890	56.35%
New Corella	20	20	100	12,000	7,587	63.22%
San Isidro	13	13	100	6,260	3,178	52.96%
Kapalong	14	14	100	17,000	8,757	51.51%
Talaingod	3	3	100	6,000	1,047	17.45%
Tagum City	23	23	100	62,000	64,037	103.28%
Babak, IGACOS	16	16	100		8,316	
Peñaplata, IGACOS	15	15	100	27,000	5,120	67.55%
Kaputian, IGACOS	15	15	100		4,804	
Total	139	139	100	144,000	110,736	76.90%
DLPC:						
Panabo City	40	40	100	42,489	32,806	77%
Carmen	20	20	100	16,743	9,694	58%
B.E. Dujali	5	5	100	5,404	2,453	45%
Sto. Tomas	19	19	100	26,291	17,413	66%
Total	84	84	100	90,927	62,366	69%
Davao del Norte	223	223	100	234,927	173,102	72.95%

Source: *Davao del Norte Electric Cooperative (DANECO) and DLPC*

b. Renewable Energy Development

Renewable energy development is one of Davao del Norte's identified Investment Priority Areas (IPA's), which are given fiscal and non-fiscal incentives under the Davao del Norte Investment Code of 2014.

At present, there are seven (7) existing and functional Renewable Energy Development (RED) projects in Tagum City, Panabo City, Sto. Tomas and Talaingod serving a total of 715 households. Majority of which are using solar energy. RED projects can be a good source of electricity during power shortage or failure particularly in times of calamity occurrences, aside from the provision

of generator sets, emergency lights to calamity stricken areas by the LGUs, other institutions and donors. Please see table below

Table No. 6-6: **Existing RED Project in LGUs**
Davao del Norte, 2019

Location	Project Name	Company/Agency	Status
Nanyo, Panabo City	Solar Project	Dept. of Energy – BUB	Completed 2013 Benefiting 46 households
Lower Panaga, , Panabo City	Solar Project	Dept. of Energy -BUB	Completed 2013 Served 87 households Expansion – completed Aug. 2015 Benefiting 25 households
Katwalan, Panabo City	Solar Project	Dept. of Energy- Regular budget	Completed Aug.2015 Served 25 households
Magwawa, Sto. Tomas	Solar Power Project	Davao Light and Power Foundation	Completed, serving 125households as of 2019. Barangay already energized. The solar power project will be a substitute during power failure in the barangay.

Source: LGU

To address power shortage/failure, some LGUs came up with RED initiatives. The suitable sites per barangay, including the technology to be adopted and source were identified in the table below.

6.4 Drainage/Flood Control

a. Drainage System

The existing drainage network in the province is not sufficient to contain floods especially in the lowland areas. Several measures were already taken such as improvement of the drainage facilities, re-channeling and de-silting of creeks and rivers and watershed management which were long term schemes.

However, as urban areas are expanding due to development and rapid increase in population, urban drainage systems remain constant and under sub-standard conditions. Some are of inadequate designs to cater the discharge/volume of water, which aggravated the drainage problem of the area.

b. Flood Control

Major flood control projects and structures had been constructed by the Department of Public Works and Highways, such as: Libuganon Flood Control, Carmen Flood Control, Tuganay Flood Control, Lasang Flood Control and Tagum Drainage.

Disaster preparedness and management has always been the main concern of the Provincial Disaster Coordinating Council (PDCC). Massive advocacy and capability building programs had been undertaken which were actively participated by the local officials, rescue teams and the general public. Civic

and non-government organizations also provided support and active involvement during floods.

Table No. 6-7: **Historical Data on Disaster Occurrences**
Province of Davao del Norte: CY 2020

Date of Occurrence	Type of Disaster	No. of Mun. / Cities Affected	No. of Brgys. Affected	No. Families Affected	No. of Families Evacuated	No. of Casualty		No. of Damage House		Total Amount of Damage	
						Injured	Dead	Totally Damage	Partially Damage	Infra.	Crops/Livestock/ Fishery
Jan. 21, 2020	Pangayaw	1	1	0	0	1	1	0	0	0	0
Aug. 13-14, 2020	Effects of Intense Rainfall due to ITCZ (Flooding)	2	12	0	289	1	0	0	0	0	0
Aug. 18, 2020	Effects of Intense Rainfall due to ITCZ (Flooding & Landslide)	3	20	0	0	0	0			P577,165.00	600,000.00
Dec. 18, 2020	River Flooding due to Tropical Depression "Vicky"	5	33		3,433					8,787,358.10	600,000.00

Source: PDRRMD-PADO, Davao del Norte

To prepare for the increasing need to rehabilitate the province’s major tributaries, the formulation of the integrated master plan and the creation of a management council to rehabilitate the Tagum Libuganon River Basin (TLRB) become an important priority. The river basin covers 306,400 hectares covering 14 municipalities and 1 city in the provinces of Davao del Norte, Compostela Valley and Agusan del Sur. TLRB plays a central role in the economic and ecological viability of Davao del Norte since most of its LGUs are affected by flashfloods when the Libuganon River and its tributaries swell during the onslaught of typhoons and low pressure areas, namely: Asuncion, Carmen, Dujali, Kapitalong, New Corella, San Isidro, Sto. Tomas, Tagum City and Talaingod.

Davao del Norte has a total of 407.26 hectares identified as flood prone areas, and represents 45% share in the whole region. The municipality of Carmen has the largest area of 100.93 hectares or 11% share in the flood prone areas of the province.

Flooding problems need both the short term and long term control measures. Provision of flood control measures such as construction of protection dikes, cut-off channels, cross drainage along highways, desiltation of rivers are among the immediate solutions. Since denudation of the vegetative cover has been identified as the main cause of floods, reforestation and watershed rehabilitation programs can be undertaken as long term activities. Agricultural and other economic activities in the upland should also consider the aspect of maintaining a healthy ecological balance in sustaining the ecosystems and preventing environmental hazards.

6.5 Solid Waste Management

The R.A 9003 known as Ecological Solid Waste Management Act of 2000 Solid waste disposal in the province is a vital component in environmental protection. However less attention has been afforded by most LGU's. The passage of R.A. 9003 otherwise known as Ecological Solid Waste Management Act of 2000 mandated each LGU's Barangays, Municipality/City for the mandatory implementation.

Table No 6-8: **Garbage Disposal of Household Sector**
Province of Davao del Norte: 2019

	Estimated Generation from HH Sector within LGU (PSA, 2015-based Projected Population compiled ESWMJ plans)							Estimated Quantity of HH Wastes Collected by Garbage Truck on Daily Basis (compiled ESWM Plans)				Estimated Quantity of HH Wastes Collected by Garbage Truck on once-a-month to quarterly Schedules (compiled ESWM Plans)			
	Household Population 2018	Per Annum Growth Rate	2019 Household Population based on projection	2019 Per Capita Waste Generation (10 Yr. Provincial SWM Plan 2020-2029)	2019 Total Waste Generation (kg/day)	Total Waste Composition Percentage of Residual & Special Wastes (10 yr. Provincial SWM Plan 2020-2029)	Total of Residual & Special Wastes from HH subject for collection (kg/day)	Total No. of Brgys.	Brgys. w/ daily regular Collection Service*		Estimated HH Waste collected in (kg/day)*	Total No. of Brgys	Brgys w/o Regular Collection Service		Estimated HH Wastes UnCollected on Regular Basis (kg/day)
Asuncion	61,410	1.16%	64,309	0.52	33,440.88	22.51%	7,527.54	20	20.00	100.00%	7,527.54	20	0	0.00%	-
B. E. Dujali	31,164	1.16%	32,635	0.21	6,853.43	7.90%	541.42	5	3.00	60.00%	324.85	5	2	40.00%	216.57
Carmen	78,067	1.46%	82,727	0.44	36,399.85	19.40%	7,061.57	20	6.00	30.00%	2,118.47	20	14	70.00%	4,943.10
IGACOS	109,137	1.58%	116,200	0.35	40,669.88	27.99%	11,383.50	46	46.00	100.00%	11,383.50	46	0	0.00%	-
Kapalong	81,364	2.15%	88,590	0.35	31,006.58	23.46%	7,274.14	14	6.00	42.86%	3,117.49	14	8	57.14%	4,156.56
New Corella	57,366	1.51%	60,910	0.26	15,836.65	21.00%	3,325.70	20	7.00	35.00%	1,163.99	20	13	65.00%	2,161.70
Panabo City	190,701	1.09%	199,152	0.3723	74,144.47	27.00%	20,019.01	40	17.00	42.50%	8,508	40	23	57.50%	11,510.93
San Isidro	27,304	0.81%	28,199	0.3145	8,868.73	15.01%	1,331.20	13	13.00	100.00%	1,331.20	13	0	0.00%	-
Sto. Tomas	149,197	1.60%	158,977	0.86	136,720.42	30.27%	41,385.27	19	18.00	100.00%	41,385.27	19	0	0.00%	-
Tagum City	269,455	1.27%	283,406	0.51	144,537.21	31.01%	44,820.99	23	17.00	73.91%	33,128.56	23	6	26.09%	11,692.43
Talaingod	28,644	0.36%	30,270	0.36	10,897.24	19.00%	2,070.48	3	3.00	100.00%	2,070.48	3	0	0.00%	-
Province of Davao del Norte	1,083,809		1,145,377		539,375.33		146,740.82	223	157	77.62%	113,900.22	223	66	22.38%	32,840.59

Source: PENRO-LGU, Davao del Norte

6.6 Other Services

It is important that the necessary community services are made available for the whole community, for everyone to enjoy a full and active life. There should be easy access to excellent modern health and social care services. There is also a need to encourage learning throughout life by supporting a range of learning opportunities, regardless of age or ambition. Everyone should have access to the opportunities and facilities they need to realized their personal, academic and professional goals.

On the other hand, the occurrence of a disaster is a serious disruption of the functioning of community. During disasters, information is as much needed as water, food and medicine. Information and communication thus can be considered as among the lifeline. In time of calamities, we need effective information and communication technology for disaster management.

a. Communication Services

Efficient and adequate communication facilities are vital to the province's effort towards development. The fastest way to connect the province to other province in the region and in the country and to the rest of the world is through a well-developed communication system, with facilities and services that are affordable and accessible to people and business.

Davao del Norte is not far among other developed provinces in terms of services and facilities development. However, if other country of which is highly developed in technology as a benchmark, we are outlying in terms of development and services.

A communication service is necessary to participate and become globally competitive in economic activity. It is encouraged that private sector will lead these undertakings.

On the other hand, communication services play a vital role in disaster management. Among the communication equipment which is very essential is the acquisition of two-way radio for immediate use and action of responders to calamity victims. This must be a concerted effort of LGUs, private and non-government organizations and the general public.

The Provincial, City, Municipal and Barangay Disaster Risk Reduction and Management (DRRM) are now well equipped with two way radios to immediately respond during disaster occurrences.

As shown in Table No. 6-10, there are 173 functional handheld radios in the different DRRM while there are 34 radio bases in 11 LGUs including the PDRRM. Samal Island has the most number of handheld radios. For radio base, Tagum City has the most number of radio base. These communications equipment play vital role for the responders to immediately address the needs of the disaster victims.

Table No. 6-9: Existing/Functional DRRM Hand Held Radios
Davao del Norte, 2020

LGU DRRM	No. of Hand Held Radio	Radio Base	Repeater
PDRRM	19	1	2
Asuncion	7	2	-
Carmen	12	4	-
Dujali	10	2	-
IGACOS	27	3	3
Kapalong	26	1	-
New Corella	16	3	1
Panabo City	5	1	1
San Isidro	5	1 (not functional)	Defective repeater
Sto. Tomas	17	1	1
Tagum City	20	13	-
Talaingod	9	2	1
Total	173	34	9

Source: PDRRMD, Davao del Norte

b. Broadcast Media

Radio and television remain the traditional media used in disaster management, because they are relatively cheap that provide a reliable one-to-many communication medium. Radio in particular is most accessible medium to the poor, especially women in their homes, or fishermen at sea, workers out in the fields.

Davao del Norte has one (1) commercial radio station, the UMBN-DXDN, An amplified modulation radio station located at Tagum City, It covers not only in Davao del Norte but also in Compostela Valley Province and reaching secondary areas like Davao Oriental, Davao del Sur, Davao City and even in Bukidnon Province. On the other hand, there are already three (3) Frequency Modulated (FM) radio stations located at Tagum City with very good signals reaching all over the province and even in other near provinces.

Moreover, three (3) cable networks cater Davao del Norte namely; The North Cable Vision, Home Channel Network and the Dream Satellite Cable Network. Most subscribers of these networks are located in urban areas; however the Dream Satellite Network subscribers are not limited to urban areas it reaches to the rural areas since the network is using through the satellite broadcasting.

c. Telephone and Telegraph Stations Services

Telephone and telegraph stations services are useful in disseminating disaster warnings. Mobile phones were the main tool for implementing a community-based flood monitoring and early warning system. Short message service (SMS), a feature available in most mobile phones is an additional tool for delivering one-to-many text-based disaster alerts.

The usefulness and the limitations of mobile phones in crisis situations need to be addressed. Survivors who are stranded commonly use mobile phones to guide rescue teams to where they are, and report to local officials of their immediate needs, and local television and newspaper, their plight.

Davao del Norte is also fast advancing in terms of communication facilities. Major telephone lines like SMART Broadband, DATELCO, DOTC-TELOF and PhilCom are servicing several parts of the province. However operational areas are concentrated in the urban areas in some municipalities and cities. Advance information technology such as electronic mail and cellular phone companies are also available in the province. Internet café's are now a fast growing business in the province, except in the upland areas.

Table No.6-10: **Number of Landlines Telephone Subscriber**
Province of Davao del Norte, As of 2019

Service Area	Type of Exchange	Equipped Capacity	Installed Lines	No. of Subscribers	Household Population (2015)	%
Tagum City -DOTC-TELOF -DGCI SMART Broadband Globe	Landline	2,120 2,500 -	2,120 2,300	546 1,921 4,316	60,335	19.63 1.58 5.55 12.49
Panabo City PhilCom – PLDT Inc.	Landline	14,000	6,000	4,000	30,061	2.18
Kapalong DOTC-TELOF	Landline	848	848	211	12,779	1.65
Sto Tomas DOTC-TELOF PhilCom PLDT	Landline	800 1,336	800 1,700 269	5 393 269	26,390	0.031 2.48 0.02
Carmen PhilCom	Landline	-	10	5	12,597 16,594	0.039

Source: DOTC-TELOF, DGCI, PhilCom and SMART Broadband

SMART Broadband was formerly the CRUZTELCO has the highest number of subscribers, having 19.63% concentrated only in Tagum City.

The use of cellular phones is becoming more convenient to the people in the province, because of the series of cell sites that constructed in the upland areas, thus contributes to low subscription of landlines telephones.

d. Internet and e-Mail

The internet is acknowledged to be one of the most reliable information infrastructure even under adverse conditions and electronic mail is most widely used application.

However, the struggle of finding a good internet service provider proves to be a real challenge. It has been reported that the Philippines has the slowest and most

expensive internet in the region and this also proves to be also a challenge in Davao del Norte. At present, providers are expanding their services in Davao del Norte. These are Globe, Smart/PLDT, Wise, Bayantel (DSL), and Cignal (Cable),

e. Publications

National newspapers and magazines are accessible in the province since these are available daily in most urban areas of each municipalities and cities, while local newspapers are available on twice weekly or in a weekly basis. The local publication that circulates in the province are Trends and Times, Medianet Balita, Ang Tanlag sa Lungsod, Periodico Norte, Sidlak Dabaw Daily News, The Mindanao Newscaster, Goldstar News, Mindanao Truck News, The Davao Times, Image Freedom News, Dabao Gold Balita and even other local publication from different provinces circulates in Davao del Norte.

There are two (2) newsletters being published by the province namely: The Executive Reports now the DavNor Karon and the Legislative Updates. These newsletters are official publications of the Province of Davao del Norte to update the local constituents of the various undertakings, developments, news and other important information of the provincial government of Davao del Norte.

f. Mailing/Postal Services

At present, Postal District Office is positioned at Tagum City. At present, there are 54 administrative personnel in the office which covers and serves the whole province of Davao del Norte and partly in the province of Compostela Valley and Davao Oriental. Mail and deliveries are made daily by a mail car from the regional post office in Davao City. However, the use of cellular phone text messaging communication has obviously reduces the volume of letters that letter carriers delivered everyday.

Table No.6-11: **Postal Personnel to Population by Municipality,**
Davao del Norte, as of 2019

City/ Municipality	No. of Personnel	Number of Letter Carrier	Population (2015)	Ratio
Tagum City	31	15	259,444	1:8,309
Asuncion	3	2	59,322	1:19,770
Carmen	2	1	74,679	1:37,340
Dapecol	1	1	-	-
Kapalong	2	1	76,334	1:38,160
New Corella	1	1	54,844	1:54,713
Panabo City	8	5	184,599	1:23,015
Sto. Tomas	3	2	118,750	1:39,451
IGaCoS	3	2	104,063	1:34,694
Total	54	58	932,035	1:17,207

Source: Philippine Postal Corp. (Davao del Norte/ComVal) Postal District Office
Philippine Statistics Authority

The emergence of mobile phone communication in the province has affected the operation of the local post offices. It has been noted that the volume of letters from

the sending public had drastically reduced, thereby weakening its earning capacity and reducing the administrative personnel of the postal district office.

In Tagum City and some other Cities and Municipalities, private forwarders such as LBC Express Inc., JRS, Palawan, DHL, ToGo, Cebuana Pera Padala, Western Union, RD Pawnshop and ML Lhuiller are augmenting the services of the post offices.

g. Disaster/Emergency Operation Centers

At present, disaster and emergency operations center is set up within the vicinity of the government center where weather forecast and earthquake intensities are detected. Various water monitoring devices are installed in strategic places along major river banks. Meanwhile seismograph equipment or an accelerograph is also available and made use at the Provincial Disaster Risk Reduction and Management Operation Center.

Table No.6-12: **Inventory of Rain Gauge Facilities**
 Davao del Norte, CY 2020

City/Municipality	Barangay	Type
		2020
Asuncion	Lawang Bridge	1 Automated Rain Gauge
B. E Dujali	MDRRM Office	1 Automated Rain Gauge
Kapalong	Semong Bridge	1 Automated Rain Gauge
STo. Tomas	Menzi Bridge	1 Automated Rain Gauge
Tagum City	Mankilam	1 Automated Rain Gauge

Source: PDRRMD-PGO

Adequate infrastructure facilities must be in place to accommodate the needs created by new developments, and should be located in the most appropriate locations to allow for the efficient use of it.

CHAPTER VII

LAND USE AND PHYSICAL FRAMEWORK

7.1 Existing land use, trends and potential expansion

7.1.1 Existing land Use

Existing land uses in the province is presented in Table 7-7 and are categorized into the following:

- a. Production areas
- b. Protection areas
- c. Built-up/settlement areas
- d. Infrastructure and Utilities

a. Production Areas

1. Agriculture

Agriculture lands as defined are those lands that are extensively used for crop production.

About 47.30 percent or 163,983.65 hectares are devoted to agriculture and aquaculture production.

- Rice – 19,145 hectares.
- Coconut trees cover an extensive area in the Island Garden City of Samal (IGCS). Except in BE Dujali and Kapalong, all other cities and municipalities have more than a thousand hectares planted to coconut. Area planted to coconut is about 38,789 hectares. Some coconut areas are intercropped with other crops; most common of which is with local banana cultivars like cardava and saba.
- Cavendish banana production is one industry that propels the economy of the province. The commodity is planted in approximately 45,821 hectares. It is cultivated in most municipalities and cities, except in San Isidro and in the Island Garden City of Samal. Major producer of Cavendish banana are Kapalong, Sto. Tomas, Carmen, B.E Dujali and the cities of Panabo and Tagum. On the other hand, other varieties of banana such as cardava, lakatan, saba and other cultivars are planted in 10,128 hectares. Cardava bananas are the type that are processed into chips and are sold in local and export markets.
- Mono-crop cultivation of corn is around 7,683 hectares. New Corella, Kapalong, Talaingod and Asuncion are the major sources corn. The white variety, which is consumed for food, is the dominant variety. Yellow corn is intended to be processed into feeds. There are also areas grown with corn and being intercropped with other commodities such as banana or under coconut.

- Cacao is a promising export commodity of the province. Davao del Norte is a major cacao producing province in the country that has a production area of 5,794.55 hectares. The municipality of San Isidro has the biggest area planted with cacao at 4,072.92 hectares, having a share of 70% of the total cacao production area in the province. Cacao is usually intercropped with coconut and cardava-banana, as cacao thrives well with partially shaded environment.
- Mango is produced in 4,785.86 hectares with the Island Garden City of Samal contributing the biggest production area at 2,725 hectares. IGaCoS has generally a Bolinao clay (corraline) soil structure coupled with define dry season which is suited to mango production. There are also some areas in Panabo City where mango grows well.
- Inland aquaculture/fishpond development occupies an area of 321.65 hectares. Large fishpond is found in the municipalities of Carmen and B.E Dujali and in the cities of Tagum and Panabo.

2. Production Forest

Forestlands are lands on which the vegetation is characterized by more or less dense and extensive tree cover. It includes those lands from which trees have been harvested with the intent to maintain the land for tree production and others to set aside for the protection to preserve other valuable resource. In Davao del Norte, DENR-PENRO classified 135,718.21 hectares as forest land areas, composed of the production and protection forests.

In Table 7-7, approximately 74,944.36 hectares of the forestland areas or 21.64% of the province' land area, are classified as production forests. Production forest is composed of the residual forest, the brush land and grasslands, tree plantations and some areas cultivated with crops and perennial tree crops. It is estimated that 3,631.22 hectares or 2.70% of the forest land are residual forest which are logged-over areas, 20,982.97 hectares (28.0% of the production forest) classified as brush land and grasslands. Brush land and grasslands areas can be utilized for agriculture plantations development. Tree plantation is about 42,717.49 hectares or 57% of the total production forest. Tree plantations area mostly planted with agro-forestry products, which are covered under the Integrated Social Forestry Program of PENRO- LGU and the Community-Based Forest Management Program of the DENR. Around 7,612.68 hectares of the production forests are cultivated to agricultural commodities like fruit trees and other perennial crops. Production forest are those areas where harvesting is allowed.

There have been efforts for the development and rehabilitation of production forests in the province. Both the Department of Environment and Natural Resources and Local Government Units have been in the forefront in the implementation of programs and projects on such concern, with the able participation of communities. Table No. 7-1 shows the accomplishments of programs implemented by the DENR and the Provincial Government on forest plantation development.

Table No.7-1: **Forest Plantation Development** (in hectares)
by Program, by City/Municipality,
Province of Davao del Norte: As of 2020

City/ Municipality	Integrated Watershed Development Program (PENRO- LGU)	Community- Based Forest Management Program (CBFM-DENR)	Enhanced National Greening Program (ENGP)
New Corella	10	100	1,168
San Isidro	0	0	1,163
Kapalong	91.6	100	3,565
Asuncion	12.42	50	1,054
Talaingod	260.44	50	3,028
Sto. Tomas	0.83	50	2,883
IGCS	2.5	0	747
Panabo	1	0	175
Carmen	0	0	48
B.E. Dujali	0	0	39
Tagum City	5.25	0	106
<i>Davao del Norte</i>	384.04	350	13,976

Source: DENR, PENRO-LGU, Davao del Norte

3. Mining Areas

Davao del Norte has rich deposits of non-metallic minerals like limestone, sand and gravel and others. It has a total reserve of 44,845,283 M.T of non-metallic minerals. Of these non-metallic minerals, sand and gravel of high quality grade, a major component material in construction is extracted in the province. Major producers of sand and gravel are the cities of Panabo and Tagum (Table No. 3-18).

4. Industrial Development Areas

In the pursuit of transforming the Province from merely a source of raw materials into becoming a producer of high quality manufactured and processed products, the creation of Tagum City and Panabo City as Provincial Agro-Industrial Centers is expected to boost prospects in the local economy.

The Panabo PAIC, a 540 hectare industrial site is expected to benefit other municipalities in the second district of the province as its influence areas. While the 635 industrial estate, that includes areas for residential and eco-tourism development, allocated in Tagum City is expected to propel growth not only in Tagum but in other municipalities of the province as well. These areas are found

feasible for the location of industrial establishments, such as manufacturing/processing firms, and support facilities. An industrial estate of 25 hectares is located in Madaum, Tagum City.

5. Tourism Areas

Areas with potential for tourism development are found in the Island Garden City of Samal as well as in the mainland. Samal boast of its white sand beaches and islets that is excellent for scuba diving and snorkeling, while springs, caves and other inland resorts are some of the attractions found in the mainland. An area of 670.56 is devoted for tourism. Also, a mariculture park in the Island Garden City of Samal and Panabo City is being promoted as one of the agri-tourism sites in the province.

b. Protection Areas

Protection land is a portion of land and water set aside for its unique physical and biological diversity and protected against destructive human influences or impacts.

Protection refers to the rehabilitation, conservation and sustainable development and management of certain categories of land and water resources known as protection lands.

Protection land use involves a concept of protection that enhances not only those that have to be protected from human occupation because of the destructive effect, such occupation, will have on the resource but also due to the hazard posed by the area to the human occupants. Hence, dual objective of maintaining protection land is to protect sensitive and critical ecosystem from human intrusion so as to preserve their integrity, and at the same time allow degraded areas to regenerate as well as to protect human population from environmental hazards.

Davao del Norte's protection lands include the Network of Integrated Protected Area Systems (NIPAS) of the mangrove swamp forest reserve in Babak, and the Non-NIPAS which include the Network of Protected Areas for Agricultural Development/Strategic Agriculture and Fisheries Development Zone (NPAAD/SAFDZ).

1. NIPAS Areas

The National Integrated Protected Areas System (NIPAS) was established under Republic Act No. 7586. Protected areas categorized under NIPAS are: 1) strict nature reserve, 2) national park, 3) natural monument, 4) wildlife sanctuary, 5) protected landscape and seascape, 6) resource reserve, 7) natural biotic, and other categories established by law, conventions or international agreements which the Philippine Government is a signatory.

NIPAS areas in Davao del Norte is the 7,656 hectares Samal Island Protected Landscape/Seascape which was proclaimed under Proclamation No. 2152.

2. Non-NIPAS Areas

- a. Non-NIPAS areas include the second growth forest (PD 705), mangrove and fish sanctuaries (RA 8435 & RA 8550), buffer strips and easements (PD 705 & PD 1067), salvage zones along foreshore lands (PP 2146), freshwater swamps and marshes (PP 2146), environmentally critical areas (PD 2146), protected agricultural areas (RA 8435 & RA 8048) and other protected areas.

In Davao del Norte, Non-NIPAS areas cover second growth forest above 1000 m. elevation or more than 50% slope, mangrove forest and buffer strips along rivers and escarpments. Approximately, 47,758.83 hectares are under this category of protection lands.

- b. SAFDZ/NPAAD Areas

Strategic Agriculture and Fisheries Development Zones (SAFDZ)/ Network of Protected Areas for Agricultural Development (NPAAD) under RA 8435 (Agriculture and Fisheries Modernization Act) area in the province is accounted at 132,382 hectares. In SAFDZ classification, 125,847 hectares or 95.1 % are identified as Strategic Crop Sub-Development Zone, 3,861 hectares or 2.9 % as Strategic Fishery Sub-Development Zone, 2,120 hectares or 1.6 % as Integrated Strategic Crop/Livestock Sub-Development Zone, while Integrated Strategic Crop/Fishery Sub-Development Zone is approximately 554 hectares or 0.4 %. Total SAFDZ area of the province is 21.6 percent of the region.

Network of Protected Areas for Agricultural Development (NPAAD) classify some agricultural lands to be “protected” against any irreversible conversions such as into urban/non-agriculture use. The main purpose of such protection is to keep and preserve the highly suitable agricultural lands for long-term food security of the nation. In addition, these lands are usually supported by large investment in agri-infrastructures. Some NPAAD in Davao del Norte covers agricultural lands that are ecologically fragile. A detail of SAFDZ areas in the province is presented below.

Table No. 7-2: **Areas of Strategic Agriculture and Fisheries Development Zone (SAFDZ) By City/Municipality, Davao del Norte, 2015 (in hectares)**

City/ Municipality	Strategic Crop Sub- Develop- ment Zone	Strategic Fishery Sub- Develop- ment Zone	Integrated Strategic Crop/ Livestock Sub- Develop- ment Zone	Integrated Strategic Crop/ Fishery Sub-Develop- ment Zone	Total
Asuncion*	8,277	0	48	12	8,337
B.E Dujali	6,052	2,660	0	0	8,712
Carmen	16,484	51	225	150	16,910
Kapalong*	11,629	0	32	0	11,661
New Corella	15,978	34	365	0	16,377
Sto. Tomas	18,750	0	0	0	18,750
Talaingod	1,475	0	0	0	1,475
IGC of Samal	23,371	0	0	0	23,371
Panabo City	13,231	138	31	0	13,400
Tagum City	10,600	978	1,419	392	13,389
Davao del Norte	125,847	3,861	2,120	554	132,382
% Share	95.1	2.9	1.6	0.4	100

Source: BSWM-XI

* including data for San Isidro

c. Primary (Old) Growth Forest

Primary (old) growth or protection forests of 60,773.52 hectares are found in all the municipalities and cities of the province. These areas have to be protected through implementation of efficient and sustainable forest management scheme. Primary growth forest which consist of old growth and mossy forest are located in areas with slope of above 50% and elevation of 1000 meters above sea level (masl) or more. Kapalong and Talaingod had the most of the old growth forests that need to be protected.

d. Mangroves and Fish Sanctuaries

The province has a total mangrove area of 208.56 hectares. Among the coastal areas of the province, Panabo City has the largest area planted with mangrove with 82 hectares. Table No. 7-3 indicates the areas of mangrove, sea grass and coral reefs in the province.

Table No. 7-3: **Areas of Mangrove, Seagrass and Coral Reef by City/Municipality, Davao del Norte As of October 2005 (in hectares)**

City/Municipality	Mangrove	Sea-grass	Coral Reef
IGC of Samal	63.56	7.50	95.00
Panabo City	82.00	15.00	10.00
Tagum City	3.00	1.00	1.00
Carmen	60.00	5.00	6.00
Davao del Norte	208.56	28.50	112.00

Source: RPPF, Region XI, 2003-2030

e. Agrarian Reform Areas

The acquisition and distribution of agricultural land is undertaken through PD 27 and RA 6657 of the Comprehensive Agrarian Reform Program (CARP).

Davao del Norte has areas earmarked 71,772 hectares for land distributions under the agrarian reform program in pursuance to RA 6657. This is 20.73 percent of the total land area of the province. As of 2020, 69,900 hectares or 97 percent of the target were already awarded to farmer-beneficiaries. As of 2020, the Department of Agrarian Reform is yet to distribute 1,872 hectares to qualified beneficiaries.

Table No. 7-4: **Cumulative Accomplishment on Land Acquisition and Distribution By City/Municipality, Davao del Norte, as of 2020 (in hectares)**

City/ Municipality	Lands for Distribution	Lands Distributed	Balance	Percentage of Accomplishment
Asuncion/San Isidro	13,782	13,607	175	99
Carmen	5,745	5,551	194	97
Kapalong/Talaingod	9,407	9,256	151	98
New Corella	5,158	4,980	178	97
Sto. Tomas/Dujali	16,561	16,138	423	97
IGaCoS	7,999	7,639	360	95
Panabo City	7,790	7,583	207	97
Tagum City	5,330	5,146	184	97
Davao del Norte	71,772	69,900	1,872	97

Source: DAR-Provincial Office, Davao del Norte

To empower the agrarian reform beneficiaries and increase farm productivity and household incomes, the strategy of developing agrarian reform communities was followed. There are 27 Agrarian Reform Communities (ARC) organized in the province as of year 2020. These ARCs have a total of 36,078 beneficiaries who are recipients of the land tenure improvements and program beneficiary development interventions. Among the municipalities in the province, Panabo City has the most number of ARCs at 5 while the Municipalities of B.E Dujali and Talaingod have the least number of ARCs with only one. ARCs cover 48,250.2971 hectares. Table No. 7-5 shows the distributions of the ARCs in the province.

Table No. 7-5: **Distribution of Agrarian Reform Communities, By City/Municipality**
Province of Davao del Norte, 2020

City/Municipality	No. of ARCs	No. of Beneficiaries	No. of Barangays Covered	Area Coverage (in hectares)
Asuncion/San Isidro	3	5,013	17	9,658.2122
B.E Dujali	1	1,085	4	2,163.6612
Carmen	3	2,954	9	3,580.3284
Kapalong	2	6,124	7	6,570.3397
New Corella	2	2,870	11	3,127.5313
Sto. Tomas	2	8,077	17	10,323.9815
Talaingod	1	461	3	878.825
IGC of Samal	4	2,161	16	3,490.2153
Panabo City	5	4,368	15	5,113.1406
Tagum City	4	2,959	10	3,344.0619
Davao del Norte	27	36,078	109	48,250.2971

Source: DAR-Provincial Office, Davao del Norte

f. Military and Civil Reservation Areas

Davao Penal Colony (Dapecol) with an area of 28,816 hectares is the only military and civil reservation in the province. The area was declared as such through Proclamation No. 414 on October 7, 1931. Most of these areas, however, are now utilized for agricultural purposes, particularly banana plantation and only about 8,880 hectares are actually used by the penal colony.

g. Ancestral Domain Areas

Ancestral domain (AD) areas are located in the Municipalities of Talaingod, Kapalong, San Isidro, Asuncion, New Corella, Sto. Tomas, and in the Island Garden City of Samal. The major indigenous people's groups are the Ata-Manobo tribe, Dibabawon, Sama Tribe and Mangguangan Tribe. The Sama tribe is generally located in the Island Garden City of Samal. There are also IP communities living in non-ancestral domain areas. These tribes are the Kalagan, Mansaka, and Mandaya.

In a manner of recognizing, respecting and protecting the rights of the indigenous people (IPs) in preserving and developing their cultures, traditions and institutions, RA 8371, known as the Indigenous People's Rights Act (IPRA) was enacted on October 27, 1997. The enactment of IPRA Law has established the IPs rights and ownership of ancestral domain claims. The law also defines the approaches in implementing development programs and projects in ancestral domain areas, particularly in the observance of the Free and Prior Informed Consent (FPIC) processes.

Ancestral domains which delineations have been conducted and approved are issued with Certificate of Ancestral Domain Title (CADT) and the Certificate of Ancestral Land Title (CALT). Some of these ancestral domains are still undergoing delineation for the approval and issuance of CADTs. The profiles of the IP communities and ancestral domain areas are presented in Table 7-6.

Table 7-6: Ancestral Domain Areas in Davao del Norte, 2018

Name of IP Tribe	City/Municipality /Barangays	CADT No.	IP Population	Area, Has.	
Ata-Manobo	Kapalong	CADT No. R11-TAL- 0408-071		103,610.4555	
	Gupitan		6,628		
	Mamacao		489		
	Suaon		1,376		
	Florida		1,194		
	Talaingod				
	Dagohoy		5,675		
	Palma Gil		7,145		
	Sto. Niño		9,532		
	Sto. Tomas				
	Magwawa		1,037		
	San Jose		876		
Ata-Manobo	Sto. Tomas	CADT No. RXI-DAV- 0213-160		65,818	
	Balagunan		878		
	Bobongon		176		
	Tulalian		489		
	New Visayas		461		
Dibabawon	Lot 2 – Asuncion	CADT No. RXI-LAA- 1005-035		8,599.0001	
	Sonlon		700		
	Buan		684		
	Binancian		2,500		
	Camansa		503		
	Lot 3 – Kapalong				3,353.4775
	Gupitan				
	Sitio Dugayan, Okapan, Kimataan 11, Kawayan				
	San Isidro				
	Monte Dujali		450		
	Datu Balong		662		
	Dacuado		280		
Manguangan	New Corella	CADT No. R11-NEW- 0116-210		13,103.2586	
	Cabidarian		522		
	Carcor		280		
	Del Monte		75		
	El Salvador		345		
	Limbaan		700		
	Maming		990		
	New Bohol		416		
	New Cortez		432		
	Patrocenio		250		
	San Jose		150		
	Sta. Fe		293		
Sama	IGaCoS	CADT No. R11-SAM- 0415-177	24,123+59 7=24,720	Land – 972.7769 Water – 82,780.0820	
	Tagpopongan		597		

Source: NCIP- Provincial Office- Davao del Norte

There are also some tribes living in non- ancestral domain areas. These are;

1. Kalagan tribe living in Tagum City, Panabo City, Carmen and BE Dujali
2. Mansaka tribe living in Tagum City, Panabo City, Carmen and BE Dujali.
3. Mangguangan tribe living in Asuncion, New Corella and Tagum City.
4. Mandaya tribe living in Tagum City, Asuncion, New Corella, Kapalong, Sto. Tomas, Carmen, Panabo City and BE Dujali

h. Environmentally Critical Areas

The Philippine Environmental Impact Statement Systems provides the technical definitions of environmentally critical areas (ECAs). In land use, considered among the ECAs are:

1. Areas frequently visited and or hard-hit by natural calamities which include:
 - Geologic hazards, or areas classifies by MGB or as certified by other competent authorities as susceptible to landslide and areas prone to land subsidence and ground settling, with sink holes and sags.
 - Flood prone areas as identified or classifies by MGB or PAG-ASA.
 - Areas frequently visited or hard-hit by typhoon.
 - Areas prone to volcanic activities / earthquakes, transected by fault line, prone to ground shaking hazards, liquefaction hazards, earthquake-triggered landslides and tsunami hazards.
2. Areas with critical slope having 50% or more.

- Flood Prone Areas

Ten of the eleven cities/municipalities of Davao del Norte are prone to flooding of various susceptibilities. Only the Island Garden City of Samal is not prone to flooding as assessed with different susceptibility indexes. In the mainland, the most frequently affected by this phenomenon are those areas along the major river systems of the Tagum-Libuganon River, Lasang River, Tuganay and Saug rivers. (Table No.1-16 - Physical Resources) classified the susceptibility indexes as follows:

- a. Areas with very high susceptibility to flooding of 9,605.48 hectares
- b. Areas with high susceptibility to flooding of 30,227.65 hectare
- c. Areas with moderate susceptibility to flooding of 19,324.95 hectares, and
- d. Areas with low susceptibility to flooding of 21,531.45 hectares

Flooding problems need both the short term and long term control measures. Construction of protection dikes, cut-off channels, cross drainage along highways and de-siltation of rivers are among the immediate solutions. Since denudation of the vegetative cover has been identified as the major contributory factor to flooding, reforestation and watershed rehabilitation programs should be undertaken as long term activities.

- Soil slopes and erosion

Soil erosion and landslides are caused by different factors which include vegetative cover, topography, drainage, amount and frequency of rainfall and inappropriate human practices. Erosion and rain-induced landslides are often aggravated by slope situations. The steeper the slope- coupled with inappropriate human activities, the higher the degree of erosion and landslide occurrences. Areas susceptible to severe erosion need to be protected from further deterioration. These areas are observable mostly in the mountainous part of Kapalong, Talaingod, Sto. Tomas and in the Island Garden City of Samal. Areas susceptible to severe erosion is approximately 147,477.50 hectares while varying susceptibilities of rain induced landslides affect 262,402 hectares of the province.

- Geologic Fault Lines

Two major active fault lines traverse Davao del Norte. The first extends from the municipalities of Mati, Davao Oriental to New Corella, Davao del Norte. The second major fault line is located between the City of Tagum, Davao del Norte and Laak, Compostela Valley.

Fault line is one natural hazard where lateral or vertical displacement (movement) is likely to occur. Episodic movements along this “active” fault lines cause earthquakes with accompanying destruction of property and may be loss of life.

The geohazard mapping conducted by the Mines and Geosciences Bureau-XI revealed that several barangays in Davao del Norte are susceptible to mass movements. The areas that are prone to hazard includes 7 barangays in Asuncion, 12 barangays in New Corella, 7 barangays in Sto. Tomas, 3 barangays in Talaingod, 4 barangays in San Isidro and 5 barangays in the Island Garden City of Samal.

Earthquakes and/or ground shaking are produced during seismic earth movements as results of the presence of fault lines. Earth quakes may induce ground shaking and landslides. All of the eleven municipalities and cities are, to some extent, prone to ground shaking. Table No. 1-20 of Physical Resources identifies 183,466 hectares as prone to ground shaking. Around 100,605 hectares are also prone to earthquake-induced landslides.

Since earthquakes are natural phenomena, the people of Davao del Norte, especially those living in high risk areas need to be always prepared in case of its occurrence. There is a need to strengthen disaster and risk management programs and activities by strengthening IEC initiatives and formulation of disaster risk management plan.

Local building officials must ensure that all existing building and those to be constructed should strictly conform to building standards particularly in high risk areas.

c. Residential/Settlement Areas

Urban residential areas are concentrated in the poblacion or town/city center, while rural residential areas are concentrated within the barangay site. In 2007 about 3,508.60 hectares are considered residential and settlement areas. Large concentrations of residential areas and built-up areas are mainly in the urban centers of Tagum City and Panabo City, Island Garden City of Samal and Sto. Tomas.

d. Built-up, Infrastructure and Utilities Areas.

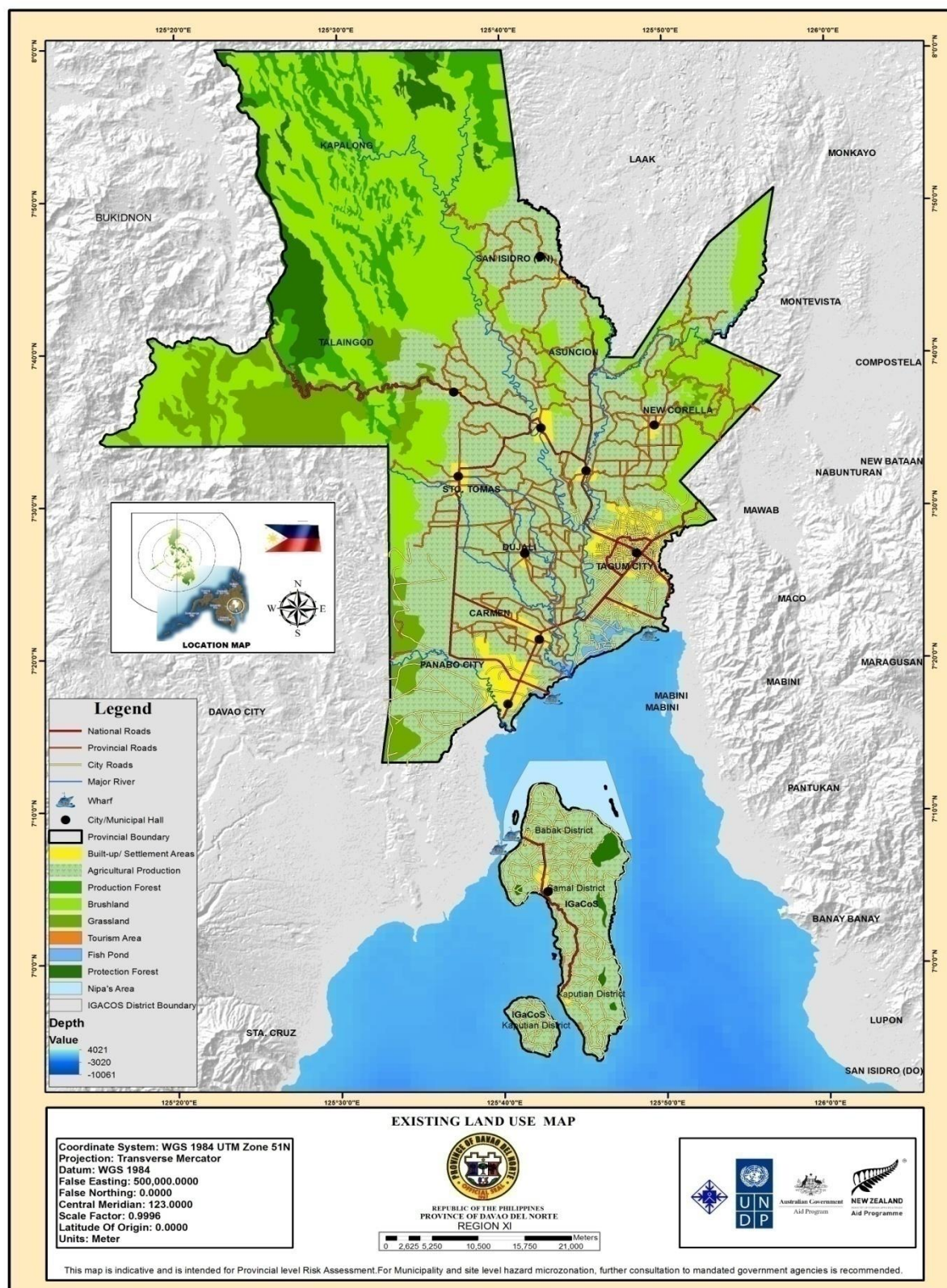
The total area used for built-up, infrastructure and utilities, in Davao del Norte is estimated at 8,624.50 hectares. Infrastructure and utilities, particularly of roads, bridges and drainage systems occupy 4,978 hectares. For areas that roads occupy, the provincial roads cover the largest at 1,382.28 hectares or 27.7 percent of the area for infrastructures, while municipal roads have the least area at 204.54 hectares or 4.1 percent. Tagum City has the largest area devoted for infrastructure and utilities at 812.96 hectares, while the Municipality of B.E Dujali has the least at 100.76 hectares.

Table No. 7-7: Existing General Land Use by City/Municipality
Province of Davao del Norte, 2007 (in hectares)

City/ Municipality	Production Land Use								Protection Land Use		Built-up, Infra and Utilities	Residential	Total	
	Agriculture	Fishpond	Production Forest					Industrial Areas	Tourism Areas	NIPAS				Primary Forest
			Residual Forest	Brushland	Grassland	Tree Plantation	Cultivated Areas							
Asuncion	22,509.03	25.10	213.00	337.17	734.71	3,436.00	443.95	0	0	0	937.04	508.00	203.00	29,347
B.E Dujali	8,575.00	175.00	0	0	0	0	0	0	0	0	0	250.00	100.00	9,100
Carmen	15,420.99	284.35	0	0	0	38.32	0	0	0	0	17.84	616.80	246.70	16,625
Kapalong	28,016.72	5.00	1,211.90	2,020.00	4,342.50	25,199.00	2,524.64	0	16.00	0	30,385.74	617.00	247.00	94,586
New Corella	25,555.80	3.86	287.64	479.50	1,030.80	3,047.00	599.31	0	23.25	0	472.64	463.00	185.20	32,148
San Isidro	4,491.23	5.41	1,057.00	1,762.70	3,787.64	222.30	2,202.13	0	59.70	0	1,167.39	329.00	164.50	15,249
Sto. Tomas	27,763.15	32.33	233.00	360.30	792.80	191.00	484.94	2.00	11.12	0	808.86	972.50	389.00	32,041
Talaingod	3,178.83	10.70	628.68	1,047.80	2,252.70	10,583.87	1,309.75	0	0	0	26,091.57	261.40	130.70	45,496
IGC of Samal	23,859.63	30.00	0	0	1520.05	0	0	0	560.39	(7,656.00)	837.43	902.50	361.00	28,071
Panabo City	22,388.61	212.00	0	0	514.30	0	0	58.66	0	0	28.18	1,543.75	617.00	25,363
Tagum City	13,752.56	1,237.81	0	0	0	0	47.96	164.84	0	0	26.83	2,160.00	864.00	18,254
Davao del Norte	195,511.55	2,021.56	3,631.22	6,007.47	14,975.50	42,717.49	7,612.68	225.50	670.56	(7,656.00)	60,773.52	8,624.45	3,508.60	346,280
% Distribution	56.46	0.58	1.05	1.73	4.32	1.20	2.20	0.07	0.19	(2.21)	17.55	2.49	1.01	100

Source: PPDO- as computed

Map7-1: EXISTING LAND USE MAP



Source: PPDO-GIS

7.1.2 Trends

a. Built-up, infrastructure and utilities areas

Settlements, built-up, infrastructure and utilities areas of the Province increased from 8,186.75 hectares in 2000 to 12,133.05 hectares in 2007. This is because of the increasing population coupled with increased economic activities not only in major centers of Tagum City and Panabo City but also in urban centers of Kapalong, Sto. Tomas and the Island Garden City of Samal. Economic activities in these areas have dramatically increased in the past seven years, especially Tagum City. Davao del Norte's population is growing at an average rate of 1.81% annually. Tagum City has the most number of populations followed by Panabo City and Sto. Tomas. Population in year 2015 has increased by 7.46 percent when compared to the population in year 2010.

There is an increase of economic activities in major growth centers like Tagum City and Panabo City, couple with the massive expansion of banana plantations in Sto. Tomas, Kapalong, New Corella, Carmen, B.E Dujali and Asuncion. Some industries in the province are also being established on these growth areas. Such increases triggered population increases (in-migration) due to employment opportunities, hence the demand for basic services are also increasing. All of the municipalities and cities have recorded an increase in population based on the 2015 census.

b. Agriculture Production

Crop shifting has resulted to a substantial decrease of areas devoted to rice production but increased the area for Cavendish banana plantation. Crop shifting is allowed but need to be judiciously applied, especially at the outlook of province achieving staple food sufficiency. Rice areas were reduced to 18,566.11 hectares in 2007, from 29,390 hectares in 2000; while areas for banana (Cavendish) plantation increased to 31,484.53 hectares in 2007 from 21,346.70 hectares in 2000.

Agricultural areas are usually affected or reduced with the need to accommodate other land requirements for non-agriculture uses. However, there are areas of the production forests that could be developed for agriculture uses. These are some of the grasslands and brush land that maybe developed into agro-forestry and the production of other staple (food), commercial and industrial crops.

c. Forestland

Forestland areas are of two categories, the production and protection forests. Production forests are generally those areas where trees are harvested for commercial uses like lumber and fuel. To ensure availability of lumber and wood, production forests are planted/replanted with forest tree species. Other economic activities maybe allowed in some areas within the production forests, like cultivation and growing of agricultural commodities.

Protection forest includes primary or old growth forest. Most common tree species are those exotic ones that need to be preserved. Tree harvesting and cutting is generally not allowed or restricted within the protection forests.

Both forestland areas were devastated with the indiscriminate cutting of trees and unsustainable tree harvesting and farming practices. Some communities encroached into forest areas restricted for occupations, and are posing threat of continued destruction of the habitat. There are on-going efforts of the government and the private sector to rehabilitate the forests to restore back the desired forests cover in the province. The proposed utilization of denuded forest presently dominated by grass and shrubs into agro-forestry and forest plantations will hopefully bring back the desired state of the forestland in Davao del Norte. Strict implementation of forestry laws and regulations and rationalization of existing land use in the uplands are just some of the initiatives that should be given priority.

d. Tourism

There was an increase in areas set aside for tourism activities with the effort of developing potential areas in the mainland in the concept of eco-tourism. Areas devoted for tourism development increased from 92.87 hectares in 2000 to 670.46 hectares in 2007. The proposed development of 1,002.64 hectares as tourism area in the Island Garden City of Samal will boost its position as one of the major tourist destinations in the region and in the country as well.

Table No. 7-8: **General Land Use Trend (in hectares)
Province of Davao del Norte, 2000-2007**

Land Use	2000	% Total	2007	% Total
1. Agriculture	131,827.58	36.20	195,511.55	56.46
2. Fishpond	2,756.50	0.80	2,021.56	0.58
3. Production forest				
- Residual	47,523.10	13.00	3,631.22	1.05
- Brush land	64,818.83	17.80	6,007.47	1.73
- Grass land	108,941.37	30.00	14,975.50	4.32
- Tree plantation			42,717.49	12.34
- Cultivated areas			7,612.68	2.20
4. Industrial areas			225.50	0.07
5. Tourism areas	92.87	0.03	670.46	0.19
6. NIPAs	(7,656.00)		(7,656.00)	(2.21)
7. Primary forest			60,773.52	17.55
8. Built-up, infra and other utilities	8,186.75	2.25	8,624.45	2.49
9. Residential			3,508.60	1.01
TOTAL	364,147	100.00	346,280.00	100.00

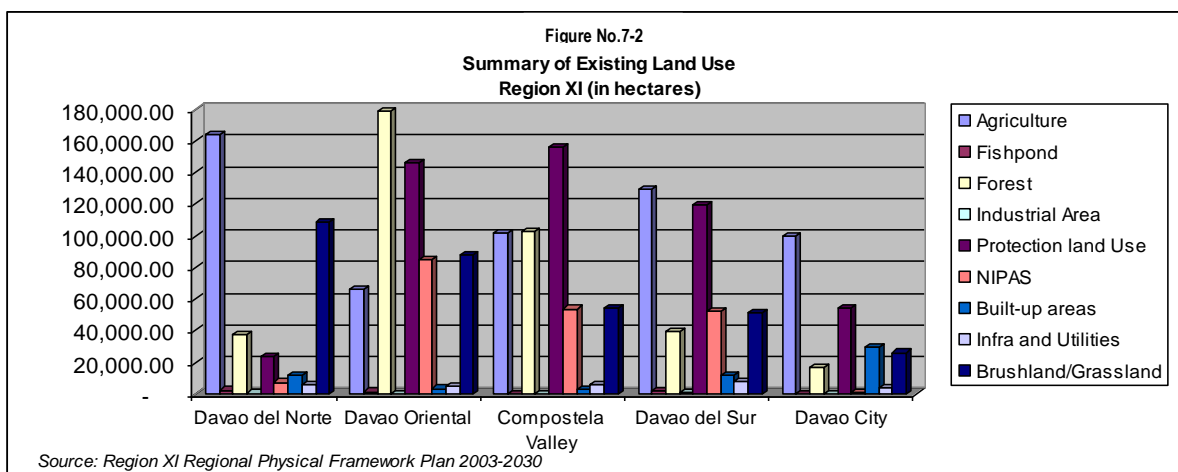
Source: PPDO

Based on the data presented in Table No. 3-1, the Municipality of Kapalong has the biggest agricultural area among the cities and municipalities in the province. It has also the largest production and protection forests as delineated by DENR. Its production and protection forests account to 48.40% of the forestland areas of the province.

The Island Garden City of Samal (IGCS) is endowed with natural tourist attractions such as white and pristine beaches which are ideal for recreation and water sport activities such as diving, snorkeling and the likes. Waterfalls, caves and other natural attractions are found in the Island which boost as the tourism destination of the province. Around 560.39 hectares of tourist areas are developed in IGCS.

Tagum City being the capital and the major growth center in the province has the largest area for built-up and settlement at 3,024 hectares. In terms of fishpond development, Tagum City has a sizeable area of 1,237.81 hectares.

In the regional context, Davao del Norte has the biggest area used for agriculture at 163,932.94 hectares. While it ranks third after Davao City and Davao del Sur, in terms of Built-up area and ranks fourth in terms of areas used for forest production. Figure 7-2 shows the comparison of existing land use among the provinces and Davao City in Region XI.



7.1.3 Land Use Opportunity/Potentials

Land use opportunity refers to lands that are composite with lands actively utilized for various activities and have properties favorable for economic development and investments. The socio-economic and physical limitations inherent in these lands can be manipulated and corrected through proper and sustainable management with favorable policies and incentives.

Land use opportunity is classified into six (6) sub-categories, namely: agricultural areas, expansion areas, all areas needing rehabilitation, areas for preservation, wetland areas and miscellaneous areas. Map 30 shows the land use opportunity of the province.

The land use opportunity in Table 7-9 indicates that 126,390.78 hectares or 36.5 percent of the total provincial land area are best suited for agricultural activities.

Expansion areas or lands with potential for the expansion of both agriculture and urban areas cover about 95,859.98 hectares or 27.7 percent of the total land area

of the province. These consist of grasslands or shrub lands with potential for built-up areas or agro-forestry development.

A total of 66,149.78 hectares or 19.1 percent of the total area of the province is considered rehabilitation areas. These include denuded areas within forestlands and critical watersheds; and those areas in the uplands that are used for crop cultivation that employs unsustainable farming practices.

Preservation areas are those which are to be permanently retained with forest cover. These are NIPAS areas and watersheds which should be protected from any intrusion or other economic activities. The province's preservation area covers about 54,477 hectares or 15.7 percent of its total area.

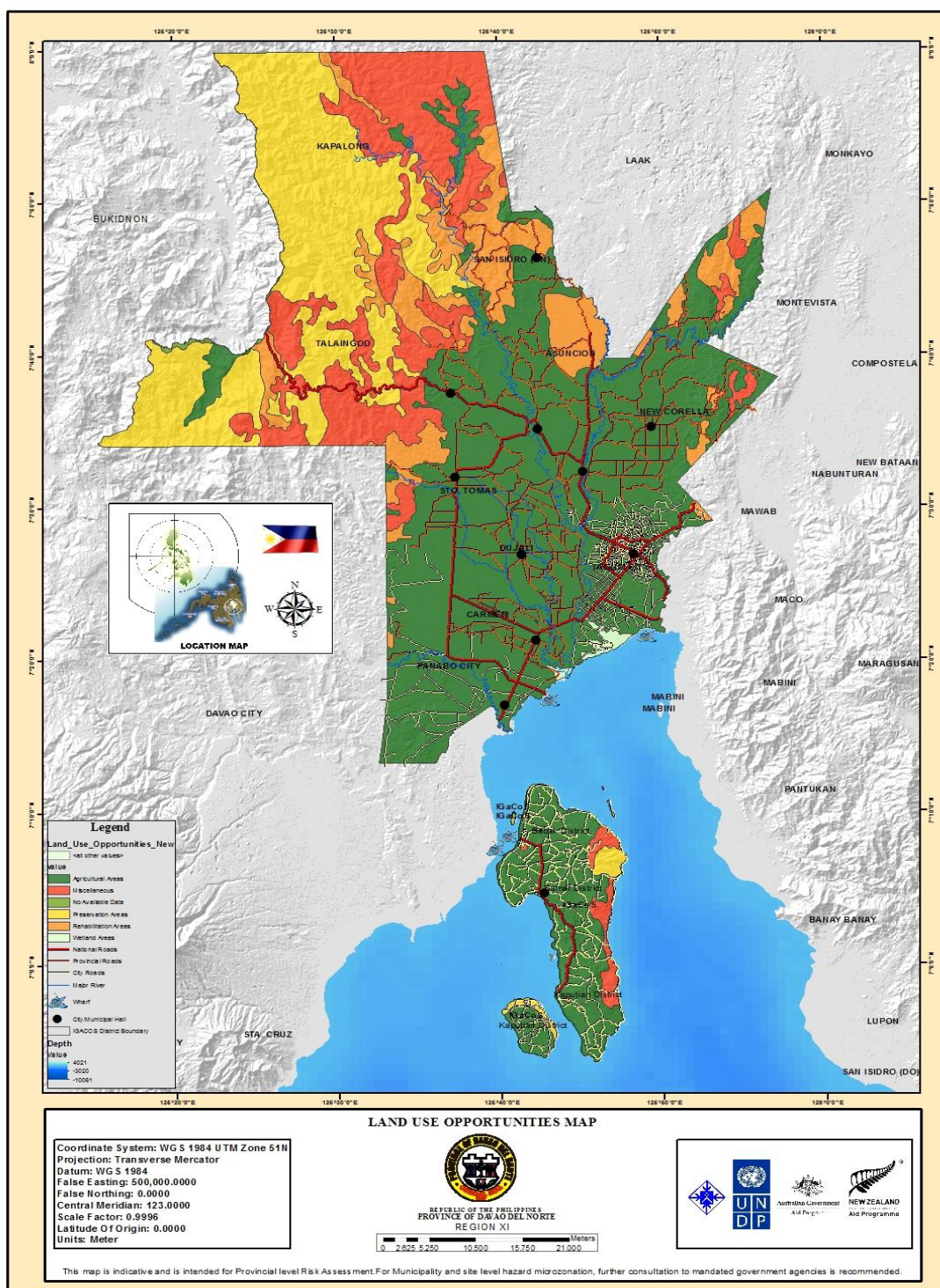
The remaining 3,237.18 hectares or 1.0 percent of the province's total land area are best suited for aquaculture and for miscellaneous activities.

Table No. 7-9: **Distribution of Land Area by Land Use Opportunity Classification, Davao del Norte, 2007**

Land Use Opportunity Classification	Area (in hectares)	% Distribution
Agricultural	126,390.78	36.5
Expansion	95,859.98	27.7
Rehabilitation	66,149.78	19.1
Preservation	54,642.28	15.7
Wetlands	1,332.50	0.4
Miscellaneous	1,904.68	0.6
Davao del Norte	346,280.00	100

Source: BSWM-XI/RPFP

Map7-2: LAND USE OPPORTUNITIES MAP



Source: PPDO-GIS

7.2 Physical Framework

7.2.1 Demand

a. Residential, Settlements, Built-up Areas

Population of the province will increase from 945,764 in 2010 (census years) to 1,265,916 in 2022 or by 2.46% annually. Tagum City will be the most populated at 1,872 persons per square kilometer. Kapalong and Talaingod will be less dense by 2022 at 90 persons per square kilometer of their respective land areas. The province will have an average population density of 366 persons per square kilometer by 2022.

The increasing population and the growing economic activities in the province will trigger the additional requirement for built-up areas including the need for residential and settlement spaces. Requirement of areas for built-up, infrastructures and other utilities will increase from 8,624.45 hectares to 12,899.95 hectares. Considering the standard of 150 populations per hectare (low dense) and 250 populations per hectare (medium dense) residential spatial requirements, residential and settlement areas will require an increase from 3,508.60 hectares in 2007 to 5,248.40 hectares by 2022.

The growth in population will also dictate the need to expand industrial areas. Also, the anticipated boom in industries that the ASEAN integration will spouse, dictates need to set aside 2,142 hectares for the development of the industry sector. All municipalities and cities must anticipate the demand for industries development to be at pace with globalization trends.

b. Agricultural/Production Land

With an impending demand of additional land to accommodate the expanding populations' requirements for settlements and residences, built-up areas, infrastructures and other utilities, land presently devoted to agriculture within production lands will be proportionately reduced. However, there should be judicious conversion of agricultural areas into non- agriculture uses. Trade-off must also consider the context of food security and economic competitiveness of the province in the agriculture sector. The total area devoted for agricultural/production land will be reduced by about 2.42 percent of the existing area by the end of the plan period to accommodate other spatial needs.

To compensate for the loss of agriculture areas in the alienable and disposal lands, government and the private sector may develop suitable forestland areas into agriculture and agro-forestry uses. Cultivated areas within production forests may be increased by 34% provided sustainable upland farming practices will be observed.

In terms of specific crop production there may also a decline in areas used for rice production due to crop shifting from rice to Cavendish banana.

c. Forestland

Areas devoted to production forest will remain at 744,944.70 hectares as delineated by DENR, within the planning period. Existing brush land/grassland however, will be reduced from 20,983 hectares to 17,161 by having these lands cultivated with agricultural commodities (as these lands can be planted with perennial and annual crops). Tree plantation development may be maintained or expanded by developing part of the grassland and brush land areas in the forestlands.

d. Tourism

Tourism can provide employment and additional revenues and incomes to the local government units. Tourism sites include the many beautiful beaches and diving sites in the Island Garden City of Samal; tropical rainforests and other natural attractions like caves, waterfalls and springs found in the Island and in many areas in the mainland. These are just some of the tourism potentials of the province, which include the vast tracks of banana plantations. Ethnic and community-based tourism is also one of the comparative advantages of the province as it is home to diverse and indigenous cultural communities. Land use intended for tourism is projected at 1,112.71 hectares.

e. Protection land use

Davao del Norte's protection lands should be cautiously preserved and protected from destructive human activities. Protected areas include the Mangrove Swamp Forest Reserve and the Samal Island Protected Seascape/Landscape (NIPAs) with an area of 7,656.00 hectares in the Island Garden City of Samal, the Non-NIPAS, highly restricted agricultural areas (NPAAD/SAFDZs) and the severely eroded areas. Non-NIPAS are lands classified as forestlands but mostly have no forest cover at all and needing rehabilitation and proper management. Severely eroded areas are part of the production land that needs to be protected from further deterioration. These areas are observable mostly in the mountainous part of Kapalong, Talaingod and Sto. Tomas and along the steep slopes of the eastern part of IGaCoS.

Included in the Non-NIPAS category of protection lands are the 60,773.52 hectares of forestlands (of old growth forest) which has an elevation of more than 1,000 meters above sea level (masl) and with a slope of 50 percent and above. These areas are generally found in the municipalities of Kapalong and Talaingod.

For long term food security, agricultural areas classified as highly restricted for conversions should be observed as among the areas that need to be protected from irreversible conversion.

7.2.2 Integration of demand with supply

a. Population and settlements

Between 2000 and 2007, Davao del Norte's population was growing at an average growth rate of 1.81% annually. This growth rate is higher than the regional growth rate of 1.71% in the same period. In Region XI, the province ranks second after Davao City which has an average growth rate of 2.41%. Between 2000- 2010, the population growth rate of Davao del Norte was at 2.43% and population is projected to reach 1,265,916 by 2022.

Major growth centers will have substantial contribution in the increase of population at the end of the planning period. By 2022, Tagum City will have a projected population of 341,631; Panabo City of 237,043; Sto. Tomas at 147,875 and Island Garden City of Samal with 117,548 persons.

The increasing population coupled with the increasing economic activity in major growth and emerging growth centers requires an additional area for basic social services and infrastructure facilities. Major growth centers like Tagum City and Panabo City and emerging centers like the Island Garden City of Samal, Sto. Tomas and Kapalong need to have substantial area allocated for urban expansions, as indicated in their respective comprehensive development plans.

In view of these projected condition in Davao del Norte for the next 15 years, the land use plan has to address population pressure challenges particularly in the urban centers. Thus, provision of proper infrastructure facilities in the rural areas has to be laid down in advance to minimize pressure of the urban areas.

The increase in population will also require additional area for settlement and residential purposes. Other types of demand will likewise affect and require allocation for the commercial and institutional areas to absorb the expected growth of the business sector associated to the increasing market for products and services.

The proposed areas intended to accommodate the demand or future needs are within the allowable limit established by law. However, the need to expand the areas should consider those areas identified as restricted under NPAAD/SAFDZ. The proposed requirement of areas for built-ups, residential and other infrastructure and utilities in 2022 will be is 18,148.35 hectares.

Population may encroach into forestland areas. This is common in rural areas wherein settlements are concentrated in areas that are classified as forestland. Approximately 50,754 populations are living in areas within forestland. These people are engaging in activities of cultivating forest areas for agriculture production. Oftentimes cultivation is in unsustainable manner thus giving more pressure upon the land. Although these settlements may not be within the identified areas for protection, but the practice of unsustainable farming methods may further contribute to soil degradation and erosion problems. Sustainable use and proper management of upland resources has to be strengthened by properly educating the communities on the importance of protecting the natural resources.

7.2.3 Integration with other land use requirements

a. Infrastructure/Utilities Areas

Areas devoted to infrastructure development will increase by about 12.9 percent from the existing level of 4,978.76 hectares to 5,623.16 hectares. A national road density standard of 1.0 kilometer road length per square kilometer of alienable and disposable area will require to additional road infrastructure in some municipalities. Kapalong needs an additional road length of 941.850 kilometers, 454.960 kilometers for Talaingod, and 91.00 kilometers is needed for B.E Dujali. Better accessibility within these areas increases the chance of attracting developers and investors for industries development and providing better services to the populace.

The opening of Kapalong-Talaingod-Bukidnon Road occupies 250 hectares within the production forest. This particular road section will provide better access and linkage between Davao del Norte and the Province of Bukidnon. The Asuncion-Laak provincial road with an area of 126 hectares had been converted from provincial to national road. The improvement of this road section had increased the economic activities of the neighboring provinces of Compostela Valley and Agusan del Sur with Davao del Norte as the gateway.

b. Production land use

Davao del Norte is primarily an agriculture province. About 187,137.21 hectares will be devoted for agricultural production. Majority of its population are engaged in agriculture and agriculture-based enterprises. Production of crops may utilize brush land and grasslands in production forest, provide appropriate farming practices are observed to reduce the risk of soil loss and erosion.

Banana industry, manufacturing and other agri-based industries contribute significant employment opportunities in propelling economic growth of the province. Trading, commerce and social services are found mostly in urban centers or poblacion, though satellite centers related to the provision of basic services are also located in the rural areas.

This existing condition requires the development of agriculture sector within the province to propel and sustain agro-industrialization. The development of the infrastructure and utilities, maintenance of peace and order, and good political leadership is indeed a competitive advantage of Davao del Norte to become a strategic location for investment in Region XI and Mindanao.

In terms of land use requirement, other support facilities to agriculture need to be considered in land allocations. One of which is on irrigation systems development. Irrigation system is a basic infrastructure support to rice and Cavendish banana productions; two industries that propel the economic growth of the province. There are four major categories of irrigation systems operating in the Province. These irrigation systems cover an effective service area of 20,410.08 hectares of agricultural land. These systems provide the irrigation requirement of 13,872.12 hectares rice and 6, 537.96 hectares of banana farms.

Inland fish production is to be allocated as well with production areas. Inland fishpond aquaculture has been practiced as an economic enterprise. Most common species reared are fresh water fishes like tilapia and mudfish. Milk fish (bangus) production had shifted from inland fishpond to marine cages production as the latter is more profitable to engage with. The 2,021.56 hectares utilized for freshwater fishpond production will then be maintained. However, for enterprising farmers with farms in water-logged areas, utilizing the same for fish production is a recommendation to have these areas become productive.

As to production forest land use, the 74,944.70 hectares of forest will be maintained. With the demand for development of industries (e.g., agriculture, wood, etc), some areas in the production forest maybe utilized for economic activities, provided appropriate conservation and sustainability measures will be instituted. Portion of the brush land and grass lands will be cultivated with agricultural commodities and tree plantations will be expanded. Production of forest species for commercial purposes will be pursued to address the need of the ever- demanding wood industry. The need of land for industry development will also be considered in the allocation of alienable and disposable lands. Thus and expansion from 225.50 hectares in 2007 to 2,142 hectares in 2020 will be considered to address the need to expand the industries.

c. Social and utility/infrastructure services

The developments of these sectors are inseparable to a well-meaning growth. These are basic human needs for decent and comfortable existence. Thus, allocating spatial requirements is a must. The needs of these sectors are part of the built-up, infrastructure and other utilities land requirements which are increased from 8,624.45 hectares to 12,899.95 hectares. All of the LGUs must allocate the land requirements, especially the major growth centers like Tagum City, Panabo, IGCS and Sto. Tomas, which are the most populated ones.

➤ *Health, Education and Protective Services*

In 2020, there are 27 hospitals in Davao del Norte, 4 of which are government operated and the rest are privately-owned. There are three district hospitals operated by the provincial government located in Kapalong, Carmen and the Island Garden City of Samal, while the DOH-operated tertiary hospital (Davao Regional Medical Center) is situated in Tagum City. Most of the private hospitals are located in Tagum City and Panabo City. Health care services in other areas with no hospitals are augmented by 13 Health Centers and 215 Barangay Health Stations.

Elementary schools in the province have a total of 448, of which 344 are public schools and 104 are private schools. For the secondary level, there are 122 public schools and 61 private institutions, while at the tertiary level, 24 schools are located in the province. These schools are categorized as university, colleges, technical and vocational schools.

The number of housing units in the province in year 2010 has reached 207,179 units, giving an increase of 40 percent from the number of dwelling units in 2007 (NSO, 2010). The growth indicates the increasing affordability and capacity of the people to acquire decent shelter. Access to low cost housing is intensified in the province thru the initiatives of the government. Relocation and resettlements are also provided to squatters or informal settlers.

There are eleven (11) police stations in the province located in every city and municipality. All LGUs maintain one (1) police station. On the other hand, all eleven LGU's have fire stations.

➤ *Social Welfare*

As of 2020, there are 551 Child Development Centers which cater to the developmental needs of the pre-schoolers in Davao del Norte. Tagum City has the most number of day care centers with 100, while B.E. Dujali has the least with 19. There are only three (3) elderly day centers established in three (3) localities. The municipalities of Asuncion, Kapalong, Talaingod, San Isidro, Panabo City, Sto. Tomas, Dujali and IGaCoS have yet to establish an elderly day center in their areas. These LGUs however, have their own senior citizen's office to cater to the needs of the elderly. Also, there are 11 senior citizens association in every LGU with Panabo City having the most numbered of senior citizen members in its association or 17% of the total membership.

➤ *Utility/Infrastructure Services*

Based on the actual household survey conducted by the PHO field workers last 2014, ninety percent of the total households in the province have access to potable water. While the percentage is quite high, 11% of this comes from doubtful sources. Level II and Level III water sources supply 48% of the household populations. There are six (6) water districts operating in Davao del Norte, with Tagum Water District serving the most number of households at 80% of the total households served. Almost all households of Tagum City (99%) have access to potable water.

At present, sources of water (deepwell) in urban areas are becoming scarce and depleting. There is a need for an integrated water system development tapping available sources such as surface water, to accommodate the growing demands for this utility in the future.

Energization rate of the barangay in the province is placed at 100%. In terms of household connections, only 73.83% were achieved as of 2018. Talaingod has the least number of household served at 14 percent.

Major flood control projects were constructed by the Department of Public Works and Highways. These are: (a) Libuganon Flood Control, (b) Carmen Flood Control, (c) Tuganay Flood Control, (d) Lasang Flood Control and (e) Tagum Drainage.

Improvement of drainage facilities, re-channeling and desilting of rivers and creeks, and small watershed rehabilitation and management are some of the measures undertaken to minimize the occurrence of floods and other environmental hazards. The effort is aimed to address the flooding problem of 80,689.54 hectares (23% of the province' area) which are considered as flood prone.

Table No. 7-10: Proposed General Land Use by City, Municipality (in hectares)
Province of Davao del Norte, 2022

City/ Municipality	Production Land Use								Protection Land Use		Residential	Built-up, Infra and Utilities	Total	
	Agriculture	Fishpond	Production Forest					Industrial Areas	Tourism Areas	NIPAs				Primary Forest
			Residual Forest	Brushland	Grassland	Tree Plantation	Cultivated Areas							
Asuncion	22,189.33	25.10	213.00	303.45	532.83	3,490.00	625.55	50.00	-	-	937.04	280.20	700.50	29,347.00
BEDujali	8,247.60	175.00	-	-	-	-	-	39.00	-	-	-	182.40	456.00	9,100.00
Carmen	14,938.59	284.35	-	-	-	38.22	-	62.00	-	-	17.84	364.00	920.00	16,625.00
Kapalong	27,518.02	5.00	1,211.90	1,920.00	3,303.64	25,955.00	2,907.50	176.00	16.00	-	30,385.74	339.20	848.00	94,586.00
New Corella	23,983.80	3.86	287.64	430.00	837.61	3,138.00	751.00	40.00	23.25	-	472.64	244.00	610.20	30,822.00
San Isidro	4,386.23	5.41	1,057.00	1,675.00	3,248.77	230.00	2,821.00	21.00	59.70	-	1,167.39	192.50	385.00	15,249.00
Sto. Tomas	26,731.01	32.33	203.00	343.00	719.43	200.00	597.00	325.00	11.12	-	808.86	591.50	1,478.75	32,041.00
Talaingod	2,739.93	10.70	628.68	995.00	1,757.62	10,900.00	1,541.50	22.00	-	-	26,091.57	269.70	539.30	45,496.00
IGCS	22,948.18	30.00	-	-	920.05	-	600.00	87.00	1,002.64	(7,656.00)	837.43	470.20	1,175.50	28,071.00
Panabo City	20,769.92	212.00	-	-	174.30	-	340.00	520.00	-	-	28.18	948.20	2,370.40	25,363.00
Tagum City	11,358.60	1,237.81	-	-	-	-	47.96	800.00	-	-	26.83	1,366.50	4,742.30	19,580.00
Davao del Norte	185,811.21	2,021.56	3,601.22	5,666.45	11,494.25	43,951.22	10,231.51	2,142.00	1,112.71	(7,656.00)	60,773.52	5,248.40	14,225.95	346,280.00
% Distribution	54.04	0.58	1.04	1.64	3.32	12.69	2.95	0.62	0.32	(2.21)	17.55	1.52	3.73	100.00

CHAPTER VIII

LOCAL GOVERNMENT ADMINISTRATION

- The local government code provides that each LGU shall submit an annual report or state of local governance report which encompasses the overall administrative capacity, service delivery and state of development of the province. The report includes information on the following areas of performance: governance, administration, social services, economic development and environmental management.

8.1 Organization and Management

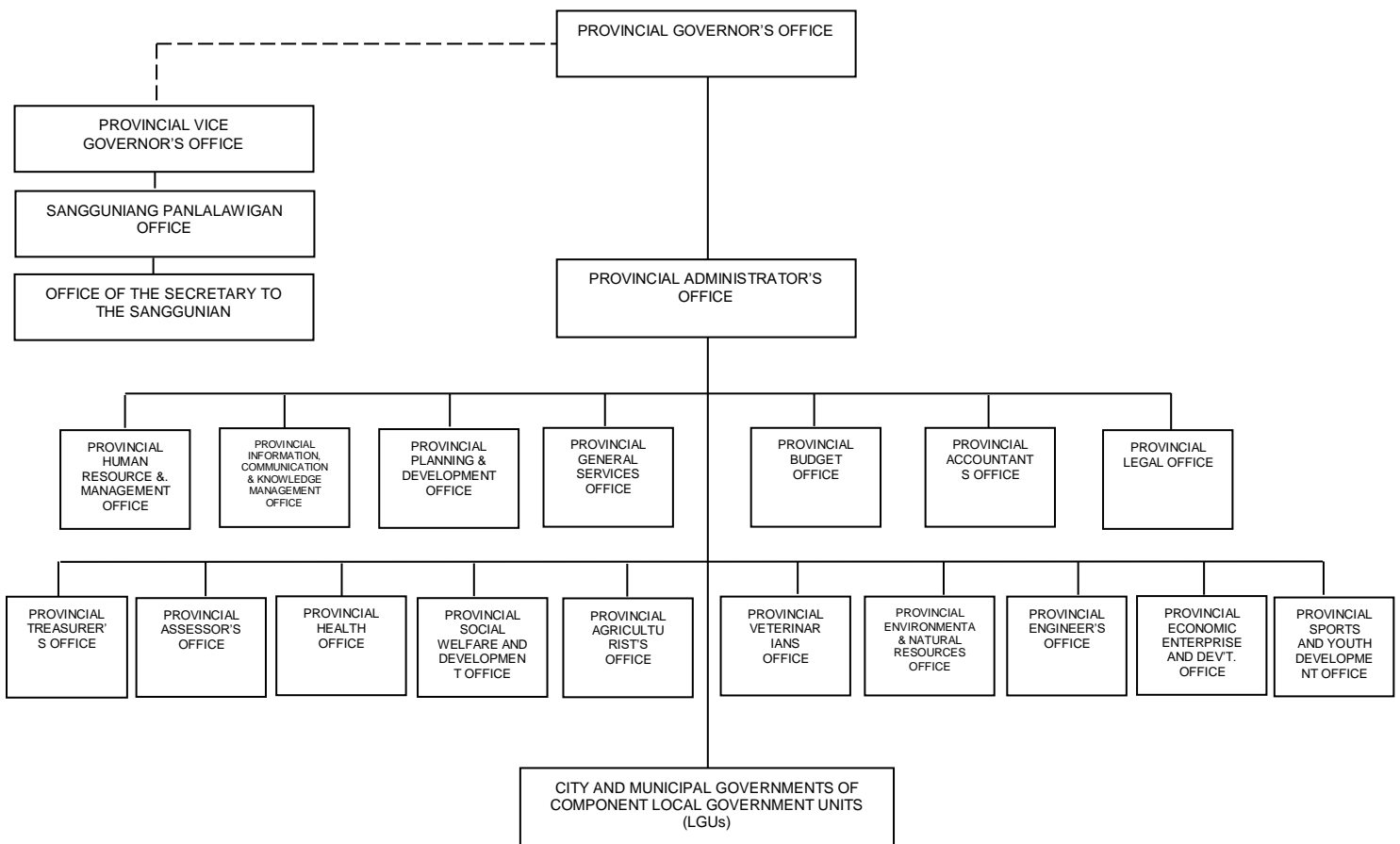
Organizational Structure

- On April 18, 2011, Resolution No. 226 was passed and approved by the Sangguniang Panlalawigan authorizing the Governor, to call and initiate a partial reorganization of the existing structure and staffing pattern of the provincial government of Davao del Norte, purposely to create a Provincial Economic Enterprise Development Office in line with the new development thrust of the province under the acronym PEOPLE. Furthermore, it has paved the way for a request to revise/modify/change the respective organizational structures and staffing patterns of the Provincial Equipment Management and Project Implementation Office (PEMPIO); Provincial Planning and Engineering Development Office (PPEDO); Provincial Administrator's Office (PAdO); Provincial Health Office (PHO); Provincial General Services Office (PGSO) and Provincial Social Welfare and Development Office (PSWDO), to attain maximum efficiency in areas where highly interrelated functions and services are delineated, divided, assigned to two separate departments, and congestion of services under one department has proved to be a heavy demand upon ones strength on the aspect of supervision and management.

On August 1, 2011, provincial ordinance no. 2011-002 was approved by the Sangguniang Panlalawigan, amending provincial ordinance no. 2009-004, entitled "adopting the organizational structure and position chart of the provincial government of Davao del Norte including the organizational staffing classification and action summary (OSCAS) and position titles, job description and qualification standards of all positions in the proposed staffing pattern" by revising/updating certain provisions of the organizational structure and staffing chart including the organizational staffing classification and action summary (OSCAS) and the job description/functions of affected positions of the same offices mentioned at resolution no. 226.

➤ Below is Figure no. 8-1, the flow chart of Davao del Norte organizational structure and staffing pattern. The hierarchy of the different offices in the provincial government of Davao del Norte.

Figure No. 8-1: **PROVINCIAL GOVERNMENT OF DAVAO DEL NORTE ORGANIZATIONAL STRUCTURE AND STAFFING PATTERN**



Below shows the role and functions of the different offices in the delivery of services to the constituents of Davao del Norte.

Table No. 8 – 1 **Summary on the General Role & Functions of the Provincial Government Offices of Davao del Norte**

<u>OFFICE</u>	<u>ROLE/FUNCTION</u>
<u>PROVINCIAL GOVERNOR'S OFFICE</u>	
1. Personal Staff	Facilitates and acts on decisions of the Governor including confidential matters.

	Effects travels of the Governor and ensures his safety and security.
2. Management Services	Controls and reviews all purchases and section expenditures of the different offices. Monitors and evaluates implemented programs and properties of specified offices.
3. Provincial Rehabilitation Center	Ensures the safety of the inmates in their respective cells; secures prisoners for court hearing and transfer provides rehabilitation and gainful activities to redirect their attitudes for wholesome return and integration in the society return and integration in upon release and ensures that food and health needs of prisoners are attend- that food and health needs of prisoners to.
4. Civil Security Services	Secures and protects the safety of the officials and employees and the properties of the provincial government.
<u>PROVINCIAL VICE-GOVERNOR'S OFFICE</u>	Acts as the Head of the Legislative Department. Acts on matters related to legislation and all other administrative concerns with the jurisdiction of the SP.
<u>SANGGUNIANG PANLALAWIGAN OFFICE</u>	Enacts ordinances, approves resolutions and appropriates funds for the general welfare of the province and its inhabitants. Formulates policies and adopts measures beneficial to the province and in consonance with existing laws.
<u>OFFICE OF THE SECRETARY TO THE SP</u>	Acts as the legislative department secretariat and technical support group which is responsible in documenting and safe-keeping of the legislations of the SP.
<u>PROVINCIAL ADMINISTRATOR'S OFFICE</u>	Provides all kinds of administrative support and be the value-adding partner to the management and customers. It also provides effective and administrative services and strategies that maximize the quality and effectiveness of public service.

**PROVINCIAL HUMAN
RESOURCE MANAGEMENT
OFFICE**

Implements policies, rules and regulates, guidelines and Issuances relative to personneling matters particularly on appointments, personnel records, career development, compensations, benefits/ welfare, awards and incentives, discipline, organization and separation of employees.

**PROVINCIAL PLANNING
AND DEVELOPMENT
OFFICE**

Formulates an integrated economic, social, physical and other development plans, policies for consideration of the local development council.

PROVINCIAL BUDGET OFFICE

-Reviews and consolidates the budget proposals of the different departments and offices of the LGU and assists the Governor in the preparation of budget and prepare orders and circulars, which embody instructions on budgetary and appropriation matters.

**PROVINCIAL
TREASURER'S OFFICE**

Takes custody and exercises proper management of the funds of the province; advices the Governor and other officials regarding the disposition of local government funds and other matters relative to public finance.

**PROVINCIAL
ACCOUNTANT'S OFFICE**

Maintains the accounting and internal audit system in the LGU; submits financial statement to the Governor and appraises the local government officials on the financial conditions and operation of the LGU and certifies the availability of budgetary allotment.

**PROVINCIAL ASSESSOR'S
OFFICE**

Ensures that all laws and policies governing the appraisal and assessment of real properties for taxation purposes are executed; recommends change in policies and objectives, plans and programs, techniques, procedures and practices in the valuation and assessment of real properties for taxation purposes.

**PROVINCIAL
AGRICULTURIST'S OFFICE**

Formulates measures for the approval of the Sanggunian and provides technical assistance and support to the Governor to ensure the delivery of basic services and provision of adequate facilities relative to agricultural services.

PROVINCIAL GENERAL SERVICES OFFICE

Develops and implements plans and strategies on general services supportive to the welfare of employees.

Takes custody of and be accountable for all properties, real or personal, owned by the LGU.

Assigns with approval of the Governor land and space to local officials entitled to same.

PROVINCIAL SOCIAL WELFARE AND DEVELOPMENT OFFICE

Ensures the delivery of basic services and provision of adequate facilities relative to social welfare and development services.

Develops and implements plans and strategies on social welfare programs and projects.

Ensures the promotion and protection of all the needy, disadvantaged, under privileged or impoverished groups or individual.

Implements the minimum basic needs program particularly the barangay development plan, organizes sectors in the community, refers clients to agencies concerned, facilitates the request of barangays and municipalities for assistance and monitors implementation of provincial projects.

PROVINCIAL COMMUNICATION INFORMATION AND KNOWLEDGE MANAGEMENT

Disseminates information through the mass media to keep the people abreast with the policies, programs, projects and other development within Davao del Norte.

PROVINCIAL HEALTH OFFICE

Takes charge of the office on health services, supervises the personnel and staff of said office; formulates programs and guidelines, rules and regulations for effective, efficient and economical implementation of health services programs, health related projects and activities.

Executes and enforces all laws, ordinances and regulations relating to public health;

Recommends the prosecution of any violation of sanitary laws, ordinances and regulations.

Exercises general supervision over District Hospitals.

PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE

Develops and implements plans and strategies on environment and natural resources, programs and projects.

Establishes, maintains, protects and preserves commercial forests, watershed, tree parks, mangroves, greenbelts and similar forest projects and commercial forests.

PROVINCIAL LEGAL OFFICE-

Develops and implements plans and strategies on programs and projects related to legal service;

Represents the LGU in all civil actions and special proceedings wherein the LGU or any official thereof in his official capacity, is a party

Drafts ordinances, contracts, bonds, leases and other instruments involving any interest of the LGU, provides comments and recommendations and render opinion in writing on any question of law as required by the Governor or Sanggunian.

Investigate officials/employees for misconduct in office and any person, firms or corporation for violation or failure to comply grants and/or privileges.

PROVINCIAL VETERINARY OFFICE

Develops and implements plans and strategies on veterinary-related programs, projects and activities; advises the governor on all matters pertaining to the slaughter of animals for human consumption and the regulation slaughter houses.

PROVINCIAL ENGINEER'S OFFICE

Provides general administration, supervision and control in the course of implementation of various projects undertaken by the said office.

Provide equipment facilities, services and repairs necessary in the implementation of plans and programs of the provincial government of Davao del Norte and other local government units within Davao del Norte.

PROVINCIAL ECONOMIC ENTERPRISE DEVELOPMENT OFFICE

Manages and supervises hospital operations, blood banking and health insurance services as local economic-enterprises through an efficient and effective health care system and to generate and mobilize local resources to fund operations and development projects.

PROVINCIAL SPORTS AND YOUTH DEVELOPMENT OFFICE

Develops and nurtures youth to an improved and skilled athletes through efficient and scientific trainings to professionalize coaches, trainers and technical officials by providing enhancement seminars and accreditations. Send competitive and disciplined athletes to regional, national and international PSC sanctioned sports tournament to showcase their skills and abilities. It is also assigned to effectively and efficiently host and organize sporting meets and events in coordination with different stakeholders, to provide a venue for different sectors for physical fitness, adopting the principle “Sports for all”.

- The Provincial Government of Davao del Norte has a total work force of 1,334 as of 2020. A total of 15 elective officials, 749 are permanent employees, 1 is temporary, 77 are co-terminus and 492 are in casual positions. (please refer to table below)

Table No. 8-2: **Personnel Statistical Data, Plantilla Positions Provincial Government of Davao del Norte, 2020**

Position	CLASSIFICATION															Grand Total			Percent age
	Elective			Permanent			Temporary			Appointive									
	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total	
Governor		1	1														1	1	0.001
Vice Governor		1	1														1	1	0.001
SP Member	1	12	13													1	12	13	0.00975
Department Heads				4	10	14				2	1	3				6	11	17	0.01274
Asst. Department Heads				8	2	10										8	2	10	0.0075
Chiefs of Hospital				2	2	4										2	2	4	0.003
Division Chiefs				33	21	54				2		2	1		1	36	21	57	0.04273
Section Chiefs				45	37	82					2	2				45	39	84	0.06297
Rank and File				276	309	585	1	1	44	26	70	146	345	491	466	681	1147	0.85982	
Total	1	14	15	368	381	749	1	1	48	29	77	147	345	492	564	770	1334	1.0000	

Source: PHRMO, Davao del Norte

➤ Below is Table No. 8-3, the Civil Service Eligibilities of personnel of the province.

Table No. 8-3 **Civil Services Eligibilities of Personnel
Provincial Government of Davao del Norte
As of December 31, 2020**

	Bar Exam		Board Exam		Career Service Prof.		Career Service Sub-Prof		First Grade		Second Grade		Others		Total						
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	Female		Male		Both Sexes		
															No.	%	No.	%	No.	%	
Governor																					
Vice-Governor																					
SP Members		1		1													2	0.00576	2	0.00288	
Department Heads	1		6	4		6									7	0.02017	10	0.02882	17	0.0245	
Asst. Department Heads			4		4	2									8	0.02305	2	0.00576	10	0.01441	
Chiefs of Hospital			2	2											2	0.00576	2	0.00576	4	0.00576	
Division Chiefs			15	12	20	8									36	0.10375	20	0.05764	56	0.08069	
Section Chiefs			21	27	18	18							2		41	0.11816	45	0.12968	86	0.12392	
Rank and File			125	66	90	42	25	13					13	145	253	0.72911	266	0.76657	519	0.74784	
Total	2	1	173	112	132	76	25	13	0	0	0	0	15	145	347	1.0000	347	1.0000	694	1.0000	

Source: PHRMO, Davao del Norte

8.2 Legislative Services

- The local legislative body, or the Sangguniang Panlalawigan has 14 elective members. Among the members are the Provincial Vice-Governor and 13 Provincial Sangguniang Panlalawigan Members. There is also one (1) sectoral representative from each of the three government sectors, namely: Federation of Sangguniang Kabataan, Philippine Councilor's League, Federation of Association of Barangay Captain (FABC) and the Indigenous People (IP).
- The table below showed the number of resolutions and ordinances passed and enacted by the legislative body. It can be observed in the same table, that a total of 632 resolutions and 15 ordinances for Administration, 5 resolutions for governance and 0 ordinance passed/enacted. (see table no. 8-4)

Table No. 8-4 **Summary of Ordinance and Resolutions Enacted**
Davao del Norte, 2020

Nature of Legislation	No. Passed/Enacted	
	Resolutions	Ordinances
Administration	632	15
Economic Development	24	2
Environmental Management	365	0
Governance	5	0
Social Services	84	0
TOTAL	1,110	17

Source: Office of the Secretary to the Sangguniang Panlalawigan, Davao del Norte

8.3 Local Development Planning

a. Local Planning Machinery and Policy

- The center of the local planning system is the Provincial Planning and Development Office (PPDO). This office works together with the Provincial Development Council which is a local special body mandated under RA 7160. The PPDO concentrates on the planning of programs, projects, and activities for the entire province.
- The PPDO guarantees that the plans from the component cities and municipalities are thoroughly reviewed at the provincial level so that they can be supported adequately by appropriate funds. This is possible because of the merging of local planning and the budgeting system. With this concept, the financing of the plans will be less complicated and more prompt. This will give way to a faster and simpler way of assessing the different plans and putting them to action.
- The planning process at the level of the barangay starts with the identification of programs, projects and activities. In the city or municipal level, the prioritization and fund programming is done while the plan integration and fund allocation are done in the provincial levels in the case of projects sought for funding from the province.

b. Local Plan Documents and Planning Capability

- One long term plan will be formulated by PPDO for the province that is the provincial development and physical framework plan.
- Considered a medium-term plan, is the 5-year provincial development investment plan (PDIP), which carries the list of programs, projects and activities prioritized for implementation within the given plan period.
- The short-term plan considered as the implementing tool of all plans is the annual investment plan (AIP). This plan is prepared in a yearly basis and

contains selected programs, projects and activities that can be funded for implementation.

8.4 Local Fiscal Management

- The province of Davao del Norte is classified as a first class province according to department order No. 20-05 dated July 29, 2005 of the Department of Finance.
- Sources of revenues come from local taxes and internal revenue allotment (IRA), however IRA had a bigger share of the income in the province. (see table no. 8-5 for the itemized income).

a. Local Revenue Generation

Table No. 8-5: **Sources of Revenue**
Davao del Norte, CY 2020

Revenue Sources	Amount	
A. Local Taxes		P 86,492,798.68
- Amusement Tax	131,976.00	
- Franchise Tax	4,954,542.77	
- Printing and Publication Tax	130,510.45	
- Real Property Tax – Basic	26,099,827.59	
- Real Property Transfer Tax	3,197,652.05	
- Special Education Tax	37,095,350.96	
- Sand, Gravel and Other Quarry Products	11,953,186.47	
- Delivery, Trucks and Vans	2,222,800.00	
- Fines and penalties	553,052.39	
- Professional Tax	153,900.00	
B. Service & Business Income		118,906,518.52
- Permit Fees	1,443,225.80	
- Registration Plates, Tags & Stickers Fee	321,180.00	
- Clearance & Certification Fees	892,222.00	
- Inspection Fees	105,820.00	
- Other Services Income	39,954,232.37	
- Rent Income	503,391.63	
- Sales Revenue	5,035,943.50	
- Other Business Income	7,274,296.70	
- Hospital Fees	60,828,596.03	
- Interest Income	2,547,610.49	
C. Other Income		509,141,986.15
- Share from PCSO	1,039,088.18	
- Subsidy from National/Local/Other/Gen./Other Special Accounts	490,516,080.40	
- Miscellaneous Income	15,239,029.12	
- Grants and Donations in Kind	3,139,773.52	
- Share from National Wealth	5,482.53	
D. Share from National		1,815,053,198.00
- Share from Internal Revenue Collection (IRA)	1,815,053,198.00	
TOTAL GROSS INCOME		P2,529,594,501.35

Source: Provincial Accountant's Office, Davao del Norte

b. **Income class by City/Municipality**

- Although the Province of Davao del Norte is a first class province, some of its component cities and municipalities do not belong to first class categories. The City of Panabo for instance is a third class city while Island Garden City of Samal is a fourth class city. Please refer to table no. 8-6 for the detailed classifications (reference data is 2009 since it is done every 3 years).

Table No. 8-6: **Income Classification, by City/Municipality**
Davao del Norte, 2020

District 1	
1. Asuncion	First Class
2. Kapalong	First Class
3. New Corella	Second Class
4. San Isidro	Fourth Class
5. Tagum City	First Class
6. Talaingod	Second Class
District 2	
1. Braulio E. Dujali	Fourth Class
2. Carmen	First Class
3. IGACOS	Fourth Class
4. Panabo City	Third Class
5. Sto. Tomas	First Class

Source: Provincial Budget Office

c. **Local Revenue Utilization**

- In terms of fund utilization, in CY 2020 the biggest percentage of 61% is appropriated for maintenance and other operating expenses (MOOE), while 32% is for personal services. Other Financial Expenses shared ONLY 1%, while capital outlay has 6%. Share of the income in the province (see table no.8-7).

Table No. 8-7: **Summary of Local Government Expenditures**
Davao del Norte, CY 2018, 2019 & 2020

Particular	CY 2018		CY 2019		2020	
	Amount	% Distribution	Amount	% Distribution	Amount	% Distribution
Personal Services	560,851,214.15	29%	636,734,859.58	36%	643,799,038.02	32%
Maintenance & Other Operating Expense (MOOE)	946,932,438.33	49%	1,091,071,891.12	62%	1,232,251,405.79	61%
Capital Outlay					125,628,458.63	6%
Financial Expenses	18,368,405.85	1%	36,664,621.97	2%	24,513,088.01	1%
TOTAL	1,924,791,544.70	100%	1,764,471,372.67	100%	2,026,191,990.45	100%

Source: Provincial Budget Office, Davao del Norte

- In CY 2020 the total Revenue Sources of Davao del Norte decreased compared to CY 2019 due to COVID19 pandemic. (Pls. refer table below)

Table No. 8-8: Revenue Sources, Province of Davao del Norte, CY 2019 & 2020

Revenue Sources	2019	2020	%
RPT - Basic	28,083,323.42	25,901,193.43	-8%
RPT - SEF	39,699,945.34	37,293,985.11	-6%
Business Tax	26,727,007.99	23,297,620.13	-13%
Fees & Charges	42,881,184.16	48,361,742.82	13%
Economic Enterprise	122,617,608.63	94,361,742.82	-23%
Other Receipts-Interest Income (GF & SEF)	2,542,882.98	2,560,181.49	68%
TOTAL	262,551,952.52	232,185,265.00	-11.57%

Sources: Statement of Income and Expenditure (Cash Basis), PTO file

- The Comparative Annual Income from Economic Enterprise External Sources increased by 146,292,756.38 in CY 2020 (see tables below)

Table No. 8-9: Comparative Total Income from Economic Enterprise CY 2019 to 2020

Revenue Sources	Actual Collections 2019	Actual Collections 2020	Increased/ Decreased
Economic Enterprise	122,617,607.63	94,770,542.02	(27,847,066.61)
Total Local Revenue	262,551,952.52	232,185,265.11	(30,366,687.41)
Internal Revenue Allotment	1,609,749,220.00	1,815,053,198.00	205,303,978.00
Share of PCSO	1,039,088.18	241,620.58	(797,467.60)
Total External Sources	1,995,957,869.33	2,142,250,625.71	146,292,756.38

Sources: Statement of Income and Expenditure (Cash Basis), PTO file

- In Table 8-10 reveals that the municipalities of the province are dependent on the shares from Internal Revenue Allotment (IRA). The Municipality of Talaingod is the highest dependence of IRA share with 97% in 2019 followed by San Isidro with 91%, while the municipality of Sto. Tomas registered the lowest IRA share with 62%.

Table No. 8-10: Ratio between Income from Local Source Viz: IRA Share by Municipality, Davao del Norte, CY 2019

Province/ City	Total Income from Local Source (Php)	Total Income from IRA Share (Php)	Annual Average Income(Php) in 3 years (2017-2019)	Percentage of Local Source	Percentage of IRA Share
Asuncion	39,458,426.88	162,622,179.96	186,147,585.55	19.53%	81%
B.E. Dujali	17,548,718.29	87,240,450.96	93,719,098.35	16.75%	87%
Carmen	60,638,183.49	165,863,031.96	204,171,158.09	26.77%	76%
Kapalong	63,414,943.42	266,063,549.04	293,981,662.20	19.25%	82%
New Corella	35,530,181.62	151,123,874.04	171,372,770.36	19.25%	81%
Sto. Tomas	144,294,235.75	239,122,575.00	344,736,714.62	37.63%	62%
San Isidro	7,972,197.80	91,208,633.04	92,101,826.36	8.04%	91%
Talaingod	3,657,711.86	166,631,681.04	156,006,767.17	2.15%	97%
Total	372,514,599.11	1,329,875,975.04	1,376,884,633.64	21.88%	78.12%

Sources: Statement of Income and Expenditure (Cash Basis) reports of Municipalities
Income from local source is composed of General Fund and SEF Income, Excludes Proceeds from Borrowings, Extraordinary Receipts and Transfers

- Table No. 8-11 showed that the Excess (deficit) of Income/Receipts Over Expenses of CY 2020 is 344,948,528.66. (see tables below)

Table No. 8-11: **STATEMENT OF INCOME AND EXPENDITURES
PROVINCE OF DAVAO DEL NORTE, CY 2020**

INCOME	January to December
	2020
LOCAL SOURCES	
TAX REVENUES	86,492,798.67
NON-TAX REVENUES	145,692,466.43
SHARES FROM NATIONAL TAX COLLECTION	1,815,294,818.62
EXTRAORDINARY RECEIPTS/GRANTS/AIDS	75,627,217.00
LOAN AND BORROWINGS	83,106,690.45
INTER-LOCAL TRANSFERS	314,910,566.97
EXTERNAL SOURCES	
TOTAL INCOME/RECEIPTS	2,521,124,558.14
EXPENDITURES	
GENERAL PUBLIC SERVICES	1,020,292,260.34
DEPARTMENT OF EDUCATION	23,342,038.74
HEALTH, NUTRITION & POPULATION CONTROL	61,534,241.92
LABOR AND EMPLOYMENT	-
HOUSING & COMMUNITY DEVELOPMENT	-
SOCIAL SECURITY/SOCIAL SERVICES & WELFARE	160,341,389.06
ECONOMIC SERVICES	562,297,748.83
DEBT SERVICE	132,490,320.66
OTHER PURPOSE	215,878,029.93
TOTAL EXPENDITURES	2,176,176,029.48
EXCESS (DEFICIT) OF INCOME/RECEIPTS OVER EXPENSES	344,948,528.66

Source: PTO, Davao del Norte

- Table No. 8-12 is the Revenue from Sand and Gravel and Earthfill Extraction (please refer table below)

Table No. 8-12: **Revenue from Sand and Gravel and Earthfill Extraction
Province of Davao del Norte, CY 2020**

Location	Total Production (in cu.m.)	Per cu.m (PhP)	Gross Income from Extraction (PhP)	Share on Taxes (PhP)
Tagum City	375,541.10	27.50	10,327,380.50	3,098,214.15
Panabo City	310,309.32	27.50	8,533,506.40	2,560,051.92
IGACOS	4,750.00	27.50	130,625.00	39,187.50
B.E. Dujali	7,925.00	27.50	217,937.50	65,381.25
Kapalong	168,768.71	27.50	4,641,139.53	1,392,341.86
Carmen	90,504.54	27.50	2,488,875.00	746,662.50
Sto. Tomas	51,560.53	27.50	1,417,917.50	425,375.25
Asuncion	10,800.00	27.50	297,000.00	89,100.00
New Corella	2,400.00	27.50	66,000.00	19,800.00
San Isidro	1,290.00	27.50	35,475.00	10,642.50
Talaingod	1,350.00	27.50	37,125.00	11,137.50

Source: PTO