



Provincial Government of DAVAO DEL NORTE

2021-2025

LOCAL
ROAD
NETWORK
DEVELOPMENT
PLAN

Prepared by: The Provincial Planning and Development Office in coordination with other agencies, NGOs and LGUs.

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Executive Summary

The Local Road Network Development Plan (LRNDP) started off as a requirement to properly implement the Conditional Matching Grant to Provinces (CMGP) program for road repair, rehabilitation and improvement. This is a provision cited in the 2017 General Appropriation Act (GAA) of the National Government. Over the years the plan has developed into a tool for effective road network development. The LRNDP recognizes that local road networks are the largest and most important infrastructure resources of local government units. Along with this recognition, the National Government deems it essential for a strategic development of road networks based on sound technical, social, economic and environmental criteria. Thus, each Province is required to formulate a 5-year development plan to establish a sustainable management of local road network, which is supported by a multi-year budgeting and expenditure management scheme. It was deemed necessary to incorporate in the LRNDP a capacity-building program to improve skills, processes and systems in road development and management. In the planning process the LRNDP have identified the minimum road network required to support both economic and social development in the province. This minimum road network had in turn identified linkages for the majority of the population to access basic services and facilities within the province. The LRNDP further acknowledges that core roads serve as the primary drivers of local economic growth. It also recognizes the importance of the achievement of the Sustainable Development Goals and attempts to contribute towards the SDGs.

This enhancement is divided into eight (8) major parts, to wit: Introduction (Chapter 1); Provincial Development Directions and Spatial Framework of Davao del Norte (Chapter 2); Provincial Assessment and LRNDP Situational Analysis (Chapter 3); Development Issues and Challenges (Chapter 4); Sub-Sector Goals, Objectives and Targets (Chapter 5); Road Network Development Strategies (Chapter 6); Investment Program (Chapter 7); Implementation Plan (Chapter 8); Plan Monitoring and Evaluation (Chapter 9) and lastly the Communication Plan (Chapter 10) .

Mandate of the Province

The development agenda of the present administration is KUYA GOB that stands Knowledge Management, Education and Sports; Universal health and Social Services; Yield growth agriculture and sustainable environment; Adequate infrastructure facilities; Greater livelihood

and income opportunities; Operational peace and development framework; Broad-based economic growth and investments. As a centrepiece of development it encompasses the development direction and priorities of the province. KUYA GOB aims to provide service to all even the farthest of communities. It is but timely that this development agenda pushes for public infrastructure development, as it supports the province to respond fully to the directive of the Department of the Interior and Local Government (DILG) to formulate the Local Road Network Development Plan (LRNDP). In turn the DILG provided technical assistance in the planning process through its planning guidelines to craft an effective and sound local road network development plan.

The legacy of providing inter and intra accessibility and connectivity will definitely bring about socio-economic development, more vibrant communities and furthermore transform people's lives for the better.

Assessment of Local Road Network

The Province of Davao del Norte has a total land area of 346,280 hectares and occupies about 18.3 % of Region XI's total land area. About 80 % of the province's land area is classified protected area (*which includes NIPAs, SAFDZ, marine protected areas, non-NIPAs including second growth forest with over 1000 msl or 50 % slope, mangrove forest, watershed area and buffer strips or easement along rivers and escarpments*), while the remaining 20 % is classified for urban and rural settlements, and various productive activities. In so far as the

Land suitability analysis is concerned, the resources in the province are distributed as follows:

- 33 % suitable for production forest;
- 18 % suitable for perennial crops;
- 16 % suitable for cultivated annual crops;
- 14 % for rice paddy; and
- 13 % for forest plantations

With respect to core roads, majority (about 953.73 km) are located in areas suitable for agriculture production such as: rice paddy, perennial tree crops and cultivated annual crops, while about 302.55 km are located in areas suitable for production forest. Based on land sustainability analysis, Davao del Norte has the following breakdown:

- 66.7 % are under-used or classified with opportunity for development;

- 31.7 % are sustainable land use; and
- 1.6 % are not sustainable land use

Looking at the local core road network, about 658.69 km are located in areas which still has potential for development or those that are classified as under-used lands in terms of sustainability. About 119 km are not sustainably used while 382.15 km traverse areas that are classified under sustainable land use.

Moreover, the formulation of the Local Road Network Development Plan made possible the identification of major external linkages in Davao del Norte. The major external linkages are national roads that connect the province to the regional center, which is Davao City and adjacent provinces of Compostela Valley and Bukidnon. The following are the major external linkages:

1. Davao-Agusan Road;
2. Kapalong-Talaingod-Bukidnon Road;
3. Km. Zero-Doña Andrea-Bdry. Laak; and
4. Surigao-Davao Coastal Road

All of these national highways are totally paved and in good physical condition. These roads likewise have major external access routes, other access routes and the main internal circulation routes therein.

Davao del Norte has a total road network of 4,490.58 kilometers, which is classified as follows:

- Provincial roads - 852.02 kilometers (19.32%)
- National roads - 240.30kilometers (5.45%)
- City roads - 602.98 kilometers (13.67%)
- Municipal road - 318.59 kilometers (7.22%)
- Barangay roads - 2,395.69 kilometers (54.33%)

In the process of formulating the LRNDP, a survey was conducted by the Provincial Engineer's Office on the condition of local roads in Davao del Norte in cooperation with the cities and municipalities, which result is shown below:

- Provincial Roads: 331.16 km (38.87 %) good condition and 519.79 km (61.13%) fair

condition

- City and Municipal: 141.35 km or 15.34% are in good condition, 445.50 km or 48.34% are fair, 176.00 km or 19.10% are in poor condition while 17.22% or 158.78 km are in bad condition
- Barangay Roads: 58.66 km or 2.46% are in good condition, 1,245.70 km or 52.15% are fair, 884.62 km or 37.04 % are in poor condition while 8.35% or 199.52 km are in bad condition

Road conditions around major social services areas were also determined. The data shows that 70% of the total road network leading within the population center are in fair to good condition. For core roads within built-up areas, only 22.96 km needs to be rehabilitated as they are in poor to bad condition. On the other hand, a lot needs to be done for non-core roads as about 15% is in poor condition. About 60% of the total road network leading to health facilities are in fair to good condition. While majority of the core roads leading to health facilities are in fair condition, 85.46 km of core road needs immediate attention. For non-core roads, an alarming 498.83 km are in poor condition.

The identification and selection of local roads was undertaken by component cities and municipalities of Davao del Norte. An important consideration in road identification was its connectivity to other road links and highways to assure accessibility for people and goods. From the long list of roads identified, the LGU participants proceeded with the selection of their respective city/municipal and barangay core roads that will be included in the road prioritization at the provincial level.

A 1-day multi-stakeholders' consultation was then conducted by the LRNDP Technical Working Group (TWG), participated by the LGUs and various non-government sectoral representatives. The purpose of the consultation was to assess the merits of road projects and trim down the long list to a short list; and from the short list, identify the most priority city, municipal and barangay core road projects. The process of core road prioritization was facilitated with the use of a tool, the Goal Achievement Matrix (GAM) where KUYA GOB was used the basis for selection. Varying weights were assigned by the concerned sectors on the criteria to come up with the final ranking of core road projects.

Road Investment

Funds utilized for local road development program (includes construction, maintenance and rehabilitation) are sourced out from the General Fund and the 20% Development Fund. In order to sustain this program, the Provincial Government determines the investible funds from the five-year projection of income and expenditure using the average growth rate (AGR) method. A 5% AGR increase was computed the 2019 budget year and was used as baseline. To form part of strengthening the local road development program, the LRNDP also integrates capacity development on salient areas such as local road safety, road planning and design, road management, and road program monitoring and evaluation. A contingency plan is also included cognizant of the fact that local funds are insufficient to support our local road development projects. There will always be the need to fill in the gap through fund sourcing from outside sources.

Plan Monitoring and Evaluation

Monitoring and evaluation are crucial processes in the implementation of road projects. It is through these mechanisms wherein progress against defined goals, a project implementer can assess what is working and what is not, and from that point can determine what changes should be made to a project. This in turn makes it possible to improve the way things are being done in the project organization. Under this plan, it is the objective of the monitoring and evaluation system of the province to assess the progress of the LNRDP, vis-a-vis, its targets, objectives and goals, with an established and operationalized system and structures. Moreover, it aims to utilize the achievements of the plan not only for reporting to other project stakeholders, but also for understanding the factors that influence performance as well as make use of the lessons learned in future planning and programming. This plan also aims to promote the culture of performance among project implementers and stakeholders as part of the effort to introduce institutional reforms in the local government. But ultimately, this plan ensures that the contribution of the road network development strategies to the Sustainable Development Goals are measured and adequately reported.



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Provincial Government of Davao del Norte



PROVINCIAL GOVERNOR'S OFFICE

MESSAGE OF THE GOVERNOR

The Provincial Government of Davao del Norte is honored to present to you the Local Road Network Development Plan (LRNDP) 2020-2025 of the Province. In perpetuation to the LRNDP 2018-2022, this plan aims to mainline good governance values on innovation, accountability and transparency in regards to local road network management in the Province.

This LRNDP 2020-2025 is a comprehensive plan of road network management that aims to improve road connectivity from grassroot level to main road network, which in turn benefits access to basic and social services of the Dabaonon people. Furthermore, the plan shall adopt spatial planning wherein roads that are planned will include total length of upgrading, rehabilitation, improvement and maintenance as part of the guidelines on the enhancement of the LRNDP set forth by the Department of the Interior and Local Government (DILG).

It is our hope that this plan will manifest the solidarity of Davao del Norte as we expressly say in our tagline, "*One Team, One DavNor.*" Inclusivity starts from unity, leaving no one behind even the marginalized sectors on our steps to progress.

We would like to extend our gratitude to all stakeholders who continuously support our efforts in the realization of this plan especially the Provincial Planning and Development Office (PPDO) for taking the lead and the DILG for their undivided support in this initiative.

The Provincial Government of Davao del Norte will continuously pursue all consequential steps to progress, capitalizing on its resources and the people to pave ways to a bright future for the next generation of Dabaonons.

EDWIN L. JUBAHIB

Governor

PDC Resolution Endorsing LRNDP to the Sangguniang Panlalawigan



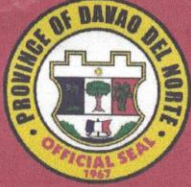
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PROVINCIAL GOVERNOR'S OFFICE

EXCERPTS FROM THE MINUTES OF THE PROVINCIAL DEVELOPMENT COUNCIL (PDC) MEETING HELD AT THE PROVINCIAL GOVERNOR'S OFFICE, CONFERENCE ROOM, CAPITOL BUILDING, MANKILAM, TAGUM CITY ON MAY 21, AT 1:00 O'CLOCK IN THE AFTERNOON

PRESENT:

Hon. Edwin I. Jubahib	-	Governor (Presiding Officer) PDC Chairperson
Hon. Virginia J. Perandos	-	Municipal Mayor, Carmen
For. Victor T. Billones	-	OIC, PENR Officer, Dep't of Environment and Natural Resources (DENR)
Mr. Romeo L. Castañaga	-	Provincial Director, Dep't of Trade and Industry (DTI)
Dr. Josephine L. Fadul	-	President, Girl Scout of the Philippines
Ms. Arlyn F. Bandong	-	Prov'l Director, Technical Education Skills Dev't Authority (TESDA)
Ms. Araceli T. Ayuste	-	President, Provincial Tourism Council
Mr. Rande C. Bayate	-	Executive Director, SILDAP Southeastern Mindanao, Inc.
Mr. Perfecto P. Urdaneta	-	Managing Director, Davao Provinces Rural Dev't. Institute
Ms. Marianne B. Martos	-	President, Davao del Norte Kapisanan Nang May Kapansanan
Ms. Margarita Gumilan	-	President, Davao del Norte Federation of Day Care Workers, Inc.
Ms. Nilda A. Garcia	-	President, Volunteer Leader's Association of the Philippines (VLAP)
Mr. Fernando V. Aumentado, Sr.	-	President, Prov'l Agriculture & Fisheries Council (PAFC)
Engr. Josie Jean R. Rabanoz	-	Provincial Administrator
Mr. Nelson F. Plata, MPA, EnP	-	Prov'l Planning & Dev't Coordinator PDC Secretary



PROVINCIAL GOVERNOR'S OFFICE

Mr. Roger S. Lumbin	-	Prov'l Officer, Nat'l Commission on Indigenous People (NCIP) Rep. by Mr. Archie Delgado
ABSENT:		
Hon. Rey T. Uy	-	Prov'l Vice Governor/ PDC Vice Chairman
Hon. Pantaleon D. Alvarez	-	Congressman, Dist. I/PDC Member
Hon. Dindo C. Parangan	-	SP Member/ Pres. Fed. Asso. of Brgy, Council (FABC)
Hon. Leah Marie M. Romano	-	Municipal Mayor, B.E. Dujali
Hon. Arnel H. Sitoy	-	Municipal Mayor, San Isidro
Hon. Jonnie A. Libayao	-	Municipal Mayor, Talaingod
Mr. Abito D. Bernasor	-	Prov'l Dir. Dep't of Interior & Local Government (DILG)
Ms. Angelina P. Talingting	-	Prov'l Head, Dep't of Labor & Employment (DOLE)
Sultan Gumobar A. Pamlian	-	Prov'l Officer, Nat'l Commission on Muslim Filipinos (NCMF)
Ms. Alma Uy	-	President, Prov'l Council of Women and Tagum City Council of Women
Mr. Vicente Eliot, Sr.	-	Pres., Asso. of Friends of the Home for the Aged, Inc.
Ms. Rita Tayong	-	Pres., Tagum City Chamber of Commerce and Industry, Inc.
Sr. Gloria C. Anino, SdP	-	Center Administrator, Gloria Christi Regis Center for Street and Abandoned Children
Ms. Eva E. Estabillo	-	Pres. Rural Improvement Club (RIC)
Mr. Eleuterio Prisco	-	Pres., Painters of Tagum Association
Mr. Fedelito Blando	-	Pres. Greenland Urban Poor Homeowner's Association
OTHERS PRESENT:		
Dr. Renato R. Embate, DVM	-	PG- Dep't Head, PVO



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PROVINCIAL GOVERNOR'S OFFICE

Dr. Romulo D. Tagalo, MM, MPP	-	PG- Dep't Head, PENRO
Engr. Jivellyn B. Co	-	Asst. PG- Dep't Head, PEO
Engr. Ma. Hazel C. Zafra, EnP	-	Asst. PG-Dep't Head, PADO-Operations
Mr. Noel S. Daquioag	-	Supervising Tourism Officer
Engr. Edwin Misa	-	Engineer III, PEO
Engr. Gilbert Mambulao	-	Engineer II, PEO
Engr. Jasper Ryan Crucio	-	Engineer I, PEO
Engr, Rickris Fernandez	-	Engineer, PEO
Engr. John Obejero	-	Engineer I, PEO
Ms. Araceli N. Cajés, EnP	-	Planning Officer IV, PPDO
Mr. Odilon G. Juntilla, EnP	-	Planning Officer I, PPDO
Ms. Mary Joy P. Olavides, LPT	-	Planning Officer I, PPDO
Mr. Nathaniel B. Inutan, Jr., LPT	-	Administrative Aide I, PPDO
Mr. Jestoni Basong	-	Administrative Aide I, PPDO



PDC RESOLUTION NO. 3, SERIES OF 2021

A RESOLUTION APPROVING AND ENDORSING THE LOCAL ROAD NETWORK DEVELOPMENT PLAN (LRNDP) 2021-2025 TO THE SANGGUNIANG PANLALAWIGAN FOR THEIR CONSIDERATION AND APPROPRIATE ACTION

WHEREAS, the Local Road Network Development Plan (LRNDP) is an integrated 5-year development plan for sustainable management and maintenance of local road networks. The plan supports the efforts of provincial governments to improve local competitiveness through adequate and well maintained roads infrastructure and better roads connectivity to ease movements of people and goods and spur local economic development;

WHEREAS, the LRNDP 2021-2025 of Davao del Norte is a five year plan that outlines the overall directions and investments with regard to road network management, it illustrates how the road networks in the province as a whole will adequately provide the transportation needs in support to socio-economic development;

WHEREAS, the plan contains priority road development activities over a rolling 5-year period supported by a multi-year financing plan or investment program and a capacity development program to improve the province systems, processes and skills;

WHEREAS, this LRNDP will serve as an investment tool which can be used by potential investors including National Government Agencies and other donors on the road transport development of the province;

WHEREAS, the preparation of this LRNDP 2021-2025 is in collaboration with the city/municipal governments, civil society organizations, and other stakeholders and the Department of Interior and Local Government (DILG) giving technical support through the Conditional Matching Grant to Provinces (CMGP);

WHEREAS, this enhanced version includes all local road networks from the barangay, municipal, city and provincial roads and supports the attainment of the KUYA GOB development thrust;

WHEREFORE BE IT RESOLVED, by the Provincial Development Council convened to approve and endorse the Local Road Network Development Plan (LRNDP) 2021-2025 to the Sangguniang Panlalawigan for their consideration and appropriate action;

RESOLVED FURTHER, that copies of this resolution be forwarded to the Sangguniang Panlalawigan and copy furnished to the Hon. Edwin I. Jubahib, Provincial Governor, Provincial Planning and Development Office (PPDO) and the Local Finance Committee for their information and guidance;



Republic of the Philippines
Provincial Government of Davao del Norte

PROVINCIAL GOVERNOR'S OFFICE

CARRIED UNANIMOUSLY.

I HEREBY CERTIFY to the correctness of the above-quoted resolution.


NELSON F. PLATA, EnP, MPA
Provincial Planning and Development Coordinator
PDC Secretary

Approved :


EDWIN I. JUBAHIB
Governor
PDC Chairperson

SP Resolution Adopting the LRNDP



Republika ng Pilipinas
Lalawigan ng Davao del Norte

Sangguniang Panlalawigan

Legislative Building, Mankilam, Tagum City, Davao del Norte



EXCERPTS FROM THE MINUTES OF THE 27TH REGULAR SESSION OF THE SANGGUNIANG PANLALAWIGAN OF DAVAO DEL NORTE (TERM 2019-2022) HELD AT THE SESSION HALL, PROVINCIAL GOVERNMENT CENTER (CAPITOL), TAGUM CITY, ON MONDAY, JULY 5, 2021

Present:

Hon. Rey T. Uy	Vice Governor (Regular Presiding Officer)
Hon. Roger A. Laguna	Member (Temporary Presiding Officer)
Hon. Robert L. So	Senior Board Member
Hon. Jannet N. Tanong-Maboloc	Member
Hon. Franklin D. Gentiles, CE	Member
Hon. Francisco C. Remitar, MDMG	Member
Hon. Prospero E. Estabillo, Jr.	Member
Hon. Roy J. Catalan	Member
Hon. Janris Jay G. Relampagos	Member
Hon. Denise Marianne A. Lu, MD	Member
Hon. Dindo C. Parangan	Member/FABC
Hon. Silvino P. Matobato, Jr., PTRP	Member/PCL
Hon. Ariel S. Macla	Member/IPMR
Hon. Emerson Dave A. Silutan, LPT	Member/SKPPF

On Official Business:

Hon. Nicandro T. Suaybaguio, Jr., UAP Member (Tagum City)

Absent: None

Sponsors: Hon. Francisco C. Remitar, MDMG, Hon. Dindo C. Parangan, Hon. Roy J. Catalan, Hon. Janris Jay G. Relampagos, Hon. Robert L. So and Hon. Denise Marianne A. Lu, MD

RESOLUTION NO. 546

APPROVING THE LOCAL ROAD NETWORK DEVELOPMENT PLAN (LRNDP) 2021-2025 OF THE PROVINCE OF DAVAO DEL NORTE

WHEREAS, a letter dated June 1, 2021 of Hon. Edwin I. Jubahib, Governor, this Province, duly received by the Office of the Secretary to the Sangguniang Panlalawigan on June 18, 2021, endorsed to this August Body, Provincial Development Council (PDC) Resolution No. 3, Series of 2021 of the Provincial Development Council, this Province, was presented for appropriate legislative action;

WHEREAS, said measure was referred to the Committee on Human Settlements, Planning and Development and the Committee on Peace and Order/Public Safety, for review and recommendation;

WHEREAS, the Local Road Network Development Plan (LRNDP) is an integrated five (5)-year development plan for sustainable management

WHEREAS, the LRNDP 2021-2025 of Davao del Norte is a five-year plan that outlines the overall directions and investments with regard to road network management and illustrates how the road networks in the Province as a whole will adequately provide the transportation needs in support to socio-economic development;

WHEREAS, the plan contains priority road development activities over a rolling five-year period supported by a multi-year financing plan or investment program and a capacity development program to improve the Province's systems, processes and skills;

WHEREAS, the preparation of this LRNDP 2021-2025 is in collaboration with the city/municipal governments, civil society organizations including other stakeholders and the Department of the Interior and Local Government (DILG) giving technical support through the Conditional Matching Grant to Provinces (CMGP);

WHEREAS, the Committees thoroughly discussed and deliberated on the merits of the said measure and per Joint Committee Report No. 02 dated June 30, 2021 finally recommended to approve the same for being in order and within the bounds of law;

WHEREFORE, BE IT RESOLVED, by the Sangguniang Panlalawigan in Session Assembled, to approve, as it is hereby approved the Local Road Network Development Plan (LRNDP) 2021-2025 of the Province of Davao del Norte;

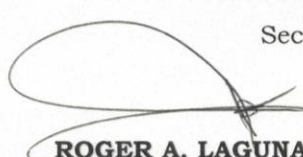
RESOLVED, FURTHER, that copy of this resolution be forwarded to Hon. Edwin I. Jubahib, Governor, this Province for appropriate action; let a copy of the same be furnished Mr. Nelson F. Plata, MPA, EnP, Provincial Planning and Development Coordinator/PDC Secretary, Provincial Planning and Development Office this Province for his information and record.

CARRIED.

I hereby certify to the correctness of this resolution.

DENNIS DEAN T. CASTILLO, MPA
(PG Department Head)
Secretary to the Sanggunian

ATTESTED:


ROGER A. LAGUNA
(SP Member)
Temporary Presiding Officer

I. Introduction

Context and Rationale

This Local Road Network Development Plan (LRNDP) of Davao del Norte is a five-year plan that outlines the overall directions and investments with regard to road network management. This LRNDP for CY 2021-2025 is an enhanced version of the LRNDP 2018-2022 and the Provincial Road Network Development Plan (PRNDP) for CY 2014 to CY 2018. It covers all the local road networks - barangay, municipal, city and provincial roads. As in the previous versions, this plan illustrates how the road networks in the province as a whole will adequately provide its transportation needs in support to socio-economic development. It is primarily anchored on the need to have a road map to pursue sustainable road management.

As one of its sub-sector plans, the LRNDP will directly support the transport sector of the infrastructure development objectives laid out in the Provincial Development and Physical Framework Plan (PDPFP). As it addresses the challenges in improving external links and internal circulation, the LRNDP supports the over-all spatial framework of Davao Del Norte, where the transportation network is considered as one of the factors that would boost economic activities in the province's cluster of cities and municipalities.

The plan further provides the means for the strategic development of road networks based on sound technical, social, economic and environmental criteria. It will serve as an investment tool which can be used by potential investors including National Government Agencies and other donors on the road transport development of the province. This plan can also serve as a guide for developing tour packages.

While all these are important features of the previous LRNDPs, this updated version adopts newer principles as part of its objectives. Primary of these are the vertical alignment to national plans such as the Philippine Development Plan and horizontal alignment to local sectoral plans such as the Local Public Transport Route Plan and Provincial Tourism and Culture Development Plan. It also aims to contribute to the achievement of the Sustainable Development Goals by ensuring that road-related targets are incorporated in the plan.

Scope of the LRNDP

The LRNDP contains the following:

1. **Introduction** - This section includes a short overview/background of the LRNDP,

objective, importance, scope and process. It also explains the technical support provided by DILG CMGP and the UNDP R2SDGs Project in developing the LRNDP. Briefly explains the plan context in terms of period, coverage and process, the rationale and main objective of the LRNDP.

2. **Provincial Development Directions and Spatial Framework of Davao del Norte** – this covers the vision of the province for the long-term period and the KUYA GOB development agenda³ which is being pursued by the current Administration including the growth centers and development strategy.
3. **Provincial Assessment and LRNDP Situational Analysis** – the baseline condition and development scenarios of the subsector, specifically the existing and projected supply and demand characteristics of the province’s road network (including city, municipal and barangay roads) in accordance with the PLPEM Guidelines on internal circulation and external linkages; supported by analytical tables and maps. It also includes the assessment of roads (external and internal circulation), road/bridge inventories, local road conditions, road density and traffic volume. It briefly describes the exposure of roads to hazards, lifelines and alternative routes during disaster, gender responsive road network, as well as road safety administration, traffic characteristics, average travel time and road investments.
4. **Development Issues and Challenges** – this section identifies the issues and challenges in road sector management as a result of the Problem Tree Analysis. Particularly it shows issues in road planning and design, road maintenance, road opening, road rehabilitation, road administration, road service delivery, road safety and human resource development.
5. **Sub-Sector Goals, Objectives and Targets** – Over-all goals/objectives and corresponding sub-sector goals/ objectives and targets for the road sector and to include the cross-cutting themes on GAD, IAS, DRRM-CCA, environment and human resource development. Emphasis is given on the contribution of the LRNDP to the Sustainable Development Goals particularly on the 11 road-related indicators.
6. **Road Network Development Strategies** – this section contains the realistic strategies to reinforce the desired spatial framework of Davao del Norte and support sustainable road network management particularly in the areas of road planning and management, rehabilitation and maintenance, road safety, capability development and cross-cutting themes.

7. **Investment program** - based on the road network development strategies, this section identifies the priority programs, projects and activities which put emphasis on Road rehab. and maintenance, road service delivery, Local Road Safety, Capacity Building and Human development, Environmental Management and other cross-cutting themes.
8. **Implementation Plan** - Presents the arrangements, mechanisms and structures for implementing the plan specifying duties and responsibilities of local government departments and other stakeholders. This chapter also summarizes the interventions identified and the implementation phases and timeline.
9. **Results-based Monitoring and Evaluation** - presents the Logical framework for measuring the progress of the implementation of the local road network development programs, projects and activities. It also contains the results matrix, M&E strategies and mechanism.
10. **Communication Plan** - specific activities for the presentation of the plan for public information and awareness.

Limitations and Assumptions

1. The analysis of the road situation is limited to the provincial, city, municipal and barangay core road network using available primary data like road/bridge conditions and traffic survey.
2. In most of the analysis of the planning environment, secondary data was taken from the PDPFP, LRNDP and SEEP. Data related to demographics are based on the 2015 census since official 2020 census details has yet to be released.
3. Integration and analysis of cross-cutting themes such as DRR-CCA, gender and social inclusion, environmental management are limited to the areas traversed by the core roads.
4. LRNDP is prepared with substantial inputs from road-related plans and strategies such as Road Safety, EMP and cross-cutting themes such as gender, social inclusion and DRR-CCA.

LRNDP Formulation Process

The LRNDP was formulated through a participatory process involving various stakeholders from the component cities and municipalities, national government agencies, non-government organizations, private and business sector, academe, civic organizations and the key road related departments of the province. A Technical Working Group at the provincial, city and municipal levels was reconstituted who shared time, talents and expertise in the planning processes starting from the conduct of road and bridge inventories applying Geographic Information System (GIS) technologies.

Planning activities started off with an LRNDP Review in the month of August. It was followed by several capacity development activities starting on September 2020 and simultaneous with the data gathering activities such as inventories and mapping. Prioritization criteria for the selection of core roads were established based on the guidelines provided by the Department of the Interior and Local Government (DILG). While MC 199-2020 provides the general weights for each criterion, the stakeholders determined the weights for the indicators under each criterion. As soon as the prioritization criteria was finalized, the Technical Working Group from both the provincial and municipal/city level determined the local core roads within their jurisdiction. After a series of technical reviews the TWG came up with the Davao del Norte core road network composed of the most crucial provincial, city, municipal and barangays roads. From this core road, a short list of road projects were identified and project briefs were prepared. The identified road projects for provincial/city/municipal and barangay were subjected to prioritization through a multi-stakeholder consultation using the Goal Achievement Matrix (GAM) tool for prioritization.

The capacity development activities were provided by DILG through CMGP. They were then re-echoed to the cities and municipalities through the Technical Working Group. Assistance from UNDP was received through the orientation on LOGOD early in January 2020. The LRNDP Technical Working Group at the provincial level moved the process forward after determining the issues and challenges; goals and objectives setting and road management strategies by the whole LRNDP-TWG. The plan was presented to the Provincial Development Council for approval and subsequently endorsed to the Sangguniang Panlalawigan for adoption and implementation.

Local Road Network Development Framework

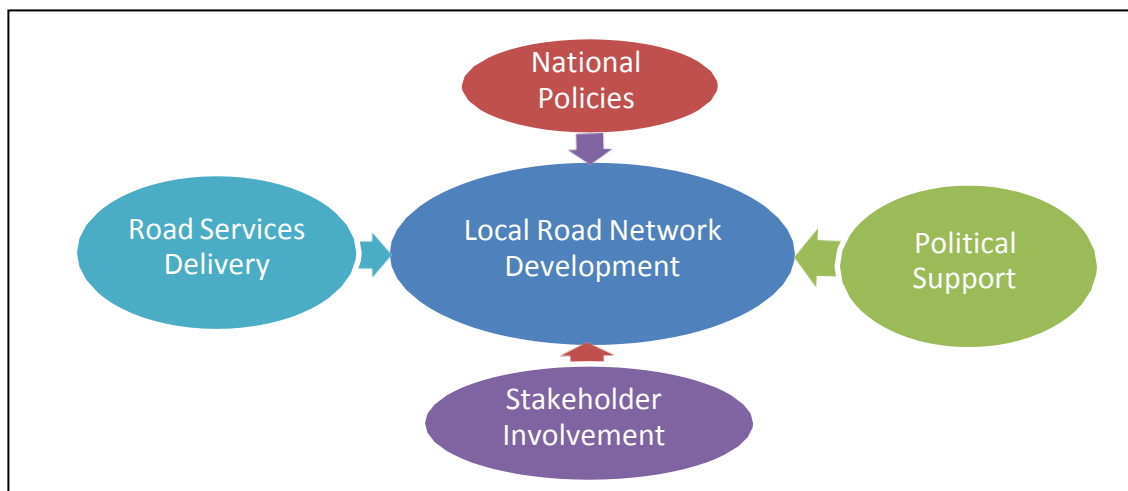


Figure No. 1. Local Road Network Development Framework

As illustrated in Figure 1, development of local road network requires stakeholder involvement from the whole planning process re: planning, budgeting, implementation and monitoring and evaluation. The stakeholder involvement from the whole planning cycle enhances the implementation of various road services delivery mechanism supported by transformative political leaders who are not just service providers but enablers. National policies and integration of cross-cutting themes related to road network development was taken into consideration in the formulation of the plan.

The strategy setting for the road network development in the province starts with the assessment of the road network. This includes doing road inventories and assessing road conditions that local governments normally undertake for planning purposes. Road mapping based on Geographic Information System (GSI)- generated inventories is a major consideration in the LRNDP.

Road management issues and concerns were also considered. The outcomes from the road assessment become the baseline for improvement needed for a better road service delivery in Davao del Norte. In turn, the PPAs will have fiscal support under a road investment program. Successful PPAs implementation is expected to improve road service delivery, operationalizing the spatial strategy of the province and realizing its long-and-short-term development thrusts. There is a new perspective that will work to the advantage of the road transport sector. The

strategy setting for the road network development is accompanied by similar strategy-setting initiatives in related processes and mechanisms in the province that directly support the initiatives for sustainable road management. These are along the areas of (a) sustainable road management; (b) road safety; (c) human resource management and capacity development; (d) public financial management and internal audit; and (e) DRRM-CCA environment sustainability.



Figure No. 2. Local Road Network Development Plan Formulation Process

II. PROVINCIAL DEVELOPMENT STRATEGIES & SPATIAL DIRECTION

Vision

Davao del Norte is a leading and competitive province with empowered and resilient people.

Mission

We commit ourselves to uplift the quality of life for all Davaonons 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 environmental 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 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 level of governance

thus, ensuring sustainable inclusive development.

Current Administration's Development Thrusts

The KUYA GOB Agenda encapsulates the direction and priorities of the province. As a guiding development framework, KUYA GOB maintains its welfare-driven mission but emphasizes the shift from profit to service-oriented goals. The components of the KUYA GOB Development Agenda are aligned with national and regional strategic priorities and integrate support mechanisms to ensure whole-of-government capacity. The achievement of the outcomes and impact-based targets of KUYA GOB will be measured against the approved Davao del Norte Results Matrices. This guarantees the attainment of PDP-targeted priorities and outcomes and consequently achievement of the PDP and to a certain extent, the SDGs.

Knowledge Management, Education and Sports

Education is the most important thing that the province with the private sector and other government agencies do together as a community to build the foundation of a better future. So, the province will resolve to put up all the necessary mechanisms so that no child will be left behind.

Universal health and Social Services

Time and again the provincial government have stressed that the delivery of Universal Health and Social Services is essential to the attainment of its vision of empowered and resilient Dabaonons. The ultimate objective is to make public health operations as the private health providers raising the quality of public services.

Yield growth agriculture and sustainable environment

Agriculture shall remain to be the linchpin of the province economic strength. Competitiveness of this sector shall be strengthened as the province embark on its quest for global participation and enable the farmers graduate from subsistence farming. The provincial government shall give due emphasis on agri-business and its successful integration to the value chain. This means, Davao del Norte shall not be the only source of raw materials, but also a processor and marketer of its own products.

Adequate infrastructure facilities

Enhancing the physical and digital infrastructure, as well as inter and intra linkages and accessibility shall be pursued under this agendum. With the increasing market integration, it is incumbent upon the provincial government to open more avenues and transportation valves to and from Davao del Norte.

Greater livelihood and income opportunities

The heart of the provincial economy lies in the productivity of its human resource. A gainfully employed and productive citizenry drive socio-economic growth and progress.

The provincial government shall strengthen livelihood programs to make it at par with the best practices in the country. It shall also push for MSME development as its top priority, since it is the dynamic engine of growth and the biggest employer in the country. To enhance competitiveness, Davao del Norte will provide better access to financing, product, skills

development and investment promotion to enable MSMEs to compete with domestic and international players.

Operational peace and development framework

Davao del Norte acknowledges that without peace, justice and strong institutions, there can be no hope for sustainable development. As violence is bred by exclusion and isolation, Davao del Norte is committed to continue best practices and install crucial reforms that value the principles of inclusivity, participation, transparency and accountability. Davao del Norte will actively support the implementation of Executive Order No. 70 which institutionalizes the Whole-of-Nation-Approach as a government policy to End Local Communist Armed Conflict (ELCAC) for the attainment of inclusive and sustainable peace.

Towards this end, the province shall prioritize and harmonize the delivery of basic services and social development in conflict affected areas and vulnerable communities, facilitate social inclusivity and ensure participation of all sectors.

Broad-based economic growth and investments

Economic development is still a key component in Davao del Norte's thrusts. But more than economic gains, Davao del Norte wishes to achieve inclusive growth that advances equitable opportunities for all businesses with benefits incurred by every section of society.

Growth Center Development Strategy

Davao del Norte adopts the nodal or growth center concept of development anchored on a hierarchy of functions among the service areas. Based on the Mindanao Spatial Strategies Development Framework, Tagum City is envisioned to be the regional center in the near future. It shall serve as the region's commercial and trading center as well as an alternative settlement area to decongest Davao City. Also, it shall provide area for agro-industrial development and socio-economic requirements, particularly social, administrative and infrastructure services of the region's northern municipalities including the three coastal municipalities of Compostela Valley. Panabo City as sub- regional center shall become the commercial and trading center northeast of Davao City. The Island Garden City of Samal shall become the region's main tourism destinations. The identified provincial centers are the municipalities of Sto. Tomas, Kapalong, Asuncion, New Corella and Carmen, while municipalities of B.E. Dujali, San Isidro

and Talaingod are designated as local centers. They will serve as the nodes supporting major growth centers and providing neighborhood support facilities and services within its area of influence.

Davao del Norte's spatial strategy is the distillation of the current and planned spatial developments within the province based on its vision, development goals, and objectives. To achieve the provincial spatial strategy as planned, enhancement of the transport and accessibility network from its current condition must be put to priority. Internal circulation and external linkages need to be improved for enhanced mobility of products and services within and outside the province. Internal circulation provides direct access to land and mobility of people and goods within the province. External linkages, on the other hand, are the land, air and water access routes to the province and key transport facilities. These linkages vary depending on the role and function played by the province in pursuit of development. Population and settlement trends, locational importance of physical resources, protection zones and production areas and other economic drivers are factors that dictate external linkages and internal circulation.

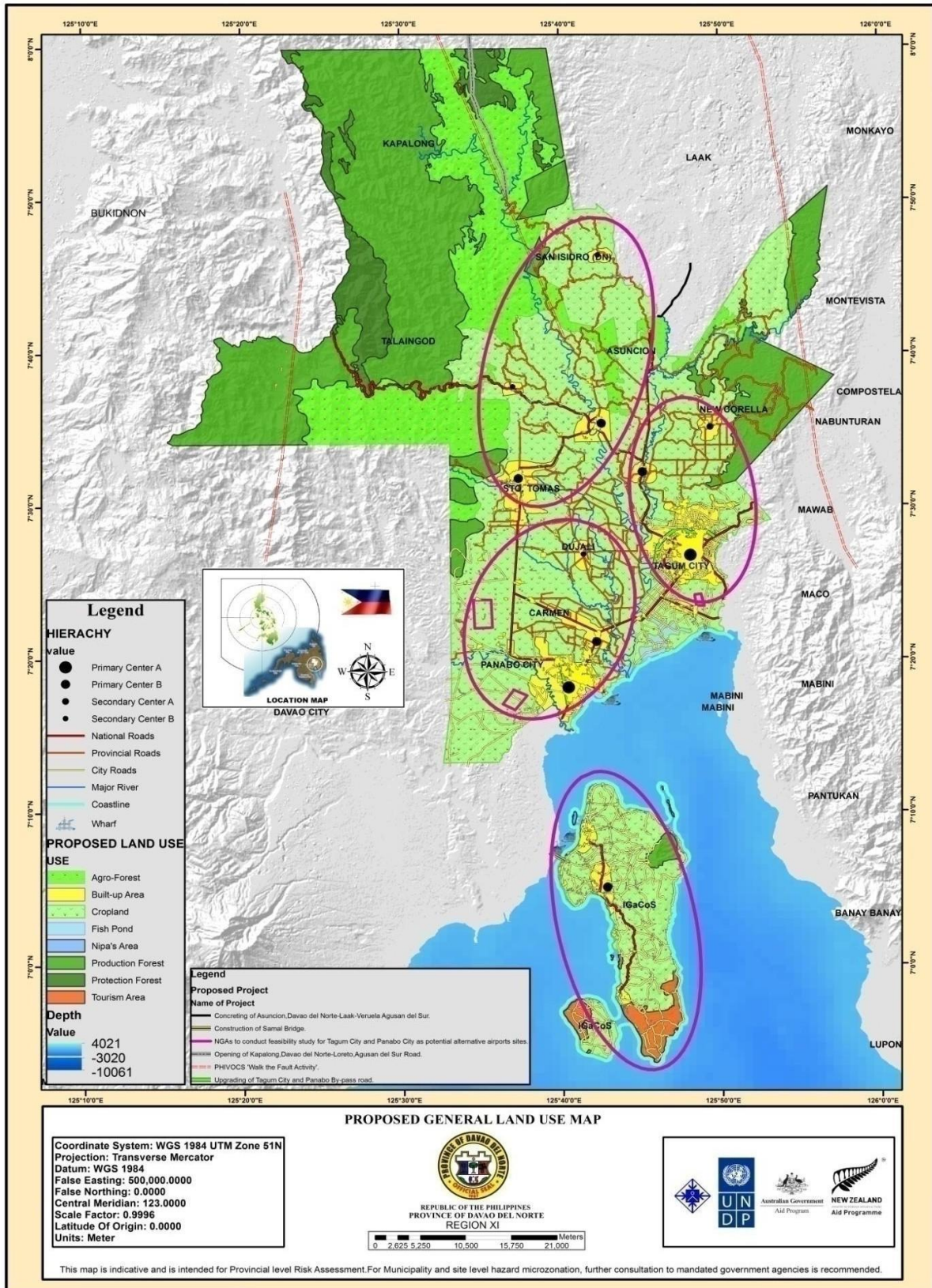
Spatial strategies relevant to the road sector, as discussed in the infrastructure plan of the PDPFP, which directly contributes to the attainment of the provincial spatial framework and its development thrusts include:

1. Maintain and provide new infrastructure facilities in production and settlement areas to facilitate socio-economic activities.
2. Upgrade and/or provide new infrastructure facilities in rural areas to facilitate development and encourage investment outside of the major growth centers.
3. Enhance inter-provincial and intra-provincial linkage by upgrading the existing transport facilities.
4. Improvement of accessibility of going to and within the Island Garden City of Samal should be given priority in support to the development of the tourism industry.
5. Mainstreaming of latest engineering and DRR-CCA technology, gender and environment issues and concerns in road network development planning, design and implementation
6. Prioritize rehabilitation and maintenance of alternative routes during disaster
7. Strengthen partnership among National, Provincial and Local agencies and other

stakeholders for the implementation of CCA and risk resilient infrastructure facilities and regulation of utilities

8. Prioritize the implementation of the major external and internal access routes that link Davao del Norte to adjacent provinces and cities, and core road network projects that support the economic and social development of the province
9. Prioritize connectivity of municipalities identified with existing road gaps
10. Strengthen linkages and partnership among National agencies and other stakeholders for the Mindanao Railway Project
11. Ensure full implementation of road safety policies and regulations.
12. Implement national and local road planning and design guidelines and ensure that cross-cutting themes such as gender and CCA, eco-engineering is considered in the design of local roads, its implementation and monitoring
13. Strengthen inter-agency linkages for the implementation of national/local ordinances/policies in relation to Road Safety and Vehicle Load Weight Regulation
14. Introduce/Establish wildlife protection measures and infrastructure projects particularly on provision of Wildlife Corridors crossing road sections.

Figure 3. Spatial Development Framework Map



Existing settlement pattern

Based on the 2015 census of population, a histogram was formulated to illustrate the hierarchy of settlements among the cities and municipalities in the province. The categories are: for small/medium city (primary urban center A) with population more than 100,000; large town (primary urban center B) with a population of 100,000 to 400,00; a medium town with a population more than 50,000; and small town with a population below 50,000.

As reflected in the 2015 histogram, the three component cities, namely, Tagum City, Panabo City and the Island Garden City of Samal are categorized as Small/Medium City or Primary Urban Center A. Tagum City, being the capital town is the seat of the Provincial Government and a center for trade and commerce of Davao del Norte.

Panabo City, on the other hand is known as the Secondary Urban Center A, which has a growing population of 184,599. This city is a preferred residential area for those working in Davao City and those who find employment opportunities in Panabo City.

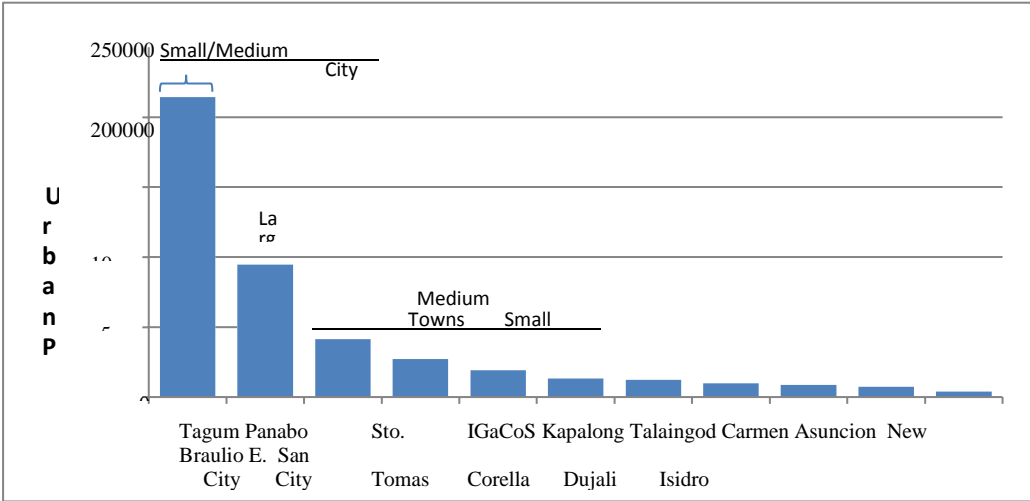
The Island Garden City of Samal has emerged from a Large Town or Primary Urban Center B to a Medium/Small City or Secondary Urban Center B with the growth of its population to 104,123 in 2015. Its growth in population can be attributed to its idyllic settlement location and the booming tourism industry.

The municipality of Sto. Tomas has a population of 118,750 as of the 2015 census of population thus, categorized as a Large Town or Primary Urban Center B. The denominator for its settlement growth is employment opportunities brought about by a progressive expansion of the banana industry.

Medium Towns or Secondary Urban Center B are towns that are serving correspondingly the smaller local markets in their vicinity. This comprises the municipalities of Kapalong, Carmen, Asuncion and New Corella.

The Small Towns category is given to those municipalities which has a population below 50,000. In Davao del Norte, Small Town category is given to the municipalities of Braulio E. Dujali, Talaingod and San Isidro.

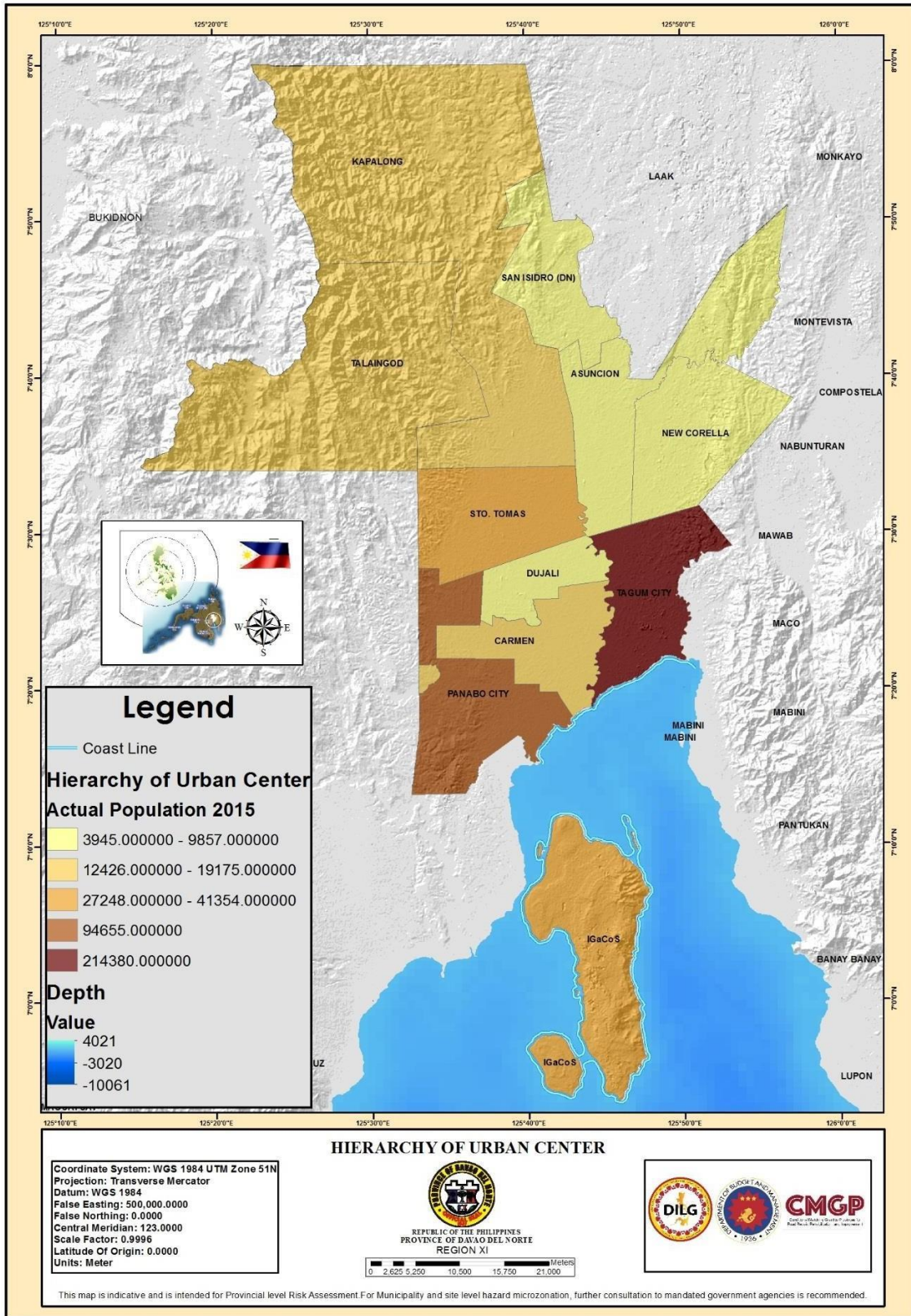
Figure 4: Histogram of Settlements by City/Municipality, Province of Davao del Norte: 2015



Source: Provincial Planning & Development Office

The distribution of population and the distinct role of cities and municipalities in the histogram are further illustrated in the following map.

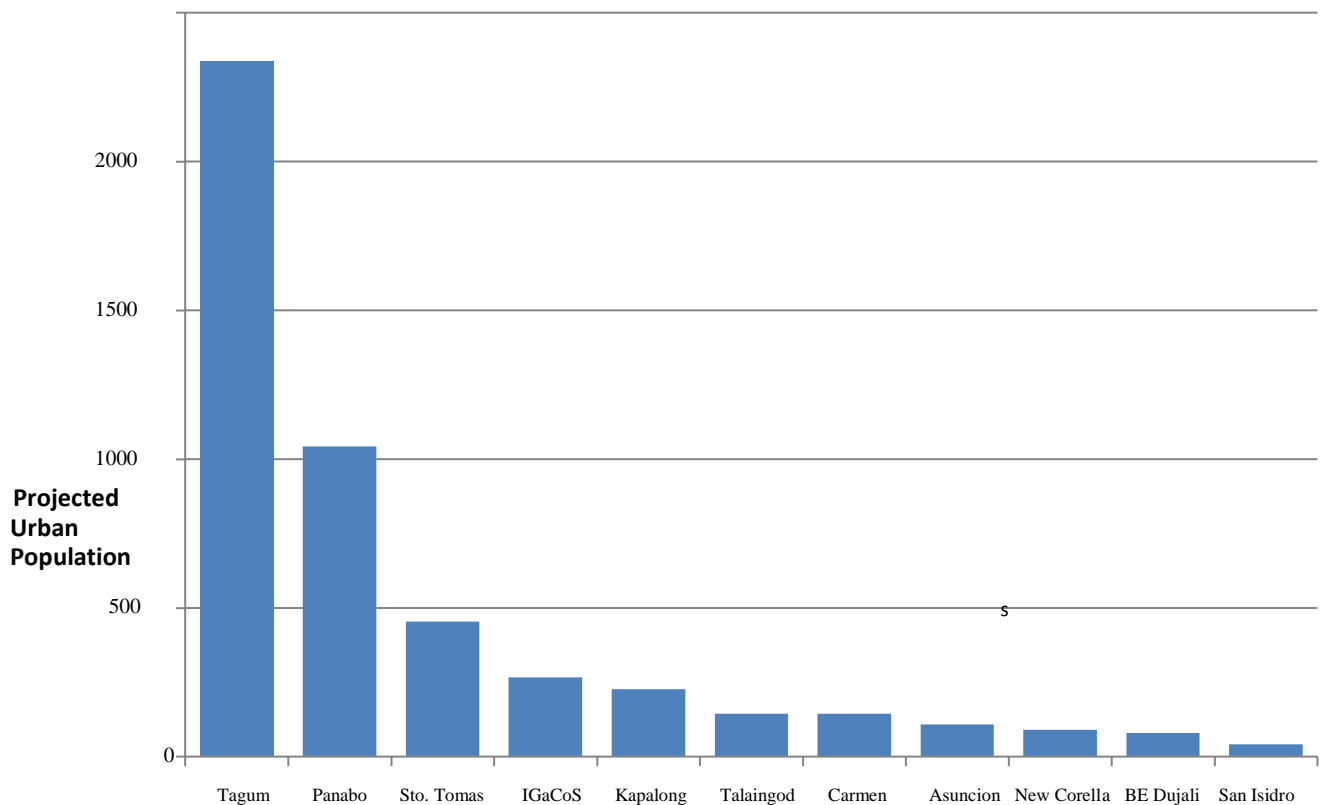
Figure 5: 2015 Hierarchy of Urban Centers



Source: Provincial Planning & Development Office

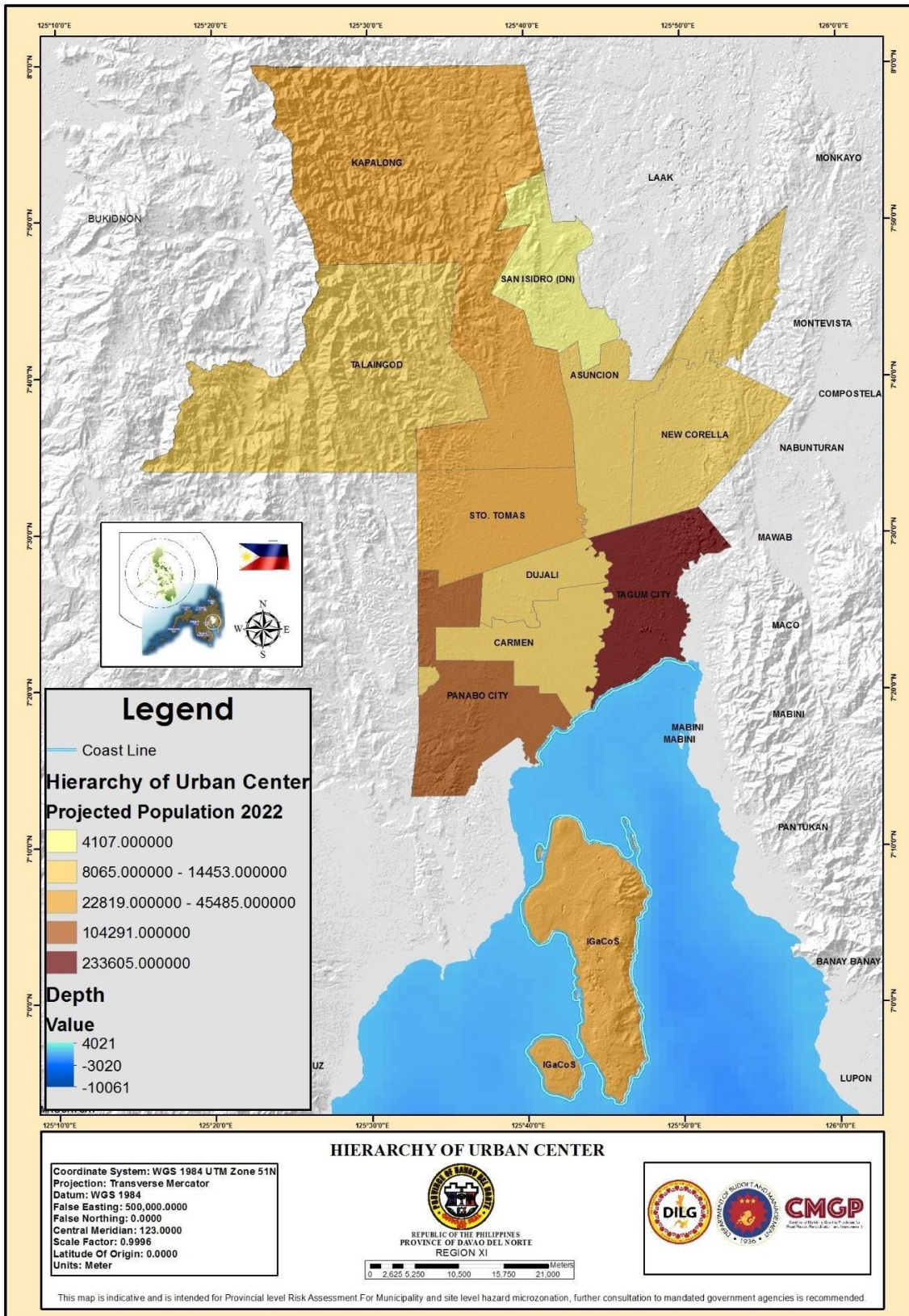
Projecting the growth of the population in 2022 using the APGR of 1.38 of Davao del Norte will show that population distribution and settlement pattern will still be similar to the 2015 population. However, it can be observed that there is an increase in population size in every LGU that eventually bring about a change in roles of the LGUs. Tagum City will graduate into a Secondary Metropolitan Center (Metropolitan B), while Panabo City will enter the category of Small/Medium City (Primary Urban Center A). Meanwhile Sto. Tomas will be classified large town (Primary Urban Center B). The Island Garden City of Samal together with Kapalong will become Medium Towns (Secondary Urban Center A). On the other hand, Small Town category (Secondary Urban Center B) goes to Talaingod, Carmen, Asuncion, New Corella, BE Dujali and San Isidro.

**Figure 6: 2022 Projected Histogram of Urban Centers
Province of Davao del Norte**



LGUs of Davao del Norte

Figure 7. Projected Heirarchy of Urban Center



External Linkages

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 Compostela Valley and Bukidnon and to the City of Davao. These roads are the Davao-Agusan Road, Kapalong-Talaingod-Bukidnon Road, Km.Zero-Doña Andrea-Bdry. Laak and the Surigao-Davao Coastal Road. All of these national highways are totally paved and in good physical condition as presented in Table 1.

Table 1. Major External Linkages Davao del Norte, 2019

ROAD NAME	LENGTH (km)	PAVED (%)	RROW (m)	NO. OF CONCRETED LANES
Agusan-Davao Road	37.98	100	60	4-6 Lanes
Surigao-Davao Coastal Road	6.848	100	20-30	2-4 Lanes
Kapalong-Talaingod-Bukidnon Road	55.985	100	20	2 Lanes
Asuncion-Laak-Veruela, Agusan del Sur Road	19.345	100	20	2 Lanes

a.) Major External Access Routes

The Agusan-Davao Road extends from Compostela Valley in the north to Davao City in the south, while the Surigao-Davao Coastal Road connects the province of Davao Oriental and southern parts of Compostela Valley 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, Davao de Oro and Davao Oriental. The Agusan-Davao Road also connects to the Poblacion of Carmen and Panabo City.

The Kapalong-Talaingod-Bukidnon Road is in its full operation. This arterial 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. With the present operationalization of this road, accessibility between the above-mentioned areas is greatly improved. These results to better economic opportunities and trade-offs between the two provinces; as well as the deployment of basic social services and security enforcements in its tributary areas.

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 provinces of Davao de Oro and Agusan del Sur. The route passes through the Municipalities of Asuncion and San Isidro in Davao del Norte, the Municipality of Laak in Davao de Oro and up to the boundary of the Municipality of Veruela in Agusan del Sur. The opening of this road provided 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 serve as collector roads that link Davao del Norte to Davao de Oro and Davao City. Some of these roads are upgraded and for implementation under various fund sources but others are still paved with gravel and earth where portions are in poor condition. These are the following:

Igangon-Sawata Provincial Road (Davao del Norte) - Bdry Binasbas (Compostela Valley) Provincial Road - This 10.12 kilometer of provincial road connects the Municipality of San Isidro, Davao del Norte to the Municipality of Laak in Davao de Oro. Upgrading of this road is ongoing under the Philippine Rural Development Program (PRDP).

Saug-Sonlon-Bdry Longanapan Provincial Road - this 11.60-kilometer road is the shortest route from the Municipality of Laak, Davao de Oro going to Tagum City via New Corella, Davao del Norte. A portion of this road project is enrolled under the Philippine Rural Development Program (PRDP).

Sonlon-New Visayas-Camansa Provincial Road - The road is in a mountainous terrain connecting the eastern barangays of Asuncion to Davao de Oro via the Municipality of Montevista. The road length is 7.07 kilometers of gravel paved and earth road. A portion of this

road project is enrolled under the Philippine Rural Development Program (PRDP).

Limbaan-Sta Fe-El Salvador Provincial Road – Connects the Municipality of New Corella to boundary Sitio Bayabas, Nabunturan, Davao de Oro. The road is 18.82 kilometers with some portions traverse in mountainous area. The road project is currently enrolled to the Department of Tourism- Department of Public Works and Highways Convergence Program in enhancing road access to tourism destination areas.

Carcor-Patrocenio (Davao del Norte) – Jct Bayabas (Davao de Oro) Provincial Road – Like the preceding road section, this road also connects the Municipalities of New Corella, Davao del Norte to Nabunturan, Davao de Oro. The road has a total length of 14.68 kilometers of gravel road and mountainous area. This road is also currently enrolled to the DOT-DPWH Convergence Program.

Sto. Tomas Poblacion –Magwawa – Panaga Road – This route has a 12.372 kms of gravel road. It connects from Poblacion Sto. Tomas to the mountainous areas of Panabo to Paquibato District which is a part of Davao City. The concreting of this road will give better access and faster transport of agricultural products to market centers of Panabo City and Tagum City. The Department of Public Works and Highways listed this road project under their Improvement of Local Roads Program for year 2018 and beyond.

Dalisay – Mabuhay, Panabo City to Panalum, Davao City.- This is an 8.0 Km gravel road that will connect Panabo City to Davao City. It will traverse an array of banana plantations and other planted crops in the area.

National Road Junction Panabo City – Junction Fatima – Malabog Road-This is a 9.1 Kilometer Road which connects Barangay Malativas of Panabo City to Calinan District of Davao City via Barangays Fatima and Malabog. This road project is listed under the improvement of local roads program of the DPWH.

Katualan (Davao del Norte)-Callawa (Davao City) Road – This is a 2.9-kilometer city road that connects Davao del Norte to Buhangin, Davao City.

Malativas (Davao del Norte) – Binowang (Davao City) Road – This is a 3-Kilometer city road that connects Panabo City to Paquibato District, Davao City.

Kiotoy - Sa Cruz (Davao del Norte) - Bunawan (Davao City) - This 15-kilometer gravel road connects Panabo City to Mahayag, Bunawan, Davao City.

Kaputian-Babak, Samal, Sasa, Davao City Routes - This route is a 24-kilometer road that traverses from kaputian District to Babak District of Samal Island, Davao del Norte plus the Roll on Roll Off system that ply the Kaputian Strait which is the Babak-Sasa Sea Route to reach Davao City. Among the planned developments of the national government is the proposed construction of the Davao- Samal Bridge which will provide a much safer and convenient infrastructure facility that will link the island to Davao City. A pre-Feasibility Study and a Stakeholders Consultation was conducted to determine and present the possible points of location of the said bridge.

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 is connected to the mainland by passenger and RORO ferry services via Davao City.

Main Internal Circulation Routes

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, Kapitalong and Asuncion to the centers of Tagum and Panabo Cities. Its influence areas include the municipalities of Sto. Tomas, Kapitalong, Asuncion and Talaingod, San isidro and B.E. Dujali. There are several roads tributary to this circumferential road that connects to the above-mentioned municipalities. Other provincial and city roads also connect to the inner barangays and banana plantation areas in Sto. Tomas, Carmen, Kapitalong, Asuncion and Panabo City. This road is a vital infrastructure support for the export banana production which is the main economic feature in the influence area and the main route for transport of these commodities to Panabo City wharves.

Boundary 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 areas include the rural production areas of New Corella and the eastern barangays of Asuncion or Kaimunan sa Manguwang anug 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 the delivery of social services.

Asuncion- San Isidro Roads

There are two routes that ply between the Municipalities of Asuncion to San Isidro. These are provincial roads namely: K 9 Sagayen-Sawata Road and the 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. This road network traverses banana and cacao production areas.

San Isidro-Kapalong Road

One of the roads tributaries to Tagum-Panabo Circumferential Road is the route from San Isidro – Kapalong consisting of Km 9 Sagayen-Sawata Provincial Road, Pandulian Jct San Miguel Provincial Road and the Kapalong – Mabantao – Florida Provincial Road. The influence area is characterized by the expansion of banana and cacao production areas and forestlands in the hinterlands of San Isidro and Kapalong.

Tagum City – Sto. Tomas Road

This 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 and banana plantation areas in Kapalong.

Tuganay, Carmen – Dujali Roads

The Tuganay- Dujali road is composed of Tuganay –Anibongan – San Isidro and San Isidro – Dujali – San Miguel Road sections. It connects the Municipality of Braulio E. Dujali to the Agusan-Davao Road at Tuganay, Carme. Other provincial roads also connect B.E. Dujali to

Sto. Tomas and Tagum City. These road sections are important for the growing banana production and fishery production in B.E.Dujali.

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 tourism destination areas. The road is also vital for the transport of perennial crop products such as mango and coconut.

Talikud Island Circumferential Road, IgaCos

This 17.18-kilometer road stretch is basically gravel-paved that connects the four barangays of Talikud Island namely: Sta Cruz, Dadatan, Linosutan and Cogon. This road brings access to existing beach resorts and some potential diving areas. Talikud Island at present needs to improve its road infrastructure facility 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.

Tagum City By Pass Road

It is an existing 20.35 kilometer of barangay road which traverses from Jct Agusan-Davao Road - Canocotan - San Miguel - Mankilam - Pagsabangan-La Filipina - Magdum, Tagum City.

Panabo City By Pass Road

This is an existing 8.92 kilometer of provincial road which traverses from Junction Agusan - Davao Road J.P. Laurel Section - Gredu - New Visayas - JctTagum - Panabo Circumferential Road Southern Davao Section, Panabo City, Davao del Norte to Junction BrgySto Nino (DaangMaharlika road).

Panabo City - Carmen Coastal Road

This road serves as the coastal circumferential road that will ease the traffic congestion in Panabo City. It will also give access to the coastal tourism areas in the Municipality of Carmen and the City of Panabo. This route will also connect the hard-to-reach production areas in

Carmen to the market hubs of the cities of Panabo and Tagum.

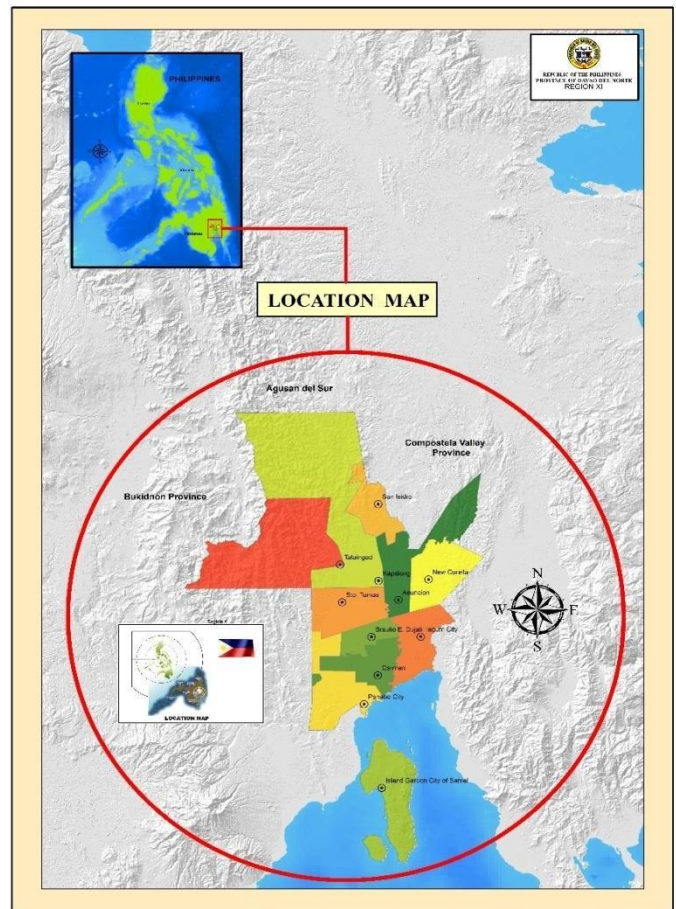
A 1.0 km Fly-Over Project in Tagum City

A 1.0km Flyover is under construction within the Agusan-Davao National Highway in Tagum City under the Department of Public Works and Highways (DPWH). This facility is a crucial infrastructure that will help develop the local economy by easing traffic flow and lessening travel time within the area. This national government project is expected to augment the road network of the province and upgrade infrastructure to accommodate increase in population.

III. PROVINCIAL ASSESSMENT & SITUATIONAL ANALYSIS

Location and political subdivision

Davao del Norte is strategically located in the southeastern part of Region XI, bounded by Agusan del Sur on the North, Bukidnon on the Northwest, Davao City on the Southwest, Davao Gulf on the South and the Province of Compostela Valley on the East. A total of 13 municipalities composed the province upon its creation on May 8, 1967¹. In 1996, the province had 22 municipalities. In 1998, Compostela Valley Province was created from Davao del Norte². At present, Davao del Norte has eight (8) municipalities and three (3) cities with 223 barangays sub-divided into two (2) congressional districts.



¹R.A. 4867

²R.A. 8470

Physical Resources

Land resources

Davao del Norte has a total land area of 346,280 hectares distributed as follows:

(a) protected area³, 80%; and (b) urban and rural settlements and various productive activities, 20%. The province occupies about 18.3 % of the total area of Region XI.

Topography

The topography of the province is described as rugged, mountainous and moderately to steeply sloping areas on the western part and a wide alluvial plain on the central lowland area.

Elevation

Some 37% of the total land areas in the province are lowlands with less than 100 meters elevation. The highest elevation from 1000-2000 meters accounts for three (3) percent of the total land area is found in the municipalities of Kapalong and Talaingod.

Slope

More than half of the total land area (53.60%) in the province have a slope range of 0-18 percent, while the remaining areas have slopes ranging from 18 percent to more than 50 percent. Areas with slopes of 0-18 percent are classified as Alienable and Disposable (A&D) and are used for agriculture, industries and settlements. While areas with slopes of 18 to more than 50 percent are classified forest land and declared for forestry purposes.

Quick Facts About Davao del Norte	
Coverage	<ul style="list-style-type: none">➤ 8 municipalities➤ 3 cities➤ 223 barangays
Capital/Seat of Government	<ul style="list-style-type: none">➤ Tagum City
Population	<ul style="list-style-type: none">➤ 1,016,332 (in 2015)➤ 294 persons/km²
Land Area	<ul style="list-style-type: none">➤ 346,280 hectares
Environmentally Critical Areas	<ul style="list-style-type: none">➤ 40,726 has. are prone to flooding, particularly along TagumLibuganon River
Water Resources	<ul style="list-style-type: none">➤ There are 18 rivers and 8 creeks. Lasang, Tagum/Libuganon, Saug and Tuganay are the bigger rivers
Economy	<ul style="list-style-type: none">➤ Agriculture-based
Mineral Resources	<ul style="list-style-type: none">➤ 44.8 million MT of non-metallic minerals
Climate and Rainfall	<ul style="list-style-type: none">➤ Type IV with rainfall evenly distributed with no pronounced rainy season and dry season

³Includes NIPAs, SAFDZ, marine protected areas, mangrove forest, watershed area and buffer strips or easements along rivers

Land Suitability

Land suitability analysis indicates that the resources in the province are distributed as: 33% suitable for production forest; 18% suitable for perennial tree crops; 16% suitable for cultivated annual crops; 14% for rice paddy; and 13% for forestry plantations.

With respect to core roads, majority (about 953.73 km) are located in areas suitable for agriculture production such as: rice paddy, perennial tree crops and cultivated annual crops, while about 302.55 km are located in areas suitable for production forest.

Figure 9 shows the location of the core roads with respect to land suitability.

Land Sustainability

Based on the land sustainability analysis, 66.7 % of the land in the province are under-used or classified with opportunity for development, while 31.7 % are sustainable land use; and 1.6 % not sustainable land use.

Figure 10 indicates that the local core roads of about 658.69 km are located in areas which still has potential for development or those that are classified as under-used lands in terms of sustainability. About 119 km are not sustainably used while 382.15 km traverse areas that are classified under sustainable land use.

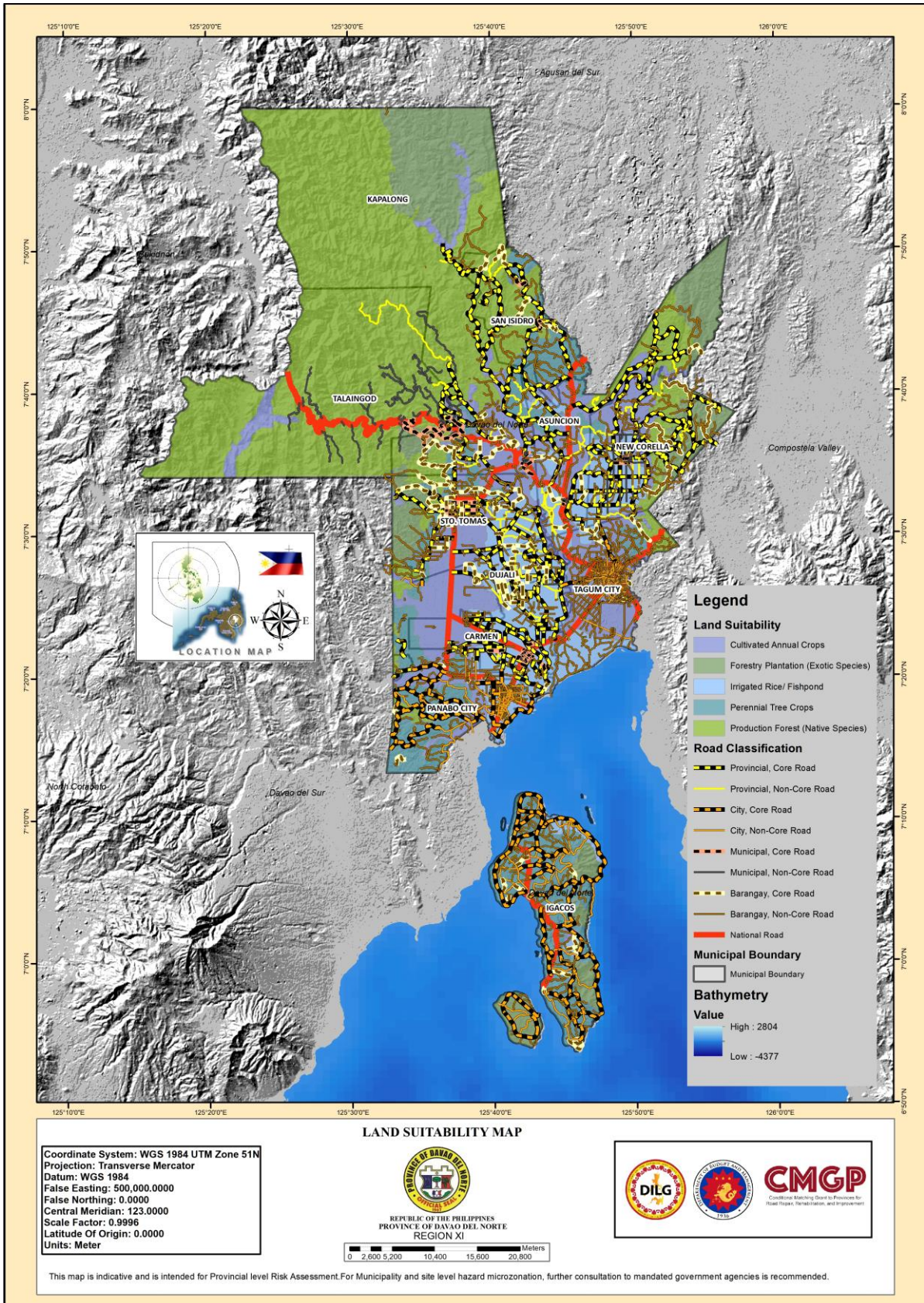
Water resources

The province has abundant water supply both from surface and groundwater resources. A total of 18 rivers and 8 creeks traverses 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 watersheds of the same name.

Soil characteristics and fertility

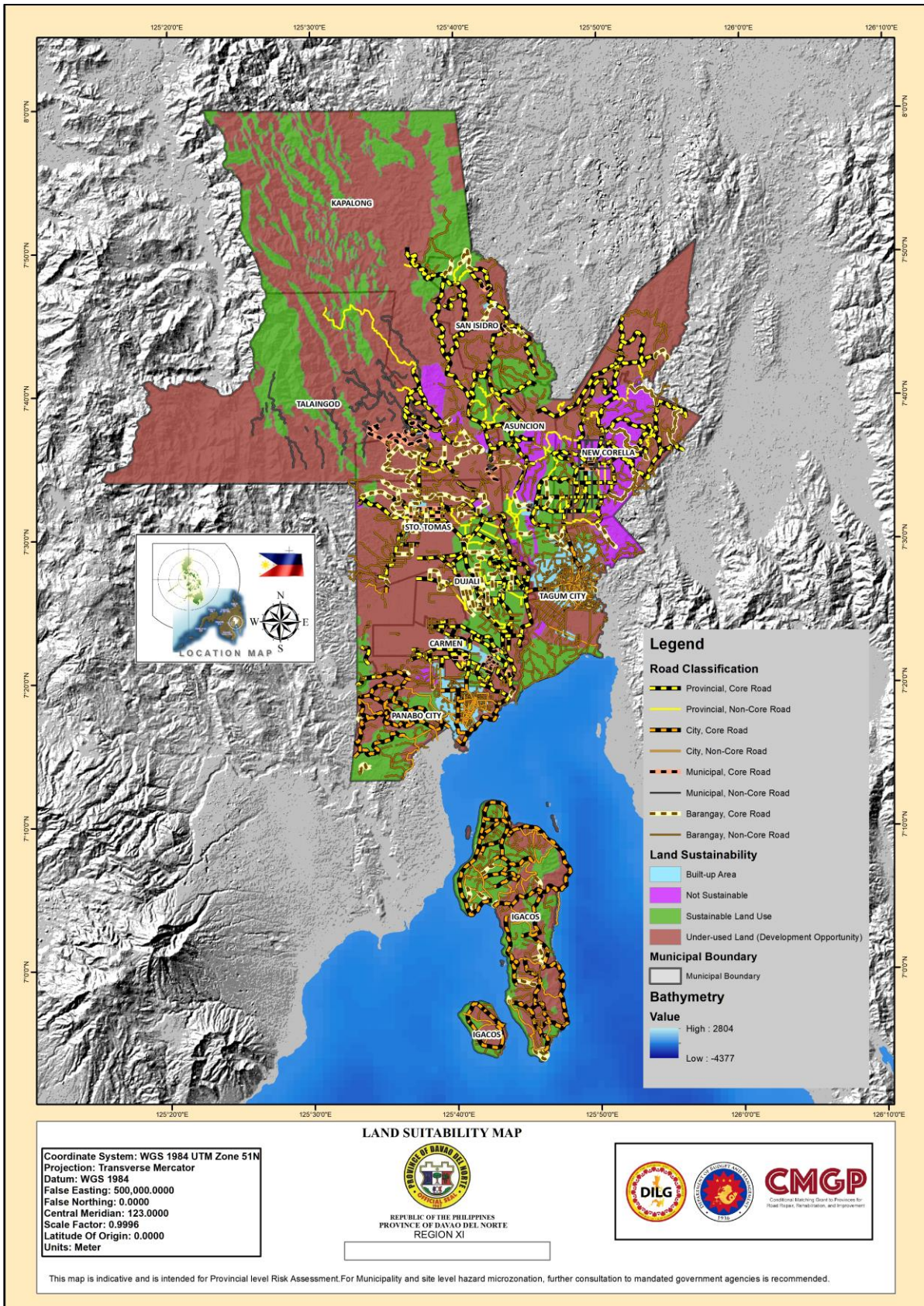
There are seven (7) types of soil in the province, namely: hydrosol, camansa sandy clay loam, cabangan clay loam, san manuel silty clay loam, mountain soils (Undifferentiated), bolinao clay, and cabantian clay. The soil fertility of the province is highly categorized under medium acid that is within the range of 5.6-6.0. About 43.98 percent or 167,698 hectares of the total land area are medium acidic.

Figure 9. Land Suitability Map Showing the Davao del Norte Local Roads



Source: PPDO-GIS

Figure 10. Land Sustainability Map Showing the Davao del Norte Local Roads



Source: PPDO-GIS

Mineral resources

Davao del Norte has an estimated total reserve of 44,845,283 MT of non-metallic minerals and an abundant source of high-grade quality sand and gravel.

Climate and rainfall

The province has Type IV climate with rainfall more or less evenly distributed throughout the year with no pronounced rainy season and dry season. The province is less vulnerable to typhoon and droughts.

Existing Land Use

Existing land use is the way that an area of land is actually being put to use, namely: to grow rice, to build houses on, to put up industry; this is the impact of people and structure upon land resources. Existing land use in the province is categorized as production areas, protection areas, built-up/settlement areas, and infrastructure (including road networks) and utilities (Table No. 2).

The province is basically an agriculture province endowed with rich and fertile soil, and favorable climate suited for agriculture production. About 56.46 percent or 195,511.55 hectares are devoted to agriculture and aquaculture production. Major crops planted in the province are rice, coconut, Cavendish and local banana, corn, mango and cacao.

Davao del Norte has an approximate production forestland area of 74,944.36 hectares. Out of the total area classified for production forest, approximately 3,631.22 hectares or 4.85 percent are residual forest or those that have been logged-over. Residual forest areas are prominently seen in the municipalities of Kapalong, San Isidro and Talaingod. Tree plantation is about 42,717.49 hectares or 57.00 percent of the total production forest. These areas were covered under the Integrated Social Forestry Program which were devolved to the LGU, and the Community-Based Forest Management Program of the DENR. Production forest are those areas where harvesting is allowed

Grassland and open areas comprise about 14,975.50 hectares or 19.98 percent, while brushland is about 6,007.47 hectares or 8.02 percent. These areas are available for plantation development. Cultivated or areas utilized for crop production comprise 7,612.68 hectares or 10.16 percent of the total production forest areas. These areas are mostly planted with agro-forestry products.

Brush and grasses dominate the landscape of the production forest areas in the municipalities of Kapalong, San Isidro and Talaingod. Open access areas are also found in the mountain ridges of New Corella, Asuncion, Sto. Tomas, and Island Garden City of Samal. Forestland in these areas is partly encroached upon by upland dwellers/communities.

Areas with potential for tourism development are found in the Island Garden City of Samal as well as in the mainland. Samal boasts of its white sand beaches and islets that are excellent for scuba diving and snorkeling, while the mainland boasts of notable attractions such as springs, caves and other inland resorts. Tourism potential in the mainland includes the vast banana plantations and highland journey in nature and culture particularly in the municipalities of Kapalong, New Corella, Talaingod and San Isidro. Mariculture parks located in the Island Garden City of Samal and Panabo City are also being promoted as agri-tourism sites in the province. An area of 670.56 hectares is devoted for tourism.

With regard to protection land use, it embraces a concept of protection that enhances not only those that have to be protected from human occupation. It recognizes the destructive effect that such occupation will have on the resource, as well as the hazard posed by the area to its human occupants. Hence, it has a dual objective of maintaining protection land to protect sensitive and critical ecosystem from human intrusion so as to preserve their integrity, while allowing at the same time degraded areas to regenerate and to protect human population from environmental hazards.

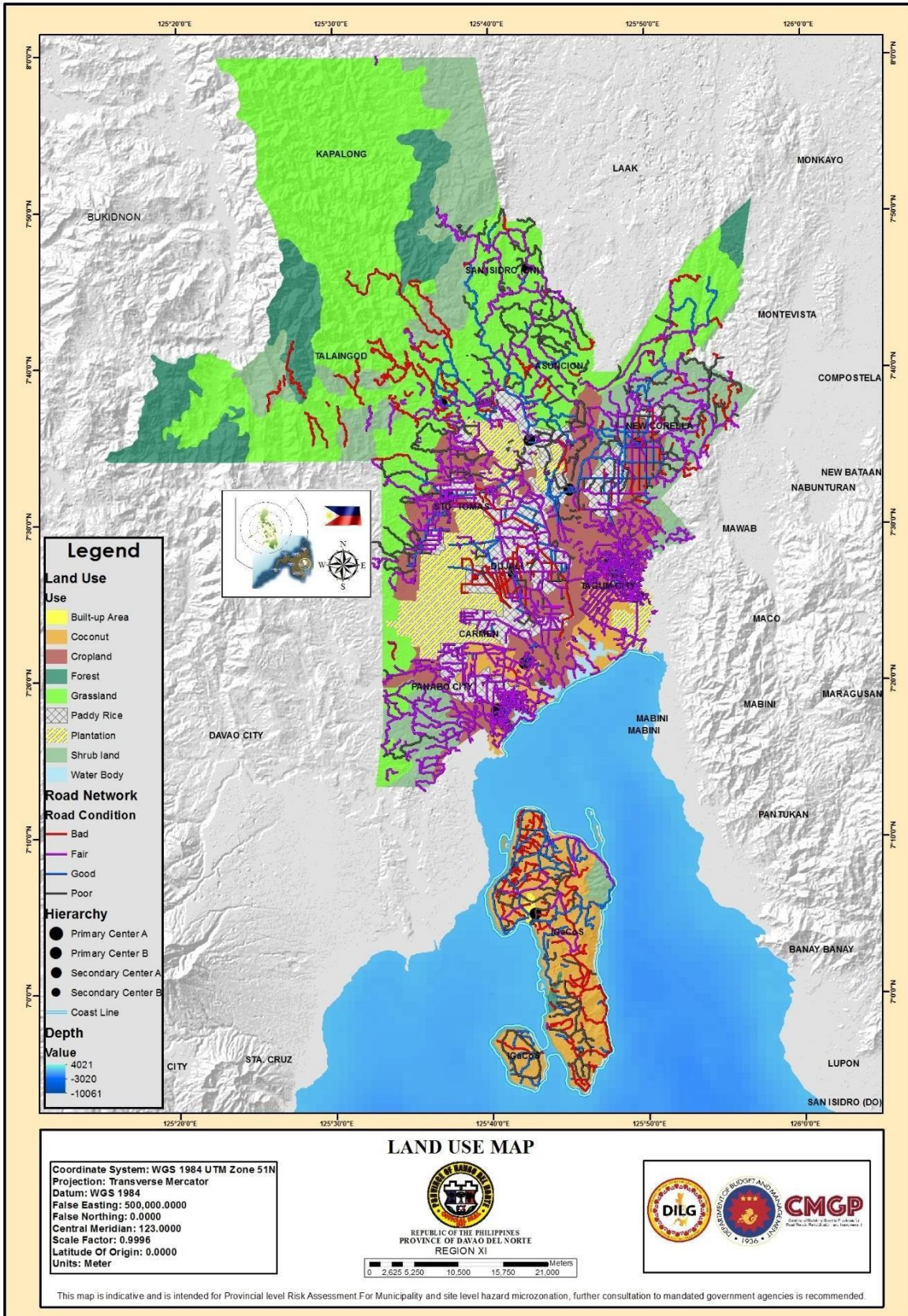
Davao del Norte's protection lands include the Mangrove Swamp Forest Reserve in Babak, Non-NIPAS, network of Protected Areas for Agricultural Development/Strategic Agriculture and Fisheries Development Zone (NPAAD/SAFDZ), Flood Prone areas and areas affected by severe erosion.

Table 2. Existing Land Use (in hectares), Province of Davao del Norte, 2014

Land Use	Area, in Hectares	Percent to Total (%)
Agriculture	195,511.55	56.46
Fishpond	2,021.56	0.58
Production Forest	74,944.36	21.64
<i>Residual Forest</i>	3,631.22	4.85
<i>Brushland</i>	6,007.47	8.02
<i>Grassland</i>	14,975.50	19.98
<i>Tree Plantation</i>	42,717.49	57.00
<i>Cultivated area (within forestland)</i>	7,612.68	10.16
Protection Forest	60,773.52	17.55
Industrial Area	225.50	0.07
Tourism	670.56	0.19
Built-up, Infra and Utilities	8,624.45	2.49
Residential	3508.6	1.01
Total	346,280.10	100.00

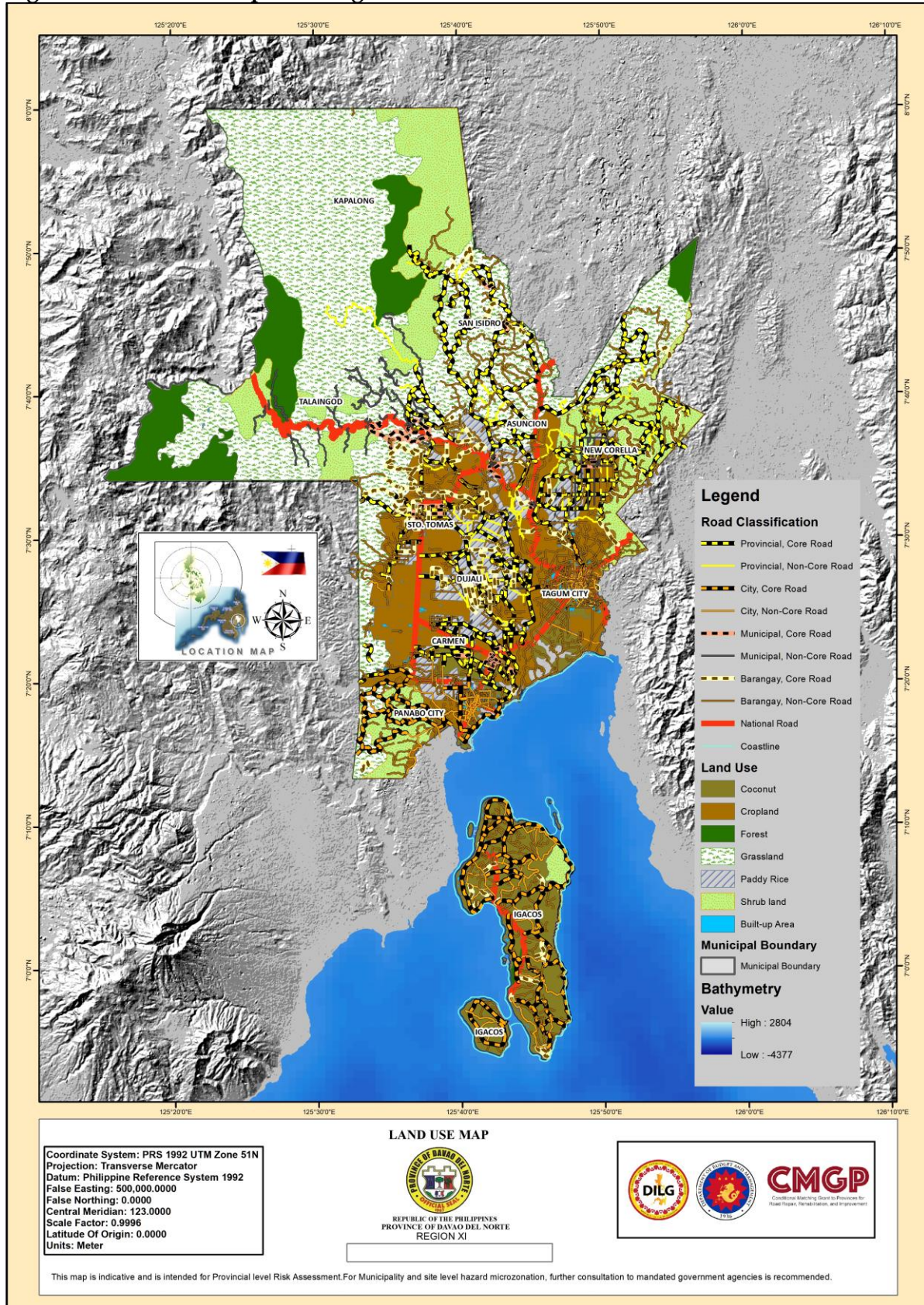
Source: Davao del Norte Provincial Development and Physical Framework Plan: 2014-2022

Figure 11. Land Use Map Showing the Provincial Road Conditions



Source: PPDO-GIS

Figure 12. Land Use Map Showing the Davao del Norte Local Core Road Network



Road Systems

Table 3 indicates that the Provincial Government of Davao del Norte has a total road network of 4,409.58 kilometers with almost one-fourth of these classified as provincial roads (852.02 kilometers). National roads are about 5.45 %, while city and municipal roads accounts for 13.67% and 7.22% respectively. Barangay roads that serve as access to the 223 barangays of the province are accounted at 54.33%. The municipality of New Corella has the longest provincial road at 187.07 km., while Municipality of Talaingod accounted for the shortest length at 52.45 km.

Table 3. Road Length by Type of Roads, as of CY 2020 Province of Davao del Norte

Road Category	Road Length (in km)	Share (in %)
National Roads	240.30	5.45%
Provincial Roads	852.02	19.32%
City Roads	602.98	13.67%
Municipal Roads	318.59	7.22%
Barangay Roads	2,395.69	54.33%
TOTAL	4,409.58	100%

Source: DPWH, PEO and LGUs' Road Inventory

The Provincial Government sealed⁴ 64.36kilometers of provincial roads out of 852.02 kilometers of the total provincial road length. The total length of national roads is paved 100% with concrete. Most of the local roads are gravel paved with surface conditions that ranges from fair to bad. Graveled roads comprise the majority under this classification with 53.86 percent. Road inventory by administrative function is presented in Table 4.

⁴ Refers to the overlaying of gravel road with concrete

Table 4. Road Inventory by Administrative Function Davao del Norte, 2020

Administrative Level	Concrete (kms.)	Asphalt (kms.)	Gravel (kms.)	Earth (kms.)	Total (kms.)
National Road	240.30				240.30
Provincial Road	245.06	0	606.96	0	852.02
Municipal Road	35.10	0.65	115.63	167.20	318.59
City Road	186.17	41.63	195.06	180.12	602.98
Barangay Road	162.10	55.07	1,457.46	721.06	2,395.69
Total	868.73	97.35	2,375.11	1,068.38	4,409.58
% Distribution	19.70%	2.21%	53.86%	24.23%	100%

Source: DPWH, PEO and LGUs' Road Inventory

Gender Responsive Road Networks

The Department of Public Works and Highways has formulated the Toolkit for Making Road Infrastructure Projects Gender Responsive which is attached to Department Order No. 48 s. 2011 (Guidelines for Mainstreaming Gender Equality Actions in Road Infrastructure Projects), mandating all road infrastructure projects to be gender-responsive and compliant to this policy.

Gender responsiveness refers to designing concrete and appropriate mechanisms that respond to gendered travel patterns, gender transport needs as well as the differences in women's and men's opportunities to participate in, and benefit from developments in the road sub-sector with the intention of empowering women and promoting gender equality and equity.

The Toolkit presents five reasons why road infrastructures must be gender-responsive.

First, the travels of men are focused mostly on employment, hence, their priority needs are speed, reliability and road safety. On the other hand, majority of the unemployed are women, but their travel patterns are more complex and usually engage in chain trips. This is because they have multiple purposes and destinations in just one trip which includes going to shops, market, schools, day care centers, health centers, community centers and the like. Hence, women's priority needs for transportation should be flexible, low-cost, reliable, consumer-friendly, door-to-door service with many route options.

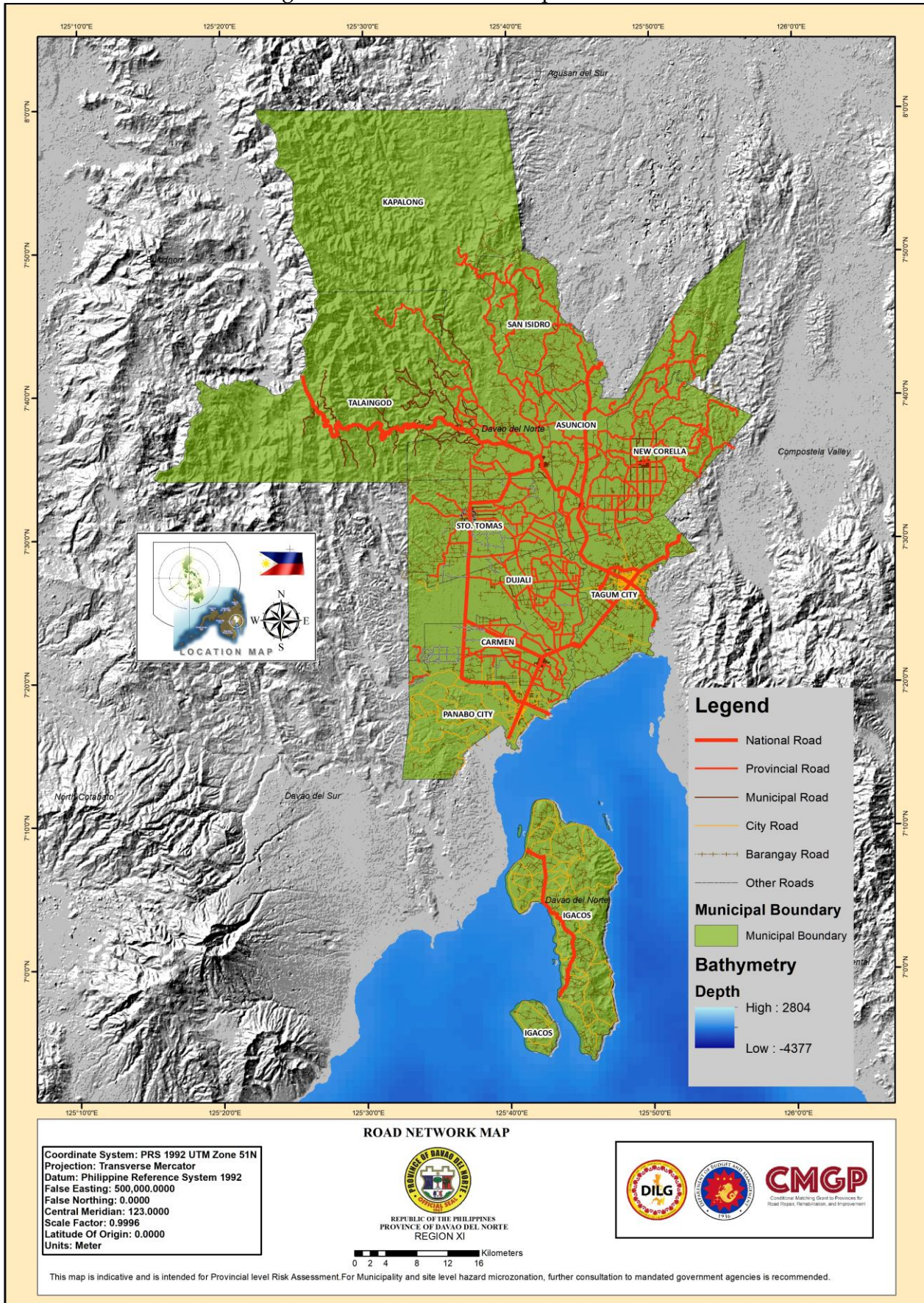
Secondly, walking and the use of tricycles and motorcycles remain to be the predominant mode of transportation for most poor women in rural and urban areas. Car and motorcycle-driving is dominated by men while women depend heavily on public transport than men. The women are more affected by the construction of roads that are geared towards motor vehicles which also leads to traffic.

Thirdly, women feel unsafe to use bicycles without the presence of bicycle lanes. The presence of bike paths may protect them from accidents; however, they are also vulnerable to theft and sexual harassment.

Fourth, women and men do not have equal employment opportunities in road construction and maintenance. In Davao del Norte, this concern has been slowly addressed as opportunities have been given to women organizations such as the Community-Based Road Management Project. This has been accorded the National Galing Pook Award for 2017.

The fifth reason deals with road safety. There are more men involved in road crashes because more men own, drive and use motorized vehicles, hence, they are more concerned on road safety. On the other hand, women are more concerned about personal security as they are vulnerable to theft, sexual harassment and rape along the road (World Bank, 2006; Peters, 2002; Kunieda and Gauthier, 2007, Sechaba Consultants 2001; Ntho, M. & Tsikoane T., 2003).

Figure 13. Road Network Map, Davao del Norte



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 as a whole has no road requirement or has enough roads with a density of 1.33 km per sq. kilometer. However, uneven distribution of roads at the local government level results to additional road requirements among the municipalities, particularly that of Kapalong and Talaingod. Vast area of forestlands within the two municipalities also contributes to the corresponding road gaps.

Table 5. Road Density by City / Municipality in Km/Sq. Km Davao del Norte, 2020

Municipal/ City	Total Road Network (km)	Total Road Requirement (Based on National Standard of 1 km/sq. km)	Road Density (km/km ²)	Road Gap (km)
Tagum City	714.262	182.54	3.91	
Panabo City	525.025	253.63	2.07	
IGACOS	533.707	280.71	1.90	
Asuncion	315.999	293.47	1.08	
New Corella	645.356	321.48	2.01	
Kapalong	346.325	945.86	0.37	599.54
San Isidro	201.080	152.49	1.32	
Talaingod	276.736	454.96	0.61	178.22
Sto. Tomas	419.512	320.41	1.31	
Carmen	295.520	166.25	1.78	
B.E Dujali	136.059	91.00	1.50	
Davao del Norte	4,409.58	3,462.80	1.27	

Computation based on 2019 Road Inventory and SEP 2016.

Local Roads Condition

Based on the criteria stipulated in the Special Local Roads Fund (SLRF)-Local Roads Inventory of the Department of the 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, poor drainage

Improvement and rehabilitation of road sections with poor and bad surface condition shall be given priority to enhance accessibility and mobility.

Provincial Roads

Data generated from the Provincial Engineers Office indicates that of the 852.02 km of provincial roads, 331.16kms or 38.87% are in good condition and 519.79 kms or 61.13% are fair. There is no record of poor and bad road condition on the provincial road of the province.

Table 6. Road Conditions of Provincial Roads Davao del Norte, 2020

	Municipality	Surface Road Condition Length (km.)				Length (km.)
		Good	Fair	Poor	Bad	
District 1	Asuncion	52.44	94.42	0	0	146.86
	Kapalong	16.96	94.68	0	0	111.64
	New Corella	48.08	124.93	0	0	173.01
	San Isidro	32.24	22.28	0	0	54.52
	Talaingod	0	49.86	0	0	49.86
District 2	Carmen	60.05	58.89	0	0	118.94
	B.E. Dujali	33.65	22.51	0	0	56.16
	Sto. Tomas	87.74	53.29	0	0	141.03
	TOTAL	331.16	519.79	0	0	852.02
	% Distribution	38.87%	61.13%	-	-	100%

Source: PEO

City/Municipal Roads

Road Condition survey results of city and municipal road indicates that of the 921.57 km of these local roads, 141.35 km or 15.34% are in good condition, 445.50 km or 48.34% are fair, 176.00 km or 19.10% are in poor condition while 17.22% or 158.78 km are in bad condition.

Table 7. Road Conditions of City/Municipal Roads Davao del Norte, 2020

	Cities/ Municipality	Surface Road Condition Length (km.)				Length (km.)
		Good	Fair	Poor	Bad	
District 1	Asuncion	3.52	3.80	1.16	-	8.48
	Kapalong	12.27	5.79	1.92	-	19.98
	New Corella	9.10	21.19	4.67	17.87	52.83
	San Isidro	2.03	1.00	0.60	0.40	4.03
	Talaingod	31.41	30.38	-	110.74	172.53
	Tagum City	6.98	133.65	2.55	-	143.18
District 2	Carmen	5.89	22.43	1.83	-	30.15
	B.E. Dujali	-	-	10.23	4.05	14.28
	Sto. Tomas	-	16.31	-	-	16.31
	IgaCos	52.84	50.74	142.44	25.66	271.68
	Panabo City	17.31	160.21	10.60	-	188.12
	TOTAL	141.35	445.50	176.00	158.78	921.57
	% Distributor	15.34%	48.34%	19.10%	17.22%	100%

Source: LGUs

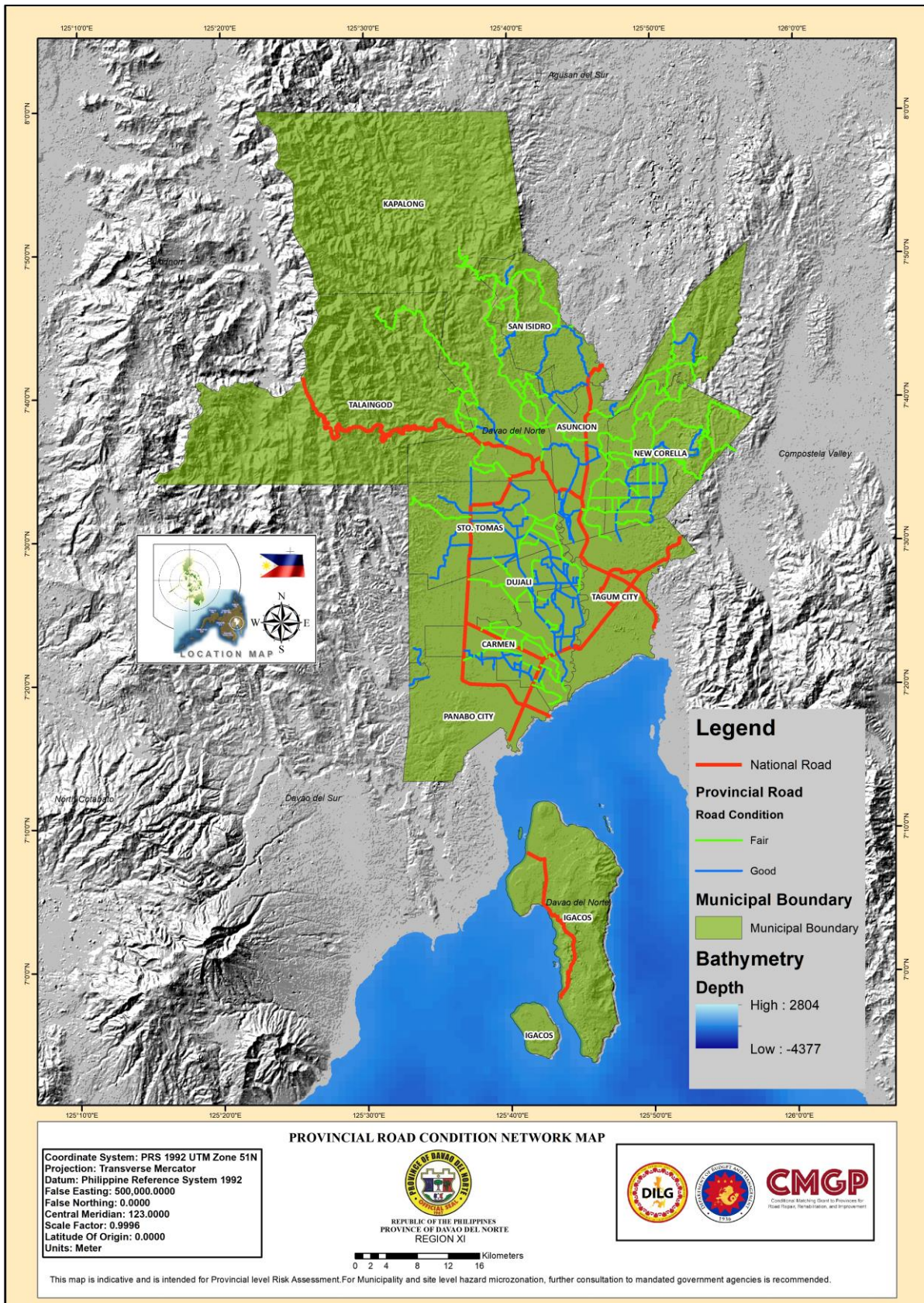
Barangay Roads

Barangay Roads comprise the longest in road length in the entire road network of the province. Road Condition survey result of barangay roads indicates that out of the 2,388.50 km of barangay roads, 58.66 km or 2.46% are in good condition, 1,245.70 km or 52.15% are fair, 884.62 km or 37.04% are in poor condition while 199.52 km or 8.35% are in bad condition.

Table 8. Road Conditions of Barangay Roads per LGU. Davao del Norte, 2020

	Cities/ Municipality	Surface Road Condition Length (km.)				Length (km.)
		Good	Fair	Poor	Bad	
District 1	Asuncion	8.91	25.77	84.99	30.78	150.44
	Kapalong	10.15	105.12	57.70	12.72	185.69
	New Corella	3.16	179.21	147.03	90.12	419.51
	San Isidro	0.73	23.74	83.62	9.98	118.07
	Talaingod	4.37				4.37
	Tagum City	16.90	496.90	11.53		525.33
District 2	Carmen	3.12	98.00	10.07		111.20
	B.E. Dujali	1.68	6.46	-	49.20	57.35
	Sto. Tomas	2.85	203.32	48.99	6.72	261.88
	IgaCos	2.94	39.76	194.40		237.10
	Panabo City	3.85	67.42	246.29		317.56
	TOTAL	58.66	1,245.70	884.62	199.52	2,388.50
	% Distributor	2.46%	52.15%	37.04%	8.35%	100.00%

Figure 14. Road Condition Map



Road Safety and Administration

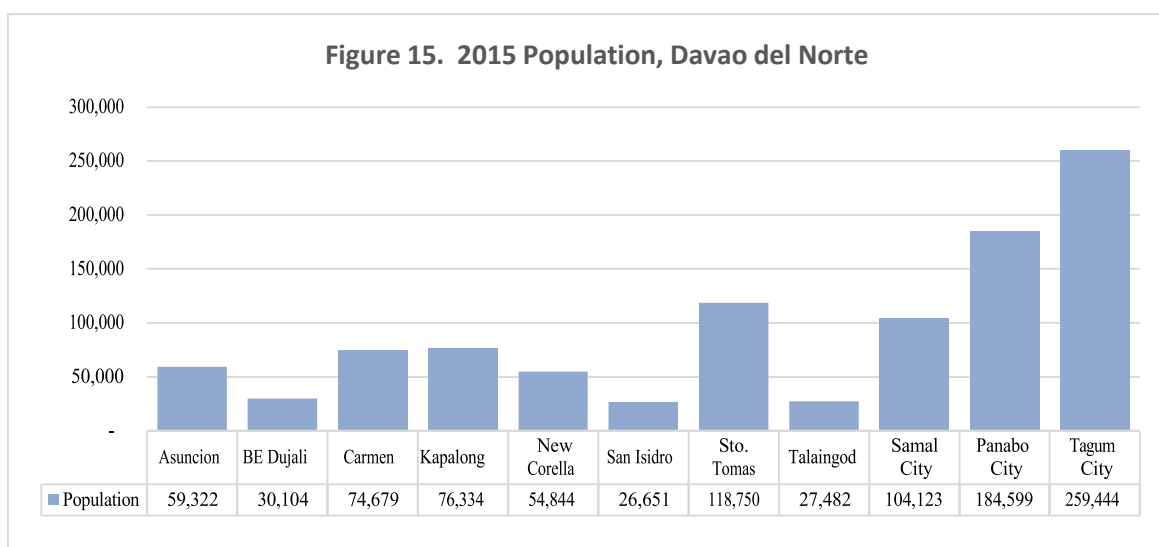
Road safety and administration aims to strengthen the safe road design and safety processes to provide road environment which safeguards vehicle speed when transporting goods and individuals. In order to attain the highest possible degree of safety, it is important to validate and monitor road transportation safety with components that include improved road safety management, safer roads, safer vehicles, safer road users, and post-crash response.

Presently, there is negligence in the imposition of existing rules and regulations related to road safety and administration in the province. Enforcement of laws and policies on truck overloading, which speed up road deterioration and shortens service life of the road network, is not strictly implemented. Likewise, an effective accident database system which will guide relevant agencies to design countermeasures is also non-existent. With all these observations, there is a need for a strong coordination and management to initiate road safety and administration development processes in all LGUs.

Social Services

Road Condition along Population Centers

As of the 2015 Census on Population and Housing, Davao del Norte had a total population of 1,016,332 and a density of 294 persons/sq km. land area. Annual Population Growth Rate (APGR) from year 2010 to 2015 is recorded at 1.38. Tagum City, the seat of the provincial government, accounted for the largest population at 242,801, while San Isidro is the least populated with 25,548 (Figure 15).



Source: PPDO, PSA

Table 9. Actual and Estimated Population and Density, APGR, Province of Davao del Norte: 2015 & 2022

LGU	2015 Population	APGR 2015-2022	Population Density	2022 Estimated Population	2022 Estimated Density
Asuncion	59,322	1.16	202	64,309	219
Braulio E. Dujali	30,104	1.16	331	42,188	464
Carmen	74,679	1.46	271	82,423	300
Kapalong	76,334	2.15	81	87,774	93
New Corella	54,844	1.51	171	60,750	189
San Isidro	26,651	0.81	175	28,324	186
Sto. Tomas	118,750	1.60	371	132,507	414
Talaingod	27,482	1.39	61	30,231	66
Panabo City	184,599	1.09	728	199,867	788
Samal City	104,123	1.58	371	115,841	413
Tagum City	259,444	1.27	1,421	284,966	1,561
Davao del Norte	1,016,332	1.38	294	1,129,180	326

Source: PSA & PPDO

Table 10 below shows the condition of the local roads around the built-up areas or population centers of Davao del Norte. The data shows that 70% of the total road network leading within the population center are in fair to good condition. For core roads within built-up areas, only 22.96 km needs to be rehabilitated as they are in poor to bad condition. On the other hand, a lot needs to be done for non-core roads as about 15% is in poor condition.

Table 10. Road Condition in Population Centers, Province of Davao del Norte

Road Type	Road Condition			
	Bad	Poor	Good	Fair
Core	7.80	15.16	80.06	120.59
Non-core	32.09	211.83	97.71	913.63
Total	39.89	226.99	177.77	1034.22

Source: Road Inventory, PPDO, PAdO-IT

Road Condition along Health Facilities

There are 25 hospitals in Davao del Norte, four of which are government- owned and operated such as the Davao Regional Hospital, a DOH tertiary hospital located in Tagum City and the three (3) district hospitals located in the municipalities of Kapalong and Carmen and the Island Garden City of Samal. In other areas where hospitals are not available, basic health care services are provided by the health personnel stationed in 13 municipal/city health centers and 184 barangay health stations.

Table 11 below shows the condition of the local roads within one kilometer radius of the health facilities in Davao del Norte. The data shows that about 60% of the total road network leading to health facilities are in fair to good condition. While majority of the core roads leading to health facilities are in fair condition, 85.46 km of core road needs immediate attention. For non-core roads, an alarming 498.83 km are in poor condition.

Table 11. Road Condition around Health Facilities, Province of Davao del Norte

Road Type	Road Condition			
	Bad	Poor	Good	Fair
Core	23.34	62.12	177.36	296.79
Non-core	61.32	498.83	199.80	1272.73
Total	84.66	560.95	377.16	1569.52

Source: Road Inventory, PPDO, PAdO-IT

Road Condition along Educational Facilities

There are 425 schools in the elementary level classified as public schools (323) and private schools (102). Access to elementary education is available in all barangays in the province. On the other hand, there are 136 secondary schools (public, 82 and privately-operated, 54). Due to rapid urbanization, the cities have the greatest number of schools both in elementary and secondary levels. There are also 20 tertiary schools of which 12 located in Tagum City.

Table 12 below shows the condition of the local roads within one kilometer radius of the education facilities in Davao del Norte. There is a total of 624.11 km of local roads leading to education facilities. Of this total 56% is in fair to good condition. Since majority of the core roads are in fair condition, the non-core roads which are in bad to poor condition needs immediate attention.

Quick Facts About Social Facilities and Utilities

Health facilities	<ul style="list-style-type: none"> <input type="checkbox"/> 25 hospitals: Gov't. - 1 regional hospital and 3 provincial hospitals; 21 private hospitals; 13 city/mun. health stations and 184 barangay health stations
Education Facilities	<ul style="list-style-type: none"> <input type="checkbox"/> 425 elementary schools <input type="checkbox"/> 136 high schools <input type="checkbox"/> 20 tertiary schools
Subdivisions	<ul style="list-style-type: none"> <input type="checkbox"/> 161 housing subdivisions
Security	<ul style="list-style-type: none"> <input type="checkbox"/> Generally peaceful <input type="checkbox"/> 15 police stations <input type="checkbox"/> 7 fire stations <input type="checkbox"/> 1 Prov'l. Disaster Center
Welfare Services	<ul style="list-style-type: none"> <input type="checkbox"/> With welfare programs for the disadvantage children, women, youth, elderly, IPs and persons with disability
Day Care Center	<ul style="list-style-type: none"> <input type="checkbox"/> 516 Day Care Centers
Power Utilities	<ul style="list-style-type: none"> <input type="checkbox"/> Davao Light and Power Company <input type="checkbox"/> DANECO
Water System	<ul style="list-style-type: none"> <input type="checkbox"/> 7 Water District
Telecommunications	<ul style="list-style-type: none"> <input type="checkbox"/> Available province-wide

Table 12 Road Condition around Health Facilities, Province of Davao del Norte

Road Type	Road Condition			
	Bad	Poor	Good	Fair
Core	12.08	9.49	34.97	82.86
Non-core	20.17	114.57	40.13	309.84
Total	32.25	124.06	75.1	392.7

Source: Road Inventory, PPDO, PAdO-IT

Housing

The total number of occupied housing units in the province has increased significantly from 147,427 in 2000 to 207,179 in 2010, an increase of 29%. This indicates the increased affluence of people in the province that enable them to acquire shelters in recent years. The number of subdivisions in Davao del Norte continued to grow in. As of 2014, a total of 161 subdivisions locates in cities and municipalities except Talaingod, Braulio E. Dujali and San Isidro. There are also 6 resettlement areas located in Tagum City, Panabo City, Carmen and Kapalong.

Security

Peace and order condition is a vital component of economic growth and also a basic attribute to poverty. Davao del Norte is generally peaceful, but is not spared from criminalities/atrocities and terrorist-related incidents. Maintaining peace and security in the province is a collaborative undertaking of 15 police stations with total police force of 963. Index crimes reported in 2015 totaled 2,947 and most of them were registered in Tagum City, while San Isidro had the lowest crime incidence.

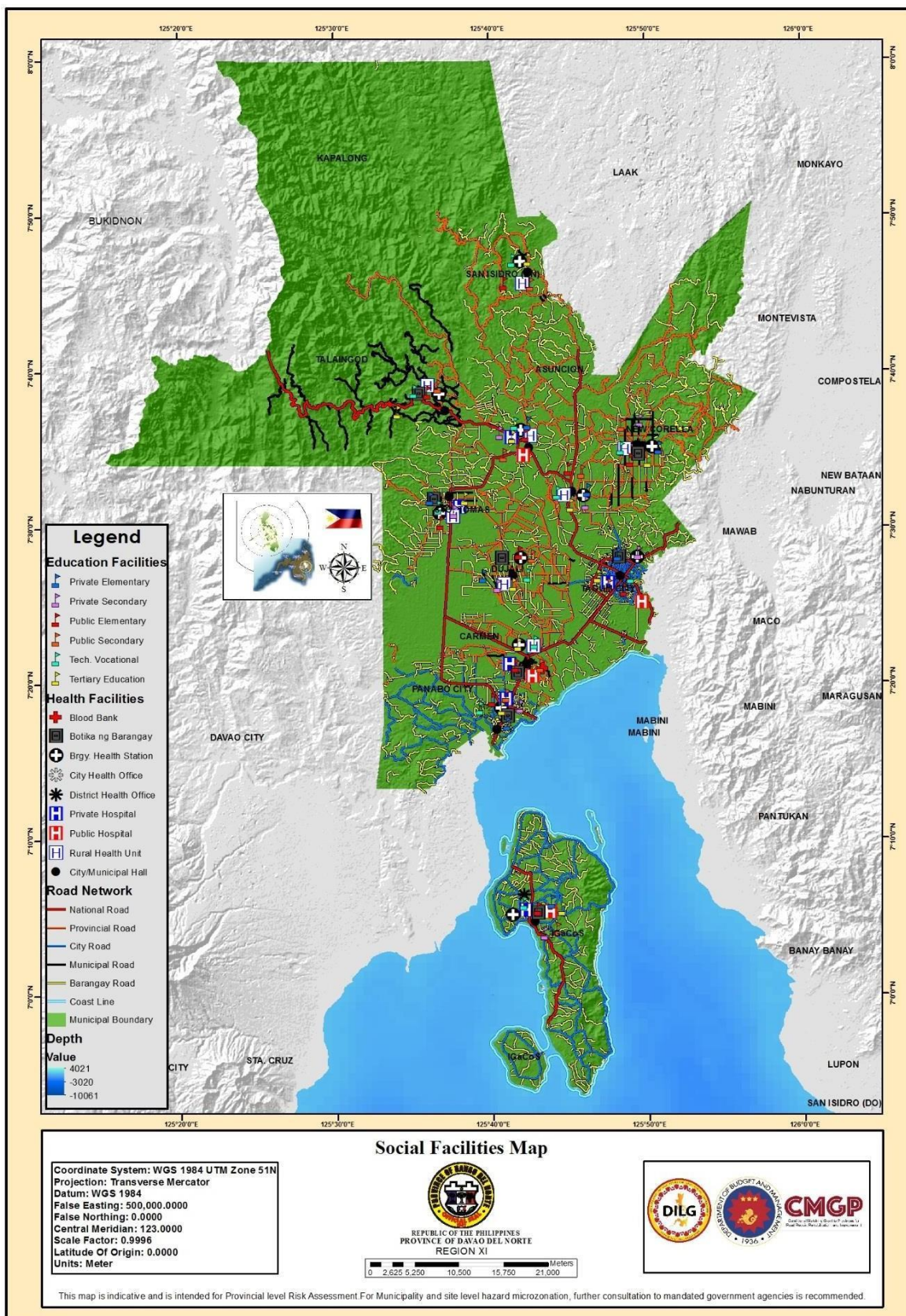
Based on women’s and children’s desk statistics, wife battering has the highest reported cases followed by acts of lasciviousness. The reported cases were usually committed inside the house, thus Violence Against Women (VAW) cases are domestic in nature.

Social Welfare Services

In its effort to alleviate poverty, Davao del Norte continues to provide social welfare programs for the disadvantaged children, youth, elderly, indigenous peoples and persons with disability and other disadvantage groups.

The development of pre-schoolers is catered by 516 Day Care Centers provincewide of which 358 are already duly accredited with DSWD. Tagum City has the greatest number of Day Care Centers with 93, while Braulio E. Dujali has the least with 18 DCCs.

Figure 15. Social Facilities Map



Source: PPDO-GIS

Environmentally Critical Areas

Flooding affects about 40,726 hectares of agriculture and settlement areas along the Tagum-Libuganon Rivers. Eight (8) of the 11 LGUs are prone to flooding, namely: Asuncion, B.E Dujali, Carmen, Kapalong, New Corella, Sto. Tomas, Panabo City and Tagum City.

Three major active fault lines traverse Davao del Norte., namely: the Davao River Fault, which extends from Davao City passing through Talaingod to the Province of Bukidnon; the Eastern Mindanao Fault that connects to Mati Fault in Davao Oriental and extends to the municipalities of New Corella and Asuncion; and the Central Mindanao Fault that navigates across Davao Gulf passing through Tagum City and extends all the way to New Corella and the eastern part of Asuncion.

Areas with severe erosion are part of the production land that needs to be protected from further degradation. These areas are observable mostly in the mountainous parts of Kapalong, San Isidro, Talaingod, New Corella and the eastern part of Asuncion as well as the Island Garden City of Samal. The total area affected by severe erosion is approximately 147,477.50 hectares.

Exposure of Roads to Flood

A total of 94.62 km. length of road is exposed to very high susceptible to flooding. This figure reflects 16% out of the total length. This includes 22.47 km. of national roads, 48.67 km. of provincial roads and 23.48 km. of city/municipal roads. The municipality of Asuncion has the longest length of national road exposed to very high susceptibility to flood followed by Carmen. However, among the provincial roads, B.E. Dujali has the longest length exposed to the same condition, followed by Asuncion.

There are also roads that are exposed to high susceptible to flooding with 271.70 km. covering 54% of the total length. These roads are composed of 30.40 km. of national roads, 189.20 km. of provincial roads and 52.10 km. of city/municipal roads. The municipality of Asuncion has the longest length of national road exposed to high susceptibility to flooding, followed by Municipality of Carmen. As to the provincial roads, Carmen has the most length followed by B.E. Dujali.

Moreover, there are also roads exposed to moderate susceptibility to flooding with 183.38 km. covering 28% of the total length. These comprise of 35.68 km of the national roads, 139.46 km. of

provincial roads and 8.24 km. of the city/municipal roads. The municipality of Carmen has the longest national road exposed to moderate susceptibility to flood, followed by Kapalong.

These road network are in various states or condition. About 40% of the total local road network of Davao del Norte is exposed to flooding. Collectively, more than half of these roads are in fair to good condition. Still a significant portion of the road network needs to be improved in order to ensure that areas exposed to flooding remain accessible at all times.

Table 13. Condition of Road Network Exposed to Flooding

Susceptibility Level	Road Condition			
	Bad	Poor	Fair	Good
Very Highly Susceptible Area	32.72	25.76	66.88	16.44
Highly Susceptible Area	97.03	93.87	291.50	108.13
Moderately Susceptible Area	106.21	79.70	259.61	93.21
Low Susceptible Area	62.71	150.03	235.18	80.41
Total	298.67	349.36	853.17	298.19

Source: Road Inventory, PPDO, PAdO-IT

Figure 16. Environmentally Critical Areas Map

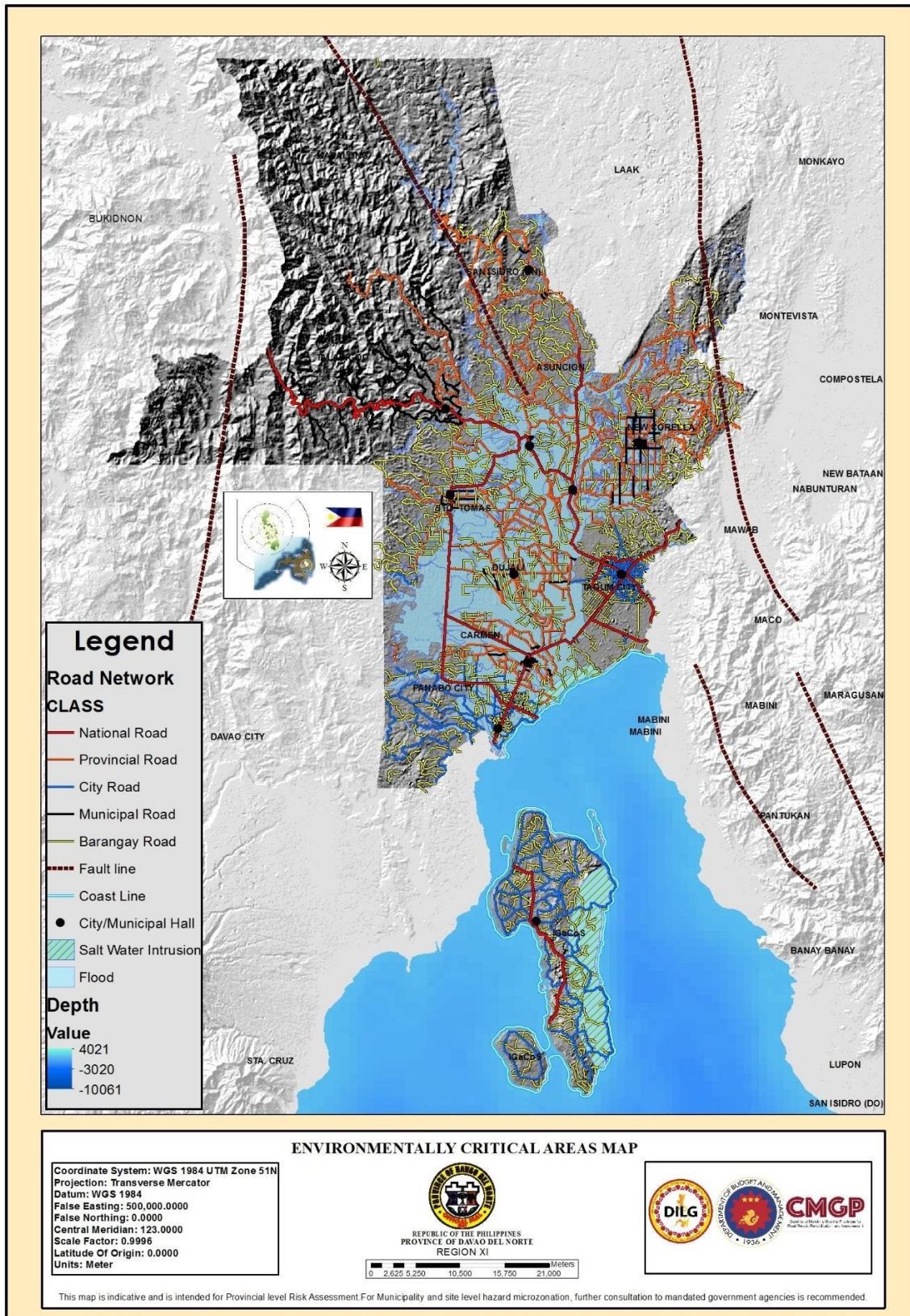
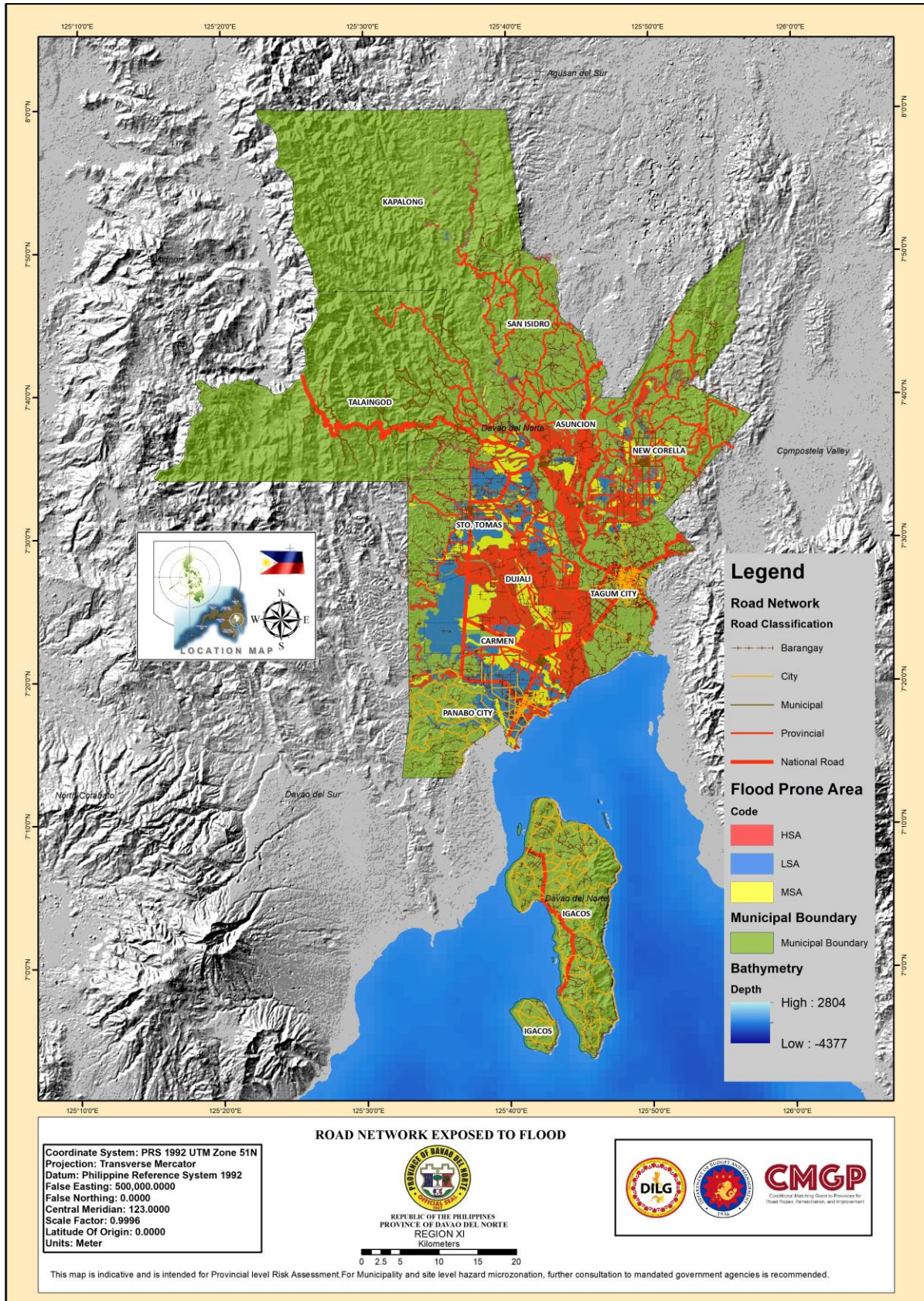


Figure 17. Road Network Exposed to Flooding



Exposure of Roads to Ground Shaking

Ground shaking is the general term referring to the qualitative or quantitative aspects of movement of the Earth's surface from earthquakes or explosions. Ground motion is produced by waves that are generated by sudden slip on a fault or sudden pressure at the explosive source and travel through the Earth and along its surface. Ground shaking is the trigger for other hazards such as liquefaction and landslides.

An earthquake simulation at the Central Mindanao Fault with a magnitude of 7.2 reveals that 99.8% of the roads in Tagum City are prone to ground shaking while 97.7% of the same road networks are exposed to liquefaction under the high susceptibility category. The Municipality of B.E Dujali also has a high percentage of roads prone to ground shaking and exposed to liquefaction with 61.16 % and 74.3%, respectively (Table 14).

Table 14. Road Network Prone to Ground Shaking (PEIS VII), in kms.

LGU	Road Classification				
	National	Provincial	City	Municipal	Barangay
Core	26.010488	97.805081	-	7.692306	128.575865
B.E. Dujali	1.812954	58.509661	-	9.289302	46.472034
Carmen	24.362921	49.845667	-	2.178358	49.288286
Kapalong	15.597238	70.458253	-	5.615313	105.065417
New Corella	-	111.490567	-	48.81479	103.636294
San Isidro	-	47.260264	-	1.002718	81.354643
Sto. Tomas	6.014815	60.48205	-	1.770581	80.996236
Tagum City	55.481388	5.23878	141.623296	-	433.349793
Talaingod	28.972148	29.527571	-	120.504489	3.754413
Total	173.152219	530.617894	141.623296	196.867857	1199.538074

Figure 18. Road Network Exposed to Ground Shaking

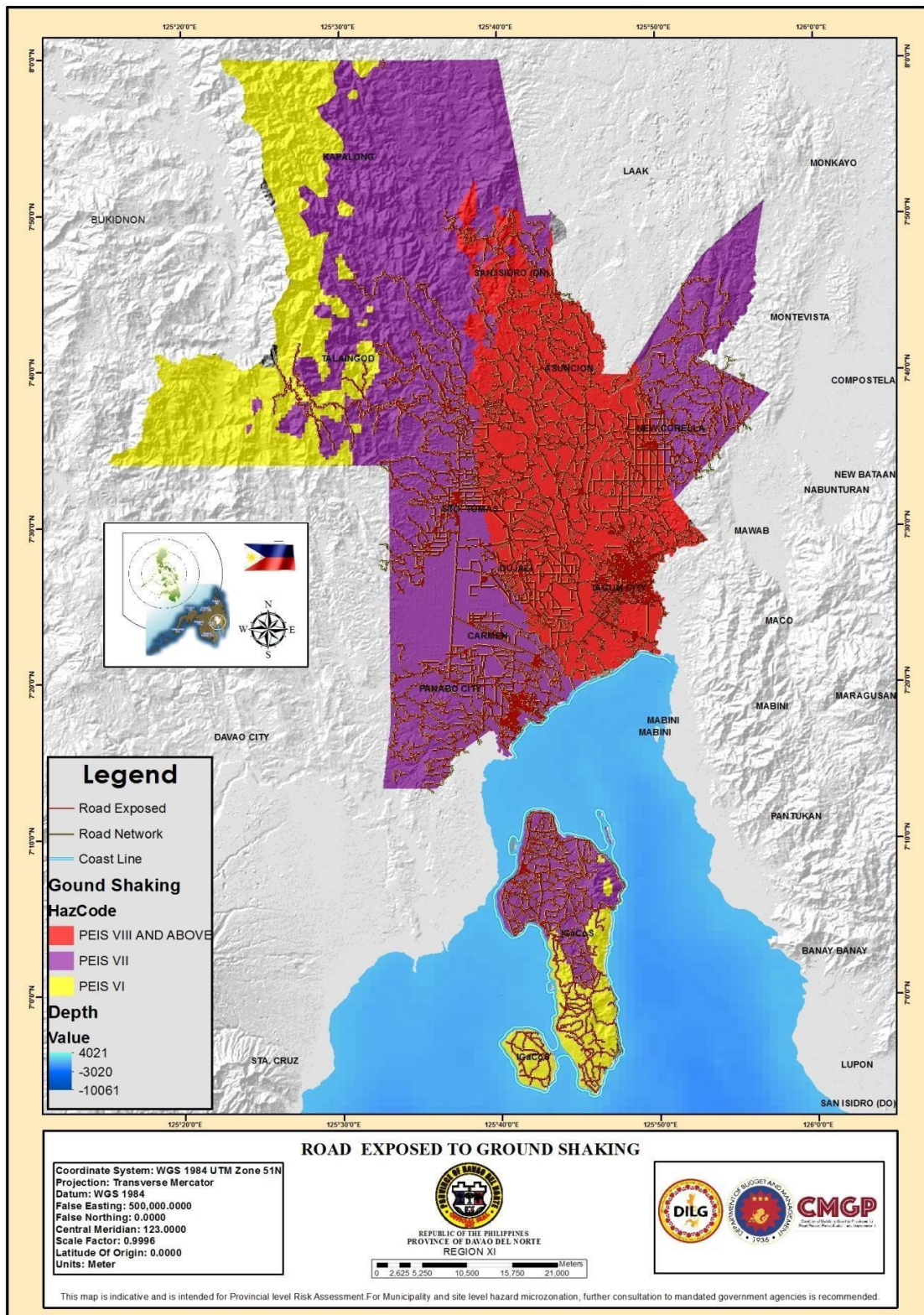


Table 15. Road Network with High Susceptibility to Liquefaction, in kms.

LGU	Road Classification				
	National	Provincial	City	Municipal	Barangay
Asuncion	26.010488	99.658115	-	7.692306	126.824174
B.E. Dujali	1.812954	62.471815	-	12.105174	74.212449
Carmen	24.362921	125.003507	-	32.269194	112.904381
Kapalong	16.641875	65.382371	-	8.907841	101.514837
New Corella	-	102.182009	-	48.81479	92.747016
Panabo City	14.476957	5.171357	46.998996	-	46.998996
San Isidro	-	11.956428	-	-	41.898321
Sto. Tomas	17.603726	96.714056	-	16.13828	198.699532
Tagum City	50.030197		140.051892	-	407.21873
Talaingod	-	0.5481	-	0.418959	-
Total	150.939118	574.326494	187.05000	122.770000	1254.339693

Table 16. Road Network within High Susceptible Area for Earthquake Induced Landslide, in kms.

LGU	Road Classification				
	National	Provincial	City	Municipal	Barangay
Asuncion			-		0.686709
Kapalong		28.236093	-	7.770692	11.591734
New Corella		10.260076	-	4.457699	26.587465
San Isidro		24.610882	-		14.092348
Talaingod	18.101471	19.137731	-	64.005858	1.511734
Total	18.101471	82.244782		76.234249	54.46999

Figure 19. Road Network Exposed to Liquefaction

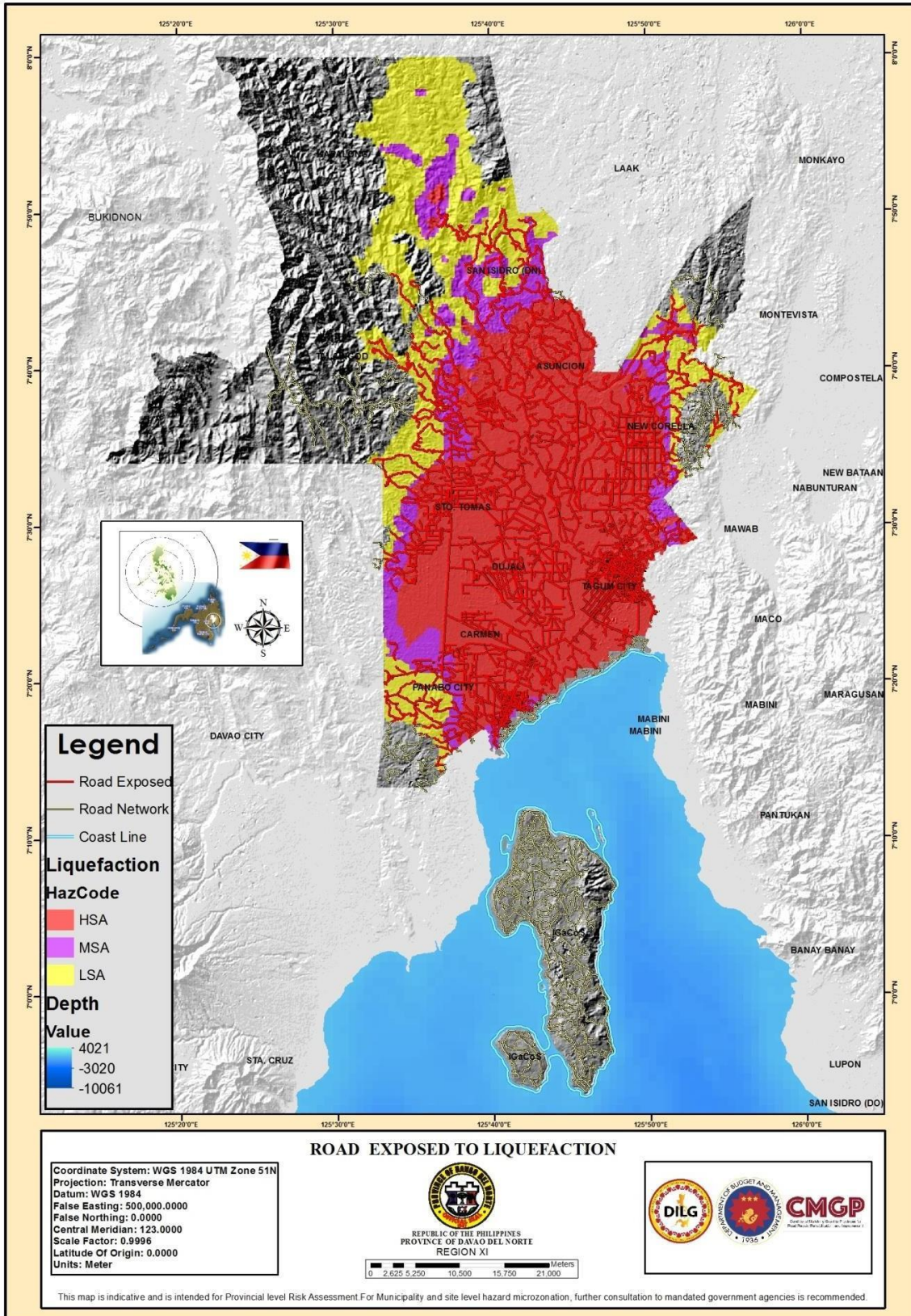
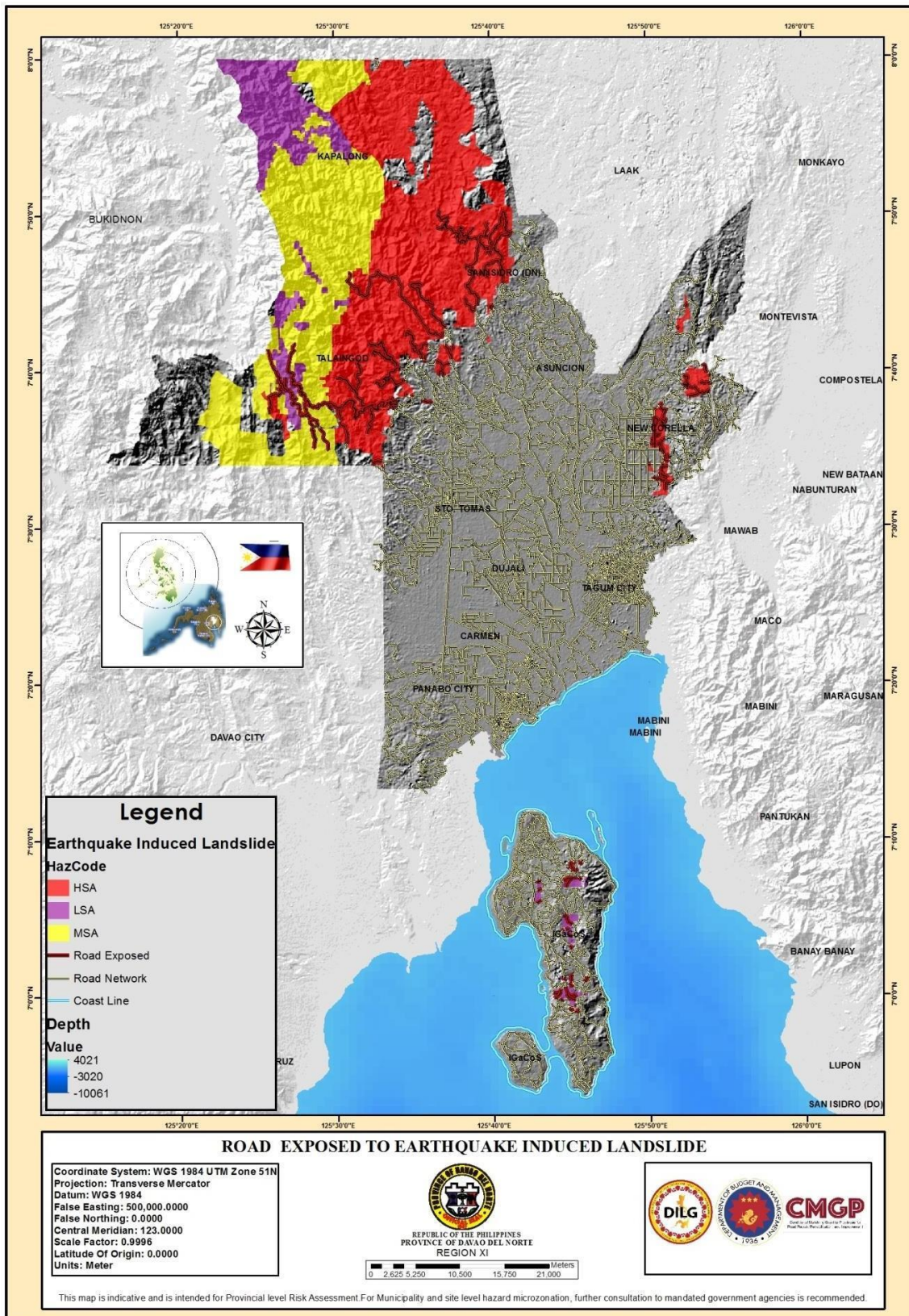


Figure 20. Road Network Exposed to Earthquake-Induced Landslide



Traffic Characteristics

The traffic survey conducted in September 2020 in the provincial core roads indicate that the largest traffic volume was observed in the core roads sections along the vast farms of Kapalong and Sto. Tomas and those that lead to urban areas Tagum and Panabo. Detail of traffic survey on the provincial core roads is presented in Table 17.

Table 17. Traffic Count of the Provincial Core Roads Davao del Norte, September 2020

		LENGTH (km.)	ANNUAL AVERAGE DAILY TRAFFIC	
			CLASSIFIED VEHICULAR COUNT	VEHICULAR COUNT IN PASSENGER PER UNIT
1ST Engineering District				
11DAN071	Bdry. Tagum - Baca - New Corella	13.01	6817	4978
11DAN016	Kapalong - Mabantao - Florida	12.13	4975	3512
11DAN033	Km.9 Sagayen - Sawata	19.40	1126	668
11DAN053	Pob. New Corella - Prk. 10 Pob.	1.30	2051	1300
11DAN042	Igangon - Sawata	9.66	2378	1824
11DAN048	New Corella - Saug	12.52	2147	2132
11DAN064	San Juan - Kauswagan - New Cortez	3.22	1303	877
11DAN058	New Corella - New Bohol	11.54	1863	1374
11DAN039	Sawata - Libuton - Monte Dujali - Patel	29.58	1810	1282
11DAN055	New Corella - Guadalupe - Del Monte	14.05	729	559
11DAN017	Jct. Highway Gabuyan - Semong - Dagohoy	6.97	2547	1584
11DAN057	Carcor - Patrocenio - Jct. Bayabas	14.68	528	331
11DAN032	Florida - Suaon - Jct. Gupitan	15.57	1333	943
11DAN054	Prk. 7 Pob. - Jct. New Sambog	2.54	1337	793
11DAN047	Limbaan - Sta. Fe - El Salvador	18.82	1174	850
11DAN044	New Corella - Sto. Niño - Macgum	17.11	1476	1172
11DAN037	Monte Dujali - Gupitan	4.58	314	298
11DAN061	Del Pilar - Prk. 9 Bagsak - San Jose	4.99	264	181
11DAN035	Jct. Suaon - Libuton	7.26	1078	659
11DAN012	Sonlon - New Visayas - Camansa	7.07	475	518
11DAN034	Km.15, Kipalili - New Loon	6.93	1078	659
11DAN029	Pandulian - Jct. San Miguel	5.58	830	721
11DAN069	Mesaoy - Jct. Mahayahay	4.60	2246	1590
11DAN004	Asuncion - New Alegria - Bdry. Cuambogan	6.66	1619	1031
11DAN066	New Corella - El Unido - Jct. Mesaoy	8.63	1954	1236
11DAN005	Asuncion - Monte Carlo - Del Pilar	9.93	1227	1019
11DAN063	San Juan - New Talisay	5.13	1072	725
11DAN021	Angelo - Dagohoy	2.19	308	206
11DAN009	Jct. Sagayen - Sonlon	14.04	2293	1441
11DAN041	Sawata - Mamangan - Pinamuno	14.48	1809	1442
11DAN051	Del Pilar - Jct. Silangan	4.17	1220	994
11DAN023	Sto. Niño - Daligdigon - Paiton	11.60	2810	2606
11DAN006	Jct. Highway Canatan - Jct. Highway Magatos	4.85	3003	1935
11DAN019	Sto. Niño - Palma Gil - Sitio Opao	5.99	1442	954
11DAN018	Semong - Palma Gil	2.73	325	183
11DAN149	New Visayas - Binancian	7.77	252	136
11DAN026	Jct. Highway - Luna - Mamacao - Narra	9.17	1871	1137

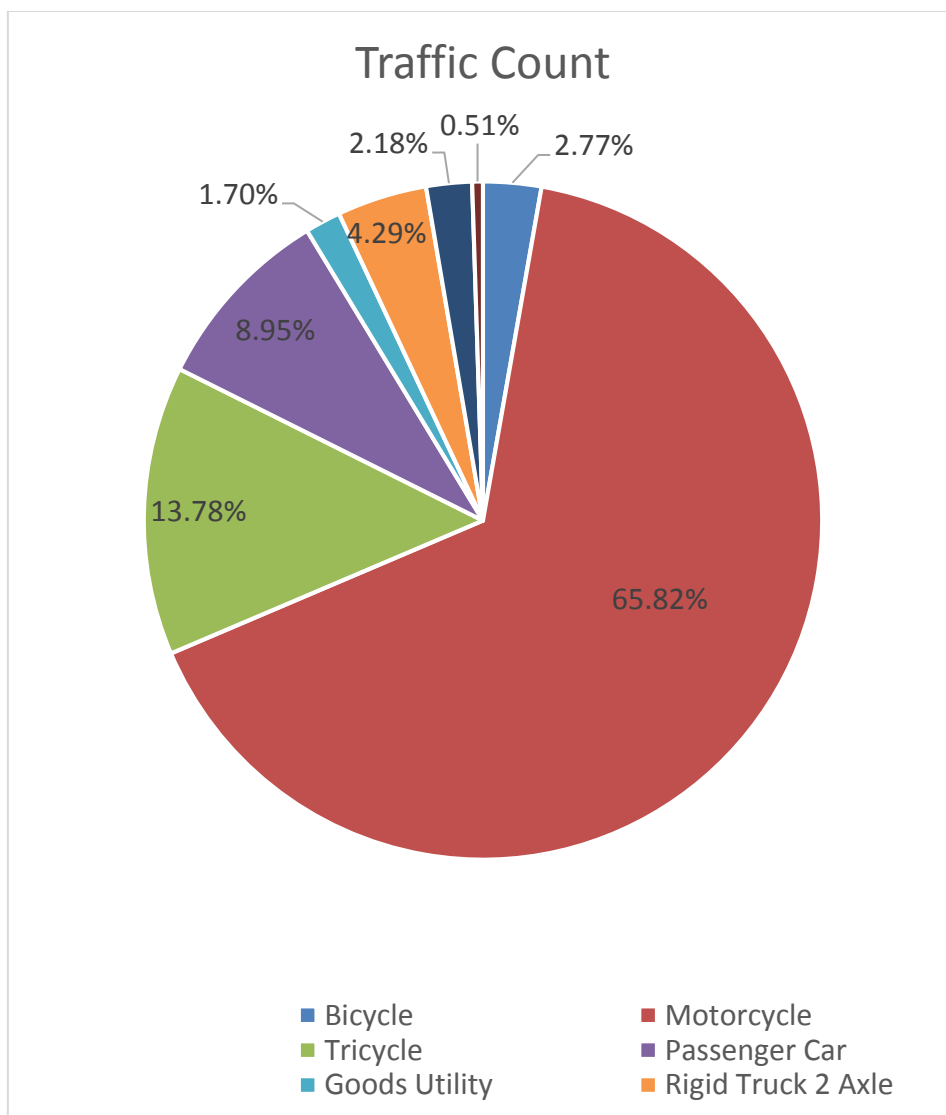
		LENGTH (km.)	ANNUAL AVERAGE DAILY TRAFFIC	
			CLASSIFIED VEHICULAR COUNT	VEHICULAR COUNT IN PASSENGER PER UNIT
11DAN046	Sta. Fe - Mambing	10.96	271	143
11DAN052	New Corella - New Sambog - Silangan	5.10	1309	1102
11DAN010	Saug - Sonlon - Bdry. Longanapan	11.60	738	652
2nd Engineering District				
11DAN146	Bdry. Tagum – Crossing Kinamayan – Sto. Tomas	19.16	3,722	2,664
11DAN083	Jct. Highway – Sto. Niño - Lapaz – San Vicente	6.08	1,411	1,935
11DAN096	Tuganay – Anibongan – San Isidro	7.22	4,338	2,927
11DAN143	Fd. Rd. 3 – Kimamon – Luna	11.76	2,402	1,711
11DAN086	Ising – Sadpodon – Taba – Diladila	5.68	6,931	4,785
11DAN088	Jct. Highway Tuganay – Taba	4.40	1,313	906
11DAN084	Jct. Highway – Sto. Niño – Kabankalan – Lapaz	2.13	1,336	1,441
11DAN120	San Miguel – Crossing Kinamayan	2.80	2,112	1,405
11DAN113	Dujali – Balisong – Magupising	5.52	4,064	2,880
11DAN107	Dujali – San Isidro	3.00	2,696	1,839
11DAN139	NAFCO – Bobongon	2.66	2,357	1,757
11DAN135	Sto. Tomas – Bdry. Mamacao	4.90	2,559	1,873
11DAN142	Jct. Highway – Tanglaw	3.98	1,706	1,109
11DAN102	Dalisay – Mabuhay	3.25	1,635	1,741
11DAN119	Dujali – San Miguel	3.95	1,655	1,118
11DAN106	Dujali – New Casay	3.20	2,123	1,492
11DAN104	Dujali – Tanglaw	3.60	2,763	1,854
11DAN090	Maligaya – New Camiling	2.13	666	374
11DAN093	Anahaw – Maligaya	4.80	1,802	1,307
11DAN121	San Miguel – Libertad	6.20	1,431	872
11DAN082	Jct. Highway – Carmen – Mangalcal – Tubod	11.34	1,945	1,218
11DAN101	Jct. Highway Guadalupe – Bdry. Tagum	7.90	772	442
11DAN081	Lower Asuncion – Upper Asuncion	1.02	734	457
11DAN138	Menzi – Balagunan – Tulalian	10.63	2,569	1,955
11DAN077	Tubod – Pilar	1.55	818	596
11DAN112	Prk. 5 – Prk. 1 Pawas – Dujali	2.18	895	530
11DAN144	Kimamon – Lunga-og – Talomo	5.99	2,325	1,521
11DAN072	Jct. Highway Sto. Niño – Cebulano	2.09	1,200	729
11DAN092	Alejal – Alemag	1.79	1,858	1,087
11DAN073	Cebulano – Mangalcal	4.17	1,318	775
11DAN134	New Katipunan – Pantaron	1.96	1,112	725
11DAN136	Fd. Rd. 3 – San Jose	4.55	1,572	1,126
11DAN085	Ising – Sto. Niño	2.07	764	519
11DAN114	Prk Narafil – Brgy Site Magupising	2.08	359	220
11DAN110	Cabay-angan – Esperanza	5.37	885	885
11DAN075	Jct. Highway – Tubod – Bagong Silang	1.87	1,298	742
11DAN074	Tubod – Basa – Mangalcal	3.93	1,503	1,036
11DAN118	Jct. Salvacion – San Vicente – Cabay-angan	3.45	2,280	1,648
11DAN126	Kinamayan – Lunga-og	2.59	1,496	1,055
11DAN094	Jct. Highway – Tuganay – Anibongan	3.66	229	125
11DAN122	San Miguel – Casig-ang	2.55	1,095	625
11DAN089	Jct. Highway – Ising – Magsaysay	10.84	843	545
11DAN076	Basa – Tubod	1.56	1,416	791
11DAN137	Fd. Rd. 2 – Sto. Tomas – Magwawa	10.21	5,570	4,021
11DAN103	Sitio Malaga – Tibulao	3.22	591	346
11DAN091	New Camiling – Alejal – Lower Magsaysay	6.73	729	407
11DAN098	Anibongan – Salvacion – Cabay-angan	6.93	1,420	784
11DAN108	New Casay – Bugtong Talisay	2.18	932	630

		LENGTH (km.)	ANNUAL AVERAGE DAILY TRAFFIC	
			CLASSIFIED VEHICULAR COUNT	VEHICULAR COUNT IN PASSENGER PER UNIT
11DAN080	Loceta - Lower Mangalcal	2.07	1,107	809
11DAN095	Anibongan - Guadalupe	2.48	726	396
TOTAL		613.49		

Source: Provincial Engineers Office, Davao del Norte

Figure 22. Traffic Count of the Provincial Core Roads Davao del Norte, September 2020

Source: Provincial Engineers Office, Davao del Norte



Average Travel Time

Table 18. Average Travel Time from the Province to Davao City, Under Major External Routes

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

Source: PEO- Davao del Norte

The average travel time from the different cities and municipalities in the province to Davao City, the regional center is shown in Table No. 18 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 19. Average Travel Time from Major Provincial Urban Centers to Production Agricultural Areas, Province of Davao del Norte

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	45mins	20mins	30mins	1hr-30mins
Panabo City	1hr-45mins	1hr-20mins	1hr-10mins	2hrs	1hr-10mins	1hr	45mins	15mins	45mins

Source: PEO-Davao del Norte

Reflected in Table 19 is 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 IGaCoS are nearer in terms of time travel to Panabo City, while the rest of the municipalities take lesser time to travel to Tagum City.

Table 20. Average Travel Time to Municipalities/Cities where Government and Private Hospitals are Located, Province of Davao del Norte

Hospital Locations	Municipalities/Districts							
	Talaingod	Asuncion	San Isidro	New Corella	Sto. Tomas	B.E.Dujali	Babak District (IGaCoS)	Kaputian District (IGaCoS)
Tagum City	1hr-20mins	30mins	1hr-20mins	30mins	45mins	20mins		
Panabo City	1hr-45mins	1hr-10mins	2hrs	1hr-10mins	1hr	45mins		
Kapalong	20mins	20mins	45mins	1hr-15mins	25mins	50mins		
Carmen	1hr-30mins	1hr	1hr-45mins	1hr	45mins	25mins		
Samal District (IGaCoS)							15mins	30mins

Source: PEO-Province of Davao del Norte

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 takes lesser time to travel to Kapalong but larger hospitals are located in Tagum City. New Corella and B.E. Dujali take the least time to travel to Tagum City. Talaingod and San Isidro have the largest travel time to any of the hospital facilities in the province. In 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 located in the center of barangay or municipality. In remote barangays, barangay 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.

Economy

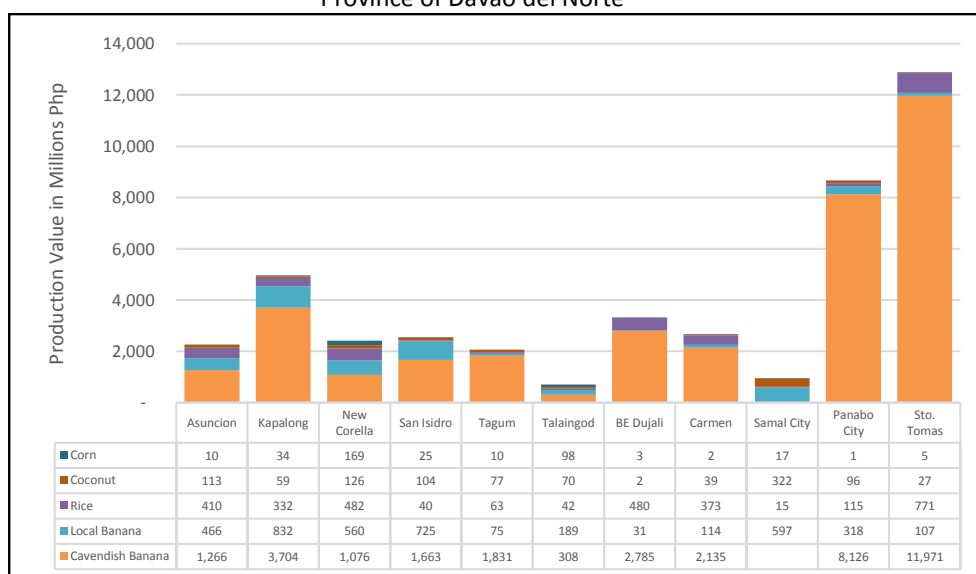
The provincial economy derives its income from six (6) major sectors, namely; agriculture, industries, services, wood industry, quarrying and tourism. The biggest contributor to the provincial economy is agriculture, where other prominent industries give support to the growth of agriculture.

Agriculture

Agricultural land use accounted for 62.71% (217,166.52 hectares) of the total land area, which is devoted to the production of staple, commercial and industrial crops. Based on the data generated from the Philippine Statistics Authority, the estimated value of production of major agricultural crops in 2019 is placed at Php 44.9 Billion of which Php 34.87 Billion or 77.66% is attributed by the production of Cavendish banana for export. Cavendish is extensively grown in all LGUs of the province except the Island Garden City of Samal.

Aside from Cavendish, other crops have also contributed significantly to income generated for agriculture, namely: rice with Php 3.1 Billion; coconut with Php 1.04 Billion; local and other bananas with Php 4.1 Billion and corn with Php 3745 Million. Table 21 presents data on values of production of major agricultural commodities of Davao del Norte in 2019. On the other hand, Figure 23 also presents information on the estimated costs of production of selected agricultural commodities in Davao del Norte as of CY 2019.

Figure 23: **Estimated Value of Production of Major Crops**
Province of Davao del Norte



Source: PAGRO

**Table 21: Values of Production of Major Agricultural Commodities (Php'000)
Province of Davao del Norte: CY 2019**

Commodity	2015 Production			Municipalities/ Cities										
	Volume	Farm Gate Price (PhP/ Kg)	Value	Asuncion	Kapalong	New Corella	San Isidro	Tagum	Talaingod	BEDujali	Carmen	Samal City	Panabo City	Sto. Tomas
Paddy rice	167,844.04	18.61	3,123,577.52	410,282.20	332,121.36	481,643.92	40,451.25	62,732.08	42,342.22	480,194.57	373,156.37	15,002.12	114,844.41	770,807.03
Irrigated	145,371.95													
Rainfed	22,472.09													
Corn	28,254.17		375,232.86	10,854.76	34,192.40	168,710.90	24,863.70	10,441.71	97,991.28	2,047.50	2,270.74	17,297.66	1,319.99	5,242.22
White	19,821.72	13.40		514.56	19,242.40	104,198.40	24863.70	3,805.60	88,937.98		675.90	17,297.66	1,319.99	4,854.82
Yellow	8,432.45	13.00		10,340.20	14,950.00	64,512.50		6,636.11	9,153.30	2,047.50	1,594.84			387.40
Coconut	262,522.21	3.94	1,034,337.52	113,026.10	59,231.71	126,453.74	103,526.06	77,353.07	69,557.63	1,962.13	39,070.41	321,766.54	95,841.21	26,548.92
Banana	2,358,267.54		38,880,620.65	1,731,552.39	4,536,319.69	1,636,148.54	2,389,153.60	1,905,351.60	497,811.62	2,815,675.19	2,248,687.69	597,764.32	8,444,086.29	12,078,066.72
Cavendish	1,510,847.19	23.08	34,865,704.30	1,266,064.03	3,704,279.77	1,076,005.08	1,663,445.05	1,831,078.41	308,102.00	2,784,677.62	2,134,652.96		8,126,037.38	11,971,362.01
Banana Other	115,365.69	25.40	2,930,288.51	317,870.86	651,768.82	410,951.34	406,430.87	59,587.94	67,396.02	11,301.16	97,806.42	570,400.42	260,954.10	75,820.52
Banana Saba	106,024.23	10.23	1,084,627.85	147,617.50	180,271.10	149,192.13	319,277.68	14,685.25	122,313.60	19,696.41	16,228.32	27,363.86	57,097.82	30,884.18
Mango	8,363.94	33.83	282,951.95	4,255.16	19,866.84	5,130.39	-	2,029.18	-	2,144.04	2,115.71	208,737.02	61,028.62	25,403.07
Durian	5,610.77	36.94	220,391.23	6,211.65	7,000.83	29,021.62	52,620.79	44,945.33	40,986.68	4,582.36	2,224.99	13,125.92	15,852.43	3,818.63
Coffee	917.25	77.45	71,040.65	876.39	3,832.20	2,549.49			49,077.62			3,774.04	7,266.04	3,664.89
Cacao	1,792.38	93.11	166,888.05	13,868.83	13,636.16	10,014.05	86,779.66	7,203.73	5,997.78	2,642.01	21.31	7,614.94	6,011.63	13,097.96
Vegetables	11,373.49	16.33	185,729.09	39,899.44	4,776.69	25,288.38	7,867.50	8,991.42	3,933.75	-	5,619.64	26,693.29	18,263.83	44,395.15
Palm Oil (Fresh Fruit Bunch)	2,574.81	3.03	7,801.67	467.75	5,046.92	1,179.72				372.54			734.74	
Rubber (Cuplump)	6,578.72	24.68	162,362.82	7,707.95	27,956.09	22,841.73	13,964.39		67,387.64				6,283.75	16,221.27
Abaca	3,494.82	54.77	191,411.19						191,411.19					
Other crops			240,812.13	43,970.16	47,970.16	44,557.45	34.53	12,977.90		13,698.89	21,053.04	1,081.49	16,775.14	38,693.37
Totals			44,930,028.11	2,381,988.23	5,088,665.01	2,551,070.16	2,716,126.75	2,129,055.49	1,064,055.73	3,322,736.62	2,693,781.81	1,181,931.53	8,778,553.52	13,022,063.26

Source: PSA Country Stat

Notes: 1. PSA no available farm prices of Cavendish banana. Cost was estimated annual average prices farmers had experienced in dealing with buyers, considering Some fluctuations in a year. Average price per box of 13 kilograms Cavendish banana was P 250.00 per box.

Table No. 22: **Estimated Cost of Production of Selected Agricultural Commodities (Php'000)**
Province of Davao del Norte: CY 2019

Commodity	2019 production			Cities/Municipalities										
	Area in Hectares	Production Cost	Total Cost P'000	Asuncion	Kapalong	New Corella	San Isidro	Tagum	Talaingod	BE Dujali	Carmen	Samal City	Panabo City	Sto. Tomas
Paddy Rice	19,272.08	80,400.00	1,673,879.62	263,510.82	150,839.72	245,952.55	19,422.00	33,794.40	66,268.00	212,189.12	196,831.70	7,098.61	48,486.30	429,486.40
<i>Irrigated</i>	<i>15,617.02</i>	<i>90,800.00</i>	<i>1,418,025.42</i>	<i>206,594.52</i>	<i>102,231.72</i>	<i>217,539.55</i>	<i>4,540.00</i>	<i>22,972.40</i>	<i>9,988.00</i>	<i>202,146.22</i>	<i>196,831.70</i>	<i>5,698.61</i>	<i>40,156.30</i>	<i>409,326.40</i>
<i>Rainfed</i>	<i>3,655.06</i>	<i>70,000.00</i>	<i>255,854.20</i>	<i>56,916.30</i>	<i>48,608.00</i>	<i>28,413.00</i>	<i>14,882.00</i>	<i>10,822.00</i>	<i>56,280.00</i>	<i>10,042.90</i>	-	<i>1,400.00</i>	<i>8,330.00</i>	<i>20,160.00</i>
Corn	9,961.15	69,540.00	692,698.37	19,401.66	101,980.41	233,028.54	43,219.11	20,170.08	165,331.35	3,129.30	10,412.92	47,495.82	16,506.01	32,023.17
<i>White</i>	<i>7,873.45</i>	<i>71,180.00</i>	<i>560,432.17</i>	<i>1,138.88</i>	<i>66,410.94</i>	<i>184,498.56</i>	<i>44,238.37</i>	<i>9,146.63</i>	<i>154,773.79</i>	-	<i>8,163.63</i>	<i>48,615.94</i>	<i>16,895.28</i>	<i>26,550.14</i>
<i>Yellow</i>	<i>2,087.70</i>	<i>67,900.00</i>	<i>141,754.83</i>	<i>17,857.70</i>	<i>36,224.65</i>	<i>51,536.10</i>	-	<i>10,969.25</i>	<i>13,790.49</i>	<i>3,055.50</i>	<i>2,379.90</i>	-	-	<i>5,941.25</i>
Coconut	46,389.30	10,770.70	499,645.26	54,598.19	28,612.37	61,084.52	50,009.12	37,366.04	33,600.38	947.82	18,873.28	155,431.98	46,296.89	12,824.67
Banana	53,877.45	676,200.00	36,431,525.97	2,691,377.43	5,395,129.32	2,898,193.20	4,278,006.35	1,340,255.45	1,159,006.80	1,760,824.80	1,650,178.19	2,047,168.45	5,886,199.28	7,325,186.69
<i>Cavendish</i>	<i>29,649.27</i>	<i>350,000.00</i>	<i>10,377,034.50</i>	<i>376,817.00</i>	<i>1,102,500.00</i>	<i>320,250.00</i>	<i>495,089.00</i>	<i>544,981.50</i>	<i>91,700.00</i>	<i>828,800.00</i>	<i>635,334.00</i>	-	<i>2,418,542.00</i>	<i>3,563,021.00</i>
<i>Other Banana</i>	<i>14,261.00</i>	<i>176,200.00</i>	<i>2,512,788.20</i>	<i>272,581.40</i>	<i>558,906.40</i>	<i>352,400.00</i>	<i>348,523.60</i>	<i>51,098.00</i>	<i>57,793.60</i>	<i>9,691.00</i>	<i>83,871.20</i>	<i>489,131.20</i>	<i>223,774.00</i>	<i>65,017.80</i>
<i>Banana Saba</i>	<i>9,967.18</i>	<i>150,000.00</i>	<i>1,495,077.00</i>	<i>203,479.50</i>	<i>248,490.00</i>	<i>205,650.00</i>	<i>440,100.00</i>	<i>20,242.50</i>	<i>168,600.00</i>	<i>27,150.00</i>	<i>22,369.50</i>	<i>37,719.00</i>	<i>78,705.00</i>	<i>42,571.50</i>
Mango	4,318.89	92,421.00	399,156.13	5,135.83	23,978.63	6,192.21	-	2,449.16	-	2,587.79	2,553.59	251,938.72	73,659.54	30,660.67
Durian	865.72	108,072.00	93,560.09	2,636.96	2,971.98	12,320.21	22,338.48	19,080.11	17,399.59	1,945.30	944.55	5,572.19	6,729.64	1,621.08
Coffee	891.67	42,642.00	38,022.59	469.06	2,051.08	1,364.54	-	-	26,267.47	-	-	2,019.95	3,888.95	1,961.53
Cacao	7,832.73	64,900.00	508,344.18	42,244.71	41,536.00	30,503.00	264,332.51	21,942.69	18,269.35	8,047.60	64.90	23,195.26	18,311.54	39,896.63
Vegetables	2,988.58	67,845.00	202,760.21	43,558.17	5,214.71	27,607.29	8,588.93	9,815.93	4,294.47	-	6,134.95	29,141.03	19,938.60	48,466.13
Palm Oil (Fresh Fruit Bunch)	376.95	50,000.00	18,847.50	1,130.00	12,192.50	2,850.00	-	-	-	900.00	-	-	1,775.00	-
Rubber (cuplump)	3,568.00	180,000.00	642,294.00	30,492.00	110,592.00	90,360.00	55,242.00	-	266,580.00	-	-	-	24,858.00	64,170.00
Abaca	2,077.00	29,875.00	62,050.38	-	-	-	-	-	62,050.38	-	-	-	-	-
Other Crops	64,747.00	78,750.00	5,098,826.25	923,186.25	1,017,765.00	945,551.25	-	275,467.50	-	290,430.00	446,827.50	22,207.50	356,107.50	821,283.75
Total			15,494,902.43	1,290,524.98	2,022,124.75	1,676,216.70	1,305,739.73	712,893.53	809,790.68	1,193,919.55	1,061,916.24	895,462.85	2,608,116.79	4,294,263.24

Source: PAGRO

Key players are persons, organizations, events or occasions that are considered most important and involved in a particular undertaking, project or sector. The key players in agriculture are farmers, fisherfolks, farmers and fisherfolks associations and cooperatives, other related civil society organizations (CSOs), farm inputs suppliers, consolidators, processors, traders, local government units; NGAs to include the Department of Agriculture and its agencies and line bureaus (PCA, BFAR), DTI, DAR, DOST and BFAD); and financing institutions. These key players are common in all LGUs of Davao del Norte. The combined capitalization cost for agricultural production have reached P12.73 Billion in 2019. Employment at farm level was 67,437 while agribusiness and other related services was able to provide jobs to 158,685 persons. All in all 226,122 were employed in the agriculture sector. The 2019 estimated income realized from farm production was P 35.50 Billion.

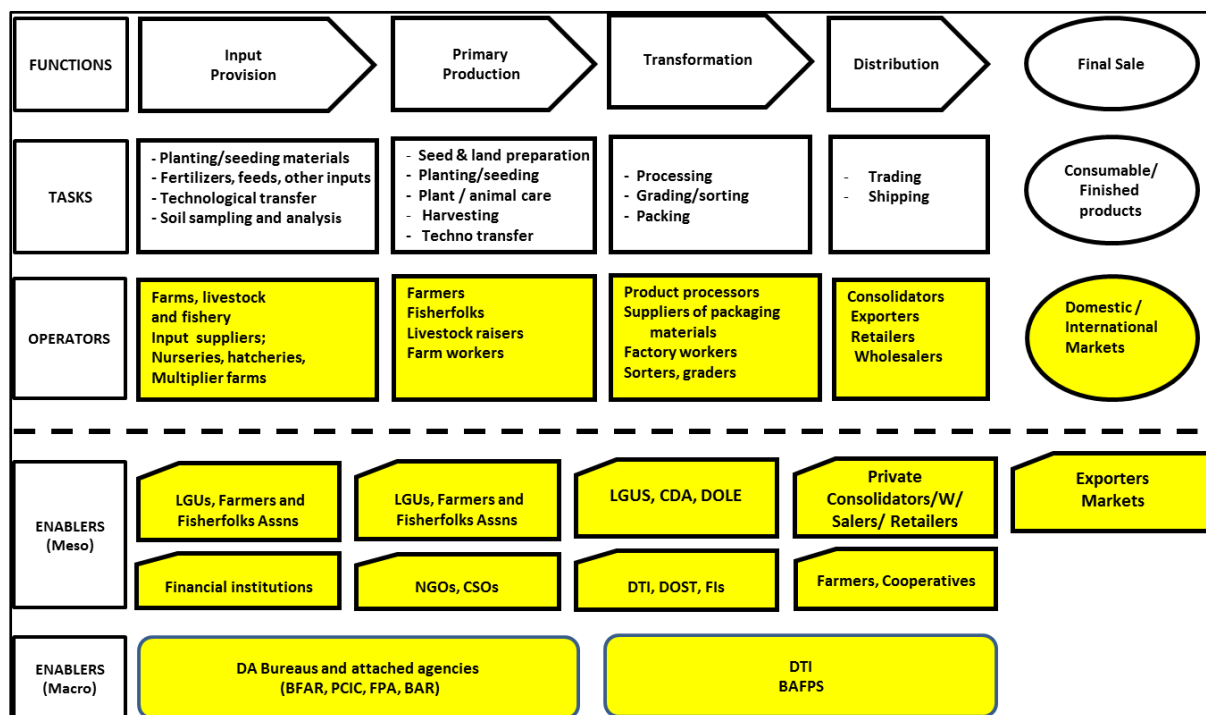
Table 23. Key Players, Estimated Capitalization Cost, Employment and Income from Agricultural Production, by Cities and Municipalities in CY 2019
Province of Davao del Norte

City/ Municipality	Key Economic Players	Estimated Capitalization (Production Cost)	Estimated Employment, 2019		Total	2019 Estimated Income, PhP (Values of farm production only)
			Farm Level	Agri- business and other related services		
District I	Farmers, fisherfolks, farmers and fisherfolks associations and cooperatives, other related CSOs, farm inputs suppliers, consolidators, processors, traders; local government units; NGAs-Dept. of Agriculture and its agencies and line bureaus (PCA; BFAR); DAR, DTI, DOST, BFAD; financing institutions.					
Asuncion		1,290,524.98	8,384	14,063	22,447	2,381,988.23
Kapalong		2,022,124.75	6,630	16,841	23,471	5,088,665.01
New Corella		1,676,216.70	6,941	11,891	18,832	2,551,070.16
San Isidro		1,305,739.73	5,163	6,823	11,986	2,716,126.75
Tagum City		712,893.53	4,936	15,918	20,854	2,129,055.49
Talaingod		809,790.68	5,289	7,278	12,567	1,064,055.73
District II						
BE Dujali		1,193,919.55	2,250	5,323	7,573	3,322,736.62
Carmen		1,061,916.24	5,904	14,316	20,220	2,693,781.81
Samal City	895,462.85	10,431	13,923	24,354	1,181,931.53	
Panabo City	2,608,116.79	5,651	27,557	33,208	8,778,553.52	
Sto. Tomas	4,294,263.24	5,858	24,753	30,611		
Total		15,494,902.43	67,437	158,685	226,122	44,930,028.11

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

Note : Incomes from Livestock and Fisheries are not included

Figure 24: Value Chain Analysis of Agricultural Commodities
Province of Davao del Norte



Source: PAGRO

The Value Chain Analysis in agriculture sector identifies four major functions, namely input provision, primary production, transformation and distribution that leads to the final sale of agricultural products. Under each of these functions are specific tasks that are necessary to attain the consumable finished product. They are the following:

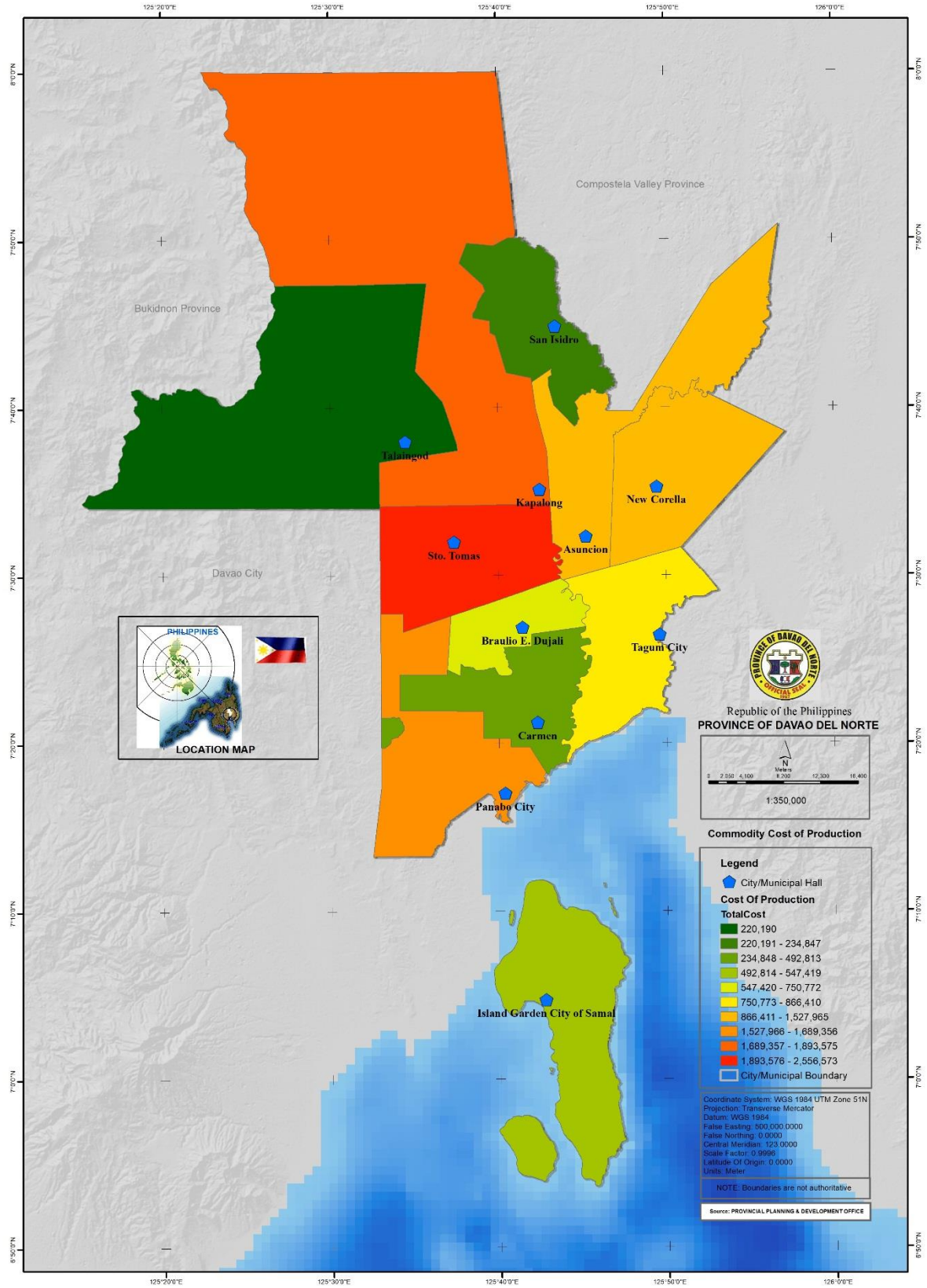
1. Fertilizers, feeds, other inputs; technological transfer and soil sampling and analysis;
2. Seed & land preparation; planting and seedling; plant animal care; harvesting and technological transfer.
3. Processing; grading/sorting and packing.
4. Trading and shipping.

Correspondingly, the tasks and functions are carried about by groups or individuals who have a stake in forging agricultural production from its backward and forward linkages until products ultimately reach either the domestic and international markets. They are as follows:

1. Input preparation: Farms, livestock and fishery input suppliers; and Nurseries, hatcheries and multiplier farms
2. Primary production: Farmers, fisherfolks, livestock raisers and farm workers
3. Transformation: Product processors, suppliers of packaging materials, factory workers, sorters and graders
4. Distribution: Consolidators, exporters, retailers and wholesalers

Enablers are the people, groups and institutions who help the implementers focus on implementing. They make sure all of the implementers are working towards the same end result and deal with things that take time away from creating. They are the leaders, managers, and assistants who keep the business side of things running. Two types of enablers are presented in the Value Chain, namely: the Meso and Macro. Meso enablers comprise of the local government units (LGUs), farmers and fisherfolks associations, financial institutions, non-government organizations and civil society organizations, national government agencies (CDA, DOLE, DTI, DOST), private consolidators, wholesalers, retailers and farmer cooperatives. On the other hand, the macro enablers involve the Department of Agriculture and its attached bureaus (BFAR, PCIC, FPA and BAR) with DTI and BAFPS. The end point of these enablers is to push agricultural products into the international markets.

Figure 25: Map on Commodity Cost of Production in Agriculture Province of Davao del Norte



Services and Industry

The Services and Industry sectors in turn comprise the following subsectors:

Services:

1. Transport, storage and communication;
2. Trade and repair of motor vehicles, motorcycles, personal and household goods;
3. Real estate, renting and business activities;
4. Financial intermediation;
5. Public administration and defense; compulsory social security; and
6. Other services

Industry:

1. Mining and quarrying;
2. Construction;
3. Manufacturing; and
4. Electricity, gas and water supply

In 2019, the total cost of investment in the services sector has reached P 3.75 Billion or 39.96%, while for the industry sector had P 1.38 Billion. Both the services and industry sectors are supportive to the agriculture sector, which is the backbone of our economy. In particular, these sectors support the banana industry of the province, which is the banner industry. Growth in the services sector is most prominent in Tagum City, being the center of commerce and trade in the province; followed by the municipality of Sto. Tomas, and the cities of Samal and Panabo. On the other hand, the industry sector flourished in Panabo City and Sto. Tomas.

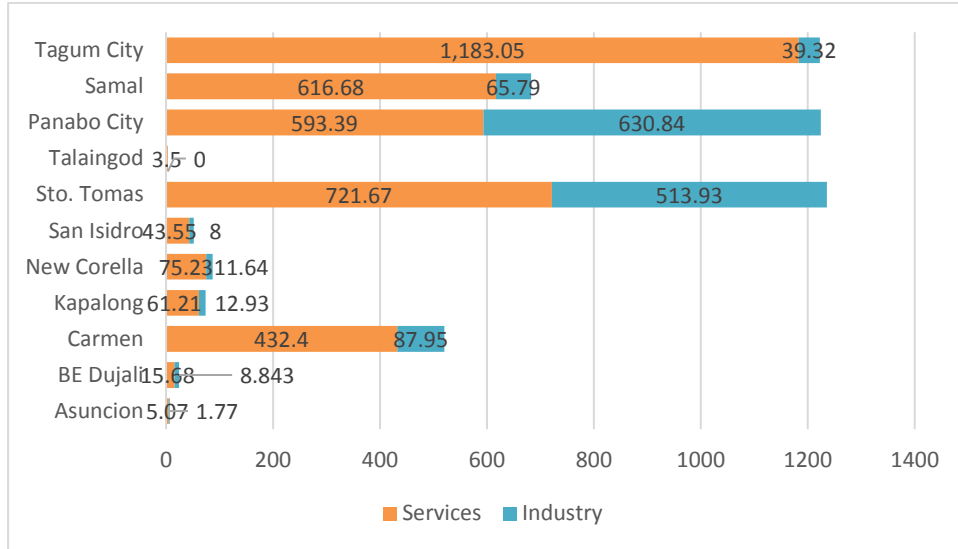
**Table 24. Cost of Investment in Services and Industries (Php '000)
Province of Davao del Norte: CY 2019**

LGU	Cost of Investment in Php '000		
	Services	Industry	Total
Asuncion	5.07	1.77	6.84
BE Dujali	15.68	8.843	15.77
Carmen	432.40	87.95	433,28
Kapalong	61.21	12.93	74.14
New Corella	75.23	11.64	86.87
San Isidro	43.55	8.00	51.55
Sto. Tomas	721.67	513.93	1,235.60
Talaingod	3.50	-	3.500
Panabo City	593.39	630.84	1,224.22

LGU	Cost of Investment in Php '000		
	Services	Industry	Total
Samal	616.68	65.79	682.471
Tagum City	1,183.05	39.32	1,222.37
Total	3,751.43	1,381.01	5,036.61

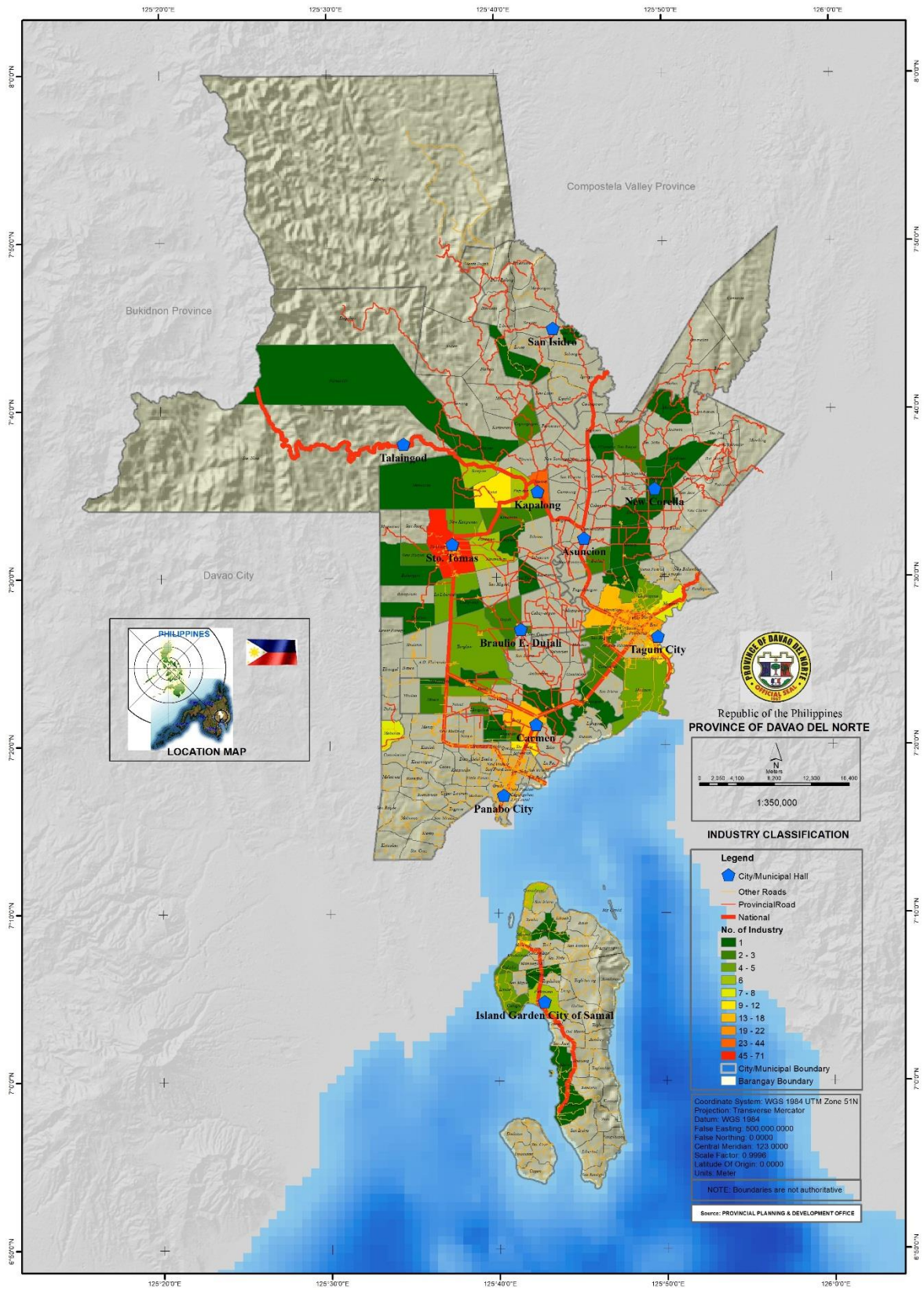
Source: Business Permits and Licensing Office, all LGUs

Figure 26. **Investments by Cost of Capitalization by Sector (Php '000)**
Province of Davao del Norte: CY 2019



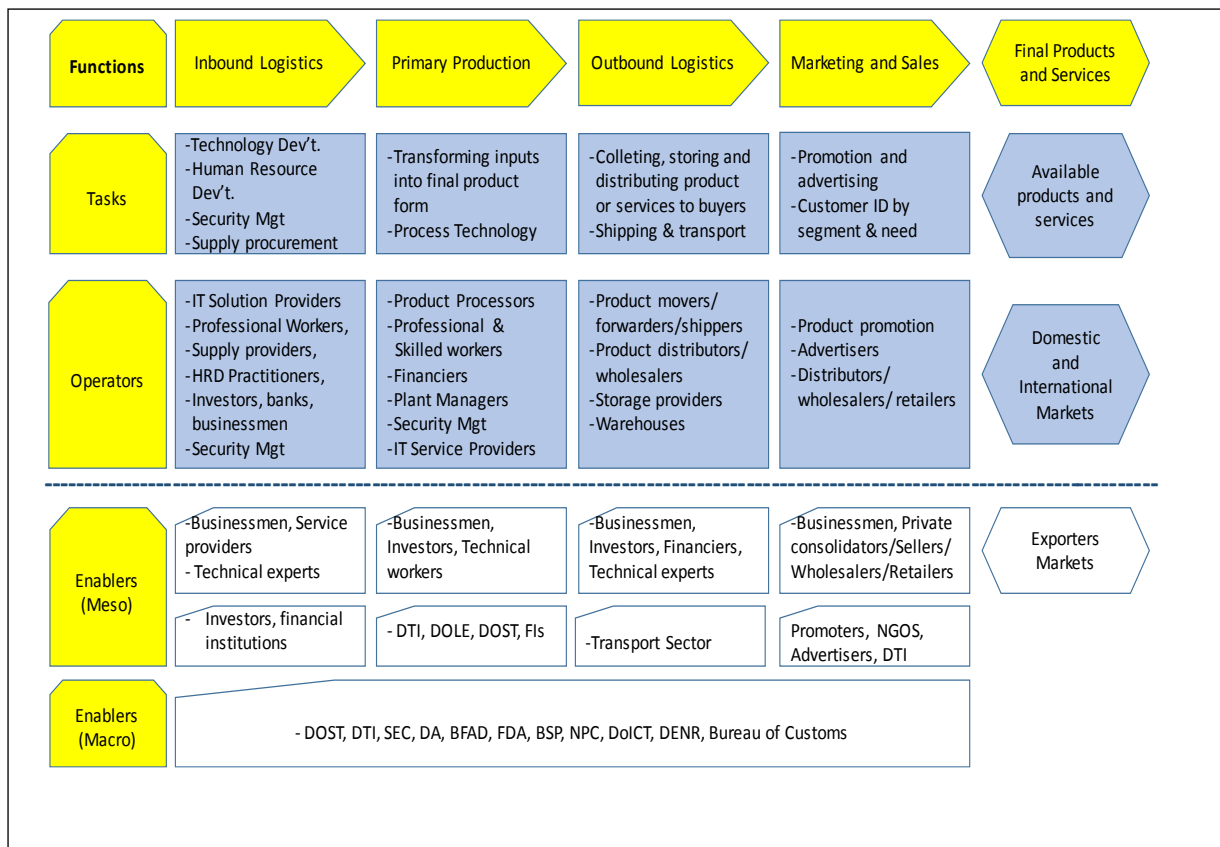
Source: Cities and Municipalities

Figure 27. Industry Map of Davao del Norte



Source: PADO-IT

Figure 28: Value Chain Analysis on Services and Industry in Davao del Norte



Source: DNIPC

Value chain refers to all the activities and services that bring a product or a service from conception to end use in a particular industry, from input supply to production, processing, wholesale and finally, retail. It is called so because value is being added to the product or service at each step. Taking a value chain approach to business means addressing the major constraints and opportunities faced by businesses at multiple levels of the value chain. Value chain analysis examines the structure and the dynamics of the value chain. The structure of the value chain influences the dynamics of firm behavior and these dynamics influence how well the value chain performs in terms of value chain competitiveness.

Considered primary activities in the value chain are inbound logistics, operations, outbound logistics and marketing and sales. These primary activities contribute to the physical creation of the product or service, its sale and transfer to the buyer, and its service after the sale. On the other hand, there are also support activities that also add value to the primary activities and other support activities namely: procurement, technology development, human resource management and general administration.

Quarrying Industry

The province has an abundant resource of high quality grade sand & gravel, which is a major component material in construction. Total reserves of sand and gravel are estimated at 600,000 metric tons. Areas that have rich deposits of sand and gravel are Carmen, Kapalong, Panabo City, Sto. Tomas and Tagum City. As of 2019, sand and gravel extraction reached a total production of 2,078,330.50 cubic meters realizing an estimated income of P 220,898,906.25. The increase in the production is attributed to the increase in construction projects, particularly in the government sector.

**Table 25. Sand and Gravel Volume of Production and Estimated Income
Province of Davao del Norte: CY 2019**

LGU	Production Volume (cu.m.)	Estimated Income (PhP)
Carmen	151,320.50	18,604,888.75
Kapalong	313,687.00	31,004,102.50
Sto. Tomas	96,475.50	8,854,607.50
Panabo City	373,467.00	46,600,992.50
Samal City	29,346.00	3,550,640.00
Tagum City	1,114,034.50	112,283,675.00
Total	2,078,330.50	220,898,906.25

Source: PENRO-LGU

The following figure is a map on sand and gravel quarrying in the Province of Davao del Norte. Since the quarries cannot be visible in the provincial map, 3 different maps are presented to better show the locations of the existing operation.

Figure 29: Quarrying Maps of the Province Davao del Norte

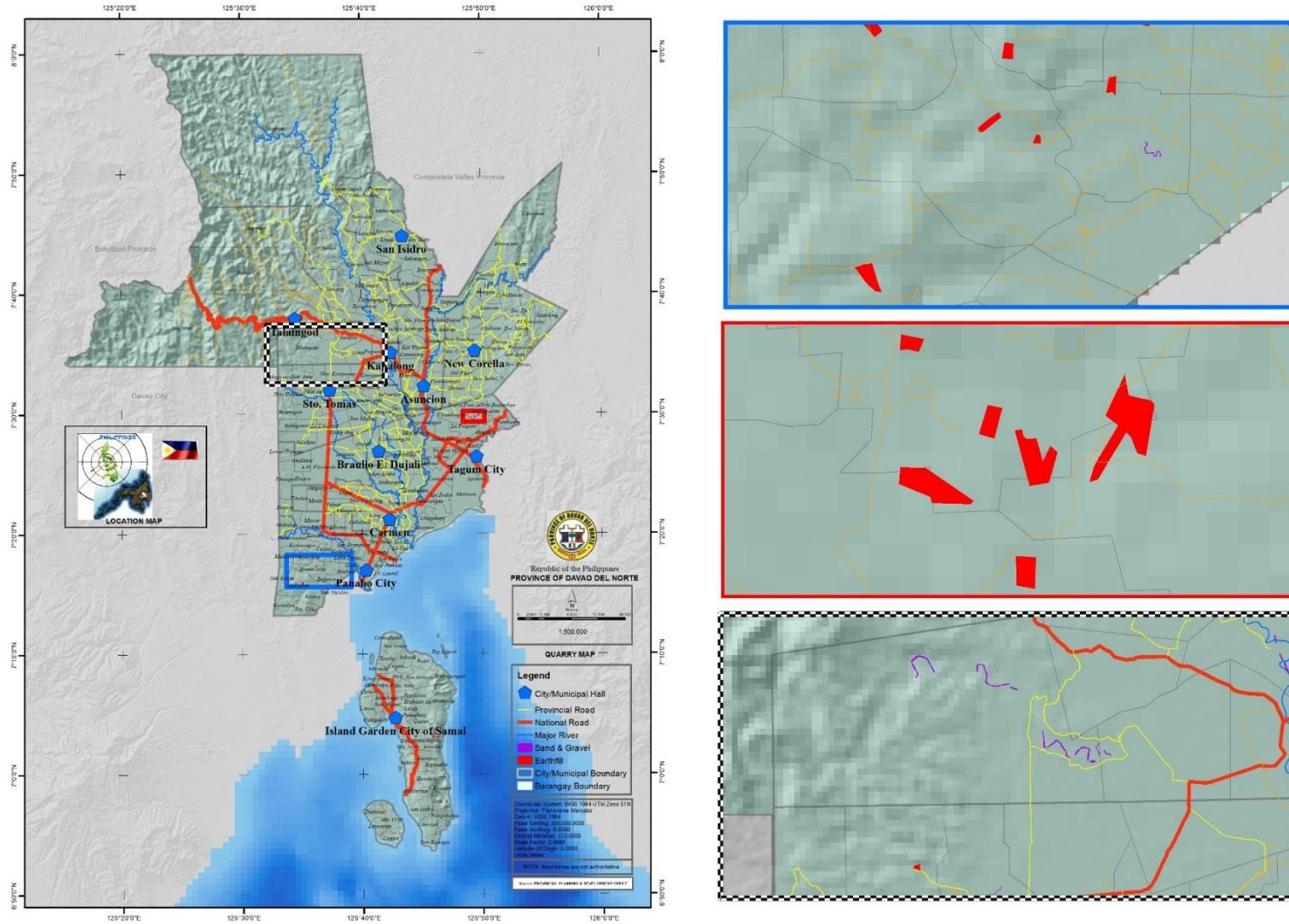
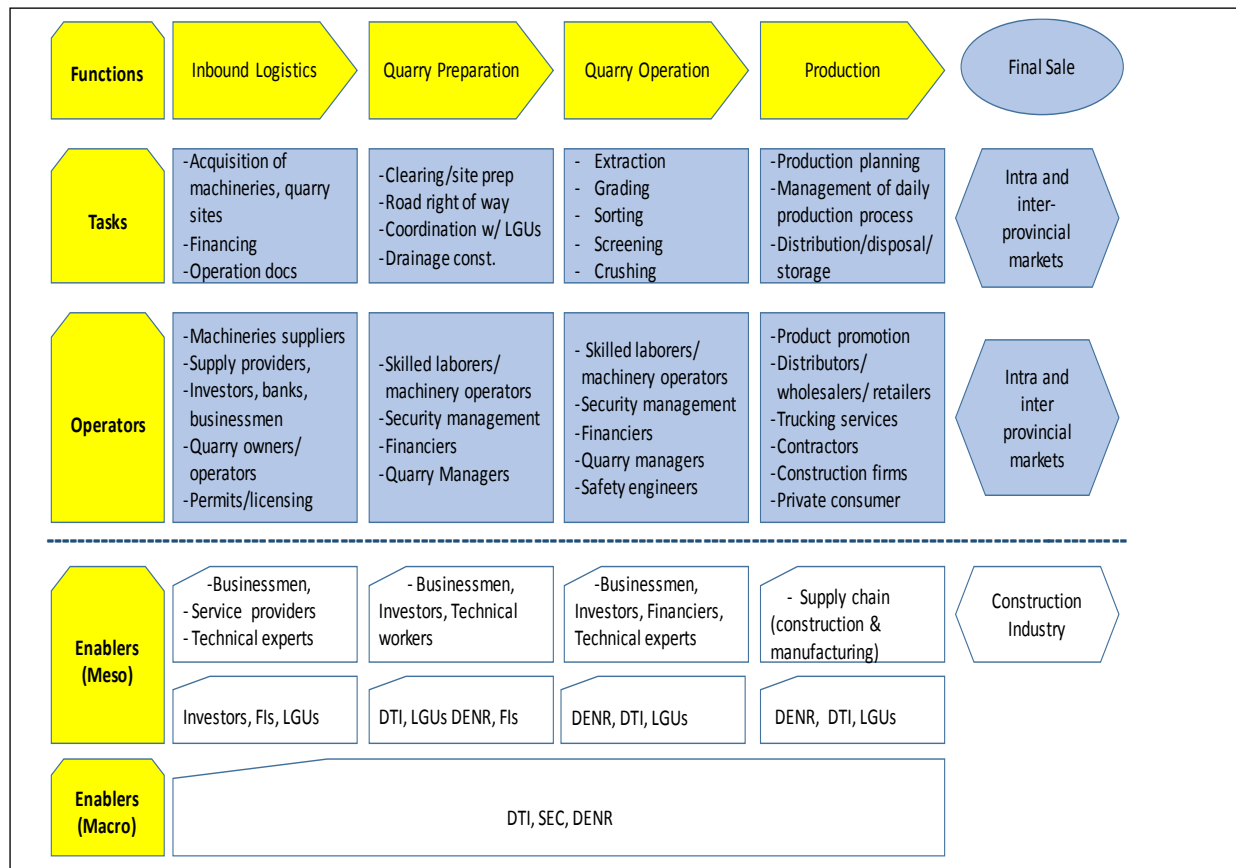


Figure 30: Value Chain Analysis of Quarrying Industry Province of Davao del Norte



Functions that are identified in the quarrying of sand and gravel in the province of Davao del Norte include the following: inbound logistics; quarry preparation; quarry operation; and production of sand and gravel that help realize the final sale of the commodity. Inbound logistics function requires tasks such as: acquisition of machineries and quarry sites, financing and processing of operation documents to include business permits and licenses. Quarry preparation tasks include clearing or site preparation; acquisition of a road right of way, coordination with LGUs, putting in place a drainage system, while quarry operation entails extraction, grading, sorting, screening and crushing of sand and gravel. The production function requires a levelled-up set of tasks to include production planning, management of daily production process as well as product distribution, disposal and storage.

Sand and gravel quarrying industry covers a wide range of operators from machine or equipment suppliers and dealers, financial institutions, investors, quarry owners and operators, safety engineers, product promoters, distributors, trucking services, contractors, construction firms and private consumers among others. All of them striving to deliver the commodity to its final destination, which is either intra or inter-provincial market.

Enablers at the micro level are businessmen, service providers, technical men, LGUS and

government agencies to include DTI and DENR. On the other hand, macro enablers are DTI, DENR and SEC.

Tourism

Tourism can be defined as travelling to a place, which is different from your home city or country for various leisure or business purposes, and staying there for some considerable period of time not too long or permanent in nature. Tourism becomes an activity which builds the base for the wide scale consumption that in turn bring wide-ranging benefits. Tourism becomes important as an activity because of the extensive impacts it gives to industries, the economy and society that propels growth, progress and development of a country.

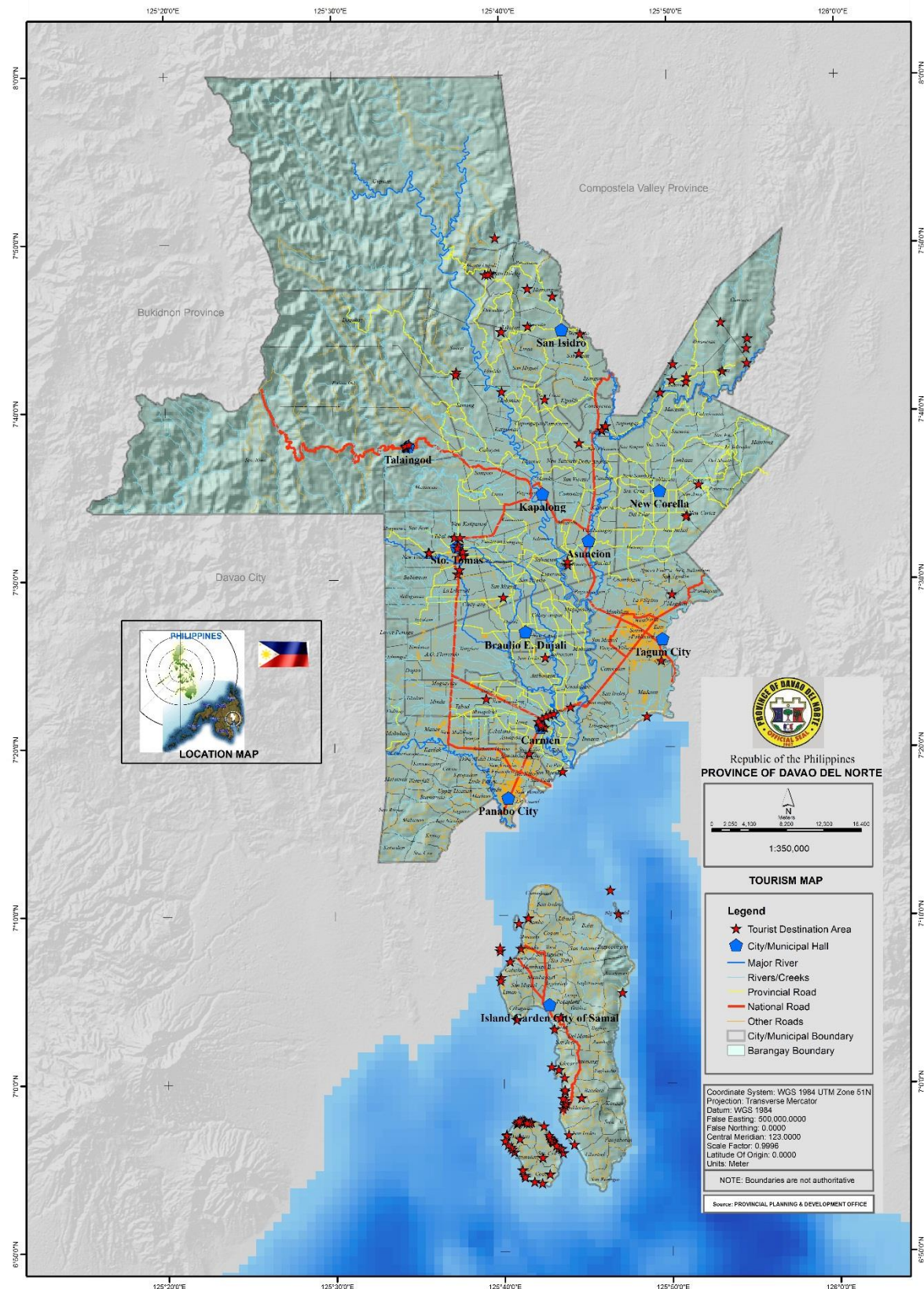
It is widely accepted that tourism is a rich source of dollar revenue hence, must be supported by the government, particularly the transport sector. Travelling will be incomplete in the absence of food and accommodation. Likewise, events and tourism experience can reveal the meanings of the valued characteristics of a destination in the perceptions of tourists. Davao del Norte poses an aggressive stance in promoting island to mainland tourism. It is endowed with a good number of tourist attractions or places of interests, which boosts of their inherent or exhibited cultural value, historical significance, natural or built beauty, leisure and amusement. Every LGU in the province has something unique and worthwhile to offer to tourists. The number of tourism sites are classified as shown in the following table:

Table 26 : Tourism Destinations by Classification, by City and Municipality
Province of Davao del Norte: CY 2017

LGU	Historical	Cultural	Natural	Religious	Man-Made	Festivals/ Fiestas
Asuncion			24		4	3
Braulio E. Dujali					2	1
Carmen			1		10	
Kapalong	2	2	16		7	2
New Corella	1	4	11	3	1	3
San Isidro	1	1	28	2	1	2
Sto.Tomas	1	1	1	1	1	3
Talaingod	1	1	3	7	1	5
Panabo City	1	1		10	1	2
Samal City			61	6		
Tagum City	1	3	1	14	1	7
Davao del Norte	8	13	146	43	29	28

Source: Socio-Economic Profiling System (SEPS) Online

Figure 31: Tourism Map of Davao del Norte



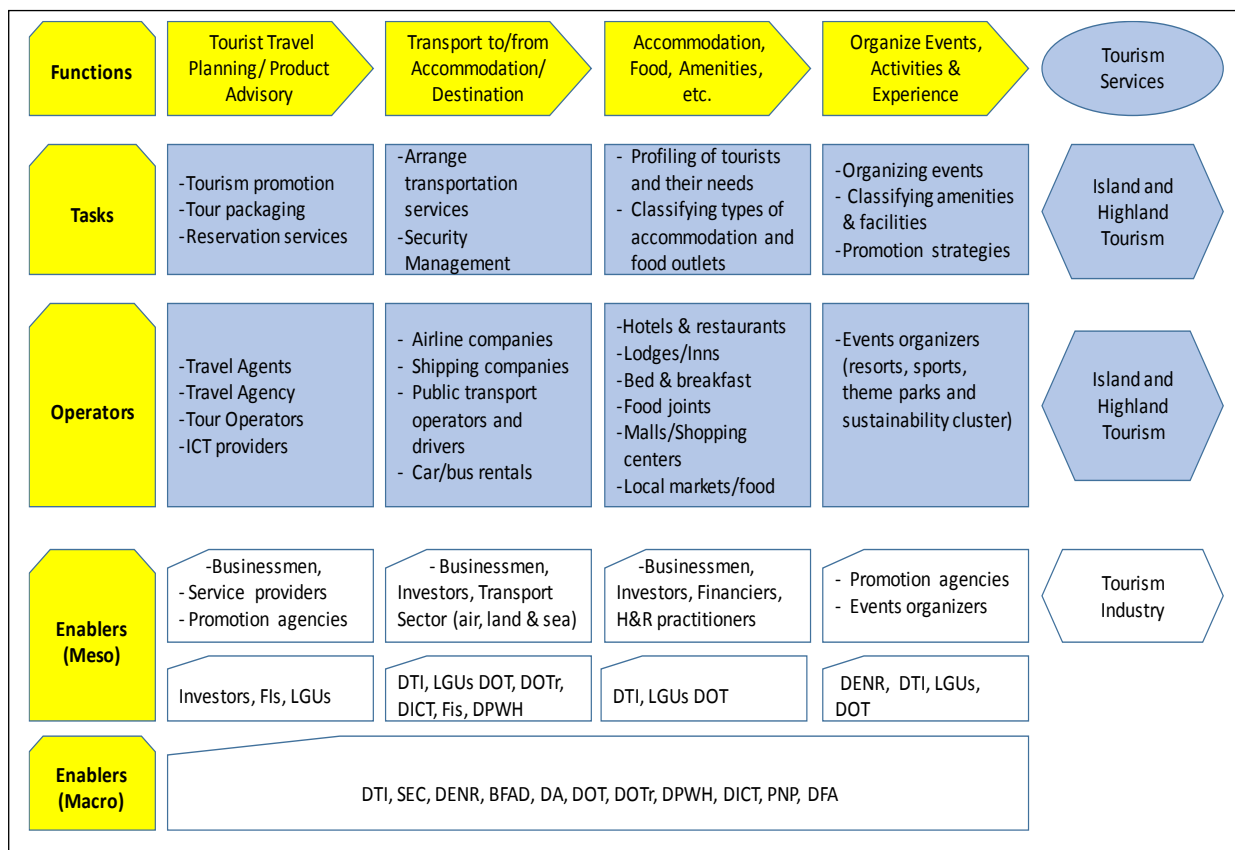
Source : PPDO

**Table No. 27: No. of Recreational Facilities by City and Municipality
Province of Davao del Norte : CY 2017**

Municipality/ City	Amusement/ gaming facilities	Badminton courts	Basket- ball courts	Billiard centers	Bowling Alleys	Camping site	Cinema/ Movie houses	Cockpit arenas	Fitness Gym	Function halls/ clubhouse	Golf Course	Library/ Museums	Lottery outlets	Music Studio/ Recording	Play- grounds/ Parks	Resorts
Asuncion	0	0	7	4	0	0	0	2	0	0	0	0	0	1	0	0
B E Dujali	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Carmen	0	0	2	1	0	1	1	1	0	0	0	0	0	0	0	1
Kapalong	17	0	0	3	0	1	0	1	0	0	0	0	0	1	1	2
New Corella	2	0	0	2	0	0	0	2	0	3	0	0	2	0	0	3
San Isidro	35	0	0	0	0	0	1	1	0	0	0	0	0	0	4	0
Sto. Tomas	2	0	1	0	0	0	0	0	0	0	0	1	0	0	2	5
Talaingod	6	0	2	1	0	1	0	1	0	0	0	0	0	0	0	3
Panabo City	1	1	0	3	1	0	0	1	3	1	0	0	0	0	2	7
Samal City	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0	112
Tagum	52	1	1	8	0	0	2	1	9	0	0	0	0	0	4	14
TOTAL	121	2	13	24	1	3	4	10	12	5	0	1	2	4	13	148

Table No. 27 shows the various recreational facilities available in every LGU in Davao del Norte. Resorts are top of the list and are mostly located on shorelines of the Island Garden City of Samal. These are followed by amusement or gaming facilities. Common facilities are billiard halls, basketball courts, cockpit arenas, fitness gyms and playgrounds and parks.

Figure 32: Value Chain Analysis for Tourism Sector of Davao del Norte



The Tourism Value Chain involves functions that leads to tourism services such as the following:

- Tourist Travel Planning/Product Advisory
- Transport to/from Accommodation/Destination
- Accommodation, Food, Amenities, etc.
- Organize events and experience

Each of the above functions involves the corresponding specific tasks, namely:

- Tourism promotion, tour packaging and reservation services
- Arrange transportation services and security management
- Profiling of tourists and their needs and classifying types of accommodation and food

outlets

- Organizing events, classifying amenities and facilities, and promotion strategies

In turn each task and function have certain groups of operators and stakeholders as in the following:

- Travel agencies, travel agents, tour operators and to include the ICT providers.
- Airline and shipping companies, public transport operators and drivers, and car/bus rentals
- Hotels and restaurants, lodges/inns, bed and breakfast, food joints, Malls and shopping centers, and local markets and local food
- Events organizers on themes: resorts, sports, theme parks and sustainability cluster
- Enablers for the tourism industry are the business men, investors, service providers, the transport sector, hotel and restaurant operators travel and promotion agencies and events organizers. Enablers also come from various government agencies such as DTI, SEC, DENR, DA, DOT, DOTr, DPWH, DICT, PNP and DFA.

There are 5 important reasons cited for tourism, namely:

Tourism activity creates demand- tourism as an individual activity of touring and travelling involves consumption and commercial activities at every step.

Tourism industry meets and spreads demand. Tourism industry value chain meets and spreads demand across many industries and therefore boosts more economic activities.

Tourism requires country development. A country needs to provide tourist attractions with infrastructure and facilities to attract tourists and make tourism grow.

Motivates to reach global standards. The infrastructure and facilities need to be of global standards because tourists are global consumers.

Tourism induces more consumption. Tourists want to enjoy and experience to the fullest and take back memories hence, are inclined to so more and therefore may consume more.

Road Investment

The investible funds for roads were determined based on the five-year projections and expenditures. These projections were computed by using the average growth rate (AGR) method and determined by computing 5% (average growth rate) increase from Budget Year 2018 as the baseline.

**Table 28. FIVE-YEAR PROJECTION ON INCOME AND EXPENDITURES
CY 2021-2025**

Sources	2021	2022	2023	2024	2025
Projected Income (Millions)	2,201.81	2,346.00	2,555.47	2,827.83	3,130.62
Total Local Sources	256.50	245.069	296.78	320.68	347.69
Real Property Tax (Basic)	29.20	26.80	31.58	32.84	34.15
Business Tax	28.55	23.70	39.29	46.22	55.41
Fees and Charges	45.09	45.96	48.91	51.25	53.02
Local Economic Enterprises	150.50	146.00	173.24	186.28	200.64
Other Receipts	3.150	2.60	3.47	4.07	4.44
Internal Revenue Allotment	1,945.31	2,100.94	2,258.69	2,507.14	2,782.93
Projected Mandatory Expenditures	1,595.72	1,746.99	1,924.34	2,091.71	2,274.05
Personnel Services	709.24	737.89	811.68	892.85	982.14
MOOE	609.73	683.61	751.97	827.17	909.88
Capital Outlay	15.24	30.00	33.00	36.30	39.93
Debt Service	161.26	185.48	208.57	203.31	195.59
5% Calamity Fund	100.24	110.00	119.11	132.07	146.49
New Development Investment Financial Potential	606.08	599.01	631.12	736.11	856.57
20% Development Fund	389.06	406.97	451.73	501.42	556.58
Total Special Education Fund (SEF)	33.70	38.00	43.26	44.99	46.79

The provincial government had appropriated funds for road maintenance project and construction, rehabilitation and improvement of various road projects from the 20% development fund. Further, in 2015, counterpart for national funded projects had been appropriated funds which is also from the 20% development fund. It increased to 90% for the following year due to the road projects funded by the national government.

Moreover, in 2014, the DRRM had appropriated funds for road projects in which 36% was appropriated from the fund. And likewise, it also appropriated for its succeeding year.

Maintenance Activity

There are two (2) types of road maintenance work, namely: the routine maintenance work and periodic maintenance work.

1. Routine Maintenance Works

Routine maintenance works are those maintenance activities regularly done by maintenance crew throughout the year to prevent deterioration and to maintain the good condition of road surface, bridges and cross drains. The maintenance works for unpaved roads includes: (a) Grading and smoothing road surface; (b) Patching and filling of potholes, (c) Cleaning of cross drainage, ditches and canal; (d) Removal of debris and fallen trees; and (e) Vegetation control.

For paved roads, maintenance works consist of (a) Grading and smoothing of road shoulder; (b) Cleaning of cross drains and canal; and (c) Vegetation control. Maintenance works for bridges and cross drainage are limited to the following activities: (a) Minor repair on abutment's slope protection; (b) Vegetation from bridge structure; (c) Minor re-paintings on railing and wing wall; (d) Cleaning of waterway; and, (e) Cleaning and sweeping on bridge deck and sidewalk.

In the manual work of maintenance activities, we introduce the Community-Based Road Maintenance Contracting (CBRMC). This is another strategy of Road Maintenance Project that encourages and enables the local communities to actively engage in the upkeep of provincial roads.

This program also acts as prevention mechanism for the future damage and it helps extend the longevity and lifespan of provincial roads. It also strengthens the capacity of the Provincial Engineer's Office (PEO) to plan, manage, and supervise labor-based road activities.

The program resulted in faster response to minor road damages such as patching and repairs of unpaved road surfaces and shoulders. This strategy extends the life span of the provincial roads.

2. Periodic Maintenance Works

Periodic maintenance requires extensive work and covers a larger scale than the routine maintenance works. The purpose of periodic maintenance is to restore the deteriorating condition of roads, bridges and cross drainage to their original condition. For unpaved roads, periodic maintenance involves (a) Re-graveling, reshaping and compacting; (b) Re-grading of silted ditches;

(c) Replacing and /or upgrading of damaged cross drains when necessary; and (d) Replacing Road signs.

Paved roads maintenance works comprise the following: (a) Resurfacing Road shoulders; (b) Upgrading of cross drainage, when necessary; (c) Re-blocking of pavement, when necessary; and (d) Vegetation pruning. Periodic maintenance works for bridges includes (a) Repair of scoured ripraps;

(b) Repainting of railings, railing posts and wing walls of bridges; and, (c) Replacement of bailey bridge running boards.

Road Rehabilitation

Prior to 2008, there was no funding allocation from the Provincial LGU Calamity Fund for road rehabilitation. However, from 2012 to present, there were funding from the National Government through various national programs such as Motorized Vehicle Users Charge-Special Local Road Fund (MVUC/SLRF), Davao Integrated Development Project (DIDP) funded by the Department of Agriculture (DA), Philippine Rural Development Project (PRDP), Payapa at Masaganang Pamayanan (PAMANA) (DA, DILG & OPAPP). Due to the occurrence of natural calamities like heavy downpour/prolonged rainfall that result to flash floods and soil erosion, the Calamity Fund of the province for road rehabilitation increased. Also, due to the clamor of the Municipal and City Local Government Units, the Provincial Government appropriated five million per year that started from 2010 up to the present for the rehabilitation of various local road and drainage.

Furthermore, the MVUC/SLRF and other funding from PRDP funded the construction/

rehabilitation of farm- to- market roads in almost all municipalities of the province with a minimal counterpart from the Provincial LGU and implementation was done by contract. Other provincial investments for road construction and rehabilitation were from the DIDP and Conditional Matching Grant to Provinces.

Road rehabilitation works include the following: a) Resurfacing and grading of heavily damaged road sections; b) Compacting of surfacing materials; c) Upgrading of cross-drainage materials; d) Re- installation of dilapidated reinforced concrete pipe; e) Major repair/rehabilitation of the damaged substructure and superstructure of existing bridges; f) Slope protection on the areas prone to landslide; g) Installation of grouted ripraps using concrete blocks; and h) Excavation works of excess materials.

**Table 29. Sources of Funds for Road Construction/ Maintenance/ Rehabilitation
(PhP Million)**

SOURCE OF FUNDS	ABBREVIATION	AGENCY	YEAR					
			2012	2013	2014	2015	2016	2017
Local Source	-	Provincial Government of Davao del Norte	4.96	2.797	7.68	11.36	4.7	11
Special Local Road Fund	SLRF	Department of Interior and Local Government (DILG)	10	19.22	20.22	17.2	-	-
Konkreto at Ayos ns LanSangan and DAan Tungo sa Pangkalahatang Kaunlaran	KALSADA	Department of Interior and Local Government (DILG)				60.32	88	-
Conditional Matching Grant to Provinces	CMGP	Department of Interior and Local Government (DILG)	-	-	-	-	-	479

SOURCE OF FUNDS	ABBREVIATION	AGENCY	YEAR					
			2012	2013	2014	2015	2016	2017
Philippine Road Management Facility	PRMF	Australian Aid (AUSAID)- Department of Interior and Local Government (DILG)		55.08	31.33	-	-	-
Philippine Rural Development Project	PRDP	Department of Agriculture (DA)			456.4	548.8	477.8	
Payapa at Masaganang Pamayanan- Department of Interior and Local Government	PAMANA - DILG	Department of Interior and Local Government (DILG)		6	45	38.29	-	-
Payapa at Masaganang Pamayanan - Department of Agriculture	PAMANA - DA	Department of Agriculture		25.6	79.96	63.82	-	-
Office of the Presidential Adviser for Peace Process - Payapa at Masaganang Pamayanan	OPPAP - PAMANA	Office of the Presidential Adviser for Peace Process (OPPAP)						305
Farm to Market Road Development Project	FMRDP	Department of Agriculture (DA)		21.4		42.8	-	-

SOURCE OF FUNDS	ABBREVIATION	AGENCY	YEAR					
			2012	2013	2014	2015	2016	2017
Support to Emergency and Livelihood Assistance Project (SELAP)	SELAP	Department of Agriculture (DA)		17.3	6.54	-	-	-
Davao Integrated Development Project (DIDP)	DIDP	Department of Interior and Local Government (DILG)	11.8	12.59	7.32	-	-	-
TOTAL			26.8	159.99	654.4	782.6	570.5	795

Source: Provincial Engineer's Office/ Provincial Planning and Development Office

Local Road Asset Management

These are the findings of the Local Road Asset Management Team on the current state of the Davao del Norte's road assets.

- 107 of road sections do not have road signages. Most of the road projects constructed that were funded by other agencies have provisions for road safety features.
- 142.54 kms. of 490.77 km with existing data from municipality of Kapalong, Carmen, New Corella, Asuncion and San Isidro of provincial road network do not have existing electric post. 361.25 km of provincial road network have no kml file of electric post. The number of electric post with lightings are yet to be identified by the respective MLGU.
- 44.67 Kms of provincial roads are not passable due to on-going road improvement. -558.86 kms of provincial road are not passable within 2-3 days during situation cause by extreme weather conditions although alternate routes will be utilized. Existing structures requires upgrading to cater extreme weather conditions.
- 90 road sections don't have established slope protection due to budget limitations. Most of the road sections that have slope protection were prioritized and provided because of

occurrences of landslide incidents where on-site assessment and monitoring were conducted; and, requests thru Barangay resolutions. The remaining 430.99 kms (50.58%) are being implemented periodically by administration due to budget limitations

- There are no provincial road sections that are dead-ends; it's either connected to barangay, municipal, provincial and national roads
- 337.77 kms of collector roads are unpaved due to budget limitations brought about by realignment of funds to other priorities (e.g. COVID-19 crisis) and Programs, projects and activities (PPAs)

Social and Environment Safeguards for Road Projects

The province of Davao del Norte undertakes road rehabilitation projects under the Conditional Matching Grants to Provinces (CMGP) program of DILG. In order to efficiently carry out the program, the provincial government of Davao del Norte developed an environmental management guideline. The environmental management guideline was prepared for the proposed rehabilitation of provincial roads in Davao del Norte to ensure application of good environmental practice and document compliance. As per DAO 2003 - 30, the project is under category requiring Initial Environmental Examination including the environmental management plan (EMP).

The objective of the environmental guideline is to address the environmental impacts and management issues associated with the road rehabilitation projects and to be compliant with the Philippine Environmental Impact Statement System (PEISS).

In line with the principles of sustainable development, the PENRO-LGU implements a system oriented and integrated approach to ensure a rational balance between socio-economic development and environmental protection in road infrastructure projects by considering EIS, and/or CNC. The simple process flow on Environmental and Social Management System for Road construction and rehabilitation project is shown in Figure ---. It is further discussed in a separate document - the Environmental Management Guidelines for Road Construction and Rehabilitation.

The initial stage shall be the project screening and categorization. The province will consider the following categories of projects under EIS system as stipulated in DAO No. 2003-30, Presidential Decree 1586, and Presidential Proclamation No. 2146.

Category A. Environmentally Critical Projects (ECPs) with significant potential to cause negative environmental impacts.

Category B. Projects that are not categorized as ECPs, but which may cause negative environmental impacts because they are located in Environmentally Critical Areas (ECA's).

Category C. Projects intended to directly enhance environmental quality or address existing environmental problems not falling under Category A or B.

Category D. Projects unlikely to cause adverse environmental impacts.

The above project categorization set by the PEISS demonstrates how not all projects require an EIS or IEE and a corresponding EMP. In the project screening phase, the SES Team upon evaluation of the project through Form 1.0 Basic Project Information, will determine whether or not a project requires an environmental assessment. Projects that typically require an IEE and EMP are major road rehabilitation works that involve:

1. Plain Concrete Cement (PCC) Pavement
2. Road opening

Projects that pose minimal to negligible environmental and social impacts which does not require an EMP are the following:

1. Gravelling
2. Clearing and grubbing
3. Embankment
4. Subgrade preparation

Once the project description and checklist are completed for screening, the SES will inform the contractor/in-house implementer of the applicable requirements based on project categories. The SES shall provide all forms and the related checklists of documents to comply.

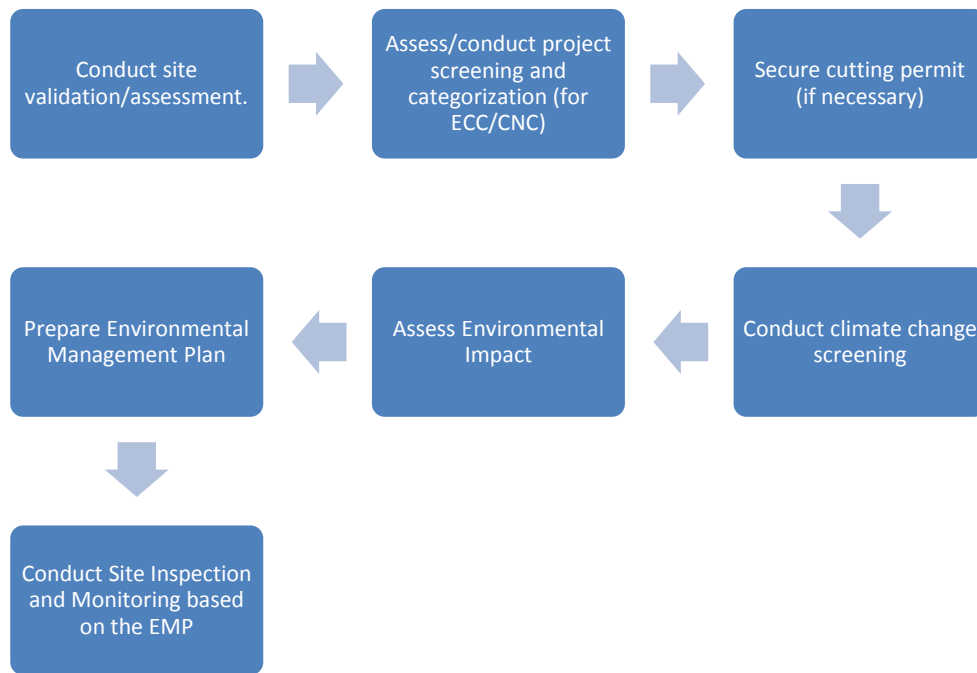




Figure 33. Process Flow for Environmental Management Plan Preparation

From the different activities identified in the basic project information and the screening checklists, the potential environmental impact of the activities of road rehabilitation activities is predicted. The team will provide recommendations to mitigate these impacts. A sample EMP is presented below.

Environmental Management Plan

Table 4. The proposed mitigation measures for the identified project impacts are presented for Rehabilitation/Improvement of Tubod-Pilar Provincial Road

Environmental Issues/component	Mitigation/Enhancement Measure	Contribution to Sustainable Development Goal	Location	Monitoring Indicators	Mitigation cost	Office
Pre-Construction/Design Stage						
Pavement damage and inadequate drainage	<ul style="list-style-type: none"> • Provision of adequate side drains • Provisions of adequate cross drainage structure based on drainage pattern around the alignment 	 15 LIFE ON LAND	Throughout the rehabilitated road	<ul style="list-style-type: none"> • Design of both side and cross drains • No of cross drains structures and span 	Included in the construction cost	PEO
Safety along the proposed road to be rehabilitated	<ul style="list-style-type: none"> • Provisions of warning signs • Improving substandard curves, grading and other features in accordance with the law • Provisions of slope stabilization measures in high embankment/cutting to prevent landslide situation 	 11 SUSTAINABLE CITIES AND COMMUNITIES	At the construction site and in places where height of embankment >3.0 m	<ul style="list-style-type: none"> • Number of accident & vehicle collision 	Included in the construction cost	PEO

IV. Development Issues and Challenges

The Problem Tree Analysis was used as a tool in determining the development issues and challenges in the road sector. The analysis was supported by primary and secondary data as well as consultation with various stakeholders on the status and conditions of the road network of the province. The core problem which was identified was that the Local Road Condition, Quality, Safety and Connectivity is below par. From this core problem the following issues and challenges were identified as underlying or root causes.

Road Development Processes	Issues and Challenges
<p><i>Limited Application of cross-cutting themes in road planning and design</i></p>	<ul style="list-style-type: none"> a. Lack of SDG-related data b. Limited design practice in local road projects which are climate resilient c. Monitoring and Evaluation results does not inform road planning d. Limited engagement and coordination with the academe on research and development. e. Limited institutional capacity to access other sources of funding and finance for local road development PPAs
<p><i>Limited Capacity in Road Maintenance</i></p>	<ul style="list-style-type: none"> a. Community participation is limited with CBRMC participation still at 28.29% as of 2020 and LGUs not yet adapting the same. This is in part due to the difficulties by the CBSPs in complying with statutory requirements. b. Lack of working equipment for road maintenance due to poor and delayed maintenance of equipment and subpar spare parts. c. Limited output due to outdated local road maintenance equipment. f. Limited budget allocation on road maintenance specially as funds are realigned

<i>Slow rehabilitation and upgrading of roads</i>	<ul style="list-style-type: none"> a. Limited budget allocation for road rehabilitation and improvement b. Delays in project completion as a result of – delays in procurement process, suspension of programmed rehabilitation activities, RROW issues which are not settled.
<i>LRAM is not yet fully in place</i>	<ul style="list-style-type: none"> a. There is limited activities and training for the LRAM Team b. LRAM function is seen as an add-on responsibility c. Ownership of road lots are not yet transferred to the government due to lack of funding d. Unavailability of records, documents and data due to the lack of unified road asset data among key offices
<i>Limited road safety measures in place</i>	<ul style="list-style-type: none"> a. Lack of traffic facilities and appropriate road furniture. b. Inadequate road maintenance activities at the municipal and barangay level. c. Absence of Road Safety Council in all levels of the local government units. d. Lack of properly trained responders to handle post-crash response in MLGUs/BLGUs. e. Inadequate medical response equipment in public hospitals and trauma centers. f. Laxity in the imposition of existing rules and regulations (i.e truck overloading) related to road safety. g. Unskilled/reckless drivers plying in major routes. h. Poorly maintained/ageing vehicles (un-roadworthy vehicles). i. Non provision of special lane and other appropriate facilities for road users with special needs such as the PWD, children, women and elderly. j. Limited transport/mobilization for the responders at the local level. k. Poor coordination between PNP, DPWH and other line agencies. l. Poor quality of post-crash response.

V. Subsectoral Goals, Objectives and Targets

LRNDP aims to improve access to economic opportunities and delivery of social and other services, in support to the attainment of the PDPFP Goal, the visions of the province and ultimately contribute to the achievement of the Sustainable Development Goals. The achievement of this aim is indicated by improved access and linkages within and outside of the province, reduced road crashes and accidents, and enhanced local capacity on road planning and implementation. Attaining these targets necessitate heightened road infrastructure programs focusing on strategic local roads and bridges ably allocated with funds, installing and operationalizing systems and mechanisms to ensure road safety at all times, and capability and capacity building measures to local staff to sustain and improve gains in road sector development.

Hierarchy of Objectives for the Road Sector

	Narrative Summary	Indicator	Related Sustainable Development Goal/Targets
DDN Vision	Davao del Norte, a leading, innovative and competitive province with empowered and resilient people	Decreased poverty incidence, Decrease of households severely affected by calamity, Reduction in maternal and child mortality, Increased in enrolment rate	1,3,8,13
LRNDP Goal/Impact	Improved access to economic opportunities and delivery of social and other services	Increased in no. of individuals with access to healthcare, Increased in no. of individuals able to access job opportunities, Increased in no. of farmers, fisherfolks and related agri-fishery industry players accessing agriculture and fishery productivity enhancing services.	3,8
Higher Level Outcomes	Enhanced mobility of goods, services and people	Increased mobile market services, Increased traffic volume count,	8
	Improved product marketability	Increased accessibility and linkages to market and players of the farmers & fisherfolks products	9,11
	Maintained product quality	Decreased percentage of spoilage	4
Lower	Lower transportation cost	Reduced % of transport cost	2

	Narrative Summary	Indicator	Related Sustainable Development Goal/Targets
outcomes	Shorter travel time	Reduced % of travel time	9,11
	Safer roads	% Decrease of road accidents	9,11
Outcome/ Objective	Improved local roads condition, quality, safety and connectivity	Increased length of roads in fair to good condition, Increased of New / Developmental Routes, Increased No. of roads with road safety features, Increased Road density (ratio of the total road length to the total land area),	1, 3, 5, 8, 9, 11, 13
Outputs	Ensured applications of cross cutting themes in road engineering planning and designs		
	Local roads asset management fully in place		
	Enhanced rehabilitation and upgrading of local roads		
	Enhanced capacities in local road maintenance		
	Local roads safety measures in place		

VI. Road Network Strategies

Local Road Asset Management Strategies

Local Road Asset Management is an integrated approach involving planning, finance, engineering, operations, accounting and other functions of the LGU to effectively manage existing and new road assets through life cycle management. The goals of LRAM are 1) to maximize benefits from road assets, 2) reduce risk and 3) provide satisfactory levels of service to road users in a socially, environmentally, economically sustainable manner. The objective of road asset management is to ensure that assets provide their required levels of services in the most cost effective manner to cater for both present and future users. Through the alignment of visions and mission of the PGLUs goals, the Local Road Asset Management Strategies were identified. These are:

1. Institutionalization of Local Road Asset Management

It provides legitimacy of the efforts and initiatives as well as activities to be undertaken by the concerned group. Strengthening the capacity and capability of the group paves the way to think, plan and act on the basis of long-term decisions.

2. Improvement of system and processes on complete inventory of all road elements

An inventory stating the condition of each asset, values and maintenance needs are the basics for an effective management, for political decision making and for transparency towards the community. Getting sound knowledge by establishing and updating a complete inventory of all road network with all its elements leads to better decisions. Sufficient data on the attributes of a road and bridge, the geometrics, age and condition must be readily available and in a format that enables analysis of the technical, financial and service delivery alternatives.

3. Sustainable funding for road asset management

Road infrastructure needs to be regularly taken care of, maintained, upgraded and

renewed in order to keep on providing the citizens with the level of service they are entitled to expect and maintaining its value for society. Investing regularly in the infrastructure is also essential in implementing the strategies and facilitates achievement of the desired goals.

The process of fund allocation for the maintenance and improvement of the road infrastructure must take into account the whole road life cycle. Poorly maintained roads will also result in increased costs for taxpayers, users (accidents, damages to vehicles and the use of more fuel) and consumers (e.g., increased transport costs of goods)

4. Strengthening capacity on road asset management

Road Asset Management can help achieve sustainable and effective management of a safe and efficient road network thus it is important to learn about the subject, innovates to improve the service delivery. The system must evolve to be responsive to the present demand and opportunities; this could be facilitated thru continuous learning or capacity development.

5. Preservation of local road asset thru Preventive Maintenance Approach

It offers advantages regarding cost-efficiency and road safety or noise reduction. It is beneficial to public spending, because the costs of preserving a good quality network are optimized in the long run.

6. Strengthening of monitoring system for local road asset management

Monitoring the delivery of programs and services can provide feedback to the management, council, concerned offices and the public that identifies whether or not the programs, activities and services have been delivered on time, within budget or at a level which meets customer expectations. Strengthening and improving the system will help identify the problem the require the management and the decision-makers to remedy/resolve the problem by making adjustments to policy, program delivery or select alternate technical, financial or resource allocation options.

7. Advocacy and strengthening the Environmental and Social Safety in road asset management

Lack of information and political awareness on the importance of sufficient investments for the maintenance of the road infrastructure led to its chronic underfinancing and deterioration. As a consequence, it can no longer offer the required level of service and loses its value.

8. Strengthening and improvement the connectivity, accessibility and mobility (CAM) of the local road network

The concepts of connectivity, accessibility, and mobility (CAM) are key measures of transport network performance; it brings about changes in the relationship pattern between human beings and the environment. Efficient handling of traffic evolution to avoid future congestion – the future trends in traffic demand have to be considered. Improvement of the transportation infrastructure increases the efficiency of production and the effectiveness of production systems and thus improves productivity.

9. Evaluation, assessment and determination of road asset requirements

Considers the useful life of an asset plus the technical, financial and program spending needs to operate, maintain, renew and replace an asset over said useful life. Diagnosis on the condition of the network define the types of intervention to be carried out, costs estimations and financing tools.

10. Multi-stakeholder Participatory Approach in Road Asset Management

Shared Responsibilities and Involvement of stakeholders' support and cooperation in managing and preserving the road assets will be pursued with the all stakeholders working together.

Road Planning and Design

1. Utilize participatory approaches in road network development planning and implementation particularly in LRNDP formulation and implementation and road planning and engineering design preparation.
2. Adoption of selection criteria in choosing the core road network.
3. Implement national road planning and design guidelines and ensure that cross-cutting themes such as gender, environmental management, DRR-CCA and social inclusion are considered in the design of local roads.
4. Incorporate the road safety strategies and hardware in road planning, design and POW preparations.
5. Update the road safety audit and inventory to ensure compliance to existing rules and regulations relative to road safety.
6. Strengthen Local Road Inventory Team to conduct an annual road inventory and traffic survey.
7. Prioritize the implementation of the major external, internal and other access routes that link Davao del Norte to adjacent provinces of Compostela Valley, Bukidnon, Agusan del Sur and Davao City.
8. Ensure the development, implementation and monitoring of the Provincial EMPs, and specific EMPs for road and bridge projects.
9. Strengthen coordination with the academe in terms of R&D for the development of the local road networks.
10. Integration of hydrologic and hydraulic studies in planning and designing for road side drainage systems.

Road Maintenance

Strategies

1. Prioritization of roads for maintenance in based on RBIS results/data and those that serve as main roads in availing the road maintenance activities to maximize budget allocation/resources.
2. Gradual shifting of mode of implementation of maintenance activities from by administration to contracting out to cover the average efficiency of equipment. This can be applied for both locally and externally funded road maintenance operations.
3. Requiring the submission of an Annual Provincial Road Maintenance Plan before any

funding request may be considered.

4. Improve the existing routines and procedures, and institutionalize the scheduling system in road maintenance. This will cover proper management of resources like equipment, manpower and materials.
5. Institutionalization of the community-based road maintenance scheme in all levels of the local government.
6. Gradual transfer of 10% of the allocated budget for road maintenance program from 20% development t fund to general fund from 2018 onwards.

Road Rehabilitation

Strategies

1. Ensure annual budget allocation for road rehabilitation and construction activities. This can be done by ensuring that the LRNDP, which contains the road rehabilitation and construction priorities will be used as a basis in the formulation of Annual Investment Plan and Annual Budget. Resource mobilization through partnership with other resource institutions will also be done to augment LGU internal resources.
2. Develop and implement systematic process of identifying and prioritizing road rehabilitation and construction projects to maximize limited resources. This will involve developing clear policies and guidelines in road prioritization.
3. Strengthen LLGU road rehabilitation systems and processes such as: construction supervision and management, contract management, quality assurance and quality control.
4. Development and strict implementation of Environmental Management Plans for locally funded road rehabilitation projects.
5. Develop and adopt guidelines to ensure that gender, environmental and social inclusion issues and concerns are considered in planning, implementing and monitoring road rehabilitation projects.
6. Upgrading of alternate routes that will enhance inter and intra connectivity of Davao del Norte to other provinces in the region.
7. Regular appropriation of budget from the General Fund and other local sources for rehabilitation/improvement activities of provincial core roads.

Core Road Priority Strategies

The Province in its PRNDP 2014-2018 and LRNDP 2018-2022, through an objective selection

criterion, has arrived at a shortlist of road sections, which provides good quality road linkages between the population centers, ecotourism, industrial and economically valuable locations in the province. These road sections represent the province’s core road or the minimum road network required to support the economic and social development of the province. Considering the dynamic needs of its constituents and pursuant to shifting development goals and agenda, the selection criteria has been updated.

Table 31. Core Road Selection Criteria

Prioritization Criteria for Core Road Network	
	Weight
1. Economic Impact (30%)	
a. High volume use or increases potential for high volume by linking two main roads to improve travel times – reduces transportation costs.	6
b. Increase’s access of workforce to employment centers.	5
c. Increase’s access to economic activity – commercial/retail and industrial centers.	5
d. Lack’s production areas to markets and other part of the Value Chain Framework.	4
e. Increase’s access to ports and transport hubs – links transport terminals / hubs.	4
f. Proximity to growth centers and population centers.	3
g. Improves access to tourism assets.	3
2. Environmental and Physical Impact (30%)	
a. Avoids environmentally sensitive areas such as wetlands or sensitive habitats.	4.5
b. Avoids impacting on protected areas.	4
c. Minimizes impact on culturally sensitive areas.	3
d. Avoids natural and human induced hazards – flood areas, landslides, tsunamis, coastal surges, conflicts.	4.5
e. Contributes to Disaster Risk Reduction.	3
f. Helps the Province to adapt and mitigate impacts of Climate Change.	4
g. Avoids inaccessible terrain, steep slopes, geographic barriers (gullies, rivers, etc.).	3
h. Avoids costly drainage issues and the potential for creating flood problems.	4
3. Social (20%)	
a. Increase’s access to health services.	3
b. Increase’s access to education services.	3
c. Provides emergency access to remote areas for emergency evacuation.	3

d. Increase's access to public transport.	3
e. Improves employment opportunities for the poor and disadvantaged.	2
f. Improves access to cultural and community assets; builds social capital.	1
g. Improves access to recreational activities.	1
h. Improves road safety.	2
i. Important conduits during conflict, crises and calamities.	2
4. Legal (20%)	
i. Avoids right-of-way issues and potential compensation claims	7
ii. Avoids displacement of communities	4
iii. Avoids impacts on indigenous values and communities	3
iv. Avoids disputes over access and easements	3
v. Avoids tree and vegetation clearance	3

This resulted in a new set of core roads clusters for the province and this includes all local roads from province, city, municipality and barangay. The length of core road identified per road classification is presented in Table 32. The complete list of the Davao del Norte Local Core Road is provided in Annex A. These core roads cluster where then subjected to a round of participatory prioritization. The ranked list provided a basis for funding the projects that most contributes to the goal of the province. This ensured the optimum use of the limited resources available for rehabilitation of the local core roads.

Table 32. Davao del Norte Local Core Road

Road Classification	Road Length (km)
Provincial Road	667.27
City Road	256.60
Municipal Road	83.75
Barangay Road	264.61

Prioritization of Core Roads

As in the PRNDP 2014-2018, the new clustered core roads are subjected to a round of evaluation, which would ensure optimum results at minimum cost. The same tool was used – the Goal Achievement Matrix (GAM), to identify priority road network clusters for development and

management. A project brief prepared by the LGUs described the details of the work-required to develop the core road clusters and the stakeholders together with the TWG assessed the merits of each project. The assessment is based on how much a plan or project contributes to the attainment of particular goals.

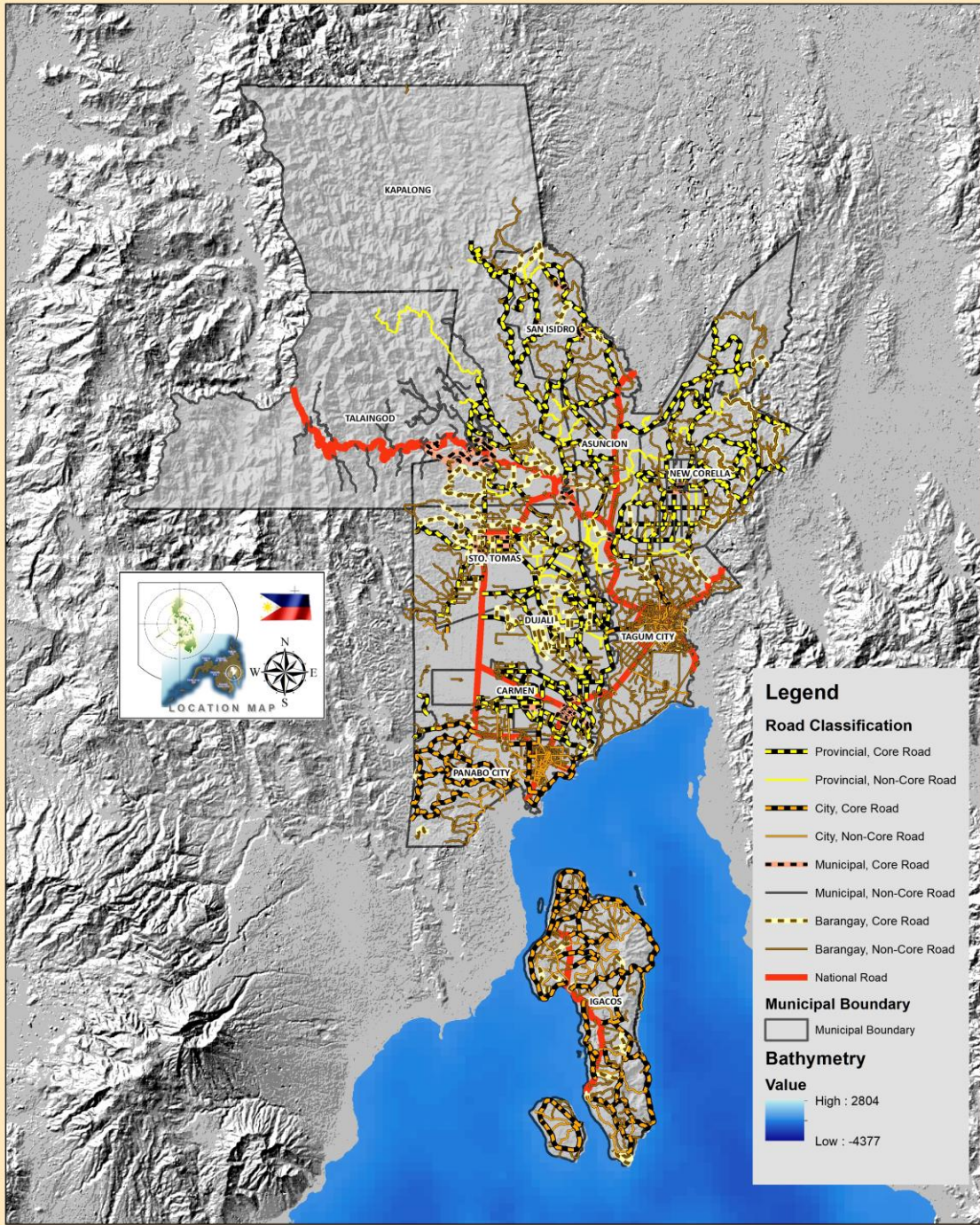
As a result of the prioritization, the province arrived at a final ranking of its clustered road

Table 33. Ranking of the Provincial Core Roads

Road Project	Rank
Rehabilitation and Improvement of Dujali - San Miguel Provincial Road at B.E. Dujali/Sto.Tomas Davao del Norte	1
Rehabilitation and Improvement of San Miguel - Crossing Kinamayan Provincial Road at Sto. Tomas Davao del Norte	2
Rehabilitation and Improvement of Tuganay - Anibongan - San Isidro Provincial Road at Carmen Davao del Norte	3
Rehabilitation and Improvement of New Corella - Saug Provincial Road at New Corella Davao del Norte	4
Rehabilitation and Improvement of Jct. Highway - Tanglaw Provincial Road at B.E. Dujali Davao del Norte	5
Rehabilitation and Improvement of Jct. Highway Gabuyan - Semong - Dagohoy Provincial Road at Kapalong/Talaingod Davao del Norte	6
Rehabilitation and Improvement of Dalisay - Mabuhay Provincial Road at Panabo/Carmen Davao del Norte	7
Rehabilitation and Improvement of San Miguel - Libertad Provincial Road at Sto. Tomas Davao del Norte	8
Rehabilitation and Improvement of Dujali - San Isidro Provincial Road at B.E. Dujali/Carmen Davao del Norte	9
Rehabilitation and Improvement of Mesaoy - Jct. Mahayahay Provincial Road at New Corella/Asuncion Davao del Norte	10
Rehabilitation and Improvement of Sto. Tomas - Bdry. Mamacao Provincial Road at Sto. Tomas Davao del Norte	11
Rehabilitation and Improvement of Jct. Highway - Carmen - Mangalcal - Tubod Provincial Road at Carmen Davao del Norte	12
Rehabilitation and Improvement of Ising-Sadpodon - Taba-Diladila Provincial Road at Carmen Davao del Norte	13
Rehabilitation and Improvement of Pandulian - Jct. San Miguel Provincial Road at Kapalong/San Isidro Davao del Norte	14
Rehabilitation and Improvement of San Juan - New Talisay Provincial Road at New Corella/Asuncion Davao del Norte	15

Rehabilitation and Improvement of Km.15, Kipalili - New Loon Provincial Road at Asuncion/San Isidro Davao del Norte	16
Rehabilitation and Improvement of Sawata - Libuton - Monte Dujali - Patel Provincial Road at Kapitalong/San Isidro Davao del Norte	17
Rehabilitation and Improvement of Monte Dujali - Gupitan Provincial Road at Kapitalong/San Isidro Davao del Norte	18
Rehabilitation and Improvement of Sto. Niño - Daligdigon - Paiton Provincial Road at Talaingod Davao del Norte	19

Figure 35. Local Core Road Network Map



DAVAO DEL NORTE CORE ROADS

Coordinate System: WGS 1984 UTM Zone 51N
 Projection: Transverse Mercator
 Datum: WGS 1984
 False Easting: 500,000.0000
 False Northing: 0.0000
 Central Meridian: 123.0000
 Scale Factor: 0.9996
 Latitude Of Origin: 0.0000
 Units: Meter



This map is indicative and is intended for Provincial level Risk Assessment. For Municipality and site level hazard microzonation, further consultation to mandated government agencies is recommended.

Social and Environment Safeguards

The province will strengthen the implementation of SES in all its road projects following the guidelines set in the Environmental Management for Road Rehabilitation and Construction. The following strategies will aid in achieving the targets for the next five years, viz:

1. Enhance technical assistance to LGU's.
2. Strengthen coordination with PEO and SES.
3. Ensure proper coordination with the community in public consultation activity.
4. Strengthen the monitoring in the observance of environment and social impact.

Targets:

2021 - 40% of all provincial road projects have EMP.

2022 - 50% of all provincial road projects have EMP.

2023 - 60% of all provincial road projects have EMP.

2024 - 70% of all provincial road projects have EMP.

2025 - 80% of all provincial road projects have EMP.

VII. Investment Program

Projected Funds for Road Investments

The investible funds for Local Road Network Development were determined based on the five-year projections and expenditures. These projections were computed by using the average growth rate (AGR) method and determined by using 5% average growth rate per year from Budget year 2021 as baseline. Funding source considered are from existing local revenues, National government transfers, loans and grants.

The computed projected income of the Provincial Government for 2021 -2025 is 13 billion as shown in Table 34. Provincial funds allocated for road related infrastructure projects ranges from 130 million – 180 million on year 2018 -2020 as shown in Table 29. The year with the highest amount of allocation from the provincial funds is year 2018 with an amount of 187 million. The amount decreased in year 2019 – 2021 but allocation to road infrastructure projects was not less than 134 million.

Projected income of component cities and municipalities for 2021 -2025 ranges from 104 million – 1.4 billion. Tagum City has the highest projected income with an amount of more than 1.3 billion while B.E. Dujali has the lowest projected income of 104 million as shown in Table 33.

The provincial government had appropriated funds for road maintenance project and construction, rehabilitation and improvement of various road projects from the 20% development fund as much as 30 million. Counterpart for national funded projects had been which is also from the 20% development fund for Project Cost of 100 million.

Moreover, in 2021-2022, the DRRM had appropriated funds for road projects with amounts ranging from 6 million to 15 million.

Table 34. Five-year Projection on Income and Expenditures, Davao del Norte

Sources	2021	2022	2023	2024	2025
Projected Income (Millions)	2,201.81	2,346.00	2,555.47	2,827.83	3,130.62
Total Local Sources	256.50	245.069	296.78	320.68	347.69
Real Property Tax (Basic)	29.20	26.80	31.58	32.84	34.15
Business Tax	28.55	23.70	39.29	46.22	55.41
Fees and Charges	45.09	45.96	48.91	51.25	53.02
Local Economic Enterprises	150.50	146.00	173.24	186.28	200.64
Other Receipts	3.150	2.60	3.47	4.07	4.44
Internal Revenue Allotment	1,945.31	2,100.94	2,258.69	2,507.14	2,782.93
Projected Mandatory Expenditures	1,595.72	1,746.99	1,924.34	2,091.71	2,274.05
Personnel Services	709.24	737.89	811.68	892.85	982.14
MOOE	609.73	683.61	751.97	827.17	909.88
Capital Outlay	15.24	30.00	33.00	36.30	39.93
Debt Service	161.26	185.48	208.57	203.31	195.59
5% Calamity Fund	100.24	110.00	119.11	132.07	146.49
New Development Investment Financial Potential	606.08	599.01	631.12	736.11	856.57
20% Development Fund	389.06	406.97	451.73	501.42	556.58
Total Special Education Fund (SEF)	33.70	38.00	43.26	44.99	46.79

Table 35. Projected funds from external sources

Description	Agency name	Projected amount per year (000,000)					Total (000,000)
		2021	2022	2023	2024	2025	
Convergence Program	Department of Tourism - Department of Public Works and Highways	50	50	50	50	50	250
Roads Leveraging Linkages to Industries and Trade (ROLL IT)	Department of Trade and Industries - Department of Public Works and Highways	50	50	50	50	50	250

Local Roads Development	Department of Public Works and Highways	30	30	30	30	30	150
Philippine Rural Development Program (PRDP)	Department of Agriculture	100	-	-	-	-	100
Farm to Market Road Development Program (FMRDP)	Department of Agriculture	20	20	20	20	20	100
Local Government Support Fund (LGSF)	Department of Interior and Local Government – Department of Budget Management	30	30	30	30	30	150
TOTAL		280	180	180	180	180	900

Five –Year Road Investment Program

Presented in the table 36 shows the list of five-year investment program for Programs, Projects and activities. It includes the provincial, city, municipal and barangay roads. The prioritization of projects is based on its rank using tools for project prioritization, its indicative cost and level of urgency for all activity components which can be allocated given the projected funds of a given year.

Programs, Projects and activities are but not limited to road maintenance, road rehabilitation, road improvement, capacity development, monitoring and evaluation. Table 36 to Table 47 presents the identified projects, its fund source and the corresponding year of implementation.

Given the limited resources of the province it can be seen that not all activity components of the core road network can be funded thus other activity components is expected to be funded beyond the planning period and this requires the province to look for sources of additional funds for road development.

Table 35. Five-year Projection on Income per LGU

LGU	Income					Total Amount
	2021	2022	2023	2024	2025	
Province of Davao del Norte	2,201.81	2,346.00	2,555.47	2,827.83	3,130.62	13,061.73
Asuncion	207.85	218.24	229.15	240.61	252.64	1,148.50
Braulio E. Dujali	104.53	109.75	115.24	121.00	127.05	577.59
Carmen	220.87	231.91	243.50	255.68	268.46	1,220.45
Kapalong	322.54	338.667	355.60	373.38	392.04	1,782.24
New Corella	190.65	200.18	210.19	220.70	231.73	1,053.46
San Isidro	104.53	109.75	115.24	121.00	127.05	577.59
Sto Tomas	377.91	396.80	416.64	437.47	459.35	2,088.19
Talaingod	177.69	186.57	195.90	205.69	215.98	981.84
Panabo City	1026.37	1077.68	1131.57	1188.15	1247.55	5,671.34
Tagum City	1445.08	1517.33	1593.20	1672.86	1756.50	7,984.97
Island Garden City of Samal	707.52	742.89	780.04	819.04	859.995	3,909.495

Table 36. List of Programs, Projects for Local Road Network Development

PPAs	Amount (Millions)	Implementing Agency
Infrastructure Development Program: Repair / Maintenance of Local Roads and Bridges	76 / year	BLGU/MLGU /CLGU/PLGU / DPWH
Infrastructure Development Program: Various Local Roads and Drainage Development Project	20 / year	PLGU
Infrastructure Development Program: Road Opening Project	10 / year	PLGU
Disaster Prevention and Mitigation Program: Improvement of Roads, Drainage and Canal	5 / year	PLGU
Disaster Prevention and Mitigation Program: Improvement of Bridges and Cross Drainage	1 / year	PLGU
Department of Tourism - Department of Public Works and Highways Convergence Program Construction/Improvement of Roads leading to Declared Tourism Destinations	50 / year	DOT - DPWH
Department of Trade and Industry - Department of Public Works and Highways Convergence Program: Construction/ Improvement of Roads leading to Airports, Seaports, Trades, Industries and Economic Zone	50 / year	DTI - DPWH
Network Development Program -Road Widening Project	50 / year	DPWH
Network Development Program -Construction of By-pass and Diversion Roads	50 / year	DPWH
Network Development Program -Construction of Flyovers/ Interchanges / Underpass/ Long Span Bridges	-	DPWH
Network Development Program -Off-Carriageway Improvement	-	DPWH
Network Development Program -Paving of Unpaved Roads	-	DPWH

PPAs	Amount (Millions)	Implementing Agency
Bridge Program -Replacement of Bridges (Temporary to Permanent)	-	DPWH
Replacement of Permanent Weak Bridges	-	DPWH
Retrofitting/Strengthening of Permanent Bridges	-	DPWH
Rehabilitation/Major Repair of Permanent Bridges	-	DPWH
Widening of Permanent Bridges	-	DPWH
Construction of New Permanent Bridges	-	DPWH
Peace and Order Program: Improvement of Roads and Bridges	23 / year	PLGU
Peace and Order Program: Various Local Roads and Drainage Development Project	7 / year	PLGU
Capacity development for Road Related Key Reform Areas:	0.50 / year	PLGU/ NGA/ GRANTS
TOTAL	342.5 / year	

Table 37. Repair and Maintenance of Roads 2021 - 2025

Particular	Length (km)	2021	2022	2023	2024	2025	TOTAL COST (Php) Million	SOURCE FINANCING
		Amount (Php) Million	Amount (Php) Million	Amount (Php) Million	Amount (Php) Million	Amount (Php) Million		
Repair/Maintenance of Provincial Roads	850.02	25.60	30.90	34	37.50	41.22	169.22	Local Source
Repair/Maintenance of City Roads	509.88	12.00	12.55	13.14	13.79	14.48	65.96	Local Source
Repair/Maintenance of Municipal and Barangay Roads	298.89	9.50	10.17	10.15	10.25	10.06	50.13	Local Source
TOTAL	1658.79	47.1	53.62	57.29	61.54	65.76	285.31	Local Source

Table 38. Road Rehabilitation of Provincial Roads in the Core Road Network 2021 - 2025

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (PhP 000,000)
						2021	2022	2023	2024	2025	
1	Rehabilitation and Improvement of Dujali - San Miguel Provincial Road at B.E. Dujali/Sto.Tomas Davao del Norte	Road Rehabilitation/Improvement	3.43 km of road improved	DPWH	DPWH Local Roads	-	50.00	52.90			102.9
2	Rehabilitation and Improvement of San Miguel - Crossing Kinamayan Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation/Improvement	0.93 km of road improved	PLGU	DILG - LGSF	-	27.90				27.90
3	Rehabilitation and Improvement of Tuganay - Anibongan - San Isidro Provincial Road at Carmen Davao del Norte	Road Rehabilitation/Improvement	1.67 km of road improved	PLGU	DILG - LGSF	-	25.10	25.00			50.10
4	Rehabilitation and Improvement of New Corella - Saug Provincial Road at New Corella Davao del Norte	Road Rehabilitation/Improvement	11.44 km of road improved	DPWH	DPWH Local Roads	-		50.00	50.00	143.20	343.20
5	Rehabilitation and Improvement of Jct. Highway - Tanglaw Provincial Road at B.E. Dujali Davao del Norte	Road Rehabilitation/Improvement	3.1 km of road improved	DPWH	DTI - DPWH ROLL IT	-	20.00	20.00	20.00	33.00	93.00
6	Rehabilitation and Improvement of Jct. Highway Gabuyan - Semong - Dagohoy Provincial Road at Kapalong/Talaingod Davao del Norte	Road Rehabilitation/Improvement	6.7 km of road improved	DPWH	DPWH Local Roads	-		100.00	101.00		201.00

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
7	Rehabilitation and Improvement of Dalisay - Mabuhay Provincial Road at Panabo/Carmen Davao del Norte	Road Rehabilitation/Improvement	3.25 km of road improved	PLGU	DILG - LGSF		47.50				97.50
8	Rehabilitation and Improvement of San Miguel - Libertad Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation/Improvement	5.66 km of road improved	PLGU	DILG - LGSF		30.00	30.00	30.00	49.80	169.80
9	Rehabilitation and Improvement of Dujali - San Isidro Provincial Road at B.E. Dujali/Carmen Davao del Norte	Road Rehabilitation/Improvement	2.4 km of road improved	DPWH	DPWH Local Roads				20.00	52.00	72.00
10	Rehabilitation and Improvement of Mesaoy - Jct. Mahayahay Provincial Road at New Corella/Asuncion Davao del Norte	Road Rehabilitation/Improvement	4.05 km of road improved	DPWH	DPWH Local Roads		20.00	20.00	20.00	61.50	121.50
11	Rehabilitation and Improvement of Sto. Tomas - Bdry. Mamacao Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation/Improvement	4.9 km of road improved	PLGU	DILG - LGSF				100.00	147.00	147.00
12	Rehabilitation and Improvement of Jct. Highway - Carmen - Mangalcal - Tubod Provincial Road at Carmen Davao del Norte	Road Rehabilitation/Improvement	11.03 km of road improved	DPWH	DPWH Local Roads			100.00	100.00	130.90	330.90

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
13	Rehabilitation and Improvement of Ising-Sadpodon - Taba-Diladila Provincial Road at Carmen DavaodelNorte	Road Rehabilitation/Improvement	1.76 km of road improved	DPWH	DTI - DPWH ROLL IT					52.80	52.80
14	Rehabilitation and Improvement of Pandulian - Jct. San Miguel Provincial Road at Kapalong/San Isidro Davao del Norte	Road Rehabilitation/Improvement	5.58 km of road improved	DPWH	DTI - DPWH ROLL IT					167.40	167.40
15	Rehabilitation and Improvement of San Juan - New Talisay Provincial Road at New Corella/Asuncion Davao del Norte	Road Rehabilitation/Improvement	5.13 km of road improved	DPWH	DPWH Local Roads				100	53.90	153.90
16	Rehabilitation and Improvement of Km.15, Kipalili - New Loon Provincial Road at Asuncion/San Isidro Davao del Norte	Road Rehabilitation/Improvement	6.93 km of road improved	DPWH	DPWH Local Roads				100.00	107.90	207.90
17	Rehabilitation and Improvement of Sawata - Libuton - Monte Dujali - Patel Provincial Road at Kapalong/San Isidro Davao del Norte	Road Rehabilitation/Improvement	7.58 km of road improved	DPWH	DPWH Local Roads				100.00	127.40	227.40
18	Rehabilitation and Improvement of Monte Dujali - Gupitan Provincial Road at Kapalong/San Isidro Davao del Norte	Road Rehabilitation/Improvement	3.78 km of road improved	DPWH	DPWH Local Roads		20.00	20.00	20.00	20.00	113.40

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
19	Rehabilitation and Improvement of Sto. Niño - Daligdigon - Paiton Provincial Road at Talaingod Davao del Norte	Road Rehabilitation/Improvement	7.9 km of road improved	DPWH	DPWH Local Roads				100.00	137.00	237.00
	TOTAL		90 km of road improved	-	-		-	-	-	-	2,250.00

Table 39. Road Rehabilitation of Municipal Roads in the Core Road Network 2021 - 2025

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
	Rehabilitation and Improvement of Asuncion Poblacion Municipal Road, Asuncion, Davao del Norte	Road Rehabilitation/Improvement	3.90 km of road improved	-	LGU/N GA	-	-	-	-	-	97.50
	Rehabilitation and Improvement of Bonifacio St. at B.E. Dujali, Davao del Norte	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	
	Rehabilitation and Improvement of Rizal St., Aquino St., Arellano St., Pagterno-Garcia St., B.E.Dujali, Davao del Norte	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	
	Rehabilitation and Improvement of Diego Silang St., B.E. Dujali, Davao del Norte	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	
	Rehabilitation and Improvement at Purok9, Ising, Carmen Davao del Norte, Carmen, Davao del Norte	Road Rehabilitation/Improvement	0.50 km of road improved with bridge component	-	LGU/N GA	-	-	-	-	-	187.22
	Rehabilitation and Improvement of Junction National Highway- Purok10, Ising-Junction Provincial Road Carmen, Davao del Norte	Road Rehabilitation/Improvement	0.50km of road improved	-	LGU/N GA	-	-	-	-	-	14.23

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
	Rehabilitation and Improvement of 5kms Municipal Road from Prk.12c to National High school, Kapalong, Davao del Norte	Road Rehabilitation/Improvement									125
	Rehabilitation and Improvement of 2kms Municipal Road from Prk.9b to Camuning, Kapalong, Davao del Norte	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	30
	Rehabilitation and Improvement of 2kms Municipal Road of Clementa, Kapalong, Davao del Norte	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	50
	Rehabilitation and Improvement of 2-lane concrete paved roads Dionesio Irig St., Purok 2, Poblacion, New Corella, Davao del Norte	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	8.75
	Construction of 2-lane concrete roads with Bridge and Box Culvert component at Magsaysay Street, Purok 2, Poblacion, New Corella, Davao del Norte	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	30.0
	Rehabilitation and Improvement of 11.547 km Municipal Road (Feeder Road 4-Osmena Street-Everlasting Street Extension)	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	165

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (PhP 000,000)
						2021	2022	2023	2024	2025	
	Rehabilitation and Improvement of 4.414 km Municipal Road Feeder Road 4-Osmena Street-Feeder Road 10	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	60
	Rehabilitation and improvement of km. 30, barangay sawata to gumamela, brgy. Mamangan, municipality of san isidro, province of davao del norte.	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	
	Rehabilitation And Improvement of Jct.National Road Prk.2 Going to Mahayahay Tugas	Road Rehabilitation/Improvement		-	LGU/N GA	-	-	-	-	-	

Table 40. Road Rehabilitation of City Roads in the Core Road Network 2021 - 2025

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
	Road Improvement of 5.85 kms of City Road at Balet to San Antonio Road Section, Babak District, Island Garden City of Samal	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	175.50
	Road Concreting of Caliclic to Mambago B Road Section at Babak District, Island Garden City of Samal	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	75.00
	Road Concreting of 12.21 Km City Road	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	366.30
	Rehabilitation and Improvement of Panabo City Core Road	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	400.00
	Rehabilitation And Improvement Of San Miguel City Road, Tagum City, Davao Del Norte	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	150.00

Table 41. Road Rehabilitation of Barangay Roads in the Core Road Network 2021 - 2025

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
	Rehabilitation and improvement of jct. Natl Road sawmill brgy. Road, Talaingod, davao del norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	15
	Rehabilitation And Improvement of Cuambogan Brgy Roads, Tagum City, Davao del Norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	448
	Rehabilitation and Improvement of Kasilak To Owayon Road, San Isidro, Davao Del Norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	7.5
	Road Improvement of 4.32 km Barangay Road Purok Mahogany New Visayas-JnctNat. Road Tibal-og, JnctPrRd Mahogany-New VisayasBridge-Tibal-ogRoad), Sto Tomas, Davao del Norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	64.8
	Road Improvement of 19.504 km Barangay Road (El Canto-San Isidro Road-Junction Provincial Road to San Roque), Sto Tomas Davao del Norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	200

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
	Road Improvement of 19.471 km Barangay Road Prk5 New Katipunán-New Sibuyan-Prk4 Kimamon Road-Junction Provincial Road-Recto Area, Sto Tomas, Davao del Norte	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	200
	Road Improvement of 15.689 km Barangay Road (Prk Malabago-Purok Ipil-Ipil-Purok Molave Circumferential Road-Purok Narra Road, Sto Tomas, Davao del Norte	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	225
	Road Improvement of 21.432 km Barangay Road (Fd Rd 4-Fd Rd 3-Fd Rd 2-Fd Rd 1-Fd Rd 0-FdRd 10-San Isidro), Sto Tomas, Davao del Norte	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	315
	Rehabilitation and Improvement of Panabo City Core Barangay Road, Panabo, Davao del Norte	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	250
	Rehabilitation and Improvement of Purok 3, Mambing to Purok 7, Cabidanan, New Corella, Davao del Norte.	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	25

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
	Rehabilitation and Improvement of 1.5kms Road with Bridge Component at Junction AMS Gabuyan to Prk.3 Sampao, Kapalong, Davao del Norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	50
	Rehabilitation and Improvement of 1.0kms Road at Junction Prk.1 to Prk. 6 Luna, Kapalong, Davao del Norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	20
	Rehabilitation and Improvement of 4.0kms Junction Prk.6a Gabuyan to Prk.1a Brgy. Katipunan, Kapalong, Davao del Norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	100
	Rehabilitation and Improvement of Brgy. Core roads at Libertad Kaputian District, Kapalong, Davao del Norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	534
	Rehabilitation and Improvement of Purok 12, 14, 16 to 20 with bridge component, Carmen, Davao del Norte	Road Rehabilitation/ Improvement	0.52 km or road improved	-	LGU/NGA	-	-	-	-	-	175.72
	Rehabilitation and Improvement of District 1-BSF Church-District 4, tanglaw Road, B.E.Dujali, Davao del Norte	Road Rehabilitation/ Improvement			LGU/NGA	-	-	-	-	-	97

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	ANNUAL Budgetary Requirement (PhP 000,000)					Total Project Cost (Php 000,000)
						2021	2022	2023	2024	2025	
		t									
	Rehabilitation and Improvement of purok 2 Elementary School-Purok 7 New Casay Barangay Road, B.E. Dujali, Davao del Norte	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	50
	Rehabilitation and Improvement of Purok 8 New Casay Crossing-Purok 2 Bugtong Talisay Road, B.E.Dujali, Davao del Norte	Road Rehabilitation/Improvement			LGU/NGA	-	-	-	-	-	80
	Upgrading and Improvement of Camoning Farm Road, Asuncion, Davao del Norte	Road Rehabilitation/Improvement				-	-	-	-	-	

Table 42: Capacity Development Activities 2021 – 2025

Project No.	Name of Project	Project Type (CapDev, Equipment Acquisition, Facility, etc.)	Expected Output	Implementing Agency	Source of Fund	Annual Budgetary Requirement					Total Project Cost
						2021	2022	2023	2024	2025	
1	Road Planning and Design/ Road Maintenance - Learning Session for the Local Road Asset Management Team on various functions and responsibilities	Capacity Development	Executive Order Reconstituting the Local Road Asset Management Team	PGDDN	PGDDN			200,000		200,000	
2	Road Planning and Design Road Safety - Capacity Development on Application of GAD Policies and Guidelines and integration of other cross-cutting themes in Road Planning and Designing	Capacity Development	GAD-mainstreamed Road Plans and Designs Road Plans and Designs integrated with cross-cutting themes	DILG PGDDN	DILG PGDDN			200,000		200,000	

Project No.	Name of Project	Project Type (CapDev, Equipment Acquisition, Facility, etc.)	Expected Output	Implementing Agency	Source of Fund	Annual Budgetary Requirement					Total Project Cost
						2021	2022	2023	2024	2025	
3	Road Planning and Design - Re-orientation of Road Planning and Design Engineers on road safety furniture and hazard prevention	Capacity Development	Safe and Hazard-free Road Plans and Designs for road networks	DILG PGDDN	DILG PGDDN		200,000		200,000		
4	Road Planning and Design Road Rehabilitation and Upgrading- Learning Session for Provincial Monitoring Group and Provincial Project Monitoring Council on Result- Based M&E Tools for Road Construction	Capacity Development	Monitoring and Evaluation Report of the Road Projects	DILG PGDDN	DILG PGDDN		200,000		200,000		400,000
5	Road Planning and Design- Learning Session on POW and DED Enhancement and Preparation	Capacity Development	Enhanced POW and DED	DILG PGDDN	DILG PGDDN		200,000		200,000		400,000
6	Road Planning and Design - User's Training on Geological and	Capacity Development	Utilization Report on Geological and Hydrological Equipment	DILG PGDDN	DILG PGDDN			200,000		200,000	400,000

Project No.	Name of Project	Project Type (CapDev, Equipment Acquisition, Facility, etc.)	Expected Output	Implementing Agency	Source of Fund	Annual Budgetary Requirement					Total Project Cost
						2021	2022	2023	2024	2025	
	Hydrological Equipment and Data Gathering		Road Inventory and Database								
7	Road Planning and Design - Learning Session on Public-Private Partnership Project Concept	Capacity Development	Learning Action Plan in integration of Public-Private Partnership in various Projects	DILG PGDDN	DILG PGDDN					200,000	200,000
8	Road Planning and Design - Workshop on the Preparation of the Infrastructure Program and Project Proposal	Capacity Development	Infrastructure Program and Project Proposal	DILG PGDDN	DILG PGDDN					200,000	200,000
9	Road Maintenance - Capacity Development on the Preparation of Annual Provincial Road Maintenance Plan	Capacity Development	Annual Provincial Road Maintenance Plan	DILG PGDDN	DILG PGDDN		200,000		200,000		400,000
10	Road Maintenance - Orientation on the Community-Based Road Maintenance Contracting Program in the Communities	Capacity Development	Community-Based Road Maintenance Contracting Program Report Memorandum of Agreement	DILG PGDDN	DILG PGDDN		200,000		200,000		400,000
11	Road Rehabilitation and Upgrading-	Capacity Development	Learning Action Plan on the integration of	DILG PGDDN	DILG PGDDN			200,000		200,000	400,000

Project No.	Name of Project	Project Type (CapDev, Equipment Acquisition, Facility, etc.)	Expected Output	Implementing Agency	Source of Fund	Annual Budgetary Requirement					Total Project Cost
						2021	2022	2023	2024	2025	
	Learning Session on Construction Supervision and Management; Contract Management; Quality Assurance and Quality Control		the Construction Supervision and Management; Contract Management; Quality Assurance and Quality Control in various Roads Project								
12	Road Rehabilitation and Upgrading-Learning Session on the Preparation of the Environmental Management Plan	Capacity Development	Environmental Management Plan	DILG PGDDN	DILG PGDDN			200,000		200,000	400,000

Table 43. Road Rehabilitation of Roads for Tourism Sector 2021-2025

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
1	Concreting of road at Junction National Highway – Sitio Milako to Sitio Lambid leading to Caves and Falls, Talaingod, Davao del Norte	Road Improvement	3.5 km of road improved	DPWH-DOT	National Agency / Grant	133
2	Concreting of road at Junction National Highway – Sitio Lower Mesolong leading to Micayaga Falls, Sto. Niño, Talaingod, Davao del Norte	Road Improvement	3.5 km of road improved	DPWH-DOT	National Agency / Grant	133
3	Concreting of road at Jct Carmen coastal road- Brgy. Taba leading to Uma sa Taba, Carmen, Davao del Norte	Road Improvement	2 km of road improved	DPWH-DOT	National Agency / Grant	76
4	Concreting of road at Jct Carmen coastal road- Brgy Taba to Jvt Tuganay – Taba Provincial road leading to Española Fishing Resort, Carmen, Davao del Norte	Road Improvement	2 km of road improved	DPWH-DOT	National Agency / Grant	76
5	Concreting of road at Junction Sto. Tomas- Talaingod Diversion Road - Prk .2, Mamacao Section to Prk. 5 to Sitio Lantawan, Mamacao leading to Manipis Tunnel and Lantawan Overview, Sto Tomas, Davao del Norte	Road Improvement	3.5 km of road improved	DPWH-DOT	National Agency / Grant	133

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
6	Concreting of road at Prk. 5 to Sitio Tublihon to Junction Sitio Boholano, Florida leading to Tublihon Lake, Kapalong, Davao del Norte	Road Improvement	2 km of road improved	DPWH-DOT	National Agency / Grant	76
7	Concreting of road at Prk. 1C to Prk. 4 to Prk. 6B, Brgy. Igangon to Prk. 8 Sabangan to 6A, Brgy. Linao, San Isidro leading to Mangitngit and Clemente Caves, Kapalong, Davao del Norte	Road Improvement	6.90 km of road improved	DPWH-DOT	National Agency / Grant	262.2
8	Concreting of road at Prk. 5-Prk. 8, Sambayon, Kapalong to Prk. Kasilak-Prk. Owayon, San Miguel, San Isidro leading to Otso, Alina and Okbot Caves, Kapalong, Davao del Norte	Road Improvement	8.50 km of road improved	DPWH-DOT	National Agency / Grant	323
9	Upgrading of Junction Brgy. Monte Dujali, San Isidro to Sitio Kimataan, to Sitio Igang, Brgy. Gupitan, Kapalong leading to Peace Village, Anibongan Cave, Igang Waterfalls and Marmol Mountain, Kapalong, Davao del Norte	Road Improvement	6.90 km of road improved	DPWH-DOT	National Agency / Grant	262.2
10	Concreting of road to Prk. 7 to Prk. 16, Sua-on to Gupitan w/ bridge component to Monte Dujali, San Isidro leading to Gupitan Natural Landscape, Suaon Nature Park, Kapalong, Davao del Norte	Road Improvement	11.40km of road improved	DPWH-DOT	National Agency / Grant	433.2

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
11	Concreting of road from Prk. 6A, Guadalupe, Limbaan to SWIP lagoon to Purok 2, Del Monte to Purok 2 Sta Fe leading to Sangoy Eco Park, Borja and Paradise Cave, New Corella, Davao del Norte	Road Improvement	13.5 km of road improved	DPWH-DOT	National Agency / Grant	513
12	Concreting of road at Brgy. Sawata to Brgy. Mamangan to Brgy. Pinamuno- Brgy. Datu Balong leading to Imelda Falls, Magallanes, Tolang and Maltag Caves, San Isidro, Davao del Norte	Road Improvement	16.00 km of road improved	DPWH-DOT	National Agency / Grant	608
13	Concreting of road at Prk. 1C to Prk. 4 to Prk. 6B, Brgy. Igangon to Prk. 8 Sabangan to 6A, Brgy. Linao, San Isidro leading to Mangitngit and Clemente Caves, San Isidro, Davao del Norte	Road Improvement	6.88 km of road improved	DPWH-DOT	National Agency / Grant	261.44
14	Concreting of road at Prk 1, Brgy. Libuganon leading to Mercy Mom's Secret Lagoon, Tagum City, Davao del Norte	Road Improvement	1 km of road improved	DPWH-DOT	National Agency / Grant	38
15	Concreting of road at Brgy Madaum leading to Nabintad River Park, Tagum City, Davao del Norte	Road Improvement	1 km of road improved	DPWH-DOT	National Agency / Grant	38

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
16	Concreting of road at Prk. 2, Maduao to Brgy Tagpore to Brgy. Mabunao and Prk. 2 to Prk. 6, Brgy. San Nicolas leading to Mabunao Eco Park and Moreno Inland Resort, Panabo City, Davao del Norte	Road Improvement	2.00 km of road improved	DPWH-DOT	National Agency / Grant	76
	TOTAL		76.1 km of road improved	DPWH-DOT	National Agency / Grant	2,891.8

Table 44: Road Rehabilitation of Roads for Industrial Sector 2021-2025

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
1	Concreting of Road from Purok 6A Poblacion to San Roque to Suawon to Cabadianan leading to Banana Plantations and Banana Packing Houses, New Corella	Road improvement	8.00 km of road improved	DTI-DPWH	National Agency/ Grant	200
2	Concreting of Road at Jct. Agusan-Davao Road-Brgy Ising to Anahaw, Maligaya-Jct Carmen Dapecol Road at Brgy Magsaysay, Carmen leading to Fish Ponds, Banana Plantation and Banana Packing Houses, Carmen	Road improvement	6.00 km of road improved	DTI-DPWH	National Agency/ Grant	168
3	Concreting of Road at Feeder Road 1-Sitio Nordida, New Visayas to Purok Maguntalunan with Bridge Component leading to Banana Packing Houses, Banana Plantation, and Pomelo Farm, Sto. Tomas	Road improvement	4.00 km or road improved	DTI-DPWH	National Agency/ Grant	100
	TOTAL		18.00 km of Road Improved	DTI - DPWH	National Agency / Grant	468.00

Table 45: Road Rehabilitation of Roads for Agricultural Sector 2021-2025

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
1	Rehabilitation of Sitio Montanog, Brgy Magatos Road, Asuncion	Road Rehabilitation / Improvement	5.00 km of road improved	DA-DPWH	National Agency/ Grant	125
2	Construction of Bridge at Purok 2 Mamacao, Kapitalong, Davao del Norte	Road Rehabilitation / Improvement	1.00 km of road improved	DA-DPWH	National Agency/ Grant	25
3	Completion of Purok 4 - Purok 2 Brgy. Del Monte, New Corella, Davao del Norte	Road Rehabilitation / Improvement	0.80 km of road improved	DA-DPWH	National Agency/ Grant	12
4	Construction of Bridge along Provincial Road, Brgy. Sta Fe, New Corella, Davao del Norte	Road Rehabilitation / Improvement	0.90 km of road improved	DA-DPWH	National Agency/ Grant	20
5	Construction of Bridge along Provincial Road, Sitio Vega, Limbaan, New Corella, Davao del Norte	Road Rehabilitation / Improvement	0.90 km of road improved	DA-DPWH	National Agency/ Grant	20
6	Completion of Purok 2b via Sitio Sta Filomena, Igangon - Prk 6, Sabangan Road, San Isidro, Davao del Norte	Road Rehabilitation / Improvement	1.20 km of road improved	DA-DPWH	National Agency/ Grant	30

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
7	Construction of Purok 3-Nangka to Purok 1-Mangga Brgy. New Balamban FMR, Tagum City Davao del Norte	Road Rehabilitation / Improvement	4.00 km of road improved	DA-DPWH	National Agency/ Grant	100
8	Completion of Jct National Highway Sitio Mesolong to Sitio Linayapan Road , Talaingod	Road Rehabilitation / Improvement	1.00 km of road improved	DA-DPWH	National Agency/ Grant	25
9	Rehabilitation of Salawao - Megatong FMR, Brgy Sto Nino, Talaingod, Davao del Norte	Road Rehabilitation / Improvement	8.00 km of road improved	DA-DPWH	National Agency/ Grant	200
10	Rehabilitation of Provincial Road at Purok 2 crossing Tagulayan up to Sajot Area, Portion of Purok 1-A, Purok 5-A, Brgy. Palma Gil, Talaingod, Davao del Norte	Road Rehabilitation / Improvement	1.00 km of road improved	DA-DPWH	National Agency/ Grant	25
11	Construction of Purok 4, Brgy Mangalcal Bridge, Carmen, Davao del Norte	Road Rehabilitation / Improvement	0.80 km of road improved	DA-DPWH	National Agency/ Grant	20
12	Construction of Bridge at Purok 2, Unit 2 Mahayag, Brgy. Kinamayan, Sto Tomas, Davao del Norte	Road Rehabilitation / Improvement	0.80 km of road improved	DA-DPWH	National Agency/ Grant	20

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
13	Road Opening at Purok 13 Salvacion connecting to Sitio Abaka, Barangay Talomo, Sto. Tomas	Road Rehabilitation / Improvement	1.20 km of road improved	DA-DPWH	National Agency/ Grant	28.80
14	Rehab. Of New Visayas - Tulalian FMR with Bridge, Sto. Tomas	Road Rehabilitation / Improvement	8.40 km of road improved	PLGU/ DA-PRDP	National Agency/ Grant	210.10
15	Concreting of FMR Purok 2-Purok 5, New Bantayan, Asuncion	Rehabilitation / Improvement	3.12 km of road improved	PLGU/ DA-FMRDP	National Agency/ Grant	78
16	Concreting of FMR San Vicente-Crossing Camoning		1.20 km of road improved			30
17	Concreting of FMR Magatos-New Bantayan, Asuncion		7.80 km of road improved			195
18						
	TOTAL		26.60 km of Road Improved	DA / DPWH/ PLGU	National Agency / Grant	665.00

Table 46. Road Rehabilitation an Improvement of Local Roads for linkages 2021-2025

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
1	Tagum-Carmen Coastal Road	Road Rehabilitation / Improvement	5.20 km of road improved			200.00
2	Tanglaw-Dujali-Carmen-Tagum Road, Sto. Tomas and BE Dujali, Davao del Norte	Road Rehabilitation / Improvement	6.38 km of road improved			242.72
3	NRJ Agusan-Davao Guadalupe, Carmen Section to Upper Tuganay - Mabaus- Kinamayan-Tibalog, Sto. Tomas	Road Rehabilitation / Improvement	5.85 km of road improved			222.50
4	NRJ daang Maharlika Bunawan Proper - Brgy San isidro - Kiotoy - Mabunao-Kauswagan -Jct Panabo City fatima - Malabog Road, Panabo City	Road Rehabilitation / Improvement	5.20 km of road improved			200.00
5	Concreting of Sto Tomas-Talaingod Diversion Road with Bridge Component	Road Rehabilitation / Improvement	2.00 km of road improved			100.00
	TOTAL		24.63 km of Road Improved	DA / DPWH/ PLGU	National Agency / Grant	965.22

Table 47. Road Rehabilitation of Provincial Roads District 1 in the Core Road Network 2026 - 2030

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
1	Rehabilitation and Improvement of Bdry. Tagum - Baca - New Corella Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	13.01 km or road improved	-	-	39.03
2	Rehabilitation and Improvement of Kapalong - Mabantao - Florida Provincial Road at Kapalong Davao del Norte	Road Rehabilitation and Improvement	12.13 km or road improved	-	-	36.39
3	Rehabilitation and Improvement of Km.9 Sagayen - Sawata Provincial Road at Asuncion/San Isidro Davao del Norte	Road Rehabilitation and Improvement	19.4 km or road improved	-	-	58.20
4	Rehabilitation and Improvement of Pob. New Corella - Prk. 10 Pob. Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	1.3 km or road improved	-	-	3.90
5	Rehabilitation and Improvement of Igangon - Sawata Provincial Road at San Isidro Davao del Norte	Road Rehabilitation and Improvement	9.66 km or road improved	-	-	28.98
6	Rehabilitation and Improvement of San Juan - Kauswagan - New Cortez Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	3.22 km or road improved	-	-	9.66

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
7	Rehabilitation and Improvement of New Corella - New Bohol Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	1.47 km or road improved	-	-	44.10
8	Rehabilitation and Improvement of New Corella - Guadalupe - Del Monte Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	8.55 km or road improved	-	-	256.50
9	Rehabilitation and Improvement of Carcor - Patrocenio - Jct. Bayabas Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	8.78 km or road improved	-	-	263.40
10	Rehabilitation and Improvement of Florida - Suaon - Jct. Gupitan Provincial Road at Kapalong Davao del Norte	Road Rehabilitation and Improvement	13.13 km or road improved	-	-	393.90
11	Rehabilitation and Improvement of Prk. 7 Pob. - Jct. New Sambog Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	1.64 km or road improved	-	-	49.20
12	Rehabilitation and Improvement of Limbaan - Sta. Fe - El Salvador Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	15.62 km or road improved	-	-	468.60

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
13	Rehabilitation and Improvement of New Corella - Sto. Niño - Macgum Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	12.19 km or road improved	-	-	365.70
14	Rehabilitation and Improvement of Del Pilar - Prk. 9 Bagsak - San Jose Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	4.99 km or road improved	-	-	149.70
15	Rehabilitation and Improvement of Jct. Suaon - Libuton Provincial Road at Kapitalong/San Isidro Davao del Norte	Road Rehabilitation and Improvement	7.26 km or road improved	-	-	217.80
16	Rehabilitation and Improvement of Sonlon - New Visayas - Camansa Provincial Road at Asuncion Davao del Norte	Road Rehabilitation and Improvement	6.44 km or road improved	-	-	193.20
17	Rehabilitation and Improvement of Asuncion - New Alegria - Bdry. Cuambogan Provincial Road at Asuncion Davao del Norte	Road Rehabilitation and Improvement	6.66 km or road improved	-	-	199.80
18	Rehabilitation and Improvement of New Corella - El Unido - Jct. Mesaoy Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	6.33 km or road improved	-	-	189.90

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
19	Rehabilitation and Improvement of Asuncion - Monte Carlo - Del Pilar Provincial Road at Asuncion/New Corella Davao del Norte	Road Rehabilitation and Improvement	9.24 km or road improved	-	-	277.20

Table 49. Road Rehabilitation of Provincial Roads District 2 in the Core Road Network 2026 – 2030

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
1	Rehabilitation and Improvement of Bdry. Tagum - Crossing Kinamayan - Sto. Tomas Provincial Road at B.E. Dujali/Sto.TomasDavaodelNorte	Road Rehabilitation and Improvement	19.16 km or road improved	-	-	57.48
2	Rehabilitation and Improvement of Jct.Highway - Sto.Niño - Lapaz - San Vicente Provincial Road at CarmenDavaodelNorte	Road Rehabilitation and Improvement	6.08 km or road improved	-	-	18.24
3	Rehabilitation and Improvement of Fd. Rd. 3 - Kimamon - LunaProvincial Road at Sto. Tomas/KapalongDavaodelNorte	Road Rehabilitation and Improvement	11.76 km or road improved	-	-	35.28
4	Rehabilitation and Improvement of Jct. Highway Tuganay – Taba Provincial Road at Carmen DavaodelNorte	Road Rehabilitation and Improvement	4.4 km or road improved	-	-	13.2
5	Rehabilitation and Improvement of Jct. Highway - Sto. Niño - Kabankalan – Lapaz Provincial Road at Carmen DavaodelNorte	Road Rehabilitation and Improvement	2.13 km or road improved	-	-	6.39

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
6	Rehabilitation and Improvement of Dujali - Balisong – Magupising Provincial Road at B.E. Dujali Davao del Norte	Road Rehabilitation and Improvement	5.52 km or road improved	-	-	16.56
7	Rehabilitation and Improvement of NAFCO – Bobongon Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation and Improvement	2.66 km or road improved	-	-	79.8
8	Rehabilitation and Improvement of Dujali - New Casay Provincial Road at B.E. Dujali Davao del Norte	Road Rehabilitation and Improvement	1.89 km or road improved	-	-	56.7
9	Rehabilitation and Improvement of Dujali – Tanglaw Provincial Road at B.E. Dujali Davao del Norte	Road Rehabilitation and Improvement	2.18 km or road improved	-	-	65.4
10	Rehabilitation and Improvement of Maligaya - New Camiling Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	2.13 km or road improved	-	-	6.39

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
11	Rehabilitation and Improvement of Anahaw – Maligaya Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	4.8 km or road improved	-	-	14.4
12	Rehabilitation and Improvement of Jct. Highway Guadalupe - Bdry. Tagum Provincial Road at Carmen DavaodelNorte	Road Rehabilitation and Improvement	7.9 km or road improved	-	-	237
13	Rehabilitation and Improvement of Lower Asuncion - Upper Asuncion Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	1.02 km or road improved	-	-	3.06
14	Rehabilitation and Improvement of Menzi - Balagunan – Tulalian Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation and Improvement	9.89 km or road improved	-	-	296.7
15	Rehabilitation and Improvement of Tubod – Pilar Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	1.55 km or road improved	-	-	4.65

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
16	Rehabilitation and Improvement of Prk. 5 - Prk. 1 Pawas – Dujali Provincial Road at B.E. Dujali Davao del Norte	Road Rehabilitation and Improvement	2.18 km or road improved	-	-	65.4
17	Rehabilitation and Improvement of Kimamon - Lunga-og – Talomo Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation and Improvement	5.48 km or road improved	-	-	164.4
18	Rehabilitation and Improvement of Jct. Highway Sto. Niño – Cebulano Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	1.28 km or road improved	-	-	38.4
19	Rehabilitation and Improvement of Alejal – Alemag Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	1.79 km or road improved	-	-	53.7
20	Rehabilitation and Improvement of Cebulano – Mangalcal Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	3.9 km or road improved	-	-	117

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
21	Rehabilitation and Improvement of New Katipunan – Pantaron Provincial Road at Sto. Tomas Davao del Norte		1.96 km or road improved	-	-	58.8

Table 49: Road Rehabilitation of Provincial Roads District 1 in the Core Road Network 2031 – 2040

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
1	Rehabilitation and Improvement of Angelo - Dagohoy Provincial Road at Talaingod Davao del Norte	Road Rehabilitation and Improvement	2.19 km or road improved	-	-	6.57
2	Rehabilitation and Improvement of Jct. Sagayen - Sonlon Provincial Road at Asuncion Davao del Norte	Road Rehabilitation and Improvement	14.04 km or road improved	-	-	421.20
3	Rehabilitation and Improvement of Sawata - Mamangan - Pinamuno Provincial Road at San Isidro Davao del Norte	Road Rehabilitation and Improvement	14.44 km or road improved	-	-	433.20
4	Rehabilitation and Improvement of Del Pilar - Jct. Silangan Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	4.17 km or road improved	-	-	125.10
5	Rehabilitation and Improvement of Jct. Highway Canatan - Jct. Highway Magatos Provincial Road at Asuncion Davao del Norte	Road Rehabilitation and Improvement	4.85 km or road improved	-	-	145.50
6	Rehabilitation and Improvement of Sto. Niño - Palma Gil - Sitio Opao Provincial Road at Talaingod Davao del Norte	Road Rehabilitation and Improvement	5.99 km or road improved	-	-	17.97

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
7	Rehabilitation and Improvement of Semong - Palma Gil Provincial Road at Kapalong/Talaingod Davao del Norte	Road Rehabilitation and Improvement	2.73 km or road improved	-	-	81.90
8	Rehabilitation and Improvement of New Visayas - Binancian Provincial Road at Asuncion Davao del Norte	Road Rehabilitation and Improvement	7.77 km or road improved	-	-	23.31
9	Rehabilitation and Improvement of Jct. Highway - Luna - Mamacao - Narra Provincial Road at Kapalong/Talaingod Davao del Norte	Road Rehabilitation and Improvement	5.58 km or road improved	-	-	167.40
10	Rehabilitation and Improvement of Sta. Fe - Maming Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	6.86 km or road improved	-	-	205.80
11	Rehabilitation and Improvement of New Corella - New Sambog - Silangan Provincial Road at New Corella Davao del Norte	Road Rehabilitation and Improvement	5.1 km or road improved	-	-	153.00
12	Rehabilitation and Improvement of Saug - Sonlon - Bdry. Longanapan Provincial Road at Asuncion Davao del Norte	Road Rehabilitation and Improvement	11.6 km or road improved	-	-	348.00

Table 50: Road Rehabilitation of Provincial Roads District 2 in the Core Road Network 2031 – 2040

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
1	Rehabilitation and Improvement of Fd. Rd. 3 - San Jose Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation and Improvement	3.6 km or road improved	-	-	108
2	Rehabilitation and Improvement of Ising - Sto. Niño Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	2.07 km or road improved	-	-	62.1
3	Rehabilitation and Improvement of Prk Narafil - Brgy Site Magupising Provincial Road at B.E. Dujali Davao del Norte	Road Rehabilitation and Improvement	2.08 km or road improved	-	-	6.24
4	Rehabilitation and Improvement of Cabay-angan - Esperanza Provincial Road at B.E. Dujali Davao del Norte	Road Rehabilitation and Improvement	4.92 km or road improved	-	-	147.6
5	Rehabilitation and Improvement of Jct. Highway - Tubod - Bagong Silang Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	1.72 km or road improved	-	-	51.6
6	Rehabilitation and Improvement of Tubod - Basa - Mangalcal Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	3.78 km or road improved	-	-	113.4

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
7	Rehabilitation and Improvement of Jct. Salvacion - San Vicente - Cabay-angan Provincial Road at Carmen/B.E. Dujali Davao del Norte	Road Rehabilitation and Improvement	3.45 km or road improved	-	-	103.5
8	Rehabilitation and Improvement of Kinamayan - Lunga-og Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation and Improvement	2.59 km or road improved	-	-	77.7
9	Rehabilitation and Improvement of Jct. Highway - Tuganay - Anibongan Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	3.58 km or road improved	-	-	107.4
10	Rehabilitation and Improvement of San Miguel - Casig-ang Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation and Improvement	2.55 km or road improved	-	-	76.5
11	Rehabilitation and Improvement of Jct. Highway - Ising - Magsaysay Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	10.62 km or road improved	-	-	318.6
12	Rehabilitation and Improvement of Basa - Tubod Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	1.56 km or road improved	-	-	46.8

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
13	Rehabilitation and Improvement of Fd. Rd. 2 - Sto. Tomas – Magwawa Provincial Road at Sto. Tomas Davao del Norte	Road Rehabilitation and Improvement	9.21 km or road improved	-	-	276.3
14	Rehabilitation and Improvement of Sitio Malaga – Tibulao Provincial Road at Carmen DavaodelNorte	Road Rehabilitation and Improvement	3.22 km or road improved	-	-	96.6
15	Rehabilitation and Improvement of New Camiling - Alejal - Lower Magsaysay Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	6.73 km or road improved	-	-	201.9
16	Rehabilitation and Improvement of Anibongan - Salvacion - Cabay-angan Provincial Road at Carmen/B.E. Dujali Davao del Norte	Road Rehabilitation and Improvement	6.93 km or road improved	-	-	207.9
17	Rehabilitation and Improvement of New Casay - Bugtong Talisay Provincial Road at B.E. DujaliDavaodelNorte	Road Rehabilitation and Improvement	2.18 km or road improved	-	-	65.4
18	Rehabilitation and Improvement of Loceta - Lower Mangalcal Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	1.19 km or road improved	-	-	35.7

Project No.	Name of Project	Project Type	Expected Output	Implementing Agency	Source of Funds	Total Project Cost (Php 000,000,)
19	Rehabilitation and Improvement of Anibongan – Guadalupe Provincial Road at Carmen Davao del Norte	Road Rehabilitation and Improvement	2.48 km or road improved	-	-	74.4

VIII. Results-Based Monitoring and Evaluation

Monitoring and Evaluation (M&E) is built into the Local Road Network Development Plan, which focus is on the plan implementation. This section outlines the monitoring and evaluation system of the LRNDP.

The objectives of M&E are:

1. To enable the province to assess the progress of LRNDP, vis-à-vis, its targets, objectives and goals, with an established and operationalized systems and structures;
2. To utilize the LRNDP achievements not only for reporting to other project stakeholders but also for understanding the factors that influence performance and for using the lessons learned in future planning and programming; and
3. To promote the culture of performance among project implementers and stakeholders as part of the effort to introduce institutional reforms in the provincial government.

6.1 Monitoring and Evaluation Framework

M&E shall determine LRNDP's accomplishments of all levels of LGUs (provincial, city, municipal and barangay) in relation to its contribution in the achievement of the international development goals, i.e. the Sustainable Development Goals (SDG), the Philippine Development Plan (PDP) and to the over-all development vision stated in the Provincial Development and Physical Framework Plan (PDPFP) of the province. PDPFP goals in the road sector states that the development of the sector is to support the enhancement of the inter and intra road connectivity of the province.

It shall also assess the incorporation of the important areas of development, such as: Asset Management, Enhanced Disaster Risk Reduction-Climate Change Adaptation considerations, Environmental and Social Safeguards, Gender equality considerations, Goals and objectives anchored on the SDGs, Maintenance strategies and the Green Procurement, which make it vital to the socio-economic development of the province.

Thus altogether attaining the desired impact of improved access to economic opportunities and delivery of basic services through enhanced mobility of goods and services and people, improved marketability, maintained product quality and also lower outcome of lower transportation cost, shorter travel time, safer roads and minimal maintenance cost of motor

vehicles. Thus, realising the objective of improved local roads condition, quality, safety and connectivity.

These considerations are measured when the Local Road Asset and Management is in place, application of cross-cutting themes in road planning and design is ensured, capacity in road maintenance is enhanced, rehabilitation and upgrading of local roads is enhanced, and as well as safety measures is in placed facilitating in the achievement of the K.U.Y.A. G.O.B. development agenda.

The relationship of the vision of the province, the road sector goal, outcomes and outputs is presented in the Results Chain Matrix of LRNDP in Table __, to regularly and periodically track results based on a transparent and reflective logical and results framework approach by showing the links and relationship in the attainment of objectives as inputs and activities are provided and/or implemented. This is prepared consistent with the Results Based Monitoring and Evaluation Framework of the DILG – CMGP PMO.

The framework suggests that monitoring and evaluation is dependent on the following:

- Availability of baseline information of the condition in the project areas; among others, on the economic, social and physical aspects;
- Functionalization of an effective and efficient data collection systems and procedures with the involvement of project implementers, partners and stakeholders;
- Efficient information sharing among project implementers, partners and stakeholders for appropriate action.

Table 51. Results Chain Matrix

Hierarchy of Results	Narrative Summary	Indicator	SDG	Baseline	Target	MOV	Data Collection		Data Analysis		Frequency	Users
							How	Who	How	Who		
DDN Vision	Davao del Norte is a leading, innovative and competitive province with empowered and resilient people	Decreased poverty incidence	1,8	10.2 (2018)	8.2	PSA poverty statistics ; Family Income & Expenditure Survey (FIES); Socio Economic Profile (SEP)	Collaborate	PPDO-Research Div.; Phil. Statistics Agency (PSA), NEDA	Interpret/ Analyze Information	PPDO-Research Division	Every 3 years	Chief Executive, decision makers, service implementors , planners
		Decreased of households severely affected by calamity	13	41,140	No casualty	Disaster Report/ Relief Distribution Sheet	Report request	PDRRM D	Assess data on report	PDRRM D	Annual	
		Decreased in morbidity and mortality to top 10 diseases	3	53,481 (2019) 505 (2019)	5%	Rural Health Information System (LGU); Field Health Service Information System (FHSIS)	Collaborate	PPDO-Research Div.; PHO	Assess data on report	PPDO-Research Division		
		Reduction in maternal mortality	3	8 (2019)	50%	Socio Economic Profile (SEP); FHSIS/ RHIS/ TCL	Report Request	PPDO-Research Div.; PHO	Assess data on report	PPDO-Research Division	Annual	

		Reduction in child mortality	3	195 (2019)	10%	Socio Economic Profile (SEP); FHSIS/RHIS/TCCL	Report Request	PPDO-Research Div.; NEDA	Assess data on report	PPDO-Research Division	Annual	
		Increased in enrolment rate -Elementary -Secondary	3	106.51% (2019) 112.55% (2019)	5%	Socio Economic Profile (SEP); BSEIS	Report Request	DepEd	Assess data on report	PPDO-Research Division	Annual	
IMPACT	Improved access to economic opportunities and delivery of basic services	Increased % in income		114,067,791.88	10%	PSA, SEP	Report request	PPDO	Assess data on report	PESO-PADO, M/BLGUs concerned	Annual	PLGU, C/MLGUs
		Increased in no. of individuals able to access job opportunities		29,293	32,000	CBMES, DTI & DOLE reports, RMs	Survey, FGDs, KII	PESO-PADO, M/BLGUs concerned	Assess data on report	PESO-PADO, M/BLGUs concerned	Annual	
		Increased in no. of individuals able to avail zero billing	3	15,409 (2020)	16,950	PEEDO Annual Report; CBMES Report CBMES	Collaborate	PEEDO	Assess data on report of 3 Hospital Zones	PEEDO	Annual	
		Increased in no. of individuals with access to healthcare	3			Annual Report	Report request	PHO	Assess data on report	PHO	Annual	PLGU
		Increased enrolment in day care centers, schools, universities,	4	24,241	24,453	Annual Report	Report request	DepEd	Assess data on report	DepEd	Annual	

		training institutes, libraries										
		Increased in no. of farmers, fisherfolks and related agri-fishery industry players accessing agriculture and fishery productivity enhancing services.	2	5,221-fisherfolks	5,743	CBME S	Survey	PAGRO	Assess data on report	PAGRO	Annual	
		Increased in no. of tourism sites with improved access		141 or 15% (2020)	50%	Tourism Report , SPES	Report request	PAdO Tourism, PPDO, PLGUs	Assess data on tourism report	PAdO Tourism , PPDO, PLGUs	Annual	
		Increased in no. of tourist arrivals - Domestic - Foreign		- 374,978 (2020) - 6,599 (2020)	10%	Tourism Report ,	Report request	PAdO Tourism, PPDO, PLGUs	Assess data on tourism report	PAdO Tourism , PPDO, PLGUs	Annual	
HIGHER OUTCOMES	Enhanced mobility of goods, services and people	Increased mobile market services	8	TBD	25%	Traffic survey	Collaboration	PEO/C/MLGUs	Assess traffic volume count	PEO/C / MLGUs	After 6 months from LPTRP implementation & every 3 years thereafter	Local Planning Officers
		% Increase in traffic volume count	9,11	TBD	10%	Traffic survey	Collaboration	PEO/C/MLGUs	Assess traffic volume count	PEO/C / MLGUs		
		Increased in public transport plying local roads	9,11	TBD	TBD	Traffic survey	Coordinate with concerned offices	PEO/C/MLGUs	Analyses of passenger demand (origin-destination survey/lice	PEO/C / MLGUs		

									nse plate survey, etc.			
		Increased in number of day care centers	4	563	590	Annual Report	Report Request	PEO/C/MLGUs	Compare previous and current report	PEO/C / MLGUs		Implementers
	Improved marketability	Increased accessibility and linkages to market and players of the farmers & fisherfolks products	2	TBD	50%	Accomplishment Report	Coordinate with concerned offices	PAGRO Banner program Report Officer/DNIPC	Assess if the number of production areas engage in farming activities has increase	PAGRO / DNIPC	Annual	Local Chief Executive, Legislative & project implementers
		Increased no. of farmers benefitted	2	TBD	TBD	KAAG APAY accomplishment report	Coordinate with concerned offices	PAGRO	Assess number of farmers	PAGRO	Annual	
	Maintained Product Quality	Decreased percentage of spoilage	2	20%	5%	Accomplishment Report	Coordinate with concerned offices	DNIPC	Compare previous and current spoilage report	DNIPC	Quarter	
LOWER OUTCOMES	Low Transportation Cost	Reduced % of transport cost	9,11	P10 per km	50%	Conduct interview	Collaboration	C/MLGUs/PEO / PPDO	Assess transport cost	C/MLGUs/PEO / PPDO	Annual	

	Shorter Travel Time	Reduced % of travel time	9,11	3 min/km	50%	Conduct interview	Coordinate with concerned offices	PEO/D NIPC	Assess travel time	PEO/D NIPC	Annual	
	Safer roads	% Decrease of road accidents	9,11	486 (2020)	5%	(TARAS)	Report Request	PNP	Compare previous and current report on road accidents	PNP	Annual	
OUTCOME/OBJECTIVE	IMPROVED LOCAL ROADS CONDITION, QUALITY, SAFETY AND CONNECTIVITY	Increased length of roads in fair to good condition	3, 5, 8, 9, 11, 13	2.02 kms in fair to good condition	852.02 kms in fair to good condition	Road inventory	Conduct of road inventory	PEO/MEO/CEO	Compare previous and current data	PEO, MEO/CEO	Annual	
		Increased of New / Developmental Routes		30 transport routes approved as of 2021	40 transport routes fully operational	List of Operating routes from LPTRP	Data Analysis	LPTRP-TWG	Data Analysis	LPTRP-TWG	Annual	
		Increased No. of roads with road safety features		42 roads with road safety features	62 roads with road safety features	Road inventory	LPTRP Data Conduct of road inventory	PEO, MEO/CEO	Compare previous and current data	PEO, MEO/CEO	Annual	
		Increased Road density (ratio of the total road length to the total land area)		135 kms per square km	1.15 kms per square km	Road Inventory	Updating of total road length	PEO, MEO/CEO	Compare previous and current data	PEO, MEO/CEO	Annual	

OUTPUTS	LRAM IS IN PLACED	No. of capacity development intervention conducted for LRAM Team		2 Trainings and workshops	4 capacity development times in a year	Certificates, Activity Design, Accomplishment reports	Secure copies of Updated PDS from PHRMO	LRAM focal personnel	Determine the titles and number of hours of training	LRAM focal personnel	Quarterly	PEO/PACCO/PPDO/PGSO/IAS/PASSO (LRAM-TWG)
		No. of consultative meetings of key offices conducted		0 consultative meetings	4 consultative meetings a year	Certificates, Activity Design, Accomplishment reports	Secure copies of Updated PDS from PHRMO	LRAM focal personnel	Determine the number of hours of meeting	Determine the number of hours of meeting	Quarterly	
		No. of road lots titled in favor of the Provincial Government	9, 16, 17	(TBD) of road lots titled in favor of the Provincial Government	(TBD) of road lots titled in favor of the Provincial Government	PGSO Archives, inventory, annual reports	Annual inventory counting	LRAM TWG	Road asset inspection	LRAM TWG	Annual	PEO, PLO, PGSO, PASSO, PACCO

APPLICATION OF CROSS-CUTTING THEMES IN ROAD PLANNING AND DESIGN ENSURED	<ul style="list-style-type: none"> Number of Road Project Plans and Program of Work considering cross-cutting themes such as Gender, Safety, DRR-CCA, 	3, 13	tbd	3 Road Plans and per year	Road Inventory	Request reports	PEO/MEO/CEO	Determine the number of road projects considering cross-cutting themes	PEO/MEO/CEO	Annual	Local Planning Officers/ Local Disaster Risk Reduction and Mngt Officers/ Local Environment and Natural Resources Officers / Provincial , Municipal , City Engineers
	<ul style="list-style-type: none"> Length of Roads with Gender Sensitive Facilities, EMP, Disaster Risk Reduction-Climate Change Adaptation 	5, 13	tbd	10 km per year	Road Inventory	Request report	PEO/MEO/CEO	Assessment and Evaluation	PEO/MEO/CEO	Annual	
	<ul style="list-style-type: none"> Number of policies on institutionalizing of Cross-Cutting themes in road planning and design 	5, 13	tbd	At least one throughout the planning period	Certified True copy of Executive Order / Ordinance	Request copy	PADO/SP	Assessment and Evaluation	PADO/SP	every 3 years	
ENHANCED CAPACITY IN ROAD MAINTENANCE	Increased length of roads maintained in fair to good condition	1, 8, 9	1.03 kms maintained in 2020	639.02 kms maintained by 2025	POW, PCR, Road inventory	Site Inspection Conduct of Road inventory	PEO	Site Inspection Analysis of reports	O	Annual	

						ry					
	Increased length Of roads under CBRMC	, 5, 8	1.03 kms of prov'l roads under CBRMC	639.02 kms under CBRMC by 2025	POW, SWA, PCR	Site Inspection	PEO	Site Inspection	PEO	Annual	
	No. of LGUs adapting CBRMC	1,5,8	1 LGUs	11 LGUs	rtificates	Conduct of trainings	CBRMC-TWG	Conduct of trainings	BRMC-TWG	Annual	
ENHANCED REHABILITATION AND UPGRADING OF LOCAL ROADS	Increased length of provincial roads rehabilitated	5, 8, 9, 13	15 kms for rehabilitation in 2020	281.15 kms rehabilitated by 2025	CR, SWA	Final project inspection	PEO	Final project inspection	O	Annual	
	Increased length of local roads in good condition	1, 8, 9	2.87 kms prov'l roads in good condition in 2020	462.87 kms of prov'l roads in good condition by 2025	Road inventory, PCR	Conduct of road survey	PEO	Undertake analysis of the report	MT	Annual	
	Increased length of provincial roads upgraded	5,8,9,13	.68 kms. Upgraded in 2020	90 kms. Upgraded in 2025	CR, SWA	Final project inspection	PEO	Final project inspection	O	Annual	
	Increased efficiency of equipment		% average monthly utilization rate	90% average monthly utilization rate	Monthly utilization report	Data analysis	PEO	Data analysis	PEO	Annual	
	SAFETY MEASURES IN PLACED	<ul style="list-style-type: none"> • Length of Road with Safety Furniture's ○ Guardrails ○ Road Signs ○ Street Lights 	3	bd (refer to result of upcoming road inventory)	20km per year	Road Inventory	Request Data from PEO/MEO/CEO	PEO/MEO/CEO	Assessment and Evaluation	PEO/MEO/CEO	

		Pavement Markings										
		No of barangays with trained Responders for road related accidents	3	Tbd	10%	Barangay Certification, DRRM Reports	Request from BLGU	LDRRM O	Assessment and Evaluation	RRMO		
		Persons trained to respond road related incidents	3	tbd	10%	Terminal Reports / Attendance/ Certificates	Request LDRRM O	LDRRM O	Assessment and Evaluation	RRMO		
		Length of road susceptible to hazards	3	tbd	5%	Road Infrastructure Hazard Maps	Request Data from Local Planning Office	PEO/ MEO/ C EO	Assessment and Evaluation	PEO/ MEO/ C EO		
		Local Road Safety Policies in placed	3	tbd	approved Local Ordinance at least one within the planning period	Local Ordinance	Request from SP	PEO/ MEO/ C EO	Assessment and Evaluation	PEO/ MEO/ C EO		
Outputs/Activities (c/o Work and Financial Plan)												

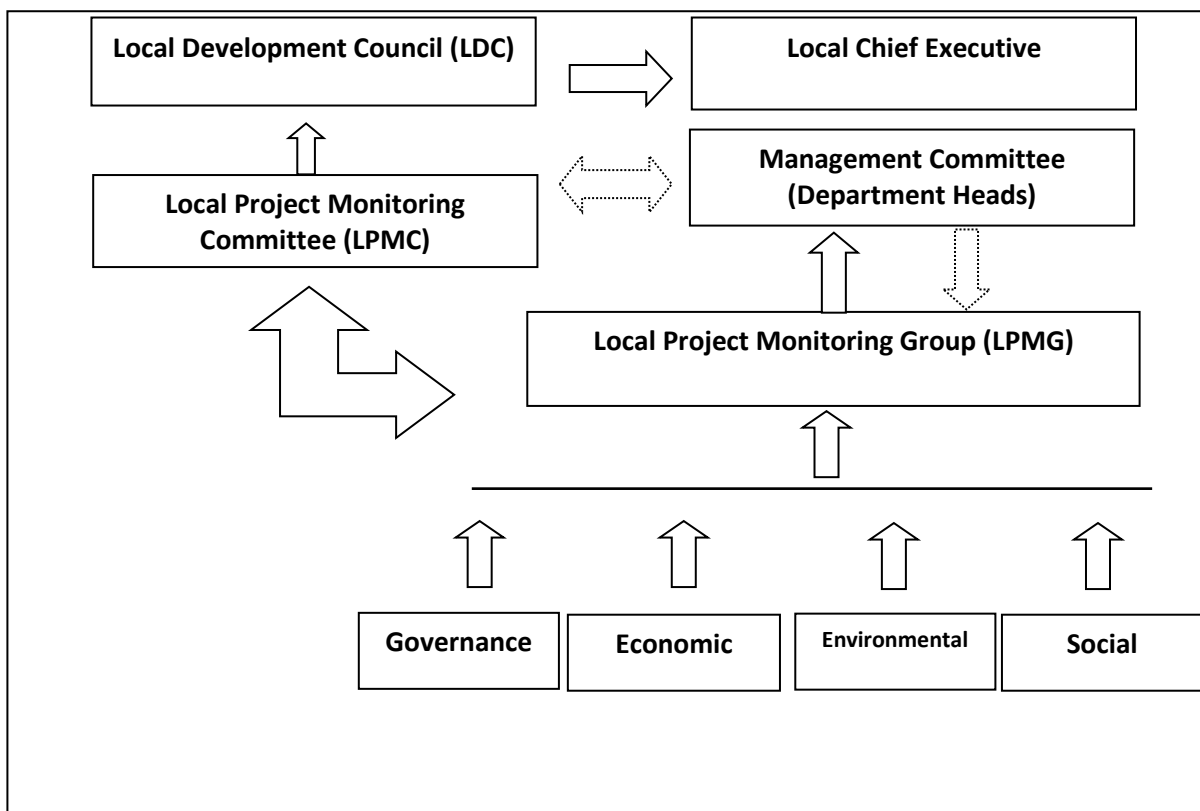
6.2 Monitoring and Evaluation Mechanism

The monitoring and evaluation system shall make use of the existing Local Project Monitoring Committee (LPMC). Monitoring and evaluation will continue to be the responsibility of the LPMC, with the technical support of the C/M/PPDO as the Secretariat. To assist LPMC attain its function, a Local Project Monitoring Group (LPMG) shall be constituted through an Executive Order. LPMG is a grouping of sectors composed of the representatives from various departments of the Local Governments; the governance, economic, environmental and social sectors.

The LPMG shall facilitate the field level monitoring in agreement with the LPMC. Monitoring templates shall be developed to capture needed information and data at the input and output levels. The C/M/PPDO, being the Secretariat of LPMC, shall consolidate the results of field monitoring conducted by LPMG. Concerned departments will be provided with the results of the monitoring, as submitted to the LPMC. In relation to LRNDP implementation, the LPMC will assess the status, identify and address areas for improvement, and communicate early gains and lessons learned. Monitoring and evaluation reports shall be submitted regularly to the Local Development Council which is chaired by the Local Chief Executive.

The system is illustrated in Figure 33. The M&E system should also be adopted by the Local Development Council.

Figure 36. Local M&E Structure, Davao del Norte



The Local Project Monitoring Committee is composed of representatives from NGO/CSO members of the Local Development Council and concurrently chaired by the DILG C/M/P Director. The LPMC will report their monitoring and evaluation findings and assessment to the LDC. The LPMC functions relative to LRNDP M&E are as follows:

1. Monitor and evaluate the execution and implementation of all foreign and nationally-funded projects, including development projects funded by the IRA share of the LGU or supported by funds released directly to the local government unit and projects funded from locally generated resources implemented within the province.
2. Provide a forum for the regular accounting of progress and accomplishment reports of the project implementers as often deemed necessary.
3. Identify problems in the course of project implementation and recommend solutions for review of the LDC.
4. Assist in the swift resolution of issues affecting the implementation of projects within its area of jurisdiction.
5. Gather feedback on remedial actions and warrant their implementation.
6. Ensure the dissemination of periodic monitoring reports.

The Local Project Monitoring Group shall be composed of the representatives from the local offices/departments in the sector of governance, economic, environmental and social. The LPMG shall report to the Management Committee composed of Department Heads from the road-related offices/departments and the LPMC. The LPMG shall have but not limited to the following functions:

1. Coordinates with P/C/MPPDO M&E Division and concerned departments in accessing detailed reports of PPAs implementation using a uniform and approved format.
2. Assist the LPMC in the conduct of field monitoring to validate/assess projects progresses and statuses.
3. Transmits to LPMC Secretariat the reports and recommendations as results of the monitoring activities.

The Monitoring and Evaluation Division of the P/C/MPDO shall serve as the Secretariat of the LPMC. The Secretariat will perform the following functions:

1. Review and consolidate LPMG monitoring reports.
2. Submit consolidated LPMG monitoring reports to LPMC, copy furnished concerned implementing offices.

3. Gather, collate, and furnish the LDC and the Regional Project Monitoring Committee the complied report of the project implementers.
4. Arrange and coordinate meetings of the LPMC and record proceedings and discussion thereat.
5. Prepare the monitoring program to be undertaken by the LPMC and LPMG.

6.3 Data Collection System

Data will be collected through existing and suggested collection and reporting mechanisms. Some of which are:

- Community Based Monitoring and Evaluation Systems (CBMES)
- GIS-based Roads and Bridges Information System (RBIS)/Road condition surveys
- Traffic Accident Recording and Analysis System (TARAS)
- P/C/MLGUs Monitoring Reports such as financial reports, annual agency reports, sectoral report on agriculture, health, education, housing and other sectors; business registry, land assessment, among others.
- Seal of Good Local Governance/Local Government Performance Management System (SGLG/LGPMS)
- Regional Project Monitoring and Evaluation Systems (RPMES) indicators
- Davao Region Development Plan indicators
- Provincial Results Matrices.

For data needs that are not covered with the existing data collection systems or when the frequency data collection does not fall in time when the data is needed, the province will either expand a data collection mechanism related to the data needed and/or engage a service provider/s to devise data collection tool.

6.4 Data Management

The Provincial/City/Municipal Planning and Development Office will manage LRNDP-related data and information-ensuring the security, availability, and accessibility of digital (soft) and hard data and reports. The office will also explore the establishment of a data-based management system to ensure efficiency in data gathering, processing, analyzing and reporting.

6.5 Reports and Feedback Mechanisms

LRNDP accomplishment reports and performance analysis will be reported and shared to partners and implementers on a regular basis as part of the feedback and knowledge management processes of the LGU. Among the key reports that will be produced are:

- Provincial/City/Municipal Annual Reports - the annual reports include information related to LRNDP's progress and achievement towards the outputs, outcomes and impacts.

The annual accomplishment and assessment reports will be used by the local decision-makers for management actions on the improvements in the LRNDP processes and for policy making. The reports will be packaged to form part of the annual report to the public for transparency and for encouraging community participation and involvement in LRNDP implementation.

- Quarterly Report- the quarterly report will cover the achievements and progress assessment of LRNDP's physical and financial outputs.

The quarterly report will be prepared as part of the regular management tool in deciding LRNDP improvements and adjustments. This report will also be submitted to the PDC, especially to its Infrastructure Committee.

- Activity Report- will include the information on the activities accomplished and the assessment of progress towards the achievement of targeted activities and inputs. This will be accomplished on a monthly basis with inputs from the appropriate office and municipalities concerned.

The activity report will be prepared by the appropriate unit to serve as a tool in decision making in relation to tracking targets, adjusting resources, focusing of support, defining specific capacity building requirements and other related activities.

6.6 M& E Schedules

Results Level	Monitoring Frequency	Evaluation Frequency
Impact	Annual Data Gathering	Every three years assessment of results
Outcomes	Annual data gathering and integration results	Annual assessment of progress towards outcome
Output	Monthly data gathering and quarterly consolidation	Quarterly evaluation of progress
Input	Monthly and per activity data gathering and monitoring	Monthly evaluation of activities and inputs

IX. Communications Plan

A communications plan for this LRNDP is prepared as a detailed plan for delivering a strategic message to a target audience as a way to drive a positive result. The general objective of the communications plan is for the target audience to "buy in," and invest in the goals of the plan.

Table 52. Communications Plan for LRNDP

KEY AUDIENCE	COMMUNICATION OBJECTIVES	KEY MESSAGES	CHANNELS/ MEDIUM	EXPECTED RESULTS / OUTCOMES	TIME FRAME/ FREQUENCY
LRMT / MANCOM	Make the key decision makers aware of the LRNDP and its merits and manifest acceptance and support of the contents of LRNDP particularly the Vision, Goals, Objectives, Strategies, and Investment Programs.	LRNDP as a road map to achieve reforms in road governance LRNDP implementation will positively impact and contributes to the attainment of SDGs Successful LRNDP implementation would require strong executive and legislative support	Meetings	Investment Program in the LRNDP will be provided with allocation and implemented	Every 1 st quarter
LCE (PROVINCIAL, Municipal, Cities and Barangays)			Executive Committee Meetings		Every election year Every preparation of ELA
Legislative Bodies (SP and SB)			Committee hearings		Quarterly meeting
National Council (RDC, etc.)			Meetings PDC, Sectoral consultations		
NGAs (DA, DPW, DOT, etc)					
CSOs, NGOs, PO, etc.					

X. Implementation Plan

This part of the plan translates into action the LRNDP targets and strategies into concrete actions or specific activities that will be undertaken in each of the targeted LRNDP areas to facilitate the attainment of objectives set in the LRNDP.

The implementation of the LRNDP Plan shown in Table 53 is an effort where the province, specifically the responsible office/s identified will be able to complete the targets efficiently and time-bounded through the supportive Local Chief Executive and Local Roads Management Team. The Local Roads Management Team will take the lead in its implementation, monitoring, evaluation, and updating of the plan under the direct supervision of the Provincial Administrator and the Provincial Governor.

Regular reporting on the progress of its implementation shall be done through monthly meetings of department heads or management committee of PGDdN and shall be evaluated through annual reviews and planning, meetings or workshops.

The Local Road Management Team shall oversee and manage the implementation of LRNDP Plan that spearheaded the formulation of the Plan. The team is composed of the following:

- Provincial Governor,
- Provincial Administrator,
- Provincial Engineer,
- Provincial Director of DILG,
- Provincial Planning and Development Officer,
- Provincial Budget Officer,
- Provincial Accountant,
- Provincial Treasurer,
- Provincial Assessor,
- Provincial Human Resource Management Officer,
- Provincial Agriculturist,
- Provincial Environment and Natural Resources Officer,
- Provincial General Services Officer,
- Provincial Legal Officer, and
- Internal Auditor IV, PAdO – Internal Unit Services Division.

The Provincial Engineer's Office and the engineering offices of the Municipal and City Governments of the province as the lead implementers shall ensure that the identified road projects as included in the investment infrastructure plan are also undertaken.

Table 53. Implementation Plan

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
			2021	2022	2023	2024	2025			
	Strengthening of the information system on road related assets	Creation of Local Road Asset Management Team	3 rd Qrt					PADO, PPDO		PGO Regular Budget
		Conduct Orientation and Capability Enhancement for Local Road Asset Management Team at least once a year	4 th Qrt					PADO, PPDO PEO, PGSO, PACCO, PASSO		
		Conduct Road Inventory and Assessment of Local Road Assets by the LRAMT on a semestral basis	Every Sem.	Every Sem.	Every Sem.	Every Sem.	Every Sem.	PGO, PADO, PPDO	10,000	
		Development/								

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
		establishment of asset management system for local road assets		1 st Qrt.						
	Integration of cross-cutting themes (i.e, gender, environment, DRR-CCA, etc.) in local road design	Consultation meeting with the affected stakeholders (RRROW)	As needed arises	As need arises	As need arises	As need arises	As need arises	PEO, LRMT,	5,000	PEO Regular Budget
		CapDev on application of GAD policies and guidelines on road planning and design		1 st Qrt.				PEO, GAD, PDRRD, PHRMO	5,000	PHRMO Regular Budget
		Re-orientation of engineers involved on road planning on various hazards affecting the road network		4 th Qrt.				PEO	5,000	PEO Regular Budget
	Incorporation of road safety strategies and hardware in	Generation and creation of data base system on road related		2 nd Qrt.				PEO, PADO-IT		

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
	road planning and design	accidents								
		Conduct inventory of local roads with no or insufficient road safety furniture (Road safety audit)	4 th Qrt.					PEO, PGSO, PACCO, PASSO	5,000	PGSO Regular Budget
		Conduct re-orientation on road safety design specifically on the use of road safety furniture and standards		1 st Qrt.				PEO	5,000	PEO Regular Budget
	Strengthening and coordination between and among concerned road-related offices to come up with a more comprehensive data for road design	Conduct of joint survey in gathering and consolidation of data (Eng'g, SES team, DRR-CCA team, etc)		2 nd Qrt.				PEO, PDRRMD		

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
	Strengthening of functionality of Evaluation mechanism to monitor LRNDP implementation	<p>Conduct Orientation and Capacity Building for Provincial Monitoring Group and Provincial Project Monitoring Council at least once</p> <p>Develop, Operate, Maintain, Upgrade as needed the Monitoring Information System using Information Technology Platforms.</p>	4 th Qrt.	2 nd Q				<p>PPDO, PMC</p> <p>PPDO, PADO-IT</p>	10,000	PPDO Regular Budget
	Enhancement of the capability of technical personnel on new	<p>Conduct of CapDev:</p> <ul style="list-style-type: none"> - Enhancing POW & DED Prep -Use of new 	4 th Qrt.				PEO	10,000	PEO Regular	

Item No.	PARTICULAR S (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
	technology related to road planning and design	equipment in gathering data (geological, hydrological)								Budget
	Creation and provision of resources for technical personnel plantilla positions	Request for funding source for the creation of new items or provide Funds for unfilled/vacant positions specially for key technical personnel		1 st Q				PEO, PHRMO		
	Collaboration with the academe and other development partners in terms of Research and Development	Enter a Memorandum of Agreement or Understanding with the academe and other development partners in terms of Research and Development		4 th Q						
	Strengthening of institutional	<ul style="list-style-type: none"> Attend Training 								

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation				Responsible Persons/ Groups	Budgetary Requirements	Source of Funds	
	Capacity in Public Private Partnership mode of Infrastructure project implementation	and workshop in Public - private - Partnership Project Concept <ul style="list-style-type: none"> Establish Local PPP Ordinance 		3 rd Q	1 st Q			PEO	10,000	PEO Regular Budget
	Strengthening of institutional Capacity in Preparing Project Proposal for fund sourcing	<ul style="list-style-type: none"> Attend Training/Workshop on Infrastructure Program/Project Proposal 	4 th Q	3 rd Q				PEO, PHRMO	10,000	PEO Regular Budget
	Road Maintenance									
	Prioritization of roads for maintenance is based on RBIS and LRAM results/ data and those that serve as main	Simultaneous conduct of road inventory by LRAM and RBIS team including C/M/B technical team		1 st Q	1 st Q	1 st Q	1 st Q	LRAM-TWG		

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
	roads in availing the road maintenance activities to maximize budget allocation/resources.									
		Capacity Building activity on LRAM & RBIS		1 st Q	1 st Q	1 st Q	1 st Q	LRAM-TWG	10,000	PGSO Regular Budget
	Gradual shifting of mode of implementation of manual road maintenance activities from	Increase budget allocation for road maintenance.		2 nd Q	2 nd Q	2 nd Q	2 nd Q	PEO, PBO		
	by administration to contracting out to maximize required maintenance at	Outsourcing of funds		2 nd Q	2 nd Q	2 nd Q	2 nd Q	PEO, PBO		

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
	the C/M/B roads.									
	Strengthening and collaboration among C/M/B for the utilization of machine-operated road maintenance. This can be applied for both locally and externally funded road maintenance operations.	Counterparting of operating expenses for road maintenance activities		As need arises	As need arises	As need arises	As need arises	PEO, PBO		
	Improvement of the existing routines and procedures, and institutionalize the scheduling systems in road	Review system and procedure in road maintenance activities for possible enhancement		As need arises	As need arises	As need arises	As need arises	PEO, IASD		

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation				Responsible Persons/ Groups	Budgetary Requirements	Source of Funds	
	maintenance. This will cover proper management of resources like equipment, manpower and materials.	Conduct of regular coordination meetings among C/M/B technical staff		As need arises	As need arises	As need arises	As need arises	PEO, PPDO and TWG Members	5,000	PEO Regular Budget
	Establishment of Annual Provincial Road Maintenance Plan prior to any funding request.	Preparation of Annual Maintenance Work Plan (AMWP) -Cap Dev on Preparation of AMWP at C/M/B		3rd Q	3rd Q	3rd Q	3rd Q	PEO, PPDO, PHRMO	10,000	PEO Regular Budget
	Adoption of the community-based road maintenance scheme in C/M	Conduct of Cap Dev CBRMC program implementation at C/M		As need arises	As need arises	As need arises	As need arises	PEO, PPDO	10,000	PEO Regular Budget
	Conversion of	Endorsement								

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation				Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
				As need arises	As need arises	As need arises			
	some arterial provincial roads to national roads and also, some municipal/bar	for the passage of law for the conversion into the national road		As need arises	As need arises	As need arises	As need arises	PEO, PLO	
	angay roads to provincial roads.	Endorsement for the passage of P.O. for the conversion & to be listed as provincial roads		As need arises	As need arises	As need arises	As need arises	PEO, PLO	
	Road Rehab and Upgrading								
	Increase appropriation for rehabilitation/ improvement activities of provincial core roads.								
	Contracting out of road construction and rehabilitation activities (60% by contract	Bidding/ Awarding of contracts. Implementation of projects by administration		As need arises	As need arises	As need arises	As need arises	PEO, PGSO	

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
	and 40% by administration)	Local Revenue Generation Improvement Program						PTO		
	Strengthen local road rehabilitation systems and processes such as: construction supervision and management, contract management, quality assurance and quality control.	Capacity Development Program for local (city/ mun/ brg y) technical staff of road-related offices on: -construction supervision and management - contract management - quality assurance and quality control formulation of environmental management plans - RBME		As need arises	As need arises	As need arises	As need arises	PEO, PHRMO		
	Strict	Conduct of SES								

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
	implementation of Environmental Management Plans for locally funded road rehabilitation projects. Institutionalization of the SES guidelines/policy for road rehabilitation	Assessments for local road projects in close coordination with the PEO and other road-related offices Regular monitoring of EMPs and submission of reports to the LRMT		As need arises	As need arises	As need arises	As need arises	PEO, PPDO, PENRO	5,000	PEO Regular Budget
	Ensure that gender, environmental and social inclusion issues and concerns are considered in planning, implementing and monitoring of road rehabilitation projects.									
	Increase inters	Opening/Upgr								

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation				Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
				As need arises	As need arises	As need arises			
	and intra connectivity of Davao del Norte to other provinces in the region.	anding/improvement of local roads to improve intra connectivity and development		As need arises	As need arises	As need arises	As need arises	PEO, C/MEOs	
	Strengthen the anti-insurgency program by implementing EO 70	<p>Shelter Development Program for those displaced by insurgency</p> <p>Livelihood and skills development program</p> <ul style="list-style-type: none"> ➤ Conduct of community dialogue , IEC/advocacy on the ill effect's insurgency 		As need arises	As need arises	As need arises	As need arises	PEO, PLO, PADO-Housing	10,000 PEO and PADO Budget

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
		<ul style="list-style-type: none"> ➤ Improvement/rehabilitation of existing roads in GIDAS and conflict affected areas 								
	Road Safety									
	Strict Implementation of Existing Rules and Regulations for Road Vehicles									
	Provide avenues for Joint Operation on Road User Violators apprehension regularly									

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
				As need arises	As need arises	As need arises	As need arises			
	Strict implementation of regulatory measures	Conduct monitoring activities		As need arises	As need arises	As need arises	As need arises	PEO		
	Enhance implementation of road rehab/improvement activities	Road rehab./Improvement project		As need arises	As need arises	As need arises	As need arises	PEO		
	Forge Partnership with Other Funding Agency to access Resources for resilient Roadway surfacing	Development of FS/project proposal Preparation and Signing of Memorandum Agreement/ Understanding with Funding Agency for resilient Roadway Surfacing		As need arises	As need arises	As need arises	As need arises	PEO, PPDO		
	Explore other modes of implementation for efficient use of Resources for									

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
	road maintenance									
	Mainstreaming of DRR – CCA Principles in Road Planning, Design and Monitoring	Road Maintenance by Community Based Road Maintenance Contracting (CBRMC)		As need arises	As need arises	As need arises	As need arises	PEO, PDRRMD		
	Incorporation of Road Safety Audit in road planning, design and monitoring	Conduct Training / Workshop on Road Planning, Design and Monitoring integrating DRR-CAA Principles		3 rd Q				PEO, PPDO, PDRRMD	10,000	PEO and PDRMMD Budget
	Mainstreaming of Gender Responsive Principles in Road Planning, Design, and Monitoring	Conduct of Road Safety audit for Road Projects		1 st Q	1 st Q	1 st Q	1 st Q	PEO, IASD, PGO-GAD	5,000	PEO Regular Budget

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation				Responsible Persons/ Groups	Budgetary Requirements	Source of Funds	
	Conduct Joint Operation on Road User Violators apprehension regularly	<ul style="list-style-type: none"> • Construction of Special Lane for public use • Installation of street lights • Conduct Training on Gender Responsive Road Planning, Design and Monitoring 		As need arises 2 nd Q	As need arises 2 nd Q	As need arises 2 nd Q	As need arises 2 nd Q	PEO PEO, PGO-GAD and PHRMO	10,000	PHRMO Regular Budget
	Provide allocation for Improvement of Facilities and Road Furniture	Conduct IEC on road safety		3 rd Q	3 rd Q	3 rd Q	3 rd Q	PEO	5,000	PEO Regular Budget
	Adopt and Support Program of DOTR for PUV Modernization	Rehabilitation/ Improvement of Road Traffic Facilities and Road Furniture		As need arises	As need arises	As need arises	As need arises	PEO		
	Establish a Functional Road Safety Council in all	Creation of Road Safety Committee through an						PEO, PADO		

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds
	levels of the local government units with funds for its operation	Executive Order	4 th Q							
	Forge Partnership with various Stakeholders to ensure implementation of rules and regulations related to road safety (i.e truck overloading, etc.)	Formulation of MOA/MOU		1 st Q				PEO, PLO, PPDO		
	Revisit the Public Safety and Security Code of the Province	Conduct public consultation Formulation of amended Public Safety and Security Code		1 st Q				PEO, PLO, PPDO	10,000	PEO Regular Budget

Item No.	PARTICULARS (taken from Strategies)	Activities	Period of Implementation					Responsible Persons/ Groups	Budgetary Requirements	Source of Funds	
	Enhance emergency response activities	Establishment of Emergency Response Center for LGU's Without public hospital		1 st Q					PHO, PEEDO and PEO		
	Enhance Rescue Units Capacity	Provide Training on Basic Rescue Life Saving Technique for First Responders	As need arises	As need arises	As need arises	As need arises	As need arises	PDRMMD, PEEDO and PHO	10,000	PDRRMD Regular Budget	
		Conduct training on Basic Life Saving Course									
	Increase Provision of Resources for Rescue Units at the municipal and barangay level	Purchase of basic rescue equipment and gears		1 st Q					PDRRMD	100,000	

ANNEXES

ANNEX A. LIST OF DAVAO DEL NORTE LOCAL CORE ROADS

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
1st Oriental Street,Bermudez Plains Subd.	Barangay	Concrete	Fair	0.60829	Tagum City
Acaso - Quarry Road,Prk. 1B	Barangay	Gravel	Fair	0.473149	Tagum City
Barangay Hall - Purok 1C	Barangay	Gravel	Poor	0.275094	B.E. Dujali
Cabayangan Barangay Road	Barangay	Gravel	Fair	3.972907	Asuncion
Camoning - Bdry Maniki	Barangay	Gravel	Fair	3.972907	Asuncion
Casig-ang, Purok 1 Matin-ao - Purok 8 Dujali Barangay Road	Barangay	Earth	Bad	2.399873	B.E. Dujali
City Hall-Magsaysay-Laxina St.	Barangay	Concrete	Good	1.172309	IGACOS
Cuambogan-Asuncion Road,	Barangay	Concrete	Fair	2.073	Tagum City
Dila-dila - Bucana	Barangay	Gravel	Fair	1.068467	Carmen
District 2 - District 4, Purok 4, Tanglaw Barangay Road	Barangay	Earth	Bad	0.467229	B.E. Dujali
District 2 - Public Cemetery - District 4, Purok 4, Tanglaw Barangay Road	Barangay	Earth	Bad	2.16472	B.E. Dujali
District 3 - District 2 Barangay Road	Barangay	Earth	Bad	0.254958	B.E. Dujali
Estabillo Avenue,Prk. 2 mansanitas	Barangay	Concrete	Fair	1.108222	Tagum City
Falcata-Prk.5	Barangay	Earth	Fair	1.82083	San Isidro
Falcata-Prk.5	Barangay	Gravel	Poor	0.549702	San Isidro
Fd Rd 4 - Fd Rd 3 - Fd Rd 2 - Fd Rd 1 - Fd Rd 0 East	Barangay	Gravel	Fair	2.00884	Sto. Tomas
Fd Rd 6 - Purok 10 - Purok 11 New Katipunan - Jnc National Highway	Barangay	Gravel	Poor	4.660342	Sto. Tomas
Jct New Bantayan - Magatos - Asuncion	Barangay	Gravel	Poor	3.027465	Asuncion
Jct Sagayen - Sonlon - Jct Prk 2 - Prk 8, Napungas	Barangay	Gravel	Fair	0.21954	Asuncion
Jct San Juan - New Talisay - Prk 10, Cabaywa	Barangay	Gravel	Fair	2.32843	Asuncion
Jct. N.Corella-Guadalupe-Del Monte to Prk.3 -cemetery	Barangay	Gravel	Bad	1.180324	New Corella
Jct.N.Corella-New Bohol to Bndk. San Roque-Magsaysay	Barangay	Gravel	Fair	9.713618	New Corella
Jct.Sta.Fe-Mambing rd. to Prk.7,Cabidanan	Barangay	Gravel	Poor	6.241261	New Corella
Jct.Sta.Fe-Mambing to Prk.4,Mambing-Prk.1,El Salvador	Barangay	Gravel	Bad	6.986002	New Corella
Jnc Nat Highway Fd Rd 5 - Lagdek (Fd Rd 3)	Barangay	Gravel	Fair	2.070162	Sto. Tomas
Jnc Pr Rd Purok 2 Kimamon - Purok 6 - Purok Narra Lungaog - Junc Pr Rd	Barangay	Gravel	Fair	4.439906	Sto. Tomas

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Jnc Pr Rd Purok 9 - Bndry Sindaton Panabo	Barangay	Gravel	Fair	1.004883	Sto. Tomas
Jnc Provincial Rd Fr Rd 7 - San Isidro	Barangay	Gravel	Fair	3.175935	Sto. Tomas
Jnc San Jose Provincial Road - Sitio Talos	Barangay	Gravel	Fair	2.774732	Sto. Tomas
Jnc San Jose Provincial Road - Sitio Talos	Barangay	Gravel	Fair	1.461969	Sto. Tomas
Jnct Nat H-way Purok 4 - Purok 11 New Katipunan	Barangay	Gravel	Fair	1.053147	Sto. Tomas
Jnct Pr Rd Mahogany - New Visayas Bridge - Tibal-og Road	Barangay	Gravel	Fair	1.110206	Sto. Tomas
Junc Pr Rd Feeder 3 - Lagdek - MEPEC Road	Barangay	Gravel	Fair	2.900357	Sto. Tomas
Junction 52	Barangay	Gravel	Fair	3.745764	Kapalong
junction Ams	Barangay	Gravel	Fair	2.942705	Kapalong
Junction prk.1 to Prk.2 Semong	Barangay	Gravel	Fair	1.791288	Kapalong
Junction Prk.1 to Prk.6 Luna	Barangay	Concrete	Fair	0.432368	Kapalong
Junction Prk.3 to Prk.5 mamacao	Barangay	Gravel	Poor	14.21402	Kapalong
Junction prk.6a to Prk.1 Katipunan	Barangay	Gravel	Fair	4.385048	Kapalong
Junction Prk.8 to Prk.2 Tiburcia	Barangay	Gravel	Fair	3.445868	Kapalong
KAP 0001-121	Barangay	Gravel	Fair	0.944568	Kapalong
KAP 0001-127	Barangay	Gravel	Fair	0.781061	Kapalong
KAP 0001-127	Barangay	Gravel	Fair	1.08422	Kapalong
KAP 0001-127	Barangay	Gravel	Fair	0.702233	Kapalong
KAP 0001-98	Barangay	Earth	Poor	0.981507	Kapalong
KATUALAN- A	Barangay	Earth	Poor	2.56957	Panabo City
Km.30-Gumamela	Barangay	Gravel	Fair	4.067772	San Isidro
La Libertad Road-C	Barangay	Gravel	Fair	0.310271	Sto. Tomas
La Libertad Road-F	Barangay	Gravel	Fair	0.069752	Sto. Tomas
Labastida Avenue,Prk. 3 Nangka	Barangay	Gravel	Fair	3.360336	Tagum City
Lawaan rd.	Barangay	Earth	Poor	3.090125	San Isidro
Limbaan-Sta.Fe-El Salvador to Vega,Limbaan-New Carmen road	Barangay	Gravel	Poor	9.069521	New Corella
MALATIVAS- B	Barangay	Earth	Poor	3.202251	Panabo City
MALATIVAS- G	Barangay	Earth	Poor	1.226904	Panabo City
MALATIVAS- H	Barangay	Earth	Poor	0.929701	Panabo City
MANAY- D	Barangay	Earth	Poor	0.182031	Panabo City
MANAY- G	Barangay	Gravel	Fair	1.249303	Panabo City
Mariveles Street,Prk. 4D	Barangay	Concrete	Fair	0.149343	Tagum City

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
NANYO- G	Barangay	Earth	Poor	0.857203	Panabo City
Narra Street,Bermudez Plains Subd.	Barangay	Asphalt	Fair	0.456708	Tagum City
New City Hall - Quarry Road,	Barangay	Earth	Poor	0.37585	Tagum City
P1 east rd.	Barangay	Earth	Fair	0.103055	San Isidro
P1 minor rd.	Barangay	Gravel	Poor	0.563493	San Isidro
P1 west rd.	Barangay	Earth	Poor	0.145602	San Isidro
P2 rd._SN	Barangay	Earth	Poor	0.25005	San Isidro
P5 rd.	Barangay	Earth	Poor	0.183416	San Isidro
Parish Hall Drive	Barangay	Gravel	Fair	0.976871	Sto. Tomas
Pilar Village Road,Prk. 1A	Barangay	Gravel	Fair	0.230405	Tagum City
Prk 1 - Lower Camansa, Camansa	Barangay	Gravel	Bad	3.006552	Asuncion
Prk 1 - Prk 4, Camansa	Barangay	Gravel	Fair	0.258788	Asuncion
Prk 1, Camansa - Sitio Bangkawan Road	Barangay	Gravel	Good	0.439733	Asuncion
Prk 2 Buclad - Jct Magatos - Bdry Pagsabangan	Barangay	Gravel	Poor	2.008937	Asuncion
Prk 5 New Katipunan - New Sibuyan - Prk 4 Kimamon Road	Barangay	Gravel	Fair	2.858089	Sto. Tomas
Prk 6 - 18, Cambanogoy - Jct San Juan - New Talisay	Barangay	Gravel	Poor	1.491819	Asuncion
Prk 6, New Santiago - Jct Km. 9 Sagayen - Sawata	Barangay	Gravel	Poor	2.596297	Asuncion
Prk.1b-Siaboc	Barangay	Gravel	Bad	6.251514	San Isidro
Provincial Road Pantaron - San Agustin - Lungaog Road	Barangay	Gravel	Fair	3.28487	Sto. Tomas
Purok 1 Kinamayan Road A	Barangay	Concrete	Fair	0.363422	Sto. Tomas
Purok 1 Pawas - Purok 11Dujali Barangay Road	Barangay	Earth	Bad	1.486154	B.E. Dujali
Purok 1 Road B	Barangay	Gravel	Fair	0.116669	Sto. Tomas
Purok 1A Cabayangan - NIA Canal Cabayangan Barangay Road	Barangay	Gravel	Poor	0.114378	B.E. Dujali
Purok 1A Cabayangan Barangay Road	Barangay	Gravel	Fair	0.161084	B.E. Dujali
Purok 1A Day Care Cabayangan Barangay Road	Barangay	Gravel	Poor	0.116716	B.E. Dujali
Purok 1C High School Cabayangan Barangay Road	Barangay	Gravel	Fair	0.182448	B.E. Dujali
Purok 2 - Purok 1 - Tanglaw Bridge Barangay Road	Barangay	Earth	Bad	4.592391	B.E. Dujali
Purok 2 - Purok 5B Bobongon	Barangay	Gravel	Fair	3.361182	Sto. Tomas

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Purok 2 Bugtong Talisay - Purok 4 Bugtong Talisay Dujali Barangay Road	Barangay	Earth	Bad	1.266731	B.E. Dujali
Purok 2 Bugtong Talisay - Purok 8 D-6 Dujali Barangay Road	Barangay	Earth	Bad	1.93018	B.E. Dujali
Purok 2, Elementary School - Purok 7 New Casay Barangay Road	Barangay	Gravel	Fair	0.813376	B.E. Dujali
Purok 2A Pag-big - Mandigal Area Cabayangan Barangay Road	Barangay	Gravel	Fair	0.248237	B.E. Dujali
Purok 2A Pag-ibig Easty - Junc. Purok Palayan Cabayangan Barangay Road	Barangay	Earth	Bad	1.083358	B.E. Dujali
Purok 3 - Purok 6 - Purok 5 San Jose	Barangay	Gravel	Fair	3.781767	Sto. Tomas
Purok 3A - Purok 3B Cabayangan barangay Road	Barangay	Earth	Bad	0.815792	B.E. Dujali
Purok 3A Cabayangan - Mag Creek Cabayangan Barangay Road	Barangay	Gravel	Fair	1.131507	B.E. Dujali
Purok 3A Cabayangan, Balisong Crossing - Purok 4 Talisay Cabayangan Barangay Road	Barangay	Gravel	Poor	2.366831	B.E. Dujali
Purok 4 Bacali - Purok 8 D-6 Dujali Barangay Road	Barangay	Earth	Bad	2.12881	B.E. Dujali
Purok 4 Caimito - Purok Malinawon Balisong Cabayangan Barangay Road	Barangay	Earth	Bad	1.063709	B.E. Dujali
Purok 4, D-5 Dujali, D-6 Dujali - Purok 3 Bugtong Talisay Barangay Road	Barangay	Earth	Bad	4.524206	B.E. Dujali
Purok 5 - Purok 4 Bugtong Talisay Dujali Barangay Road	Barangay	Earth	Bad	1.203727	B.E. Dujali
Purok 5 Cabayangan - Purok 5 New Casay Barangay Road	Barangay	Earth	Poor	0.621242	B.E. Dujali
Purok 5 New Casay - Purok 7 New Casay Barangay Road	Barangay	Earth	Bad	2.362037	B.E. Dujali
Purok 6 - Purok 1 Pawas Dujali Barangay Road	Barangay	Earth	Bad	1.73053	B.E. Dujali
Purok 7 Dujali - Purok 5 New Casay Barangay Road	Barangay	Gravel	Poor	2.028226	B.E. Dujali
Purok 8-Purok 6, Tagbitan ag	Barangay	Earth	Fair	2.081584	IGACOS
Purok 8 New Casay Crossing - Prk 2 Bugtong Talisay Dujali Barangay Road	Barangay	Earth	Bad	1.706271	B.E. Dujali
Purok 9 - Fd Rd 3 - Fd Rd 2 - Fd Rd 1 West	Barangay	Gravel	Fair	1.248206	Sto. Tomas
Purok 9 San Jose - Mahayahay Magwawa	Barangay	Earth	Poor	4.645952	Sto. Tomas
Purok Centro - Cemetery Site	Barangay	Gravel	Fair	0.828862	Sto. Tomas

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Purok Mahayahay - Purok 2A Cabayangan Barangay Road	Barangay	Earth	Bad	2.31151	B.E. Dujali
Purok Mahogany New Visayas - Jnct Nat. Road Tibal-og	Barangay	Concrete	Good	1.137625	Sto. Tomas
Purok Malabago - Purok Ipil-Ipil - Purok Molave Circumferential Road	Barangay	Gravel	Fair	3.034953	Sto. Tomas
Purok1 - Purok 2 Pawas Dujali Bangay Road	Barangay	Earth	Bad	2.040588	B.E. Dujali
Rd.2 P5	Barangay	Earth	Poor	0.209034	San Isidro
Road A	Barangay	Earth	Fair	1.384938	IGACOS
Road B	Barangay	Earth	Fair	2.754112	IGACOS
Road E-1	Barangay	Earth	Fair	4.893339	IGACOS
Road E-2	Barangay	Earth	Poor	2.190993	IGACOS
Road R-2	Barangay	Earth	Poor	2.177755	IGACOS
Road R-3	Barangay	Earth	Fair	0.348816	IGACOS
Road S-2	Barangay	Earth	Poor	1.971985	IGACOS
Road T	Barangay	Earth	Poor	2.754264	IGACOS
Road Y	Barangay	Concrete	Good	1.1594	IGACOS
Road Y-1	Barangay	Earth	Poor	1.885262	IGACOS
Road Y-3	Barangay	Earth	Fair	1.066618	IGACOS
Rosales Street,	Barangay	Asphalt	Fair	4.120445	Tagum City
Salvacion Pagkain ng Bayan - San Miguel Road	Barangay	Gravel	Fair	3.269836	Sto. Tomas
Salvacion School Drive	Barangay	Concrete	Fair	0.519031	Sto. Tomas
Sampaguita Street	Barangay	Gravel	Fair	0.149866	Sto. Tomas
San Francisco Street	Barangay	Gravel	Fair	0.148764	Sto. Tomas
SAN ISIDRO ROAD 12	Barangay	Gravel	Fair	0.613583	Carmen
SAN ISIDRO ROAD 8	Barangay	Gravel	Fair	1.268693	Carmen
SAN ISIDRO ROAD 8	Barangay	Gravel	Fair	0.578334	Carmen
SAN ISIDRO ROAD 9	Barangay	Gravel	Fair	0.789456	Carmen
San Isidro, Tibal-og - Jnc Talos San Jose Road	Barangay	Earth	Fair	2.341781	Sto. Tomas
Sitio Kapol San Miguel - San Vicente Road	Barangay	Concrete	Fair	2.977156	Sto. Tomas
SN1 rd.	Barangay	Earth	Poor	0.139328	San Isidro
SOUTHERN DAVAO- B	Barangay	Earth	Poor	0.236045	Panabo City
Anonang-Bandera-San Isidro-Poblacion	City	Earth	Poor	11.55822	IGACOS
Buenavista-Mabunao-San Roque	City	Gravel	Poor	10.59836	Panabo City
Camudmud-San Isidro B	City	Gravel	Fair	1.852309	IGACOS
Cawag-San Jose-Adecor-Junction Natl Road Sitio 16, Pob., Kaputian	City	Earth	Fair	11.57616	IGACOS
Coastal Rd.	City	Concrete	Fair	8.721468	Panabo City

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Cogon B-Junction Miranda National Highway	City	Gravel	Good	3.670211	IGACOS
Cogon B-Libuak-Balet-Tagpopongan	City	Gravel	Fair	8.370143	IGACOS
Cuambogan - Mesaoy Road,	City	Concrete	Fair	1.566152	Tagum City
Dacudao Diversion (Bypass) Rd.	City	Gravel	Fair	5.508591	Panabo City
Del Mont, Aumb, Tagb, Kan, Pang, Lib, San Isid	City	Earth	Bad	25.66478	IGACOS
DNSC Road	City	Concrete	Good	0.742927	Panabo City
JP Laurel-Cagangohan	City	Concrete	Fair	2.631999	Panabo City
JUction Cacao- JUction Kasilak	City	Gravel	Fair	1.663855	Panabo City
Junction Matignao-Waterfall Rd.	City	Gravel	Fair	1.913284	Panabo City
Kasilak-New Aklan-Consolacion Rd	City	Asphalt	Fair	6.670457	Panabo City
Kauswagan-Waterfall	City	Gravel	Fair	5.142656	Panabo City
LA FURTUNA - CUAMBUGAN ROAD,	City	Concrete	Fair	2.722994	Tagum City
Lasang-Katipunan-Malativas Rd.	City	Gravel	Fair	23.27655	Panabo City
Libertad-San Remegio	City	Earth	Poor	1.757993	IGACOS
Libuak-Balet-Tagpo-Aunda-Tagluno-Tagbitinao-Tagbay Circum Road	City	Earth	Poor	18.36096	IGACOS
Little Panay-Madua Junction Rd.	City	Gravel	Fair	2.223885	Panabo City
Macario P. Bermudez Rd.,	City	Concrete	Fair	1.096674	Tagum City
Malativas-Kauswagan-Waterfall	City	Gravel	Fair	3.202212	Panabo City
Mambago-B (Sta. Rosa)-Sto. Nico	City	Gravel	Fair	4.270433	IGACOS
Nigara-Quezon	City	Gravel	Fair	3.329957	Panabo City
Panabo-Nanyo-Manay rd.	City	Gravel	Fair	4.871894	Panabo City
Pangubatan Sion	City	Earth	Poor	3.789466	IGACOS
Pena-Licup-Tagluno, Tagbitan-ag	City	Concrete	Good	7.478318	IGACOS
Pob. Kaputian-Quedodo-Tucanga-Bugac,Pangubatan Circum Road	City	Earth	Poor	1.964218	IGACOS
Quezon-Cebulano	City	Concrete	Good	1.73831	Panabo City
Resma Street,Prk. Durian	City	Concrete	Fair	0.213261	Tagum City

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Rotonda-Limao-Peoplata Junction National Highway Circum Road	City	Concrete	Good	11.3226	IGACOS
Rotonda-Miranda-Camudmud-San Isidro-Libuak	City	Concrete	Good	14.35694	IGACOS
San Miguel-Dujali Road,	City	Concrete	Fair	2.787497	Tagum City
Sindaton-Tulalian	City	Gravel	Fair	0.970994	Panabo City
Sto.Niao-Mambago-A	City	Earth	Poor	6.513372	IGACOS
Talikud Circumferential Road	City	Gravel	Poor	17.14941	IGACOS
Tambo Junction Circum Rd-San Isid-Cogon-Toril Junction National Hihgway	City	Gravel	Good	10.31975	IGACOS
Toril-San Antonio	City	Earth	Poor	5.035384	IGACOS
Upper Licanan-Matignao	City	Gravel	Fair	7.750059	Panabo City
Adelfa St.	Municipal	Gravel	Fair	0.147898	Carmen
Aguinaldo Street	Municipal	Gravel	Bad	0.227648	B.E. Dujali
Atanoza St.	Municipal	Gravel	Fair	0.309521	Asuncion
Aurora St.	Municipal	Gravel	Fair	0.054443	Carmen
Aurora St.	Municipal	Gravel	Fair	0.124786	Carmen
Avancena St.	Municipal	Earth	Poor	0.106899	Carmen
Baraulo St.	Municipal	Earth	Poor	0.148564	Carmen
Boguinvilla Street	Municipal	Concrete	Fair	0.163245	Sto. Tomas
Bonifacio Street	Municipal	Gravel	Poor	0.825742	B.E. Dujali
Bouguinvilla St.	Municipal	Concrete	Good	0.143895	Carmen
Bouguinvilla St.	Municipal	Concrete	Good	0.058565	Carmen
Bouguinvilla St.	Municipal	Gravel	Fair	0.045581	Carmen
Bouguinvilla St.	Municipal	Gravel	Fair	0.052493	Carmen
Bouguinvilla St.	Municipal	Gravel	Fair	0.054014	Carmen
Bouguinvilla St.	Municipal	Gravel	Fair	0.052786	Carmen
Butterfly St.	Municipal	Gravel	Fair	0.177629	Carmen
Cacao B interconnecting rd.	Municipal	Earth	Fair	0.997748	San Isidro
Cadena de Amor St.	Municipal	Gravel	Fair	0.147161	Carmen
Cadena De Amor Street	Municipal	Concrete	Fair	0.657349	Sto. Tomas
Calachuchi St.	Municipal	Gravel	Fair	0.202255	Carmen
Carlos P. Garcia St.	Municipal	Gravel	Fair	0.03393	Carmen
Champaca St.	Municipal	Gravel	Fair	0.048189	Carmen
Champaca St.	Municipal	Gravel	Fair	0.055774	Carmen
Claro M. Recto St.	Municipal	Gravel	Fair	0.146358	Carmen
Claro M. Recto St.	Municipal	Gravel	Fair	0.099818	Carmen
Claro M. Recto St. (Temp)	Municipal	Earth	Poor	0.04467	Carmen
clementa road	Municipal	Concrete	Fair	1.110999	Kapalong
Dagohoy Street	Municipal	Gravel	Poor	0.272003	B.E. Dujali
Dahlia St.	Municipal	Gravel	Fair	0.051518	Carmen
Dahlia St.	Municipal	Gravel	Fair	0.055877	Carmen
Dahlia St.	Municipal	Gravel	Fair	0.054128	Carmen
Dahlis St.	Municipal	Gravel	Fair	0.000166	Carmen

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Diego Silang Street	Municipal	Gravel	Poor	0.298966	B.E. Dujali
Emilio Aguinaldo St.	Municipal	Gravel	Fair	0.313036	Carmen
Emilio Jacinto St.	Municipal	Gravel	Fair	0.160898	Carmen
Emilio Jacinto St.	Municipal	Gravel	Fair	0.131775	Carmen
Emilio Jacinto St.	Municipal	Gravel	Fair	0.169911	Carmen
Escoda Street	Municipal	Gravel	Bad	0.199199	B.E. Dujali
Falcata-Mun. Hall rd.	Municipal	Earth	Poor	0.297333	San Isidro
Feeder Road 2 East	Municipal	Gravel	Fair	3.339909	Sto. Tomas
Feeder Road 4 - Osmena Street	Municipal	Gravel	Fair	3.198944	Sto. Tomas
Fernandez St.	Municipal	Gravel	Fair	0.4391	Asuncion
Ferraris St.	Municipal	Gravel	Fair	0.831213	Asuncion
Fr. Burgos St.	Municipal	Earth	Poor	0.044169	Carmen
Fr. Gomez St.	Municipal	Gravel	Fair	0.070249	Carmen
Fr. Gomez St.	Municipal	Gravel	Fair	0.0366	Carmen
Fr. Zamora St.	Municipal	Earth	Poor	0.057956	Carmen
Freedom road (Along Public Market)	Municipal	Asphalt	Fair	0.069902	New Corella
Going to Cemetery	Municipal	Gravel	Fair	0.069932	Carmen
Going to Cemetery	Municipal	Gravel	Fair	0.079546	Carmen
Going to Cemetery	Municipal	Gravel	Fair	0.071958	Carmen
Going to Cemetery	Municipal	Gravel	Fair	0.040119	Carmen
Going to Cemetery	Municipal	Gravel	Fair	0.067658	Carmen
Going to Cemetery	Municipal	Gravel	Fair	0.010452	Carmen
Going to Cemetery	Municipal	Gravel	Fair	0.07815	Carmen
Going to Cemetery	Municipal	Gravel	Fair	0.063031	Carmen
Going to Cemetery	Municipal	Gravel	Fair	0.055055	Carmen
Gumamela St.	Municipal	Gravel	Fair	0.180046	Carmen
Gumamela St.	Municipal	Concrete	Good	0.1486	Carmen
Gumamela St.	Municipal	Gravel	Fair	0.146683	Carmen
Gumamela St.	Municipal	Concrete	Good	0.087271	Carmen
Gumamela St.	Municipal	Concrete	Good	0.014445	Carmen
Gumamela St.	Municipal	Concrete	Good	0.001941	Carmen
Gumamela St.	Municipal	Concrete	Good	0.061799	Carmen
Gumamela St.	Municipal	Concrete	Good	0.083136	Carmen
Ilang-Ilang Street (Fd Rd 3 - Fd Rd 1 (Bridge))	Municipal	Gravel	Fair	1.142459	Sto. Tomas
Ising - Asuncion FMR (MRDP)	Municipal	Gravel	Fair	0.644013	Carmen
Jct Nat Road Prk 2 Going to Mahayahay - Tugas	Municipal	Earth	Good	6.769742	Talaingod
Jct. Mahogany provincial rd.	Municipal	Earth	Bad	0.405237	San Isidro
Jct. Nat Road JBL to View Point	Municipal	Concrete	Good	1.753623	Talaingod
Jct. Nat. Road St. Anne to Jct Provincial Road Tagulayan	Municipal	Gravel	Good	2.619208	Talaingod
Jct. Nat. Road Sto. Nino to Jct. Nanaga-Naseco Road	Municipal	Earth	Bad	1.480779	Talaingod
Jct. National Road Nanaga To Naseco	Municipal	Earth	Fair	5.919082	Talaingod
Jct. Prov. Road Tagulayan to - Prov. Road Daligdigon	Municipal	Earth	Bad	1.968499	Talaingod

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Jct.Bndry Tagum Baka-New Corella to Prk.1,Pob .	Municipal	Gravel	Fair	0.51357	New Corella
Jct.Bndry.Tagum-Baka-N.Corella to Dagohoy ext.Pob.	Municipal	Gravel	Fair	2.457869	New Corella
Jct.N.Corella-Saug-Dionesio Irig st. @ Prk 2	Municipal	Gravel	Poor	0.346576	New Corella
Jct.N.Corella-Saug to Jose Rizal Ave.	Municipal	Concrete	Good	1.086912	New Corella
Jct.N.Corella-Saug to Jose Rizal Ave.(south Port)-tree park	Municipal	Gravel	Bad	0.499787	New Corella
Jose Diokno St.	Municipal	Earth	Poor	0.171457	Carmen
Jose Rizal St.	Municipal	Gravel	Fair	0.175817	Carmen
Jose Rizal St.	Municipal	Gravel	Fair	0.076026	Carmen
Jose Rizal St.	Municipal	Gravel	Fair	0.22803	Carmen
Jose Rizal St.	Municipal	Gravel	Fair	0.130688	Carmen
Juan Luna St.	Municipal	Gravel	Fair	0.169994	Carmen
Juan Luna St.	Municipal	Gravel	Fair	0.132174	Carmen
Juan Luna St.	Municipal	Gravel	Fair	0.161419	Carmen
Junction Antonio Luna St. - Junction Purok 12 Ising Road	Municipal	Gravel	Fair	0.05635	Carmen
Junction Nat'l Highway - Purok 12 Ising Road	Municipal	Gravel	Fair	0.064173	Carmen
Junction Nat'l Highway - Purok 12 Ising Road	Municipal	Gravel	Fair	0.184093	Carmen
Junction National Highway - Purok 10 Ising - Junction Provincial Road	Municipal	Gravel	Fair	0.639458	Carmen
Junction National Highway Fd Rd 1 - Ilang2 Street	Municipal	Concrete	Fair	1.299379	Sto. Tomas
junction prk.9 to camuning road	Municipal	Gravel	Fair	1.144949	Kapalong
Junction Provincial Road - MRF Site	Municipal	Gravel	Fair	0.050924	Carmen
Junction Provincial Road - NHA I-Care	Municipal	Gravel	Fair	0.404997	Carmen
Junction Provincial Road - Purok 6 Taba - Junction Provincial Road	Municipal	Gravel	Fair	0.960511	Carmen
Junction Provincial Road - Purok 7 Ising Road A	Municipal	Gravel	Fair	0.144234	Carmen
Junction Provincial Road - Purok 7 Ising Road B	Municipal	Gravel	Fair	0.117129	Carmen
Korbada-Everlasting rd.	Municipal	Earth	Good	2.02701	San Isidro
Lapu-lapu St.	Municipal	Gravel	Fair	0.228615	Carmen
Lapu-lapu St.	Municipal	Gravel	Fair	0.043356	Carmen
Lapu-Lapu Street	Municipal	Gravel	Poor	0.564799	B.E. Dujali
Lerio St.	Municipal	Gravel	Fair	0.201321	Carmen
Lerio St.	Municipal	Gravel	Fair	0.033712	Carmen
Lerio St.	Municipal	Gravel	Fair	0.013254	Carmen
Lerio St.	Municipal	Gravel	Fair	0.053145	Carmen
Lerio St.	Municipal	Gravel	Fair	0.055127	Carmen
Lerio St.	Municipal	Gravel	Fair	0.055192	Carmen
Lopez Jaena St.	Municipal	Gravel	Fair	0.051895	Carmen

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Lopez Jaena St.	Municipal	Gravel	Fair	0.052155	Carmen
Lopez Jaena St.	Municipal	Gravel	Fair	0.04704	Carmen
M2 road	Municipal	Earth	Poor	0.30016	San Isidro
Mabini St.	Municipal	Concrete	Good	0.497011	Asuncion
Mabini Street	Municipal	Gravel	Poor	0.564243	B.E. Dujali
Magsaysay Ave.	Municipal	Gravel	Bad	1.31723	New Corella
Magsaysay St.	Municipal	Concrete	Good	0.298024	Asuncion
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.03316	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.024926	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.03879	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.029818	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.038938	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.04604	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.025623	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.160954	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.027069	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.023485	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.058278	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.025423	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.012349	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.027014	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.027269	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.031539	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.0251	Carmen
Maliaville Subdivision Road	Municipal	Gravel	Fair	0.024378	Carmen
Maliaville Subdivision Road 1	Municipal	Gravel	Fair	0.162236	Carmen
Maliaville Subdivision Road 1	Municipal	Gravel	Fair	0.032412	Carmen
Manuel Roxas St.	Municipal	Concrete	Good	0.046595	Carmen
Manuel Roxas St.	Municipal	Earth	Poor	0.238463	Carmen
Manuel Roxas St.	Municipal	Gravel	Fair	0.070489	Carmen
Market Avenue (A)	Municipal	Concrete	Good	0.190799	Carmen
Market Avenue (B)	Municipal	Concrete	Good	0.191492	Carmen
Market Avenue (C)	Municipal	Concrete	Good	0.087039	Carmen
Market Avenue (C)	Municipal	Concrete	Good	0.022333	Carmen
Market Avenue (C)	Municipal	Concrete	Good	0.08198	Carmen
Market Avenue (D)	Municipal	Concrete	Good	0.026595	Carmen
Market Avenue (D)	Municipal	Concrete	Good	0.020527	Carmen
Market Avenue (D)	Municipal	Concrete	Good	0.039345	Carmen
Market Avenue (D)	Municipal	Concrete	Good	0.0229	Carmen
Market Avenue (D)	Municipal	Concrete	Good	0.02949	Carmen
Market Avenue (D)	Municipal	Concrete	Good	0.033107	Carmen
Market Avenue (D)	Municipal	Concrete	Good	0.018812	Carmen
Market Avenue (E)	Municipal	Concrete	Good	0.026026	Carmen
Market Avenue (E)	Municipal	Concrete	Good	0.022235	Carmen
Market Avenue (E)	Municipal	Concrete	Good	0.021406	Carmen
Market Avenue (E)	Municipal	Concrete	Good	0.037984	Carmen
Market Avenue (E)	Municipal	Concrete	Good	0.032219	Carmen
Market Avenue (E)	Municipal	Concrete	Good	0.019637	Carmen
Market Avenue (E)	Municipal	Concrete	Good	0.029379	Carmen

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Market Avenue (F)	Municipal	Concrete	Good	0.028681	Carmen
Market Avenue (F)	Municipal	Concrete	Good	0.021508	Carmen
Market Avenue (F)	Municipal	Concrete	Good	0.03677	Carmen
Market Avenue (F)	Municipal	Concrete	Good	0.032657	Carmen
Market Avenue (F)	Municipal	Concrete	Good	0.019755	Carmen
Market Avenue (F)	Municipal	Concrete	Good	0.029562	Carmen
Market Avenue (F)	Municipal	Concrete	Good	0.013979	Carmen
Market Avenue (F)	Municipal	Concrete	Good	0.001928	Carmen
Market Avenue (F)	Municipal	Concrete	Good	0.002804	Carmen
Market Avenue (G)	Municipal	Gravel	Fair	0.043722	Carmen
Market Avenue (G)	Municipal	Gravel	Fair	0.047597	Carmen
Market Avenue (H)	Municipal	Gravel	Fair	0.043422	Carmen
Market Avenue (H)	Municipal	Gravel	Fair	0.047966	Carmen
Market Avenue (I)	Municipal	Concrete	Good	0.027115	Carmen
Market Avenue (I)	Municipal	Concrete	Good	0.043441	Carmen
Market Avenue (I)	Municipal	Concrete	Good	0.0484	Carmen
Market Avenue (I)	Municipal	Concrete	Good	0.030076	Carmen
Market Avenue (J)	Municipal	Concrete	Good	0.029953	Carmen
Market Avenue (J)	Municipal	Concrete	Good	0.047745	Carmen
Market Avenue (J)	Municipal	Concrete	Good	0.02753	Carmen
Market Avenue (J)	Municipal	Concrete	Good	0.042878	Carmen
Market Avenue (K)	Municipal	Gravel	Fair	0.042523	Carmen
Market Avenue (K)	Municipal	Gravel	Fair	0.048001	Carmen
Market Avenue (L)	Municipal	Gravel	Fair	0.04266	Carmen
Market Avenue (L)	Municipal	Gravel	Fair	0.048201	Carmen
Miguel Malvar St.	Municipal	Gravel	Fair	0.132952	Carmen
Municipal Avenue	Municipal	Concrete	Good	0.203694	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.100885	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.099639	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.023258	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.098929	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.02297	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.099848	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.026446	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.001358	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.030499	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.057819	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.035008	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.058572	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.025661	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.100858	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.026809	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.08034	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.02725	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.063951	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.024465	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.03131	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.178853	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.035505	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.06097	Carmen

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.024935	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.06076	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.026069	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.08486	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Concrete	Good	0.071257	Carmen
NHA I-Care Road Purok 6 Ising	Municipal	Gravel	Fair	0.270678	Carmen
Orchid St.	Municipal	Gravel	Fair	0.054255	Carmen
Orchid St.	Municipal	Gravel	Fair	0.057092	Carmen
Orchid St.	Municipal	Gravel	Fair	0.054597	Carmen
P3 Ising - P4A Tuganay FMR	Municipal	Concrete	Good	1.01154	Carmen
P5 - P1 Mangalcal FMR (MRDP Road)	Municipal	Gravel	Fair	2.045953	Carmen
Purok 12 to National High School	Municipal	Gravel	Good	2.476093	Kapalong
Purok 22 Ising Road	Municipal	Gravel	Fair	0.074795	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.083799	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.082074	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.053267	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.080931	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.026618	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.07201	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.024194	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.144693	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.057343	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.036289	Carmen
Purok 22 Ising Road	Municipal	Gravel	Fair	0.054282	Carmen
Purok 5A Alley	Municipal	Earth	Bad	0.085789	B.E. Dujali
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.001295	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.189825	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.04235	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.140879	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.136326	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.003479	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.026721	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.025882	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.029691	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.030786	Carmen
Purok 6 - Purok 22 Ising Road	Municipal	Gravel	Fair	0.072827	Carmen
Purok 8 Ising - Junction Provincial Road	Municipal	Gravel	Fair	0.238447	Carmen
Ramon Magsaysay St.	Municipal	Earth	Poor	0.170932	Carmen
Rizal St. (Infront of Public Market)	Municipal	Asphalt	Fair	0.155092	New Corella
Rizal St.(infront of Activity center)	Municipal	Concrete	Good	0.167424	New Corella
Rizal St., Aquino St., Arellano St., Paterno,- Garcia St.	Municipal	Gravel	Poor	2.189369	B.E. Dujali
Romualdez st (along Public Mkt.)	Municipal	Concrete	Good	0.235945	New Corella
Rosal St.	Municipal	Concrete	Good	0.053904	Carmen
Rosal St.	Municipal	Gravel	Fair	0.055338	Carmen

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Rosal St.	Municipal	Gravel	Fair	0.055842	Carmen
Rosal St.	Municipal	Concrete	Good	0.02735	Carmen
Rosal St.	Municipal	Concrete	Good	0.043331	Carmen
Rosal St.	Municipal	Concrete	Good	0.048184	Carmen
Rosal St.	Municipal	Concrete	Good	0.030186	Carmen
Rosal St.	Municipal	Concrete	Good	0.017055	Carmen
Rosal St.	Municipal	Concrete	Good	0.037874	Carmen
Rosal St.	Municipal	Concrete	Good	0.042727	Carmen
Rose St.	Municipal	Concrete	Good	0.038572	Carmen
Rose St.	Municipal	Concrete	Good	0.015476	Carmen
Rose St.	Municipal	Gravel	Fair	0.054204	Carmen
Rose St.	Municipal	Concrete	Good	0.053566	Carmen
Rose St.	Municipal	Concrete	Good	0.027822	Carmen
Rose St.	Municipal	Concrete	Good	0.043175	Carmen
Rose St.	Municipal	Concrete	Good	0.031909	Carmen
Rose St.	Municipal	Concrete	Good	0.015303	Carmen
Rose St.	Municipal	Concrete	Good	0.02972	Carmen
Rose St.	Municipal	Gravel	Fair	0.054779	Carmen
Roxas Street	Municipal	Gravel	Poor	0.289954	B.E. Dujali
Sampaguita St.	Municipal	Gravel	Fair	0.054493	Carmen
Sampaguita St.	Municipal	Gravel	Fair	0.055981	Carmen
Sampaguita St.	Municipal	Gravel	Fair	0.055507	Carmen
Sampaguita St.	Municipal	Concrete	Good	0.056254	Carmen
Sampaguita St.	Municipal	Concrete	Good	0.056431	Carmen
Sampaguita St.	Municipal	Concrete	Good	0.079929	Carmen
Sampaguita St.	Municipal	Concrete	Good	0.053672	Carmen
San Francisco St.	Municipal	Gravel	Fair	0.181943	Carmen
San Francisco St.	Municipal	Gravel	Fair	0.211771	Carmen
San Francisco St.	Municipal	Gravel	Fair	0.11727	Carmen
San Francisco St.	Municipal	Gravel	Fair	0.185467	Carmen
San Francisco St.	Municipal	Gravel	Fair	0.206437	Carmen
San Francisco St.	Municipal	Gravel	Fair	0.042724	Carmen
San Francisco St.	Municipal	Gravel	Fair	0.136544	Carmen
Santan St.	Municipal	Gravel	Fair	0.178069	Carmen
Santan St.	Municipal	Gravel	Fair	0.205361	Carmen
Santan St.	Municipal	Gravel	Fair	0.181861	Carmen
Santan St.	Municipal	Gravel	Fair	0.212307	Carmen
Santan St.	Municipal	Gravel	Fair	0.114904	Carmen
Santan St.	Municipal	Gravel	Fair	0.184112	Carmen
Santan Street	Municipal	Concrete	Fair	0.263107	Sto. Tomas
Sultan Kudarat St.	Municipal	Earth	Poor	0.077122	Carmen
Sunflower St.	Municipal	Gravel	Fair	0.178241	Carmen
Sunflower St.	Municipal	Gravel	Fair	0.116358	Carmen
Sunflower St.	Municipal	Gravel	Fair	0.18353	Carmen
Sunflower St.	Municipal	Gravel	Fair	0.210089	Carmen
Sunflower St.	Municipal	Gravel	Fair	0.184623	Carmen
Sunflower St.	Municipal	Gravel	Fair	0.204939	Carmen
Sunflower Street	Municipal	Concrete	Fair	0.231561	Sto. Tomas

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Tugas to Jct. Nat. Road Bicanan	Municipal	Earth	Bad	4.208138	Talaingod
Waling-Waling St.	Municipal	Concrete	Good	0.14607	Carmen
Waling-Waling St.	Municipal	Concrete	Good	0.05989	Carmen
Waling-Waling Street	Municipal	Concrete	Fair	0.23082	Sto. Tomas
Yellow Bell	Municipal	Concrete	Fair	0.262314	Sto. Tomas
Alejal - Alemag	Provincial	Gravel	Fair	1.795581	Carmen
Anahaw - Maligaya	Provincial	Gravel	Fair	4.811095	Carmen
Angelo - Dagohoy	Provincial	Gravel	Fair	2.192512	Talaingod
Anibongan - Guadalupe	Provincial	Gravel	Good	2.488081	Carmen
Anibongan - Salvacion - Cabayangan	Provincial	Gravel	Good	6.992954	Carmen
Asuncion - Monte Carlo - Del Pilar	Provincial	Gravel	Fair	9.931792	Asuncion
Asuncion - New Alegria - Bdry. Cuambogan	Provincial	Gravel	Fair	6.664798	Asuncion
Bacali - Casig-ang - Libertad	Provincial	Gravel	Fair	4.718343	Sto. Tomas
Basa - Tubod	Provincial	Gravel	Good	1.551979	Carmen
Bdry. Tagum - Crossing Kinamayan - Sto. Tomas	Provincial	Gravel	Good	19.01255	Sto. Tomas
Bndry. Tagum, Baka - New Corella	Provincial	Concrete	Good	12.98068	New Corella
Cabayangan - Esperanza	Provincial	Gravel	Good	5.373062	B.E. Dujali
Carcor - Patrocenio - Jct. Bayabas	Provincial	Gravel	Fair	14.74531	New Corella
Cebulano - Mangalcal	Provincial	Gravel	Good	4.153821	Carmen
Daligdigon - Dagohoy	Provincial	Gravel	Fair	3.342162	Talaingod
Dalisay - Mabuhay	Provincial	Gravel	Good	3.282234	Carmen
Del Pilar - Jct. Silangan	Provincial	Gravel	Fair	4.179507	New Corella
Del Pilar - Prk. 9 Bagsak - San Jose	Provincial	Gravel	Good	5.000447	New Corella
Dujali - Balisong - Magupising	Provincial	Gravel	Good	5.514437	B.E. Dujali
Dujali - New Casay	Provincial	Gravel	Fair	3.147723	B.E. Dujali
Dujali - San Isidro	Provincial	Gravel	Good	4.6461	B.E. Dujali
Dujali - San Miguel	Provincial	Gravel	Good	4.287055	B.E. Dujali
Dujali - Tanglaw	Provincial	Gravel	Fair	3.49949	B.E. Dujali
FD RD 3 - San Jose	Provincial	Gravel	Good	4.575433	Sto. Tomas
Fd. Rd. 2 - Sto. Tomas - Magwawa	Provincial	Gravel	Fair	10.24339	Sto. Tomas
Fd. Rd. 3 - Kimamon - Luna	Provincial	Gravel	Good	11.78198	Sto. Tomas
Florida - Suaon - Jct. Gupitan	Provincial	Gravel	Fair	15.57155	Kapalong
Igangon - Sawata	Provincial	Gravel	Good	9.662635	San Isidro
Ising - Sadpodon - Taba - Diladila	Provincial	Gravel	Fair	5.659002	Carmen
Ising - Sto. Niño	Provincial	Gravel	Good	2.073493	Carmen

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Jct. Bdry. Tagum - Guadalupe	Provincial	Gravel	Good	7.935468	Sto. Tomas
Jct. Bdry. Tagum - Talomo	Provincial	Gravel	Fair	11.98491	Sto. Tomas
Jct. Dacudao - Mabuhay	Provincial	Gravel	Fair	4.430123	San Isidro
Jct. Gabuyan - Semong - Dagohoy	Provincial	Gravel	Good	6.974057	Kapalong
Jct. Highway - Carmen - Mangalcal - Tubod	Provincial	Gravel	Fair	11.38128	Carmen
Jct. Highway - Ising - Magsaysay	Provincial	Gravel	Fair	10.64167	Carmen
Jct. Highway - Luna - Mamacao - Narra	Provincial	Gravel	Fair	9.172032	Kapalong
Jct. Highway - Sto. Niño - Kabankalan - La Paz	Provincial	Gravel	Fair	2.109097	Carmen
Jct. Highway - Tanglaw	Provincial	Gravel	Fair	4.735953	Sto. Tomas
Jct. Highway - Tubod - Bagong Silang	Provincial	Gravel	Good	1.897502	Carmen
Jct. Highway - Tuganay - Anibongan	Provincial	Gravel	Good	3.678964	Carmen
Jct. Highway Canatan - Jct. Highway Magatos	Provincial	Gravel	Good	4.85472	Asuncion
Jct. Highway Doña Andrea - Capungagan	Provincial	Gravel	Fair	8.702478	Asuncion
Jct. Highway Sto. Niño - Cebulano	Provincial	Gravel	Good	2.117215	Carmen
Jct. Highway Sto. Niño - La Paz - San Vicente	Provincial	Gravel	Fair	6.060793	Carmen
Jct. Highway Tuganay - Taba	Provincial	Gravel	Good	4.395625	Carmen
Jct. Sagayen - Sonlon	Provincial	Gravel	Fair	14.03525	Asuncion
Jct. Salvacion - San Vicente - Cabay-angan	Provincial	Gravel	Good	3.458012	B.E. Dujali
Jct. Suaon - Libuton	Provincial	Concrete	Good	7.261171	Kapalong
Kapalong - Mabantao - Florida	Provincial	Gravel	Fair	12.12645	Kapalong
Kimamon - Lungaog - Talomo	Provincial	Gravel	Fair	5.931427	Sto. Tomas
Kinamayan - Lunga-og	Provincial	Gravel	Fair	2.554036	Sto. Tomas
Km. 15, Kipalili - New Loon	Provincial	Gravel	Good	6.9309	Asuncion
Km. 9, Sagayen - Sawata	Provincial	Gravel	Good	19.40266	San Isidro
Limbaan - Sta. Fe - El Salvador	Provincial	Gravel	Fair	18.82226	New Corella
Loceta - Lower Mangalcal	Provincial	Gravel	Good	2.062619	Carmen
Los Amigos 1 - Esperanza - Los Amigos 2	Provincial	Gravel	Good	3.613803	Sto. Tomas
Lower Asuncion - Upper Asuncion	Provincial	Gravel	Good	1.028277	Carmen
Maligaya - New Camiling	Provincial	Gravel	Fair	2.126369	Carmen
Menzi - Balagunan - Tulalian	Provincial	Gravel	Good	10.65466	Sto. Tomas
Mesaoy - Jct. Mahayahay	Provincial	Gravel	Fair	4.608949	Asuncion
Monte Dujali - Gupitan	Provincial	Gravel	Fair	4.5814	Kapalong

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
NAFCO - Bobongon	Provincial	Gravel	Good	2.674992	Sto. Tomas
New Camiling - Alejal - Lower Magsaysay	Provincial	Gravel	Fair	6.815914	Carmen
New Casay - Bugtong Talisay	Provincial	Gravel	Fair	2.174474	B.E. Dujali
New Corella - El Unido - Jct. Mesaoy	Provincial	Gravel	Fair	8.616893	New Corella
New Corella - Guadalupe - Del Monte	Provincial	Gravel	Good	14.10314	New Corella
New Corella - New Bohol	Provincial	Concrete	Good	11.45507	New Corella
New Corella - New Sambog - Silangan	Provincial	Gravel	Fair	5.112225	Asuncion
New Corella - Saug	Provincial	Gravel	Fair	12.52208	New Corella
New Corella - Sto. Niño - Macgum	Provincial	Gravel	Fair	17.11186	New Corella
New Katipunan - Pantaron	Provincial	Gravel	Good	1.899775	Sto. Tomas
New Visayas - Binancian	Provincial	Gravel	Good	7.7728	Asuncion
Pandulian - Jct. San Miguel	Provincial	Gravel	Fair	5.580774	Kapalong
Pob. New Corella - Prk. 10 Pob.	Provincial	Gravel	Good	1.317369	New Corella
Prk 5 RJS - Prk. 6 New Casay	Provincial	Gravel	Good	2.712963	B.E. Dujali
Prk. 5 - Prk. 1 Pawas - Dujali	Provincial	Gravel	Good	2.188783	B.E. Dujali
Prk. 7 Pob. - Jct. New Sambog	Provincial	Gravel	Fair	2.52994	New Corella
Prk. Narafil - Brgy. Site Magupising	Provincial	Gravel	Good	2.056135	B.E. Dujali
San Juan - Kauswagan - New Cortez	Provincial	Gravel	Good	3.225858	New Corella
San Juan - New Talisay	Provincial	Gravel	Fair	5.137294	New Corella
San Miguel - Casig-ang	Provincial	Gravel	Good	2.556378	Sto. Tomas
San Miguel - Crossing Kinamayan	Provincial	Gravel	Good	1.866076	Sto. Tomas
San Miguel - Libertad	Provincial	Gravel	Good	6.2045	Sto. Tomas
San Vicente - Butay	Provincial	Gravel	Good	7.518058	Asuncion
Saug - Sonlon - Bdry. Longanapan	Provincial	Gravel	Fair	11.6	Asuncion
Sawata - Libuton - Monte Dujali - Patel	Provincial	Gravel	Fair	29.58106	Kapalong
Sawata - Mamangan - Pinamuno	Provincial	Gravel	Fair	14.5153	San Isidro
Semong - Palma Gil	Provincial	Gravel	Good	2.734031	Kapalong
Sitio Malaga - Tibulao	Provincial	Gravel	Good	3.268545	Carmen
Sonlon - New Visayas - Camansa	Provincial	Gravel	Fair	7.07209	Asuncion
Sta. Fe - Maming	Provincial	Gravel	Fair	10.95749	New Corella
Sto. Niño - Daligdigon - Paiton	Provincial	Gravel	Fair	11.60081	Talaingod
Sto. Niño - Palma Gil - Jct. Opao	Provincial	Concrete	Fair	5.994304	Talaingod

Road Name	Road Classification	Road Surface Type	Road Condition	Road Length	Location
Sto. Tomas - Bdry. Mamacao	Provincial	Gravel	Good	4.854277	Sto. Tomas
Tubod - Basa - Mangalcal	Provincial	Gravel	Good	3.930372	Carmen
Tubod - Pilar	Provincial	Gravel	Good	1.552501	Carmen
Tuganay - Anibongan - San Isidro	Provincial	Concrete	Good	5.566433	Carmen
Tuganay - Taba	Provincial	Gravel	Fair	4.302539	Carmen
Upper Mangalcal - Lower Mangalcal	Provincial	Gravel	Good	2.440008	Carmen

ANNEX B. LRNDP TECHNICAL WORKING GROUP

Team Leader: EnP. Nelson F. Plata, PPDC, PPDO

Co-Team Leader: Engr. Glenn A. Olandria, PE, PEO

Members:

City Municipal Engineers
City/Municipal Planning & Development Coordinators
Engr. Maria Hazel C. Zafra, APGDH, PAdO
Engr. Jivellyn B. Co, APGDH, PEO
Engr. Christopher Dalisay, Engr. II, PAGRO
Ms. Delia D. Guboc, AGPDH, PGSO
Ms. Airee Glenis Labad, AA III, PGSO
Ms. Ernanita D.L. Cabebe, Internal Auditor V, PGO-IAS
Mr. Geoffrey S. Landanganon, Internal Auditor II, PAdO-IAS
Ms. Juliet P. Asion, Administrative Officer V, PBO
Ms. Evelyn G. Espra, PGDH, PTO
Ms. Carolina C. Ortiz, LRCO II, PTO
Ms. Charissa Mae L. Rubinos, APGDH, PACCO
EnP Mildred B. Funtilon, Project Evaluation Officer IV, PPDO
EnP Ma. Theresa V. Catao, Project Development Officer IV, PPDO
EnP Araceli Cajés, Planning Officer IV, PPDO
Ms. Princess Lyn N. Vistal, Planning Officer II, PPDO
Mr. Odilon G. Juntilla, Planning Officer I, PPDO
Mr. Romcel Doroon, Planning Officer I, PPDO
Mr. Berne Silawan, Computer Programmer II, PAdO-IT
Engr. Allen L. Bataluna, SEMS, PENRO
Engr. Jocelyn Manuel, AAIV, PENRO
Ms. Michelle Claridad, SAO, PHRMO
Ms. Glenda O. Deli-Deli, Special Operations Officer, PDRRMD
Engr. Edwin J. Misa, Engineer IV, PEO
Engr. Elisa Barcena, Engineer IV, PEO
Engr. Tessie G. Ababon, Engineer IV, PEO
Engr. Arturo P. Matuguinas, Engr. III, PEO
Engr. Dexter Paraguya, Engr. III, PEO
Engr. Arsenio Canillada, Engr. III, PEO
Engr. Gilbert Mambulao, Engr. II, PEO
Engr. Rickris Marie Fernandez, Engr. I, PEO
Engr. Najel Limbaga, Engr. II, PEO
Ms. Emma Paraguya, Engineering Assistant, PEO
Ms. Marylou Quino, AO I, PEO
Engr. Honesto Foronda, Engineering Assistant, PEO
Engr. Jasper Ryan P. Crucio, Engr. I, PEO
Engr. John Angelo P. Obejero, Engr. I, PEO
Mr. Alex Saya, APGDH, PLO
Mr. Noel A. Baguio, Supervising Administrative Officer, PICKMO

ANNEX C. WORKSHOP PHOTOS

Series of LRNDP Enhancement Trainings for City/Municipalities (February 10,11,23,24, 2021 and March 2, 2021)



Review of Core Road Network (April 22, 2021)



LRNDP-TWG members from Provincial Accountant's Office, Provincial Environment and Natural Resources Office and Internal Audit Division intently reviews the presented problem tree.



Some of the stakeholders joined the meeting virtually in line with minimum gathering protocols



The plenary reviews the Provincial Core Road Network

Multistakeholders Consultation Workshop (May 6-7, 2021)



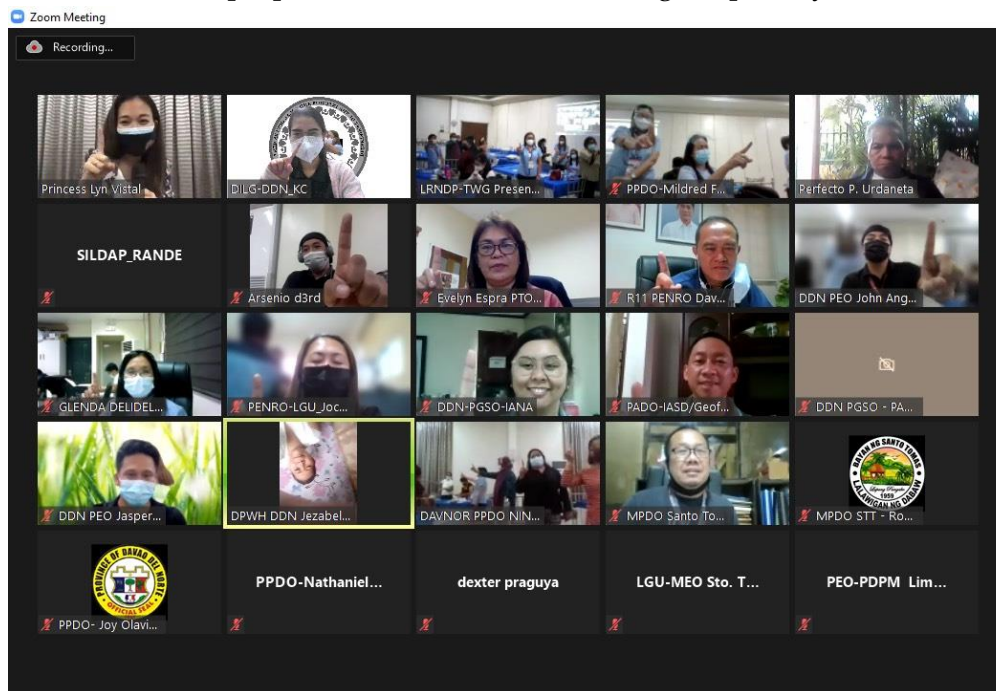
LRNDP-TWG members and stakeholders intently discussing the weights for each development agenda



Women stakeholders assessing the priority roads



Business proprietors stakeholders assessing the priority roads



Some stakeholders joined the meeting virtually in line with minimum gathering protocols



Some members of the writer's pool hard at work in their assigned tasks during the LRNDP Writeshop

