

## I. COVERAGE OF THE PLAN

The PENRO Zamboanga Sibugay Environment and Natural Resources (ENR) Medium Term Plan is guided by a long term vision. It covers the three (3) CENROs namely: Imelda, Kabasalan and Zamboanga City including Isabela City and Turtle Islands Wildlife Sanctuary (TIWS) for the period of three years (2020-2022). The planning requires the participation of the Local Government Units, other agencies and stakeholders.

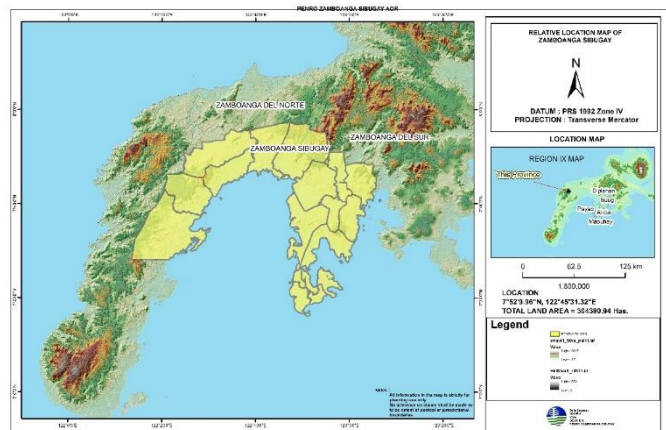
This plan will serve as a reliable basis in target setting to include annual budget proposals, forward estimates and work and financial plans for the next three years. This also involves the analysis of the issues and potentials of the province and identification of interventions and alternatives to address the same.

## II. PROVINCIAL PROFILE

### POLITICAL

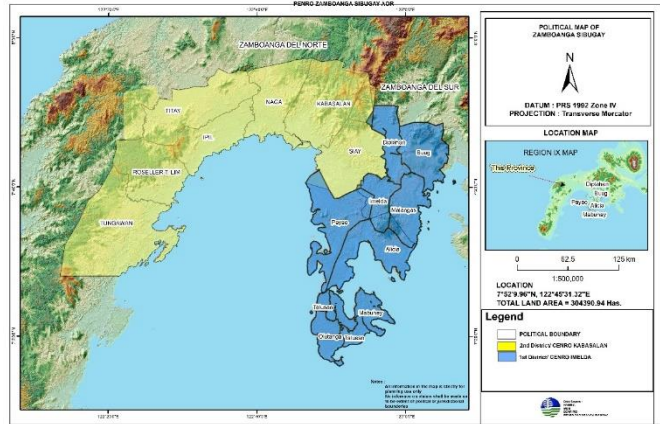
PENRO Zamboanga Sibugay was created thru DAO 2002-07 dated February 11, 2002. Previously, it covers only CENRO Imelda and CENRO Kabasalan. In 2015, after the rationalization plan of the agency, CENRO Zamboanga City has become the third CENRO to include Isabela City and Turtle Islands Wildlife Sanctuary.

The province of Zamboanga Sibugay is geographically located at 7°52'9.96"N, 122°45'31.32"E. It borders Zamboanga del Norte to the north, Zamboanga del Sur to the east and Zamboanga City to the southwest. From the southwest lies the mountain range which divides Zamboanga Sibugay and Zamboanga del Norte. This mountain range is interrupted by Titay Valley in the north-western part of the province. To the south lies Sibuguey Bay in the Moro Gulf.



Map 1. Location of Zamboanga Sibugay Province

The Province comprises 16 municipalities, organized into two congressional districts and further subdivided into 389 barangays. The first district includes the municipalities of Imelda, Diplahan, Buug, Malangas, Alicia, Payao Mabuhay and Talusan while the second district is comprised by municipalities of Tungawan, R. T. Lim, Ipil, Titay, Naga, Siay and Kabasalan.



Map 2. Political Boundary of Zamboanga Sibugay Province

**Table 1. List of Municipalities and Corresponding Land Area and Number of Barangays by District in Zamboanga Sibugay**

Municipality		Land Area (in has.)	No. of Barangays
District I:			
1.	Alicia	* 18,308	27
2.	Buug	*13,406	27
3.	Diplahan	*25,551	22
4.	Imelda	* 8,512	18
5.	Mabuhay	*8,285	18
6.	Malangas	*23,553	25
7.	Olutanga	*11,330	19
8.	Payao	*24,566	29
9.	Talusan	* 5,816	14
Sub-District Total :		*133,511	199
District II:			
10.	Siay	*31,366	29
11.	Kabasalan	*28,920	29
12.	Naga	*24,630	23
13.	Ipil	*24,160	28
14.	Titay	*35,293	30
15.	R.T.Lim	*30,000	26
16.	Tungawan	*47,328	25
Sub-District Total :		*221,448	190
Province Total		*360,775	389

Sources of Data: \*National Statistical Coordination Board (NSCB) and Department of Budget & Management (DBM), CY 2013 \*PPDO, Sibugay

There are contested areas with regards to the political boundaries of municipalities and to other provinces within the region. This issue was left unresolved up until the present. Table 2 shows the contested areas as derived from the cadastral map of the province.

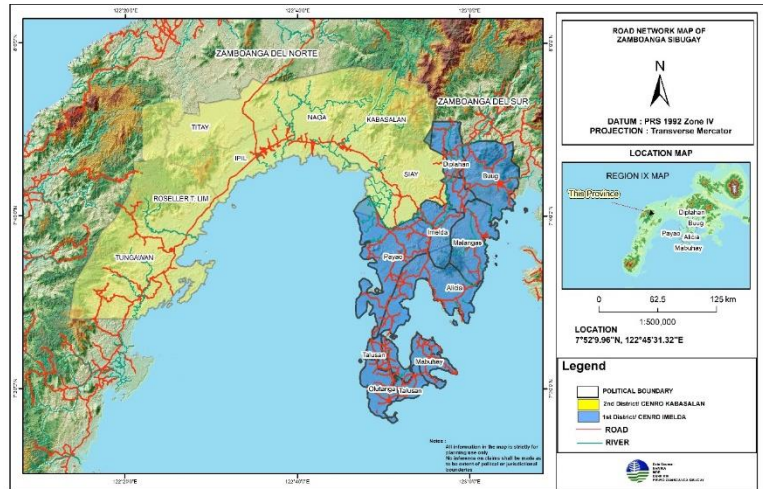
**Table 2. List of Contested Areas with Corresponding Land Area**

<b>LGU Involved</b>	<b>Province</b>	<b>Land Area (ha.)</b>	<b>Remarks</b>
Alicia vs. Imelda	ZSP	1,630.0194	CONTESTED
Alicia vs. Mabuhay	ZSP	58.33	CONTESTED
Alicia vs. Malangas	ZSP	1,982.98	CONTESTED
Diplahan vs. Bayog	ZSP, ZDN	2,211.705	CONTESTED
Naga vs. Godod	ZSP, ZDN	220.169	CONTESTED
Naga vs. Tampilisan	ZSP, ZDN	4,752.182	CONTESTED
R.T. Lim vs. Baliguian	ZSP, ZDN	472.342	CONTESTED
R.T. Lim vs. Baliguian vs Siocon	ZSP, ZDN	85.6476	CONTESTED
R.T. Lim vs. Titay vs. Gutalac vs. Baliguian	ZSP, ZDN	135.748	CONTESTED
Titay vs. Gutalac	ZSP, ZDN	2,861.423	CONTESTED
Titay vs. Gutalac vs. Baliguian	ZSP, ZDN	5,141.976	CONTESTED
Titay vs. Kalawit	ZSP, ZDN	9,884.334	CONTESTED
Tungawan vs. Sirawai	ZSP, ZDN	1,903.263	CONTESTED
Diplahan vs. Siay vs. Bayog	ZSP, ZDS	321.832	CONTESTED
Alicia vs. Payao	ZSP	1,556.618	CONTESTED
Diplahan vs. Malangas	ZSP	306.735	CONTESTED
Diplahan vs. Siay	ZSP	442.588	CONTESTED
Imelda vs. Payao	ZSP	787.5043	CONTESTED
Ipil vs. Titay	ZSP	77.97	CONTESTED
Kabasalan vs. Naga	ZSP	118.0581	CONTESTED
Kabasalan vs. Siay	ZSP	3,965.07	CONTESTED
Siay vs. Imelda	ZSP	391.4181	CONTESTED
Siay vs. Payao	ZSP	868.0605	CONTESTED
Siay vs. Payao	ZSP	1,265.78	CONTESTED
Talusan vs. Olutanga	ZSP	25.5372	CONTESTED
Titay vs. R.T. Lim	ZSP	49.99	CONTESTED

The Province can be reached by land, air and water transport. The most commonly and frequently used is land transportation in the mainland and water transportation for inter-island movement, particularly to and fro the island municipalities of Olutanga, Mabuhay and Talusan.

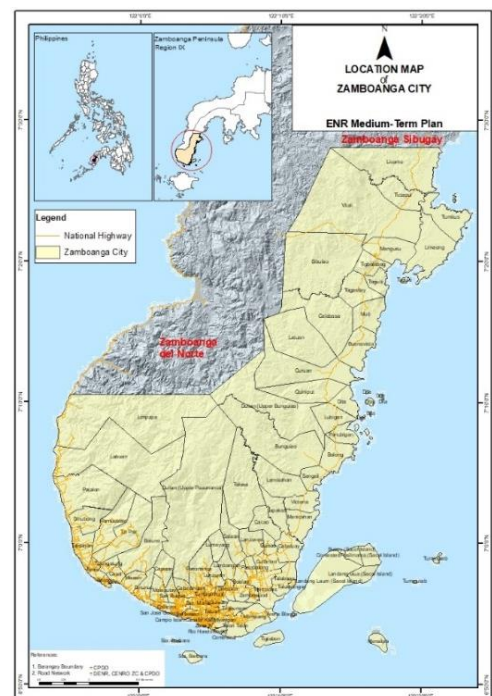
From Zamboanga City to the junction of Ipil, Zamboanga Sibugay, the national road network interconnects two provinces of Zamboanga del Norte in the western part (crossing the municipalities of Liloy, Leon Postigo, Sindangan, Manukan, Jose Dalman, Roxas and Katipunan and the cities of Dipolog and Dapitan) and in the east, Zamboanga del Sur. This same road goes beyond Pagadian City (the provincial capital of Zamboanga

del Sur) towards the other major centers of Mindanao, such as Iligan City, Cagayan de Oro City, and Davao City, among others. Through the interior road section within the Municipality of R.T.Lim (Zamboanga Sibugay) from the national road connects the west coast municipalities of Sibuco, Sirawai, Siocon, Baliguian in Zamboanga del Norte. From Ipil to Zamboanga City (North), it has an estimated distance of about 135.2 kilometers; 130.2 kilometers to Pagadian City (Zamboanga del Sur), and approximately 176.1 kilometers to reach Dipolog City (Zamboanga del Norte).



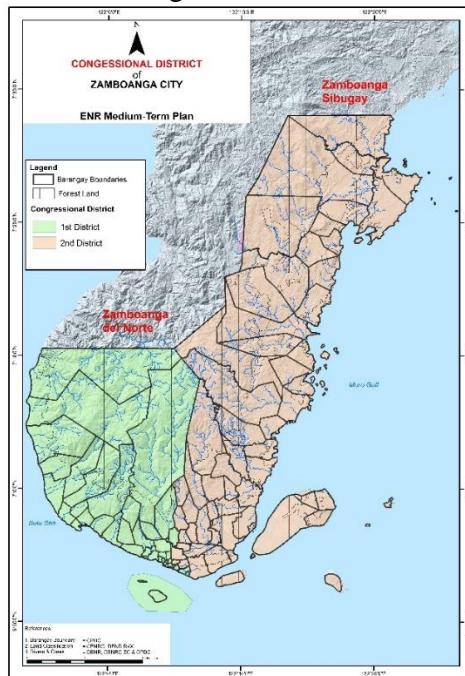
Zamboanga City, being under the area of responsibility of the PENR Office of Zamboanga Sibugay, is situated in the southernmost tip of Western Mindanao, and lies geographically on the coordinates Latitude  $6^{\circ} 53' 59.99''$  and Longitude  $122^{\circ} 03' 60.00''$  E. The political boundary was based on Presidential Proclamation 70.

Geographically, the city is bounded by the provinces of Zamboanga del Norte and Zamboanga Sibugay to the north, and by the Basilan Island to the south. In terms of bodies of water, it is bounded on the west by the Sulu Sea, on the east by the Moro Gulf, and on the south by the Basilan Strait and Celebes Sea. Zamboanga City is sheltered and shielded geographically from typhoons by the mountainous Basilan Island, Sulu Archipelago, Palawan Island, and the main island of Mindanao.

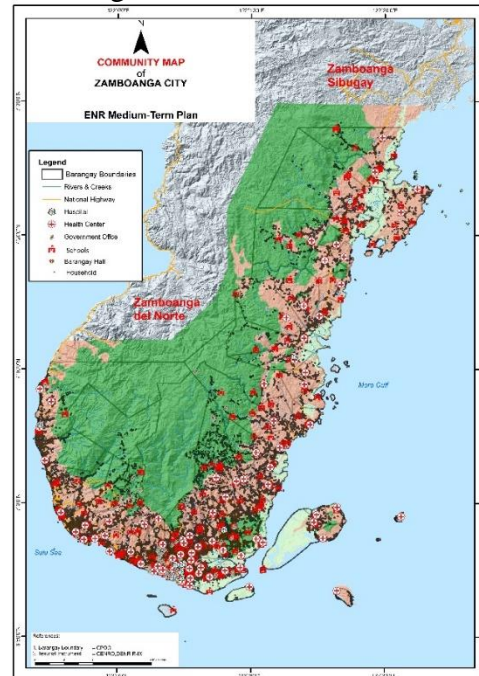




Since 1983, Zamboanga City has been a highly urbanized city located in the western part of Mindanao and independent from the provinces of Zamboanga del Norte, Zamboanga Sibugay, and Zamboanga del Sur. It is approximately ten (10) percent of the total land area of Zamboanga Peninsula or Region IX. It is considered as the third largest city in the Philippines in terms of land area and sixth largest city in the country in terms of population. The city is composed of 98 barangays divided into two (2) political districts, namely, District 1 and District 2. The two districts are comprised of 37 and 61 barangays, respectively. The city has 54 coastal barangays, including 10 island-barangays, and has a total coastline length of 301 kilometers. It has more than 50 rivers and creeks, and has a total waterfront length of 1,396.66 kilometers including 33 islands and islets.



*Map 5. Congressional Districts of Zamboanga City*



*Map 6. Community Map of Zamboanga City*

Zamboanga City can be accessed by plane in one and a half hours from Manila. The City is approximately 505 nautical miles south of Manila. Moreover, it is about 270 nautical miles from Cebu City, and is 320 nautical miles from Davao City. Being situated in the southernmost terminal of the Pan-Philippine Highway, the City has the access/is accessible via land transportation to all major cities in the country. Through the Zamboanga City-Ipil-Pagadian and Zamboanga City-Ipil-Liloy-Dipolog National Roads, it is linked to the rest of the region and the whole of Mindanao.

## ECONOMIC

The leading industries in the province of Zamboanga Sibugay are in the areas of semi-processed rubber and seaweeds, rice and corn milling, ordinary food processing, wood and rattan furniture making, dried fish and squid processing, and home-made food processing. New industries include concrete products, garments, wax and candle factories, lime making, and other home and cottage industries.

Major crops produced include rice, corn, coconut, rubber, fruit trees, vegetables, tobacco coffee, cacao and root crops. Livestock and poultry productions are predominantly small scale and backyard operations. Coal mining in large and small scale and precious metal mining in small scale category are likewise present in some areas of the province.

**Table 3. Products and Volume, 2015**

Champion Products	Volume of Production (In Metric Tons)
1. Rubber	1,053,850.5
2. Palay	172,351.00
3. Coconut	1,913.18
4. Corn	3,657.61
*Fish Production	26,324 (as of April 2013)

Sources: Office of the Provincial Agriculture\* NSCB-PSA

**Table 4. Emerging Crops**

Emerging Crops	Volume of Production (In Metric Tons)
1. Seaweeds	46,520.51
2. Abaca	912,555
3. Cassava	589.35
4. Calamansi	314,849
5. Banana	250,020
6. Mango	79,456
7. Coffee	1,575
8. Cacao	1,087.80

Source: Office of the Provincial Agriculturist

**Table 5. Poverty Threshold, Zamboanga Sibugay, 2012& 2015**

	Poverty Threshold Indicators	
	Zamboanga Sibugay	
	2012	2015
Poverty Incidence Among Families in (First Semester, in Percent)	36.8	35.8
Per Capita Poverty Thresholds (First Semester, in Pesos)	8,160	10.197

Source of Data: NSCB, IX

In 2015, the per capita poverty threshold in Zamboanga Sibugay increased by Php 2,037 or 24.97% (from Php8,160.00 in 2012 to Php10,197 in 2015). This means that the minimum income required to meet food and non-food basic needs went up by 24.97%. Given this information, there is very minimal improvement in eradicating poverty despite of the government's provision of conditional cash transfer to all poor households in order to cross the poverty line. Seen as the triggering factors for this sluggish change are the rate of increase in the prices of food, gasoline and other commodities and string of devastating typhoons and flash floods that hit the agricultural sector between 2012 and 2015 which damaged irrigation systems, rice crops and farms.

Approximately, 35.8% of the families in the province live in poverty. The poor families are predominantly engaged in subsistence farming with few immediate options for employment outside of agriculture. Price of commodities keeps on changing that greatly affects the small farmers' economy. Usually, during harvest season, the price of rice remains low and cannot match the ever-increasing cost of farm inputs, forcing them to rely on or resort to informal lending from trading capitalists /financiers to continue farming.

Development efforts are geared towards alleviating the lives of the rural communities through increasing production and enhancing marketing strategy in the agri-fishery sector with integration on livestock production ( e.g. poultry, cattle, goat and chicken) along the areas of genetic materials, control and eradication of animal diseases, people empowerment, and sustainable development, specifically on environmental protection and proper management from loss of soil fertility, and depletion of water resources.

For Zamboanga City, the strong presence of the agriculture sector is contingent on its natural environment and physical landscape. Considering the vast agricultural land and the settlements being situated in coastal areas, local residents predominantly male-headed, have heavily relied on Agriculture and Fishing as its main source of livelihood. With regard to agricultural production, among the major crop products of the City are banana, mango, corn, rubber. Fishery production especially of seaweeds, fish species such as the Big-eyed Scad (Matangbaka), Frigate Tuna (Tulingan) and Roundscad (Galunggong) have also generated considerable yield. Livestock production especially carabao, cattle, and hog has

also declined from 2005 until 2018. On the other hand, poultry especially broiler chicken has remained to be the leading product in terms of volume. This may be attributed to the continuing and increasing demand for chicken meat due to the diverse religious backgrounds that observe abstinence from pork. Generally, agriculture production accompanied by agriculture land area has been declining.

The City is rich in agricultural resources. However, these are not tapped due to the underutilization of agricultural land, high cost of farm inputs, lack of modern and efficient postharvest facilities and weak market linkages.

The city government must capitalize on the existing assets and resources that the City is endowed with not only because it may generate more income for the city but also employment opportunities for the people.

Zamboanga City is also dubbed as the Sardines Capital of the Philippines, for 9 out of 12 sardines companies in the country are produced here. The canning factories are converged on the west coast of Zamboanga. Sardine fishing and processing account for about 70 percent of the city's economy. Situated at the western tip of the Mindanao mainland, Zamboanga City is a natural docking point for vessels traversing the rich fish grounds of the Zamboanga Peninsula and the Sulu Archipelago.

The production of canned sardines in this city has upgraded their production to conform to international food safety and quality standards. Companies that produce these goods are looking for new markets in Russia and other European countries.

The Zamboanga City Special Economic Zone Authority and Freeport (ZamboEcoZone), also known as Zamboanga Freeport Authority (ZFA), was created by virtue of the Republic Acts of the Philippines 7903 of the Philippines Constitution in the year 1995. It was authored by then-Congresswoman Maria Clara L. Lobregat.

The Special Economic Zone was enacted into law on February 23, 1995, and made operational a year later with the appointment of a chairman and administrator and the members of the board by former President Fidel V. Ramos. It is located about 23 km from the city proper and is one of the three current Economic Freeport Zones outside Luzon.

## Social

The total population of the Province of Zamboanga Sibugay in year 2015 census was 633,129 people which had an annual average increase of 1.53% over that of 2010 as shown in Table 6 below.

**Table 6. Population by Municipality, 2015 and 2010**

Municipality	Population 2010		% of Increase/ Annum	%age to Total (2015)
	2015	2010		
District I:				
Alicia	36,013	34,895	0.60	5.7
Buug	36,634	35,969	0.35	5.8
Diplahan	32,428	31,215	0.73	5.1
Imelda	28,018	27,903	0.08	4.4
Mabuhay	36,870	33,093	2.08	5.8
Malangas	33,380	31,243	1.27	5.3
Olutanga	33,671	28,717	3.08	5.3
Payao	31,686	29,755	1.20	5.0
Talusan	29,969	25,268	3.30	4.7
sub-total	298,669	278,258		
District II:				
Siay	41,572	38,229	1.61	6.66
Kabasalan	44,336	41,421	1.30	7.00
Naga	38,541	37,814	0.31	6.10
Ipil	74,656	64,939	2.69	11.8
Titay	49,673	46,456	1.28	7.80
R.T.Lim	43,646	37,216	3.08	6.90
Tungawan	42,030	40,552	0.68	6.66
sub-total	337,460	306,627		
TOTAL	633,1299999	584,685	1.53	100.00

*Source: National Statistics Office*

The total population of the coastal municipalities comprises 82.61% of the total population or equivalent to 523,110 while the three (3) inland municipalities have a total population of 110,119 or 17.39% of the total. Table 7-19 shows the population of the coastal barangays in each coastal municipality in the year 2015.



**Table 7. Population of Coastal Barangays of Buug, CY 2015**

<b>Municipality</b>	<b>Name of Coastal Barangays</b>	<b>Population 2015</b>
<b>District I</b>		
1. Buug	1. Bawang	1,079
	2. Pamintayan	1,185
	3. Pulog	560
	4. San Jose	360
Total Population of Coastal Barangays		3,184
Total Municipal Population		36,634
Percentage of Total Coastal Population Over Municipal Population		8.69

**Table 8. Population of Coastal Barangays of Malangas, CY 2015**

<b>Municipality</b>	<b>Name of Coastal Barangays</b>	<b>Population 2015</b>
<b>District I</b>		
2. Malangas	1. Bacao	821
	2. Dansulao	1,405
	3. Kigay	2,042
	4. Lipacan	1,352
	5. Logpond	494
	6. Mabini	1,303
	7. Palalian	460
	8. Poblacion	8,233
	9. Sinusayan	771
	10. Tackling	844
	11. Tigabon	906
Total Population of Coastal Barangays		18,631
Total Municipal Population		33,380
Percentage of Total Coastal Population Over Municipal Population		55.81

**Table 9. Population of Coastal Barangays of Payao, CY 2015**

<b>Municipality</b>	<b>Name of Coastal Barangays</b>	<b>Population 2015</b>
<b>District I</b>		
3. Payao	1. Balian	1,225
	2. Balogo	559
	3. Binangonan	629
	4. Bulawan	3,148
	5. Dalama	565

	6. Guiwan	2,078
	7. Kima	1,166
	8. Kulasian	996
	9. Kulisap	864
	10. Labatan	1,699
	11. Mayabo	265
	12. Minundas	593
	13. San Roque	434
	14. Silal	737
	15. Talaptap	351
	16. Poblacion	4,809
Total Population of Coastal Barangays		20,118
Total Municipal Population		31,686
Percentage of Total Coastal Population Over Municipal Population		63.49

**Table 10. Population of Coastal Barangays of Alicia, CY 2015**

Municipality	Name of Coastal Barangays	Population 2015
District I		
4. Alicia	1. Bagong Buhay	567
	2. Bella	1,472
	3. Concepcion	1,383
	4. Dawa-Dawa	2,621
	5. Gulayon	1,242
	6. Ilisan	619
	7. Kawayan	2,062
	8. Lambuyogan	1,244
	9. La Paz	1,449
	10. Lapidawan	803
	11. Litayon	1,039
	12. Naga-Naga	1,814
	13. Pandan-Pandan	1,316
	14. Poblacion	3,978
	15. Sta. Maria	951
	16. Sto. Niño	1,098
	17. Talaptap	1,450
	18. Tampalan	1,187
	19. Tanjung Muslim	903
	20. Timbang-Timbang	1,111
Total Population of Coastal Barangays		28,309
Total Municipal Population		36,013
Percentage of Total Coastal Population Over Municipal Population		78.61

**Table 11. Population of Coastal Barangays of Mabuhay, CY 2015**

<b>Municipality</b>	<b>Name of Coastal Barangays</b>	<b>Population 2015</b>
<b>District I</b>		
5. Mabuhay	1. Abunda	847
	2. Bagong Silang	1,486
	3. Bangkaw-Bangkaw	1,958
	4. Caliran	2,813
	5. Catipan	1,245
	6. Ligaya	1,692
	7. Looc-Barlac	2,287
	8. Malinao	4,077
	9. Pamansaan	1,113
	10. Poblacion	4,582
	11. Punawan	1,405
	12. Sawa	2,917
	13. San Roque	1,479
	14. Sioton	710
	15. Sto Niño	1,159
	16. Taguisan	4,069
	17. Tandu Comot	1,511
Total Population of Coastal Barangays		35,350
Total Municipal Population		36,870
Percentage of Total Coastal Population Over Municipal Population		95.88

**Table 12. Population of Coastal Barangays of Olutanga, CY 2015**

<b>Municipality</b>	<b>Name of Coastal Barangays</b>	<b>Population 2015</b>
<b>District I</b>		
6. Olutanga	1. Calais	2,295
	2. Esperanza	1,089
	3. Galas	2,166
	4. Gandaan	1,285
	5. Looc Sapi	1,108
	6. Matim	822
	7. Pulo Laum	1,218
	8. Pulo Mabao	2,916
	9. San Isidro	818
	10. San Jose	1,205
	11. Sta. Maria	1,356
	12. Solar (Poblacion)	7,429
	13. Tambanan	2,233

	14.Villagonzalo	1,162
Total Population of Coastal Barangays		27,102
Total Municipal Population		33,671
Percentage of Total Coastal Population Over Municipal Population		80.49

**Table 13. Population of Coastal Barangays of Talusan, CY 2015**

Municipality	Name of Coastal Barangays	Population 2015
District I		
7. Talusan	1. Baganipay	2,038
	2. Cawilan	1,673
	3. Bolingan	823
	4. Bualan	1,167
	5. Florida	1,533
	6. Kasigpitan	1,630
	7. Laparay	3,014
	8. Moalboal	1,774
	9. Poblacion (Talusan)	9,919
	10.Tuburan	2,061
Total Population of Coastal Barangays		25,632
Total Municipal Population		29,969
Percentage of Total Coastal Population Over Municipal Population		85.53

**Table 14. Population of Coastal Barangays of Siay, CY 2015**

Municipality	Name of Coastal Barangays	Population 2015
District II		
8. Siay	1. Balucanan	1,630
	2. Batu	3,718
	3. Laih	993
	4. Logpond	1,723
	5. Monching	4,239
	6. Salinding	2,031
	7. Siloh	1,811
Total Population of Coastal Barangays		16,145
Total Municipal Population		41,572
Percentage of Total Coastal Population Over Municipal Population		38.84

**Table 15. Population of Coastal Barangays of Kabasalan, CY 2015**

<b>Municipality</b>	<b>Name of Coastal Barangays</b>	<b>Population 2015</b>
<b>District II</b>		
9. Kabasalan	1. Cainglet	2,468
	2. Calapan	999
	3. Canacan	1,609
	4. Concepcion	3,228
	5. Dipala	813
	6. Lumbayao	2,773
	7. Nazareth	2,123
	8. Simbol	1,556
	9. Sta Cruz	1,391
	10. Salipyasin	2,336
	11. Timuay Danda	2,134
Total Population of Coastal Barangays		21,430
Total Municipal Population		44,336
Percentage of Total Coastal Population Over Municipal Population		48.34

**Table 16. Population of Coastal Barangays of Naga, CY 2015**

<b>Municipality</b>	<b>Name of Coastal Barangays</b>	<b>Population 2015</b>
<b>District II</b>		
10. Naga	1. Baluno	1,681
	2. Bangkaw-Bangkaw	788
	3. Gubawang	614
	4. Kaliantana	2,381
	5. La Paz	2,087
	6. Mamagon	1,955
	7. Poblacion	3,339
	8. Taytay Manubo	1,346
Total Population of Coastal Barangays		14,191
Total Municipal Population		38,547
Percentage of Total Coastal Population Over Municipal Population		36.81

**Table 17. Population of Coastal Barangays of Ipil, CY 2015**

<b>Municipality</b>	<b>Name of Coastal Barangays</b>	<b>Population 2015</b>
<b>District II</b>		
11. Ipil	1. Bangkerohan	4,247



	2. Buluan	3,175
	3. Caparan	1,393
	4. Magdaup	4,691
	5. Makilas	2,270
	6. Pangi	2,967
	7. Sanito	7,808
	8. Tenan	1,797
	9. Tiayon	3,282
	10. Upper Pangi	1,909
Total Population of Coastal Barangays		33,539
Total Municipal Population		74,656
Percentage of Total Coastal Population Over Municipal Population		44.92

**Table 18. Population of Coastal Barangays of R.T. Lim, CY 2015**

Municipality	Name of Coastal Barangays	Population 2015
District II		
12. R.T. Lim	1. Ali Alsree	2,414
	2. Gango	1,466
	3. Magsaysay	1,630
	4. President Roxas	2,380
	5. Silangan	1,467
	6. Tupilac	1,456
Total Population of Coastal Barangays		10,813
Total Municipal Population		43,646
Percentage of Total Coastal Population Over Municipal Population		24.77

**Table 19. Population of Coastal Barangays of Tungawan, CY 2015**

Municipality	Name of Coastal Barangays	Population 2015
District II		
13. Tungawan	1. Baluran	2,027
	2. Libertad (Poblacion)	5,213
	3. Linguisan	1,088
	4. Looc Labuan	1,370
	5. Masao	1,017
	6. San Vicente	1,094
	7. Sto. Niño	1,436
	8. Taglibas	980
Total Population of Coastal Barangays		14,225
Total Municipal Population		42,030
Percentage of Total Coastal Population Over Municipal Population		33.84

**Table 20. Population of Coastal Areas, By Municipality  
Zamboanga Sibugay, 2015**

<b>Municipality</b>	<b>Total Population 2015</b>	<b>Total No. of Coastal Barangays</b>	<b>Population of Coastal Barangays 2015</b>	<b>Percentage of Coastal Population over Total Population</b>
1. Buug	36,634	4	3,184	8.69
2. Malangas	33,380	11	18,631	55.81
3. Payao	31,686	16	20,118	63.49
4. Alicia	36,013	20	28,309	78.61
5. Mabuhay	36,870	17	35,350	95.88
6. Olutanga	33,671	14	27,102	80.49
7. Talusan	29,969	10	25,632	85.53
8. Siay	41,572	7	16,145	38.84
9. Kabasalan	44,336	11	21,430	48.34
10. Naga	38,547	8	14,191	36.81
11. Ipil	74,656	10	38,539	44.92
12. R. T. Lim	43,646	6	10,813	24.77
13. Tungawan	42,030	8	14,225	33.84
<b>TOTAL</b>	<b>523,010</b>	<b>142</b>	<b>235,169</b>	<b>44.96</b>

The total population of the thirteen (13) coastal municipalities in Zamboanga Sibugay is 523,010 which is 82.61% of the total provincial population of 633,129. The population of the 142 coastal barangays is 235,169 or 44.96% of the total population of the coastal municipalities.

The vast majority of the people of Zamboanga Sibugay speak Cebuano and Chavacano. Other languages such as Subanen and Tausug, among others, are also spoken, followed by English.

The province is predominantly Christian, Roman Catholic affiliation as the predominant Christian sect. Various Christian groups also present such as Baptists, Born-again Christians, Jehovah's Witnesses, Church of Christ of Latter Day Saints, Iglesia Ni Cristo, and Seventh-Day Adventist. Muslim comprises about 17% of the population.

On the other hand, Zamboanga City had a total population of 861,799. Zamboanga City ranked as the sixth largest city in the Philippines in terms of population. Its population density is six persons per hectare. The present growth rate of Zamboanga City is 2.38 percent. It is estimated that the total population of the city will reach 1,090,328 by the year 2025.

## **TECHNOLOGICAL**

Ipil, the capital town of Zamboanga Sibugay, plays a strategic role in the region as a transport hub and service center being at the crossroad of the cities of Zamboanga, Dipolog, and Pagadian.

The Province of Zamboanga Sibugay has a government-owned feeder airport which is located alongside the highway in Barangay Sanito, Ipil with a distance of two (2) kilometers from the town center. As of the present, it is not yet open for commercial use but it serves as a landing area for choppers and airplanes of the Armed Forces of the Philippines (AFP) and very important persons /national dignitaries. The construction of the said airport is still ongoing and expected to be fully operational by end of 2020 which can cater travelers, like investors/businessmen, government employees and other individuals coming from the municipalities of Baliguian, Sirawai, Siocon (all of Zamboanga del Norte), three Sibugay island municipalities (i.e. Talusan, Mabuhay and Olutanga), the remaining thirteen (13) Sibugay mainland towns and even nearby towns of Zamboanga del Sur like Bayog, and Lakewood.

Within the province, the sea transportation system is the only means of transporting goods and people from the mainland (consists of thirteen component municipalities) to the island municipalities of Olutanga, Mabuhay and Talusan using the provincial barge traversing Barangay Hula-Hula (in Mabuhay) to Sitio Guicam in Alicia. Previously, the only means to reach these three islands is through motor boats and bancas. Recently, access to these islands is through a single barge ferrying all cargoes, passengers, all types of land transport vehicles and similar others) to and fro through the point of entry situated in Barangay Guicam. Municipality of Alicia cruising a distance of 480 meters that connects Barangay Hula-hula, Municipality of Mabuhay incur expensive transportation cost and at times riskier. Most of the time, the barge facility is not available when it undergoes repair. There are light/small seacrafts but these could be very risky for commuters during bad weather. Travel time along this route is more or less 10 minutes and largely dependent frequently on public utility vehicles allowing six to eight trips daily except night schedule, hence the difficulty in transporting fresh farm and marine products to any market outlets. Besides, the transportation cost is high.

**Table 21. Existing Transport Facilities**

<b>Types of Transport Available</b>	<b>Major Transport Companies</b>	<b>Remarks</b>
Bus	Rural Transit, Inc.	Utilized for inter-municipal and regional accessibility
Tricycles	Individually - owned	Commonly used for intra-municipal accessibility
Motorcycles /Habal-habal, Van, Jeepneys,	Individually - owned	For access to other municipalities and within the municipality

*Source: Provincial Planning & Development Office (PPDO)*

On the other hand, Zamboanga City also plays role in marketing and other enterprises. In fact, major telecommunications firm, Philippine Long Distance Telephone Company, maintains operations in the city. Mabuhay Satellite Corporation has also set up a facility in Zamboanga City in order to improve existing communications infrastructure.

Other infrastructure facility constructed by Conrado Alcantara and Sons Holdings (Conal) is a coal-fired power plant with an initial capacity of 105 megawatts on a 60-hectare land inside the Zamboanga City Special Economic Zone Authority. The plant was originally to open in 2014, with its expectation to meet the demand of the city's electricity by that year. However, the project was delayed and had begun construction by the end of 2017 and it is expected to be fully operational by 2020. Other facilities include shopping malls, hospitals, convention centers, etc. which also helps in economic development of the city.

Convention centers that host several events and congregations include the Garden Orchid Hotel's Convention Center, Palacio Del Sur, Centro Latino, Astoria Regency, and Patio Palmeras. KCC Mall de Zamboanga also has its convention halls that are located at the East Wing. Sports venues in Zamboanga City include the Joaquin F. Enriquez Memorial Sports Complex, the Universidad de Zamboanga Summit Centre, Southern City Colleges, Citadel Sports Arena and the Mayor Vitaliano D. Agan Coliseum.

## LEGAL

Zamboanga Sibugay was formerly part of Zamboanga del Sur. Attempts to divide Zamboanga del Sur into separate provinces date as far back as the 1960s. Several bills were filed in the Philippine Congress but remained unacted. The new province was finally created by *Republic Act No. 8973* signed into law by President Joseph Estrada on November 7, 2000. On February 24, 2001, R.A. 8973 was ratified through a plebiscite conducted in 44 municipalities of Zamboanga del Sur and Pagadian City. Zamboanga del Sur Third District Representative George Hofer was elected as its first governor in 2001.

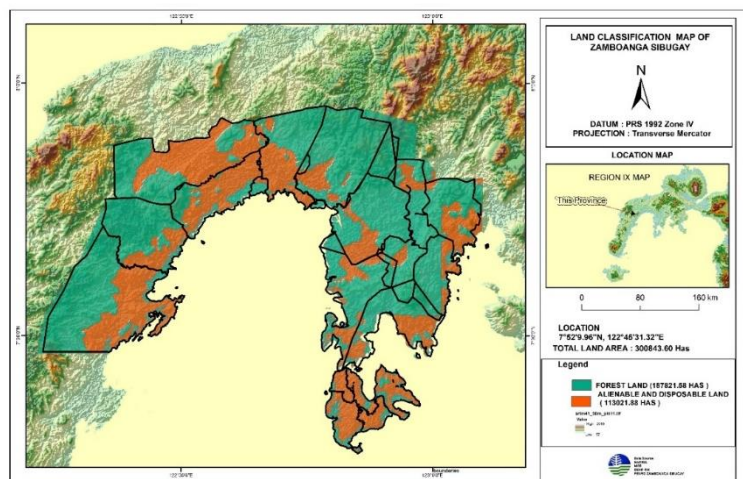
Likewise, Zamboanga became a chartered city under Commonwealth Act No. 39 on October 12, 1936. It was inaugurated on February 26, 1937. Zamboanga City is an independent, chartered city and was designated highly urbanized on November 22, 1983.

Although geographically separated, and an independent and chartered city, Zamboanga City is grouped with the province of Zamboanga del Sur for statistical purposes, yet governed independently from it.

## ENVIRONMENTAL

### Land Area and Land Classification

Zamboanga Sibugay has a total land area of 304,390.94 hectares occupying the south-central section of the Zamboanga Peninsula in Western Mindanao. Its forest land covers 38% of the total land area while A & D covers 62%.

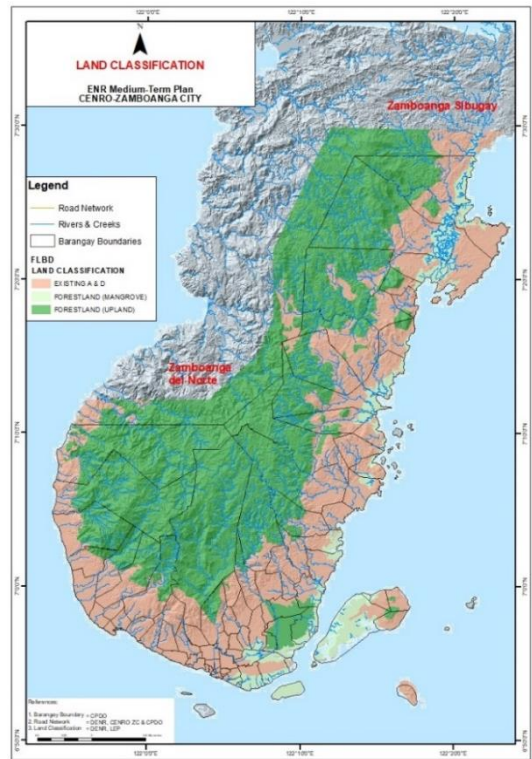


Map 7. Land Classification of Zamboanga Sibugay Province



On the other hand, Zamboanga City has a total land area of 154,391.14 hectares per approved Cadastre PB-09-00058 dated July 28, 2015.

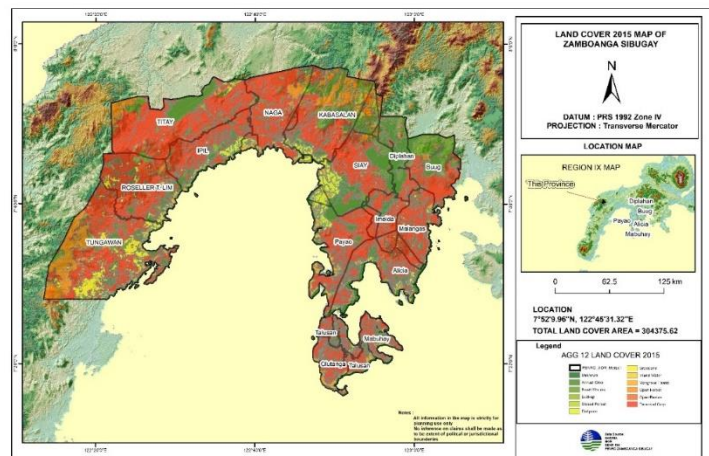
Out of the total land area, as Forestlands consist of 91,847.28 hectares (59.49%) followed by Alienable and Disposable land (A&D) at 62,543.86 hectares (40.51%). Under NIPAS and PA's protected areas at 20,717.00 hectares (13.42%) while another land classified as comprising inland waters and reclaimed areas is estimated at 507.26 hectares (0.33%). Profile of Zamboanga City.



Map 8. Land Classification of Zamboanga City

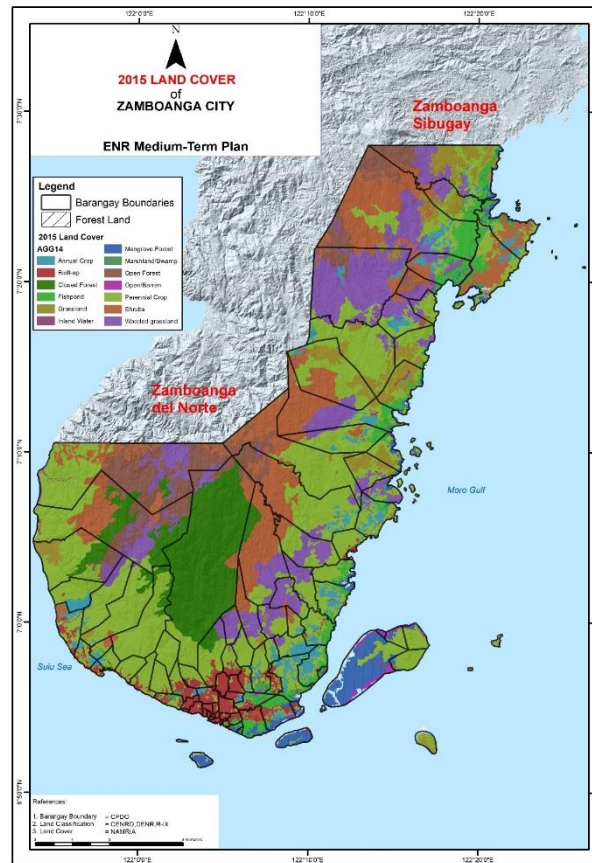
## Land Cover

Land cover represents the actual or physical presence of vegetation on the land surface. Land cover is also often described as what can be seen on land viewed from above. Zamboanga Sibugay is predominantly covered with perennial crops as shown in Map 9.



Map 9. Land Cover of Zamboanga Sibugay Province

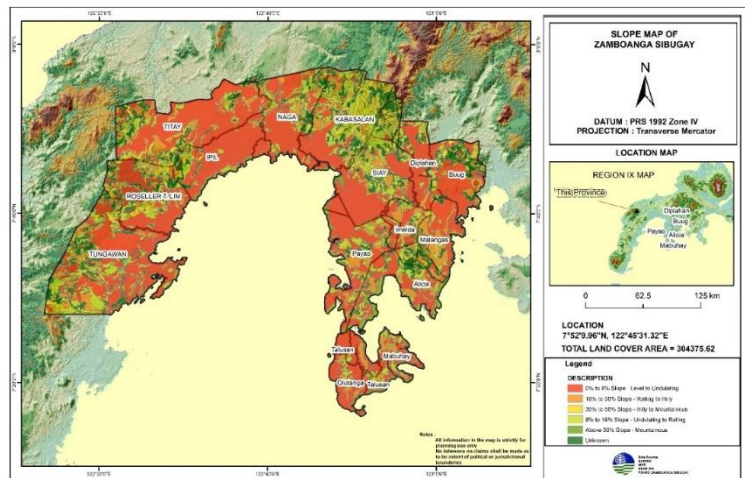
On the other hand, Zamboanga City's land cover is properly illustrated below.



Map 10. Land Cover of Zamboanga City

## Topography and Slope

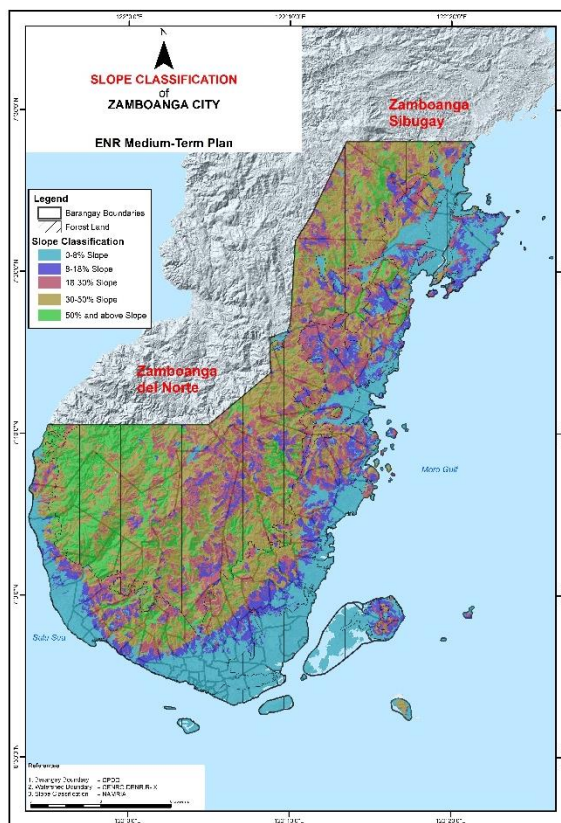
The topography of the province of Zamboanga Sibugay is relatively rugged. Majority of its area is hilly lands and mountains with a steep slope. Wide stretches of flatlands are located along the coastlines, valleys and low-lying areas. Upland valleys and plains, foot slopes and plateaus are presently planted with coconut and annual crops but are also suited for fruit trees.



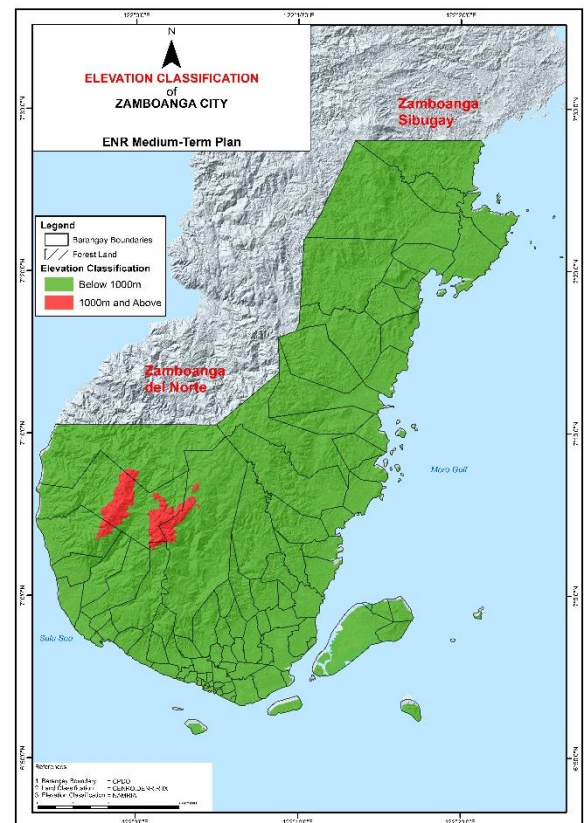
Map 11. Slope Map of Zamboanga Sibugay Province

While major portion of Zamboanga City has slopes ranging from 0 to 8 percent known as a level to undulating with an area at around 49,000 hectares. Meanwhile, undulating to rolling at 8% to 18% slope level has the least area about 14,000 hectares. The highest elevation in the city is the Batorampon Point with an elevation of 1,335 meters above sea level.

Generally, most of the barangays in Zamboanga City are situated within the flat-lying coastal zone, alluvial plain, and marshland. There are also narrow strips of flat lands along the east coast.



Map 12. Slope Classification of Zamboanga City



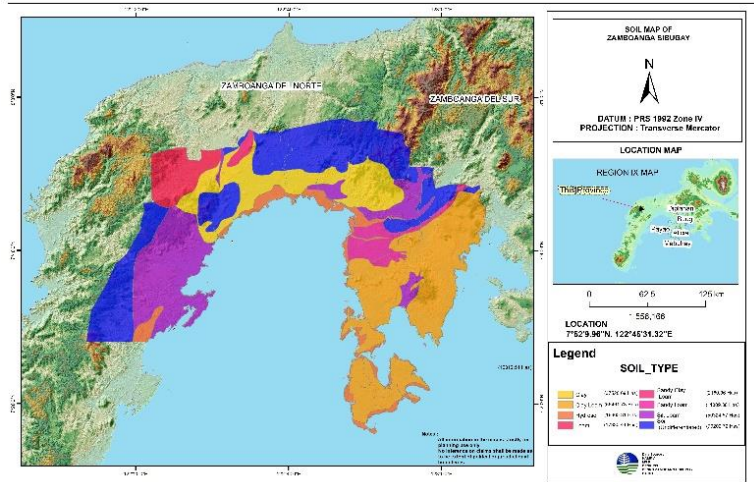
Map 13. Elevation Classification of Zamboanga City



## Soil and Soil Suitability

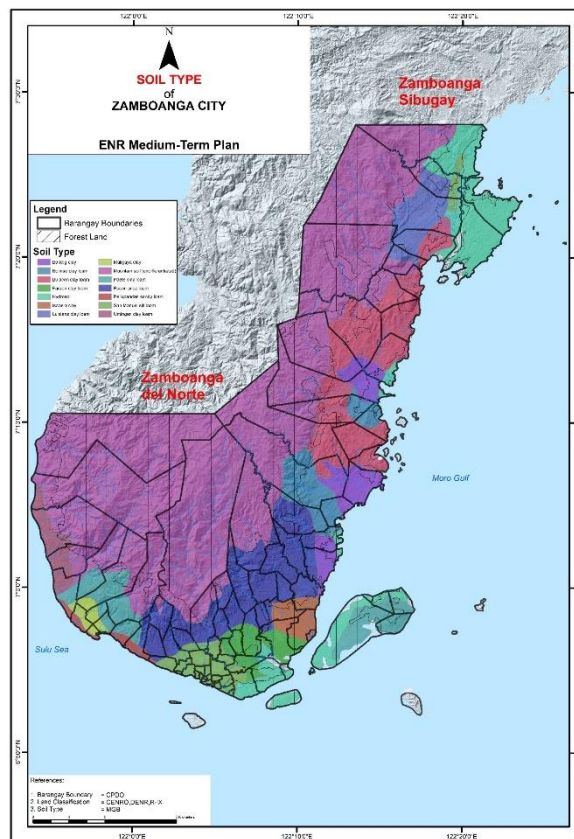
The predominant soil type of the province of Zamboanga Sibugay is clay. The stone content and soils in the slope area have low fertility due to leaching and low organic material content. Perennial crops are extensively grown in many areas. Antipolo Clay Loam is the most common type of soil all over the component municipalities.

*Map 14. Soil Map of Zamboanga Sibugay Province*



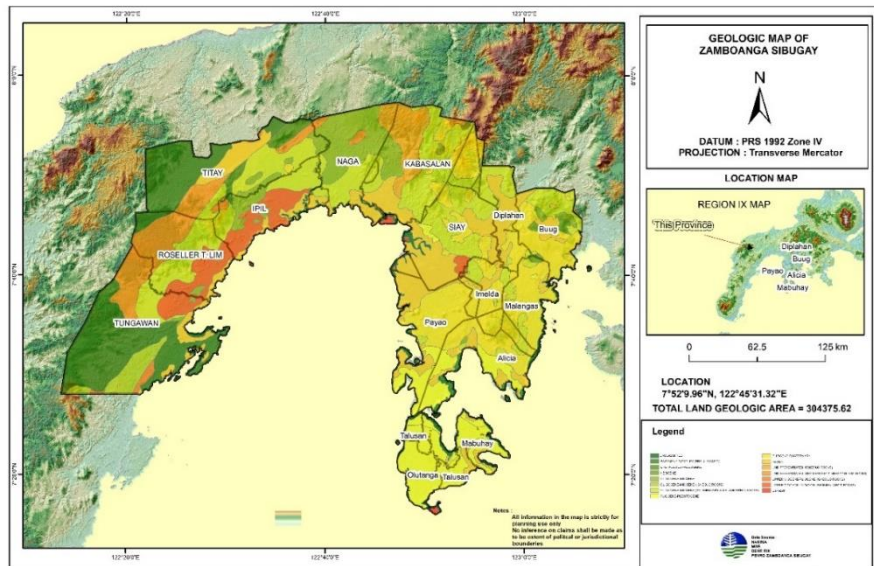
*Map 14. Soil Map of Zamboanga Sibugay Province*

However, the soil type of Zamboanga City can be interpreted in the illustration below.

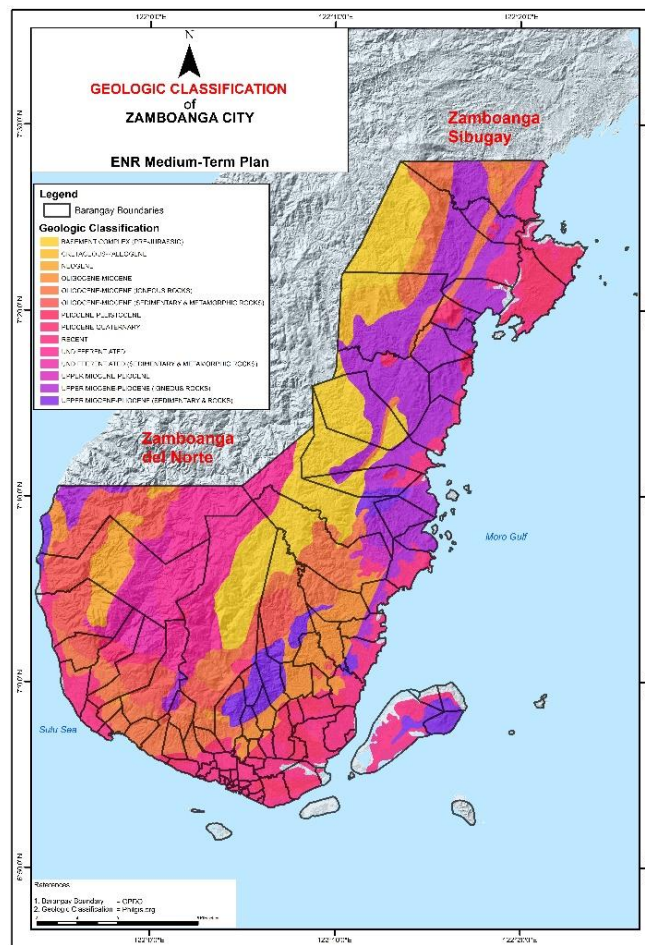


*Map 15. Soil Type of Zamboanga City*

## Geologic



Map 16. Geologic Map of Zamboanga Sibugay Province

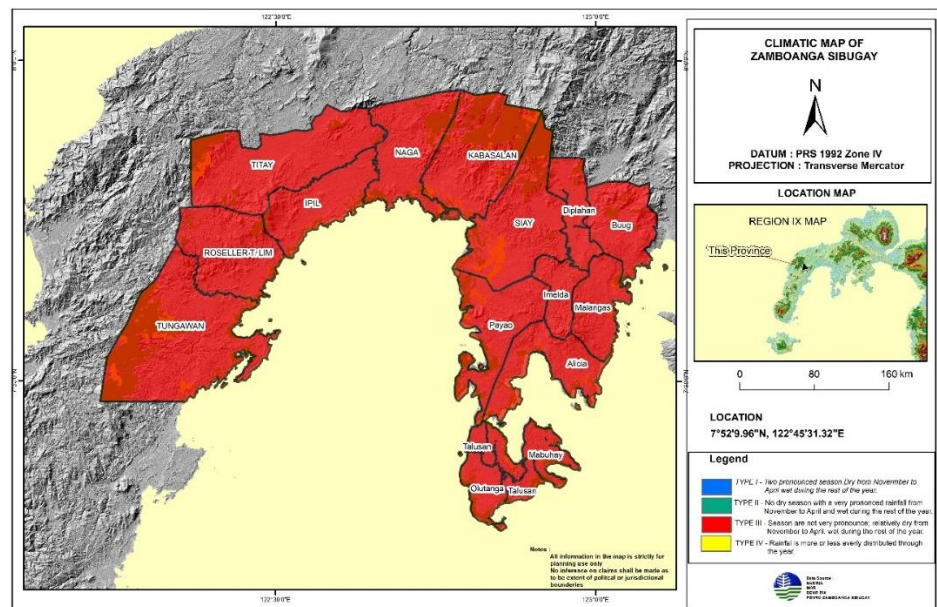


Map 17. Geologic Classification of Zamboanga City



## Climate

The climate of the province is moderately normal (climate type III). Annual rainfall varies from 1,599 - 3,500 mm (63.0 - 137.8 in.). Temperature is relatively warm and constant throughout the year ranging from 22° – 35°Celsius (72° – 95° Fahrenheit). The province is situated outside the country's typhoon belt.



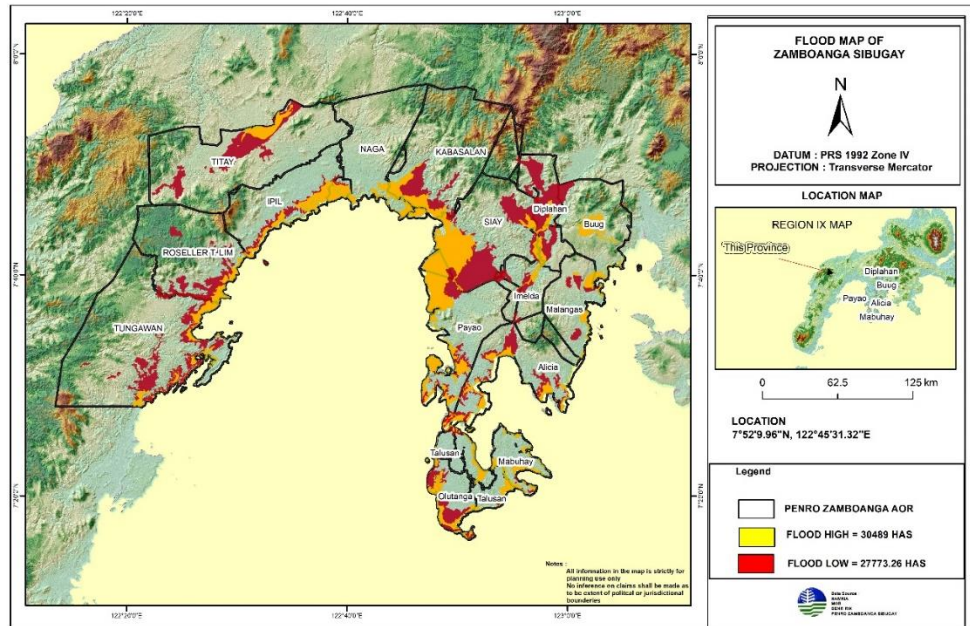
Map 18. Climate Map of Zamboanga Sibugay Province

The same thing, based on the Modified Coronas Classification, the climate in Zamboanga City falls under Type III, a climate where seasons are not very well pronounced. The city is located outside the typhoon belt rarely experiences typhoons.

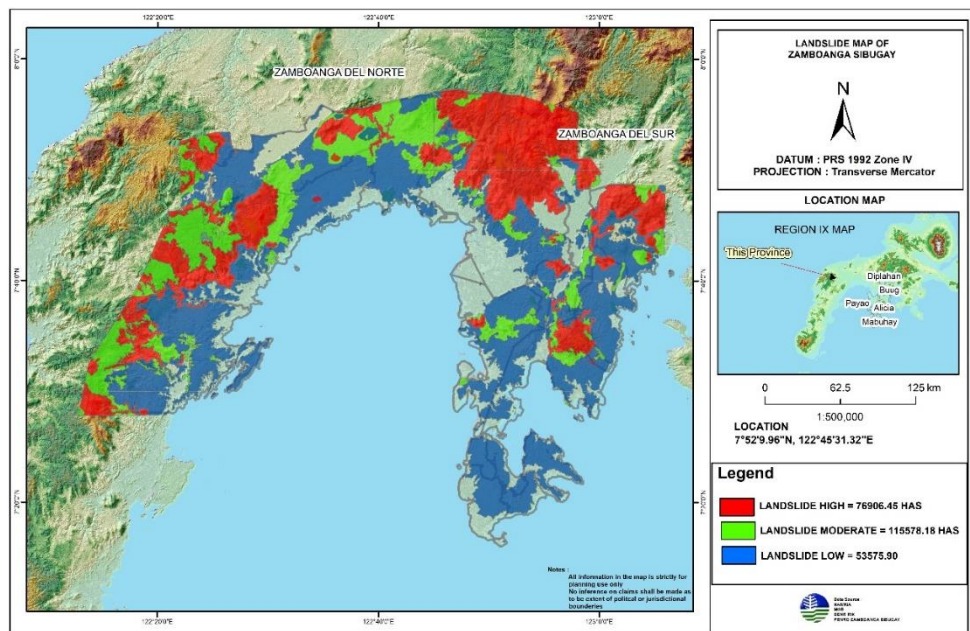
A recent downscaled climate projection study made by the Manila Observatory (2016) reveals that the temperature in Zamboanga City will rise by 1.2°C in 2015, and by 2.1°C in 2050. In contrast, the precipitation rate will decrease at -0.6% by 2025, and at -5.2% by 2050. These projections imply that the city will become warmer and drier in the next thirty (30) years. Hence, in the light of these findings, the climate-related hazards pose a great degree of threats to the following ecosystem: Agriculture (flood and drought); Coastal (typhoon and storm surge); Upland (flash flood and drought); and Urban (flood and drought). These hazards will definitely affect the livelihood of the men and women farmers, fisherfolks and townspeople.

## Hazards

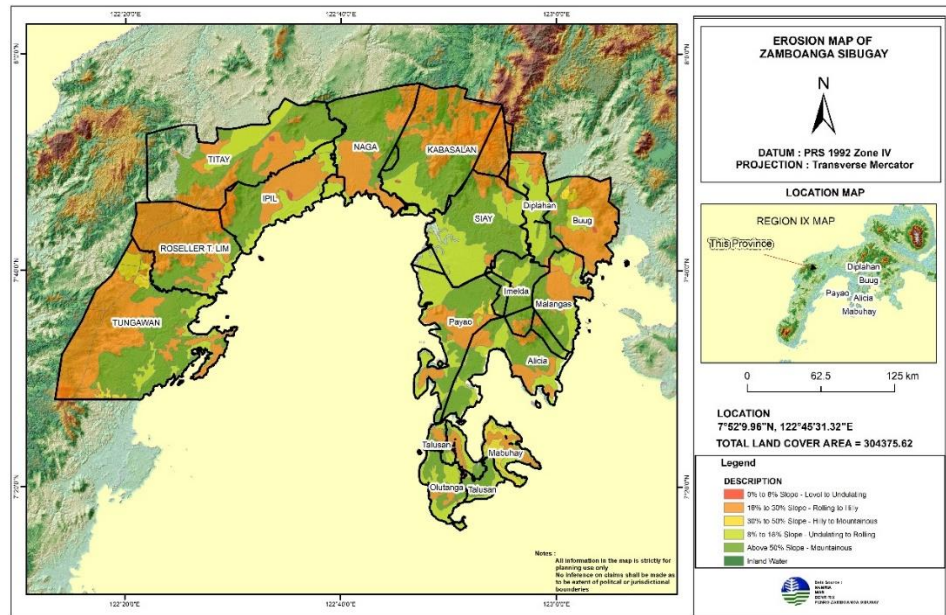
As shown in the following maps, the municipalities in Zamboanga Sibugay Province that are susceptible to flooding are Siay, Kabasalan, Talusan, Tungawan, R.T. Lim and Ipil. Flooding and landslides are also experiences in some portions of the rest of the remaining municipalities during heavy rains.



Map 19. Flood Map of Zamboanga Sibugay Province



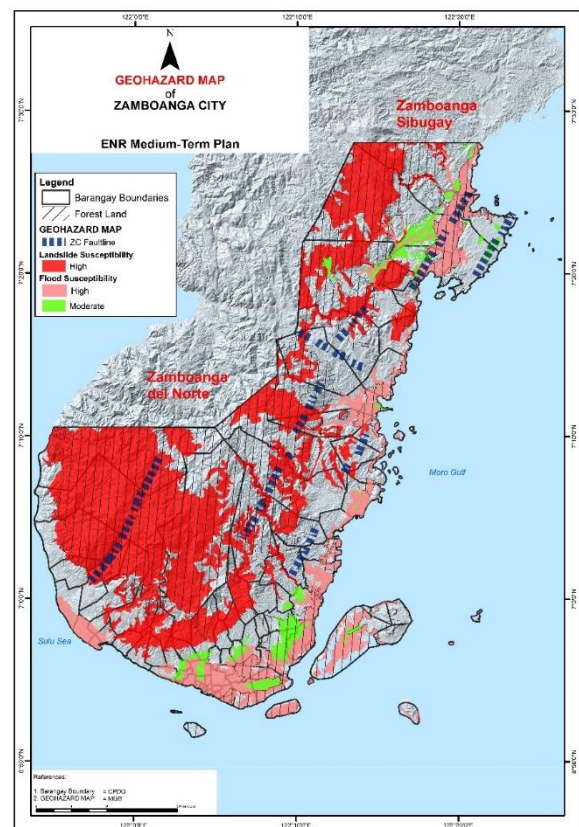
Map 20. Landslide Map of Zamboanga Sibugay Province



Map 21. Erosion Map of Zamboanga Sibugay Province

Aside from being located within one of Mindanao’s high-risk zones, Zamboanga City was being classified with four climate-related hazards, namely: flooding, rain-induced landslides or erosion, high temperature or drought, and sea level rise and storm surges. Whereas, hazards caused by geological events that might affect the city are earthquakes and tsunamis.

In addition, Zamboanga City is considered one of the most vulnerable cities to the effects of climate change, and thus policies geared towards activating adaption strategies are required. Climate change effects are dramatically increasing in the form of more frequent extremes, such as prolonged drought and incidents of the flood. These phenomena expose the city to heightened disaster risk. In the absence of



Map 22. Geohazard Map of Zamboanga City





**Table 22. Detailed Tabulation of Mining Tenement as per CY 2018 Mining Tenement Control Map of Region IX**

**LIST OF MINERAL PRODUCTION SHARING AGREEMENT (MPSA)**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
333	MPSA 333-2010-IX	Maharlika Dragon Mining Corporation	Zamboanga del Norte and Zamboanga Sibugay	7,868.67	Chromite
76	MPSA 076-97-IX	Siennalyn Gold Mining Corp.	Zamboanga Sibugay	4,116	Gold, Copper

**LIST OF APPLICATION FOR MINERAL PRODUCTION SHARING AGREEMENT (APSA)**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
121	APSA000121-IX	Masada Resources & Mining Corp.	Zamboanga Sibugay	8,100	Gold, Manganese, Chromite
19-B	APSA000019-B-IX	Maharlika Dragon Mining Corporation	Zamboanga Sibugay	5,084.07	Manganese
17	APSA000017-IX	Century Peak Metal Holdings Corporation	Zamboanga Sibugay	2,340	Gold, Copper, Silver, Nickel, Chromite

**APSA WITH APPEAL FILED MGB C.O.**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
125	APSA000125-IX	Mt. Sinai Mining Explo. & Dev't. Corp.	Zamboanga City/Sibugay/Sur/Norte	10,125	Gold, Silver, Iron, Manganese
120	APSA000120-IX	KARSON Mining and Trading Corp.	Zamboanga Sibugay	3,969	Gold, Silver, Iron, Manganese
15	APSA000015-IX	Oreline Mining Corp./ Benguet Corp.	Zamboanga Sibugay	340.3	Gold

**PENDING REGISTRATION**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
5	APSA0005-IX	EMACO, Inc.	Zamboanga City/Sibugay/Sur/Norte	3,805	Gold, Silver, Iron, Manganese

**APSA DENIED/REJECTED WITH FINALTY/EXECUTORY**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
122	APSA000122-IX	Masada Resources & Mining Corp.	Zamboanga Sibugay/ZDN	8,100	Gold, Silver, Iron, Manganese
114	APSA000114-IX	31 <sup>ST</sup> Century Mining Corporation	Zamboanga Sibugay	8,100	Gold
98	APSA000098-IX	Oreline Mining Corporation	Zamboanga Sibugay/ZDN	3,885	Gold, Copper, Silver

**LIST OF EXPLORATION PERMIT (EP)**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
9	EP 009-16-IX	Inner Arc-Alicia, Inc.	Zamboanga Sibugay	932.2	Gold, Silver and Lead, etc.

**CANCELLED WITH PENDING APPLICATION FOR MOTION FOR RECONSIDERATION /APPEAL**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
9	EP 002-97-IX	Phil. National Oil Co./Energy Dev't Corp. (PNOC/EDC)	Zamboanga Sibugay	932.2	Gold, Copper

**LIST OF EXPLORATION PERMIT (EXPA)**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
9	EP 009-16-IX	Inner Arc-Alicia, Inc.	Zamboanga Sibugay	932.2	Gold, Silver and Lead, etc.

**LIST OF APPLICATION FOR EXPLORATION PERMIT (EXPA)**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
150	EXPA000150-IX	Inter-Zambo. Pacific Minerals Co., Inc.	Zamboanga Sibugay	1,134	Iron, Copper and other Associated Minerals
60	EXPA000060-IX	Linktone Int'l. Mining Corporation	Zamboanga City	7,776	Manganese, Chromite, Iron

**EXPA WITH APPEAL (FILED WITH CENTRAL OFFICE)**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
123	EXPA000123-IX	Rosemarie K. Dimalapang	Zamboanga Sibugay	1,021	Iron, Copper, Gold, Silver, etc.
98	EXPA000098-IX	Camarines Norte Finest Minerals, Inc.	ZDN/ Zamboanga City	3,832	Chromite, Nickel, Iron
73	EXPA000073-IX	Highland Reality Philippines Corporation	Zamboanga City	3,774.71	Gold, Silver, Copper, Zinc, etc.

**EXPA WITH APPEAL PERIOD OF FILING OF MOTION FOR RECONSIDERATION**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
113	EXPA000113-IX	DMC Construction Equipment Res., Inc.	Zamboanga Sibugay/ZDN	1,694	Gold, Silver, Copper and Iron
148	EXPA000148-IX	Atro Mining Vitali, Inc.	Zamboanga Sibugay/ZDN/Zambo. City	1,694	Iron, Gold, Silver and Chromite

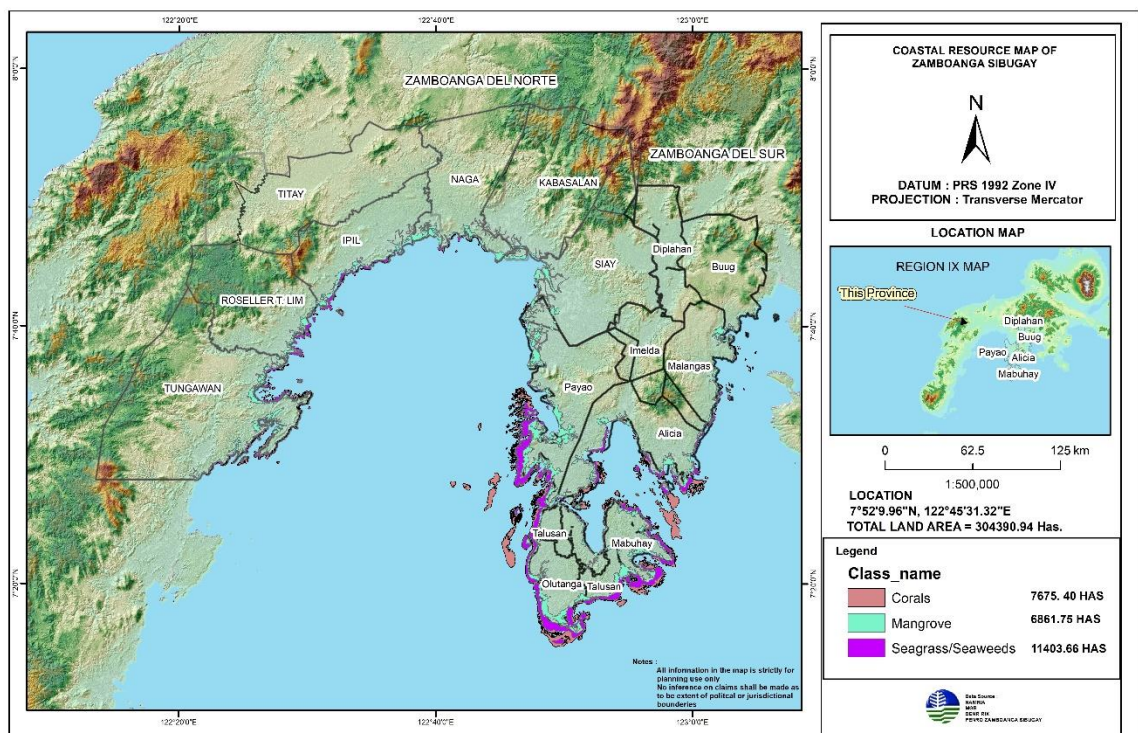
**EXPA WITH MOTION FOR RECONSIDERATION/FINALTY/EXECUTORY**

SEQ	NO	HOLDER	PROVINCE	AREA	COMMODITY
147	EXPA000147-IX	Filipinas Consolidated Ores International Corp.	Zamboanga Sibugay	510	Chromite, Nickel, Cobalt, Gold, Copper, etc.
144	EXPA000144-IX	DMC Construction Equipment Resources, Corp.	Zamboanga Sibugay	680	Gold, Silver, Copper, etc.
142	EXPA000142-IX	Felipe De Asis Ong	Zamboanga Sibugay	1360	Gold, Silver, Copper, Lead etc.
141	EXPA000141-IX	J3 Mineral Explorers, Inc.	Zamboanga Sibugay/ZDN	5,778	Gold, Silver, Copper, Lead etc.
135	EXPA000135-IX	Juhefa Mining Corporation	Zamboanga Sibugay	3,825	Manganese, Lead and Zinc
134	EXPA000134-IX	D' Aubrino Mining & Trading Corp.	Zamboanga Sibugay/ZDN	17,000	Copper, Gold, Silver, Iron, etc.
127	EXPA000127-IX	Mt. Apo Mining Dev't Corp.	Zamboanga Sibugay	3,527	Copper, Gold, Silver, Iron, etc.
124	EXPA000124-IX	Pacifico Sul Mineracao Corp.	Zamboanga Sibugay	4,252	Copper, Gold, Silver, Iron, etc.
117	EXPA000117-IX	Pacifico Sul Mineracao Corp.	Zamboanga Sibugay	6,357	Copper, Gold, Silver, Iron, etc.
109	EXPA000109-IX	Zam-Iron Mining Corp.	Zamboanga Sibugay	1,559.75	Gold, Silver, Copper
106	EXPA000106-IX	SJT Mining Corporation	Zamboanga Sibugay/ZDN	8,100	Copper, Gold, Silver, Iron, etc.
101	EXPA000101-IX	Zam-Iron Mining Corp.	Zamboanga Sibugay	8,586	
97	EXPA000097-IX	Philminer, Inc.	Zamboanga Sibugay/ZDN	4,212	Iron, Gold, Silver, etc.
96	EXPA000096-IX	Zam-Iron Mining Corp.	Zamboanga Sibugay	2,470.50	
88	EXPA000088-IX	Omega 9 Metals Corporation	Zamboanga Sibugay/ZDN	6,263.97	Gold, Silver, Copper, etc.
85	EXPA000085-IX	Oakwood Mineral Resources, Inc.	ZDN/Zamboanga City	7,017	Gold, Copper, etc.
80	EXPA000080-IX	Philminer, Inc.	Zamboanga Sibugay/ZDN	3,645	Gold, Copper, Lead, Zinc, etc.
77	EXPA000077-IX	Asian Treasure, Metallic Ore Mining Corp.	Zamboanga Sibugay	2,187	Gold, Copper, Lead, Zinc, etc.
64	EXPA000064-IX	Linktone Int'l. Mining Corporation	Zamboanga City	1,579.5	Manganese, Iron, Gold, Silver, etc.
58	EXPA000058-IX	Rigid Aggregates Corporation	Zamboanga Sibugay/ZDS	2,430	Manganese, Chromite, Iron, etc.
149	EXPA000149-IX	Atro Mining Vitali, Inc.	Zamboanga City, Zamboanga del Norte	6,868.48	Iron, Gold, Silver, Chromite, etc.

## Coastal Resources

Coastal resources include all natural resources occurring within coastal waters and their adjacent shore lands. Coastal resources include islands, transitional and intertidal areas, salt marshes, wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs which are considered to be home of most of the marine species. The coastal ecosystem also plays as protection against environmental hazards.

Coastal resources within Zamboanga Sibugay plays an important role in the economic development of the province wherein most people in the community depends on their livelihood and food supply. Coastal areas of the province are rich in coastal and marine resources to include fishes, crabs, shells and other. In fact, the municipality of Siay is known for its marine products like crabs, lobsters, and its boneless danggit.

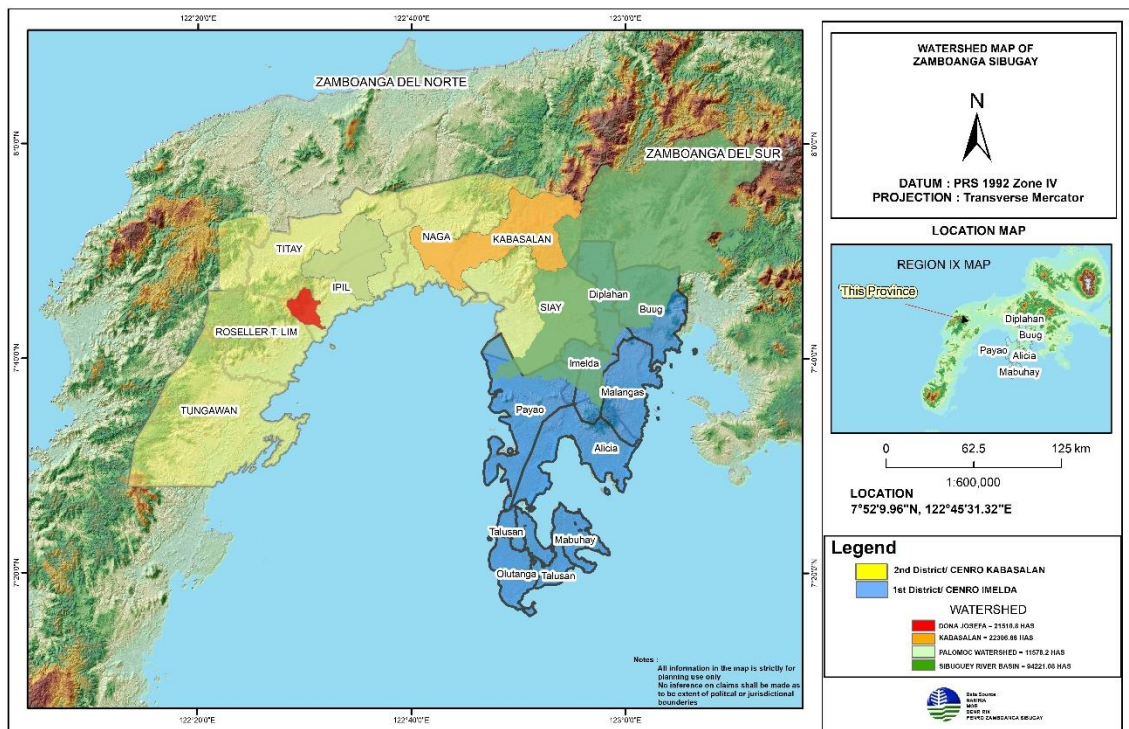




## Watershed Areas

A watershed is an area of land that feeds all the water running under it and draining off of it into a body of water. It combines with other watersheds to form a network of rivers and streams that progressively drain into larger water areas. Waterways within the watershed all feed into that main body of water, which could be a river, lake, or stream.

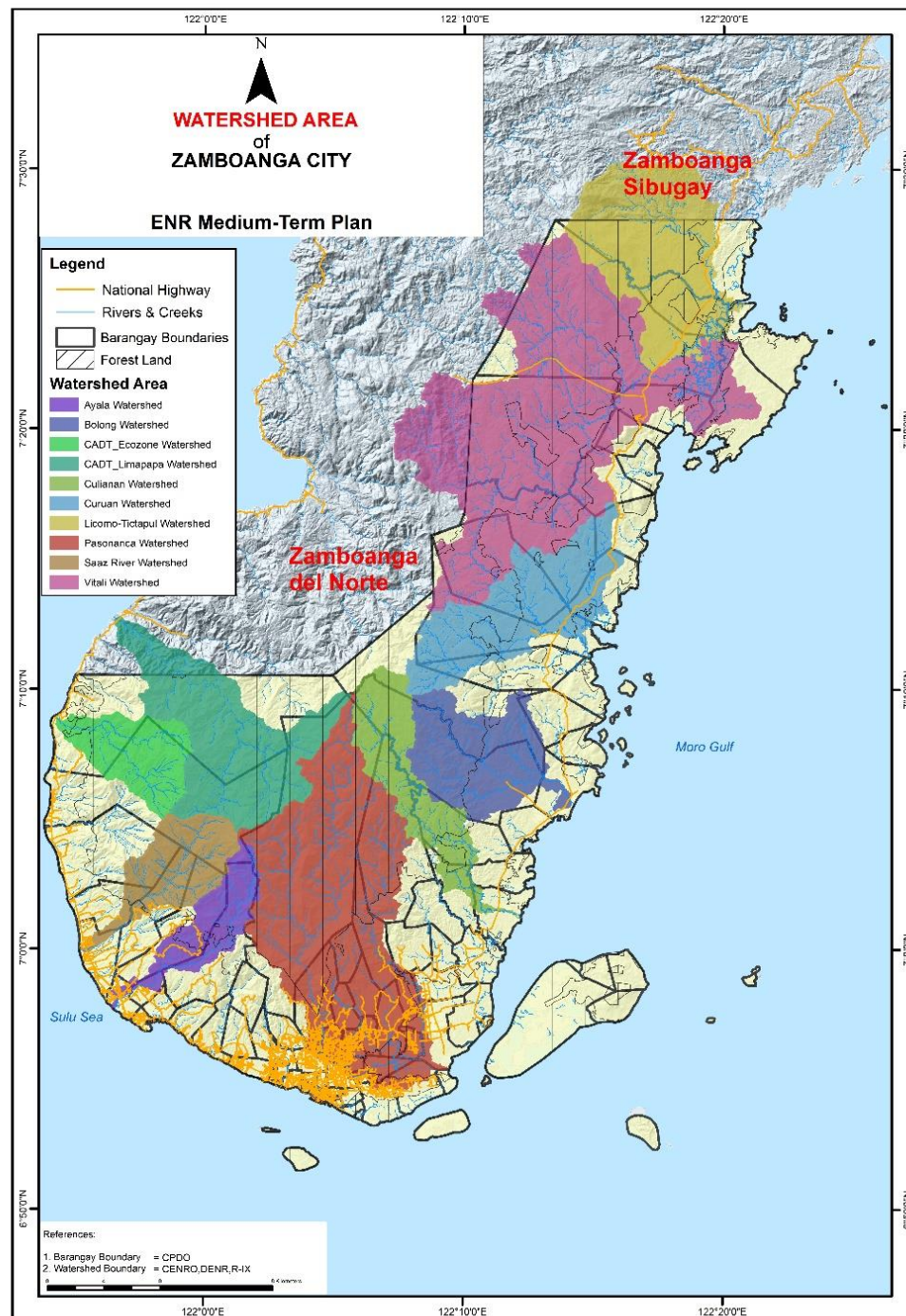
Zamboanga Sibugay has watershed areas serve as its primary source of water. There are priority watershed areas of the province which already have an Integrated Watershed Management Plan (IWMP) as illustrated in Map 25. It could also be seen in the same map the major river basin of the province which is the Zamboanga Sibugay River Basin covering 94,221.08 hectares.



Map 25. Watershed Areas of Zamboanga Sibugay Province

On the other hand, there are six (6) identified watershed (SP Resolution No. 566) forest reserves in Zamboanga City, namely: Ayala, Culianan, Manichan, Bolong, Curuan, and Vitali which had undergone the rapid resources assessment/characterization. Under the FLUP additional 3 watershed were identified Saaz River, CADT Eco-Limpapa and CADT Eco-Limpapa-Labuan. There are 11 major river systems emanating from the watershed

forest reserves; with at least 19 communal irrigation systems are being used for irrigation and agricultural purposes.

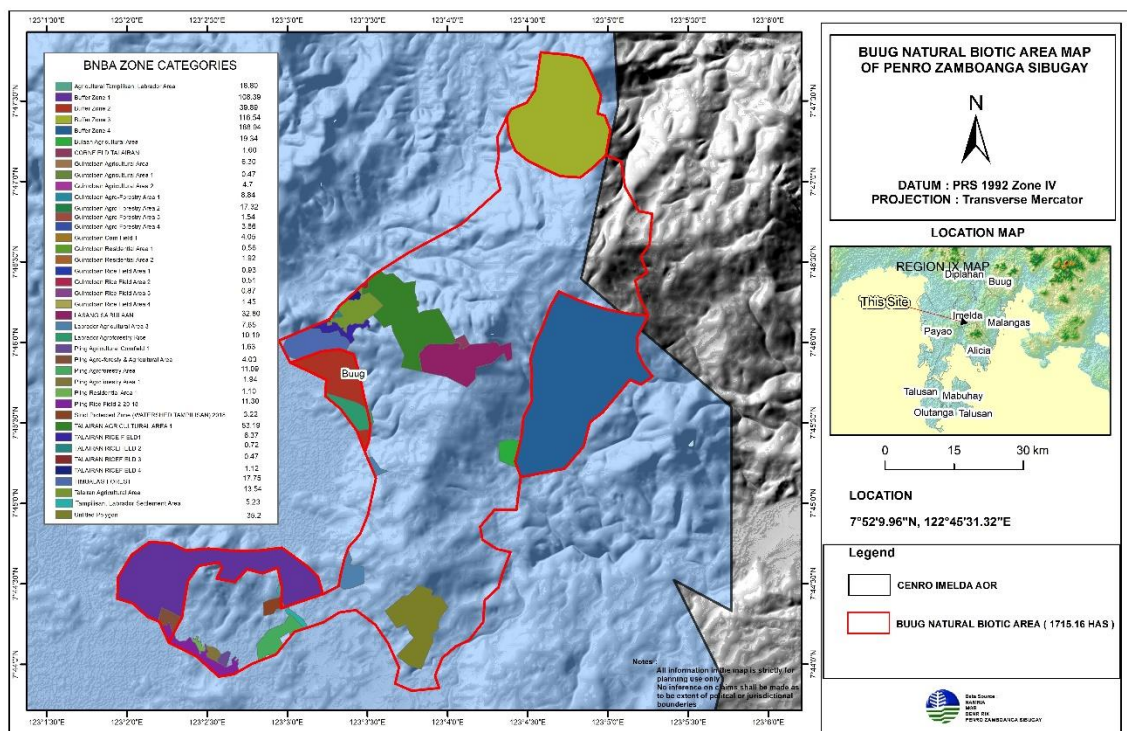


## Proclaimed Protected Areas

### Buug Natural Biotic Area (BNBA)

BNBA has been designated and set aside as Watershed and Forest Reserve pursuant to Presidential Proclamation No. 18 dated August 9, 1966 and designated as initial component of the National Integrated Protected Areas System (NIPAS) under Proclamation No. 63 dated December 22, 1998. The protected area is located at the Southern portion of Zamboanga Peninsula and North of the municipality proper. It is composed of nine (9) barangays, namely: Poblacion (portion only), Bliss, Basalem, Buluan, Pling, Guintuloan, Labrador, Talairan and Talamimi. It covers almost 14% (1,715.15 hectares) of the total land area of the municipality.

It is also potential for ecotourism destination and educational purposes due to its natural forest canopy and thriving biodiversity in the area. Meanwhile, the protected area has no existing infrastructures but could boost the ecotourism capacity if developed.

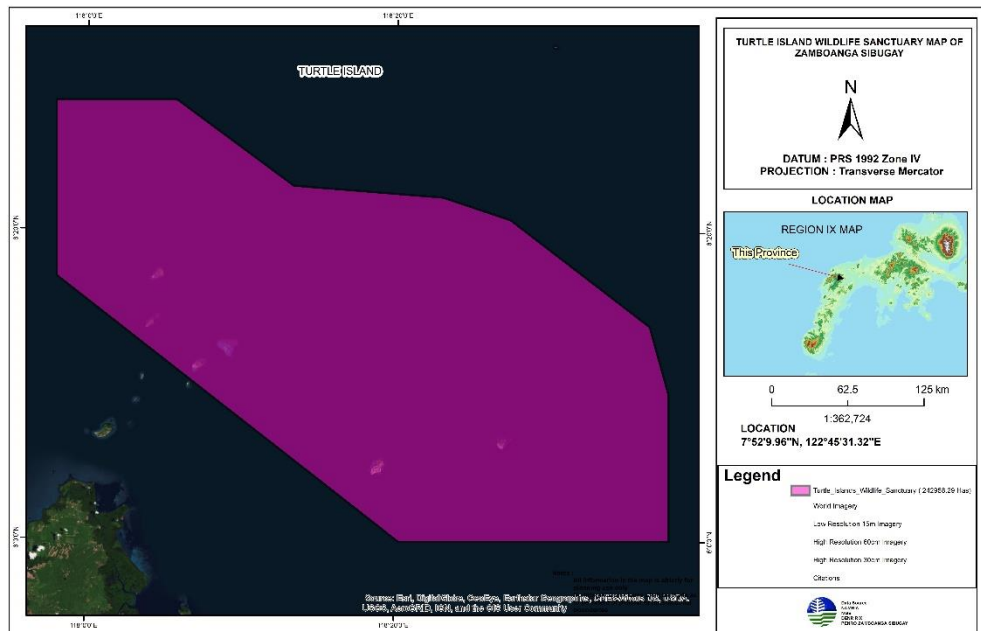




## Turtle Islands Wildlife Sanctuary (TIWS)

Turtle Islands is part of the Sulu Archipelago which is composed of approximately 400 islands of varying shapes and sizes. It is located at the southwestern tip of the Philippines, about 1,000 km southwest of Manila. The Protected Area is situated between coordinates 4° 30' and 5° 20' North Latitude and 199° 25' and 121° 52' East Longitude. On the west and north, it is bounded by the Sulu and Mindanao Seas, and on the east and south, by the Celebes Sea. The group of Islands, namely, Boan, Lihiman, Langaan, Great Bakkungan, Taganak, and Baguan. It has a total aggregate area of 241,495.92 hectares of which 298.27 hectares correspond to the land portions of the Sanctuary. The smallest Island, the Langaan measures about 7 hectares, while the largest, the Taganak Island, is about 124 hectares. Generally, the TIWS topography ranges from flat, low hills and plateau, to high topographic relief features reaching as high as 150 meters above sea level. (<https://whc.unesco.org/en/tentativelists/6008/>)

It was proclaimed as Wildlife Sanctuary under Proclamation No. 171 on August 26, 1999 and identified as Extremely High (EH) for biodiversity conservation. The only major nesting habitat of Green sea turtles (*Chelonia mydas*) in the Philippines and the only major nesting ground in the whole ASEAN Region and the 11<sup>th</sup> major nesting site in the world.



Map 28. Map showing Turtle Islands Wildlife Sanctuary

## Basilan Natural Biotic Area

Basilan National Park as initial component of NIPAS Law was proclaimed as Basilan Natural Biotic Area (BNBA) through Presidential Proclamation 321 dated May 31, 2000 by the Pres. Joseph E. Estrada covering an Area of 6,516 hectares, comprising of two (2) cities, Isabela and Lamitan and two (2) municipalities (Tipo-Tipo, Sumisip). It has a unique geographical feature known as twin peak and locally called as "Punoh Kebbang". The presence of the dipterocarp forest belonging to the Philippine Mahogany group like Lauan, Tanguile, Mayapis, Apitong and Basilan Yakal, is one of the distinct feature of our protected area. This is also the home of some 88 species of flora and fauna which needs to be protected and conserved. (<http://mindanaopamb.buksu.edu.ph/pamb/specific/48>)

Basilan Island lies c.20 km south of the tip of the Zamboanga Peninsula of southwestern Mindanao. It is a hilly island, with several peaks that ascend to almost 1,000 m, including Mt Kebang (Twin Peak) and Mt Mohadji.

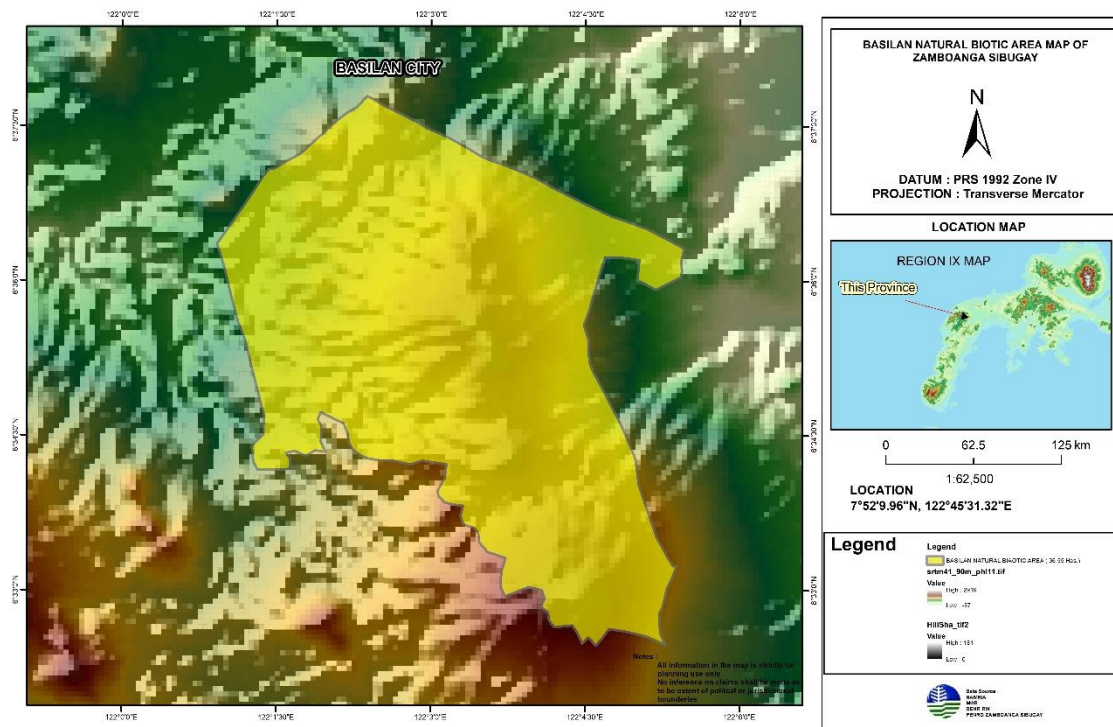


Figure 29. Map showing Basilan Natural Biotic Area

### **Pasonanca Natural Park (PNP)**

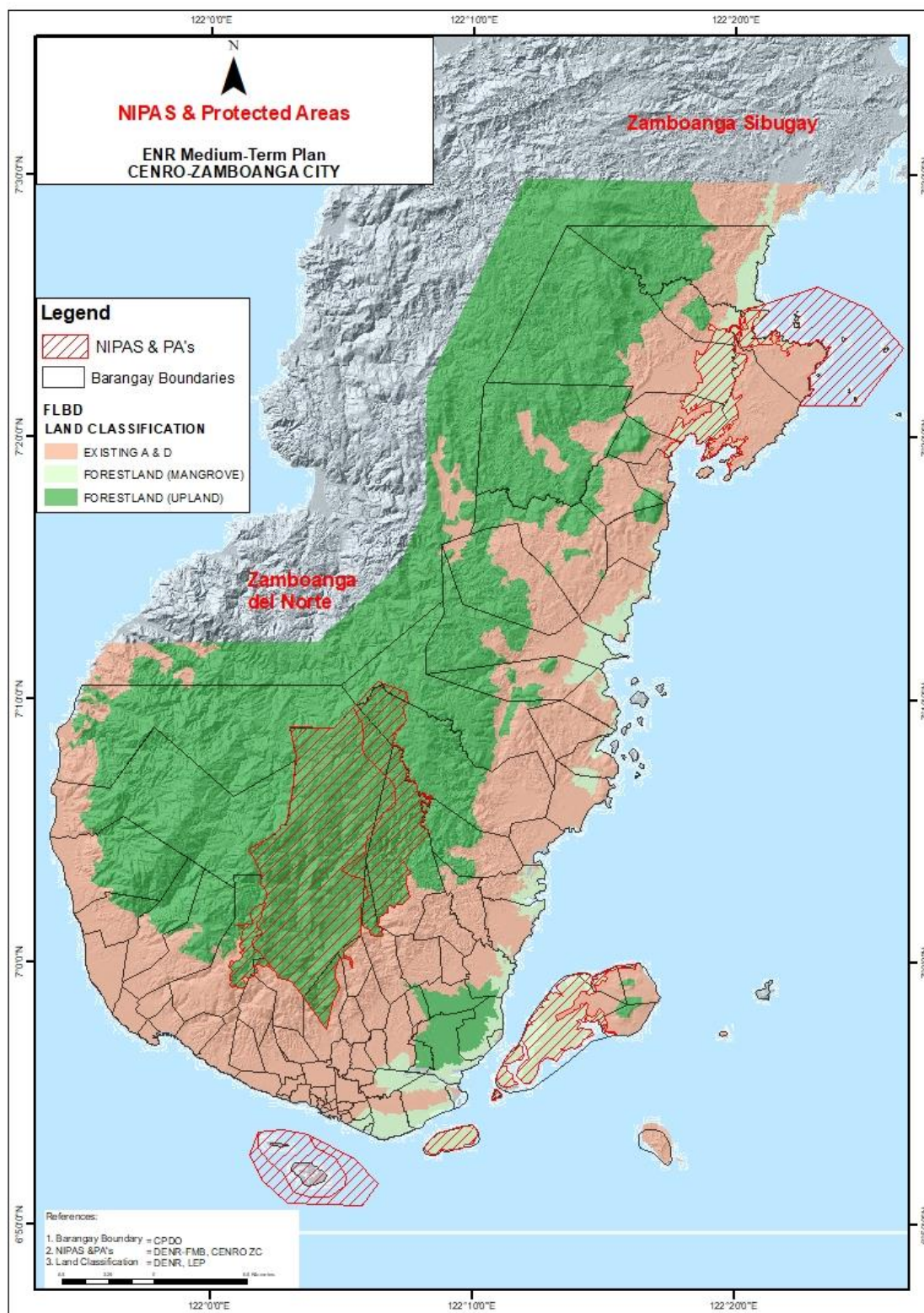
The natural park is managed as part of the Philippines' National Integrated Protected Areas System. It was initially established in 1987 as the Pasonanca Watershed Forest Reserve encompassing an initial area of 10,560 hectares (26,100 acres) declared through Proclamation No. 199 issued by President Corazon Aquino. In 1999, through Proclamation No. 132 issued by President Joseph Estrada, the park was enlarged and reclassified as a natural park. It has the largest remaining block of old growth lowland dipterocarp forest in Zamboanga. (<https://en.wikipedia.org/wiki/>)

### **Great and Little Sta. Cruz Islands Protected Landscape and Seascape**

The Great Santa Cruz Island together with Little Santa Cruz Island are protected areas in Region 9 of the Philippines. Jointly called the *Great and Little Sta. Cruz Islands Protected Landscape & Seascape*, it was declared as such on April 23, 2000 with the signing of *Proclamation No. 271*. The park has a total area of 1,877 hectares (4,640 acres).

Great Santa Cruz Island is a small inhabited island in Zamboanga City in the southern region of the Philippines that is famous for its pink coralline sand. The island, located 4 kilometres (2.49 mi) south of downtown at the Santa Cruz Bank in the Basilan Strait, boasts the only pink sand beach in the Philippines. The color of the sand comes from the pulverized red organ pipe coral from eons of surf erosion mixed with the white sand.

Both Pasonanca Natural Biotic Area and Great and Little Sta. Cruz Islands Protected Landscape and Seascape, under the jurisdiction of CENRO Zamboanga City, are already proclaimed protected areas under the National Integrated Protected Areas System (NIPAS) pursuant to Republic Act No. 7586 which the Zamboanga City Government is a member of its respective multi-agencies governing the board. Meanwhile, the mangrove swamps forest reserve situated at barangays Vitali, Manguso, Limaong, and Tictapul which formed part of Proclamation No. 2152 is an initial component of NIPAS.

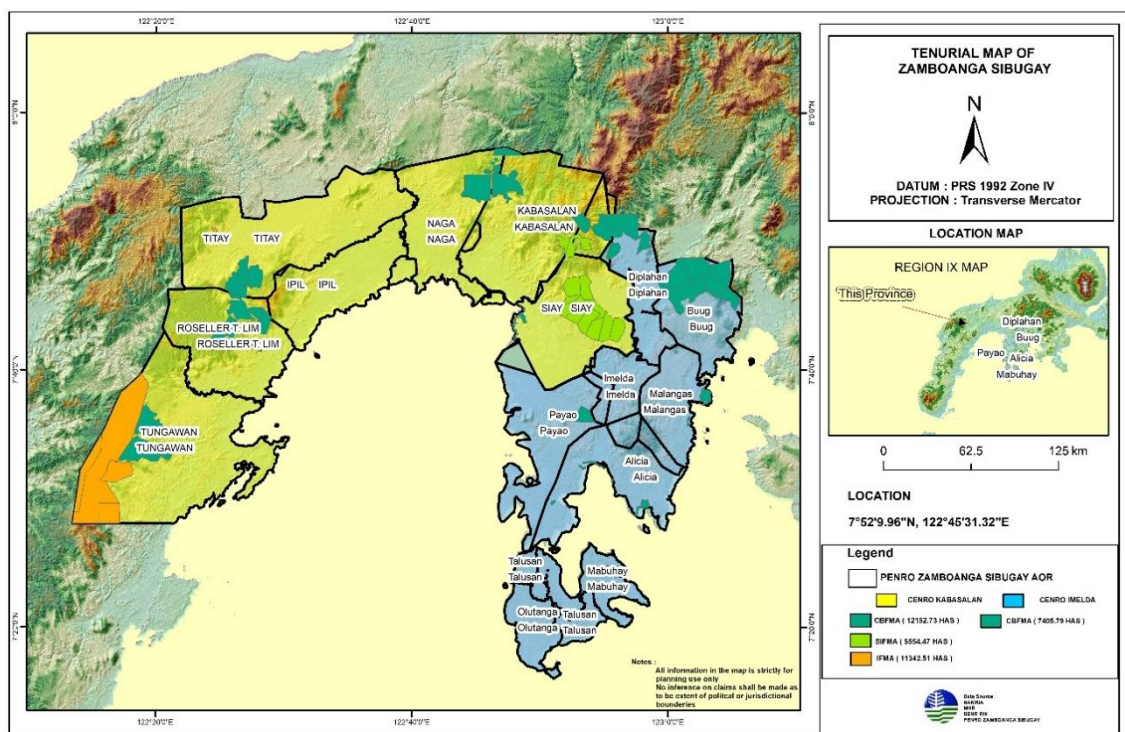




## Tenured Areas

Forest tenurial instruments are used by the government to allocate public forest and forest lands to interested individuals, organization or entities and put these areas into effective and responsible on site management (*PB2013-02, CPBRD*).

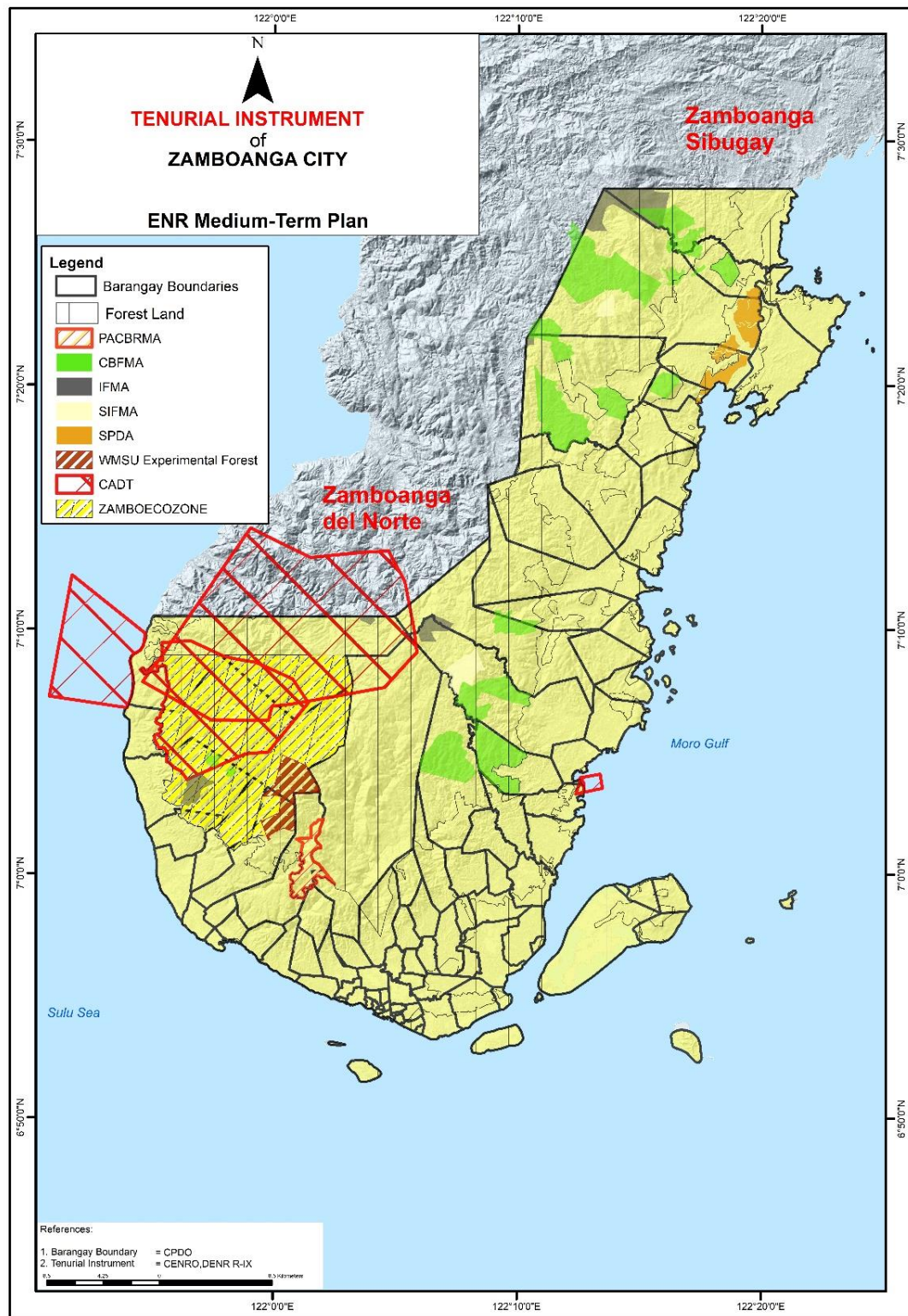
Zamboanga Sibugay has 11 Socialized Integrated Forestry Management Agreement (SIFMA) covering a total of 5,554.47 hectares, and 46 Community-Based Forest Management (CBFM) Areas of which 23 CBFMA per district with a total area of 7,405.79 hectares and 12,152.73 hectares both in CENRO Imelda and CENRO Kabasalan respectively.



Map 31. Tenured Areas of Zamboanga Sibugay Province

Tenured areas of under the jurisdiction of CENRO Zamboanga City is illustrated in Map 32.



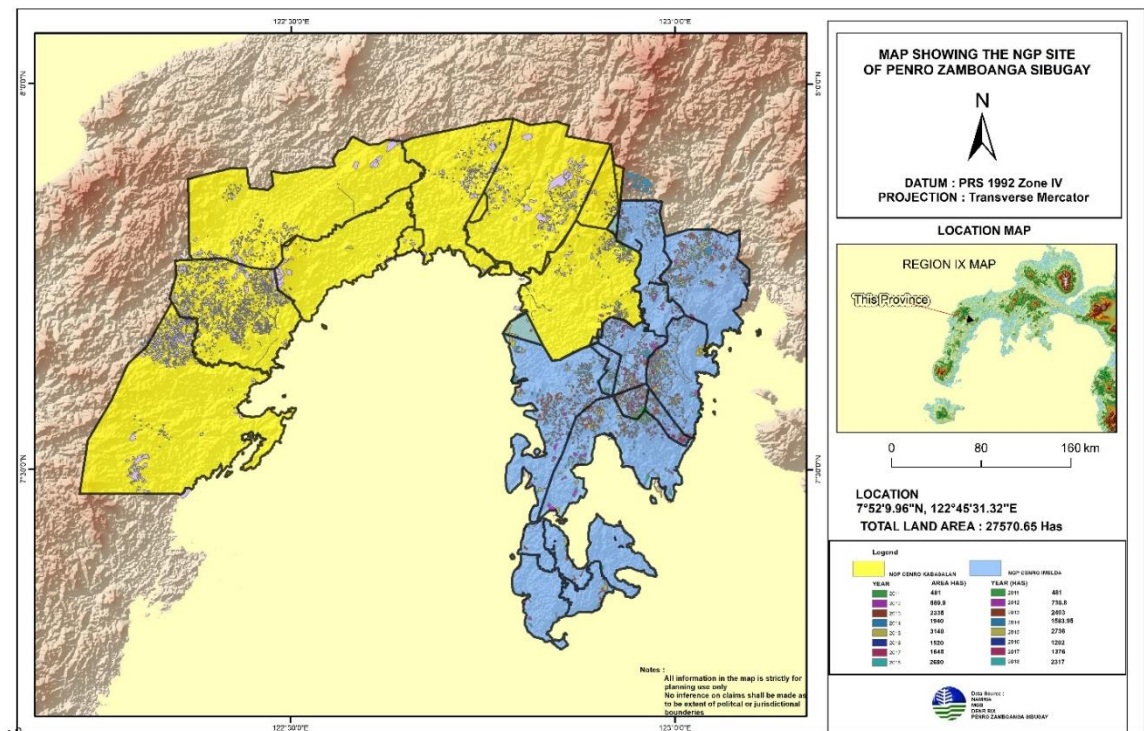


Map 32. Map showing the Tenured Areas under the jurisdiction of CENRO Zamboanga City

## Existing NGP Plantation

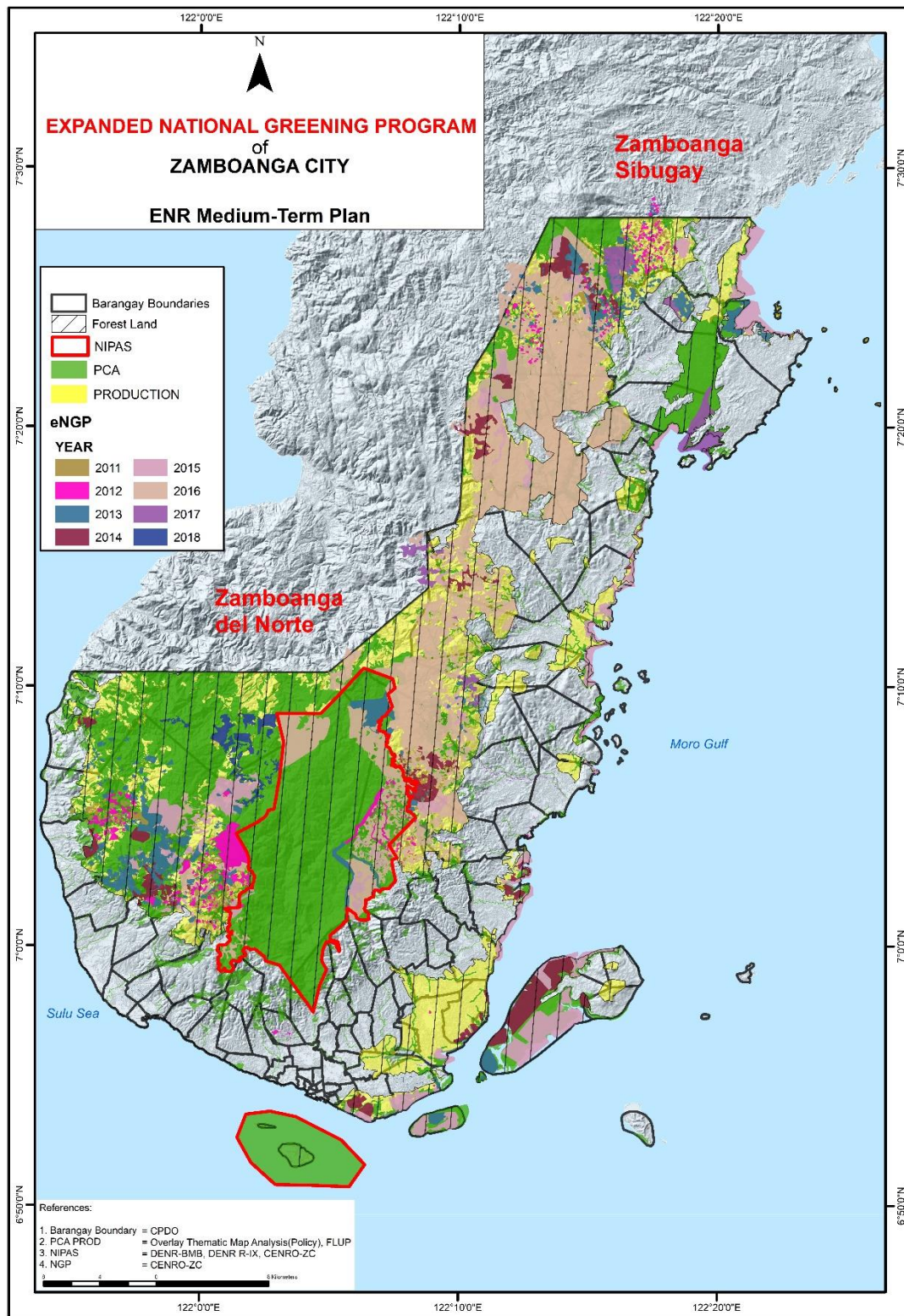
Due to the decreasing forest cover of the country, a massive forest rehabilitation program was established through the issuance of Executed Order No. 26 series of 2011 wherein the department was mandated to be the lead agency for the implementation. It is one of the 10 priority programs which aims to plant 1.5 billion trees in 1.5 hectares for the period of six (6) years from 2011-2016. Its primary objectives are poverty alleviation, food security, biodiversity conservation, environmental stability and climate change mitigation and adaptation.

Through the project, people in the implementing area were given livelihood opportunities. Because of its positive impact on the community, it was expanded through the issuance of Executive order 193 series of 2015 wherein the project was expanded until 2028. The map below shows the existing NGP plantations of the province from CY 2011-2018.



Map 33. NGP Sites 2011-2018 of Zamboanga Sibugay Province





Map 34. NGP Sites 2011-2018 under the jurisdiction of CENRO  
Zamboanga City

## **SITUATIONAL ANALYSIS**

PENRO Zamboanga Sibugay covers three (3) CENRO's namely: Imelda, Kabasalan and Zamboanga City. The first two CENROs are both under Zamboanga Sibugay Province. In order to focus on the development analysis of the area, situational analysis was formulated separately; for the province of Zamboanga Sibugay and Zamboanga City. In addition, a separate stakeholders' consultation was conducted to have a more accurate analysis of the areas.

### **Zamboanga Sibugay Province**

Being an agro-industrial province, Zamboanga Sibugay is rich with natural resources such as rubber, abaca, calamansi, and seafood. As stated in an article of PIA, Zamboanga Sibugay is the leading rubber producing province in the Philippines, with an average annual production volume of about 77,812 MT of dry rubber in 2004 and 80,416 MT in 2005. It surpassed North Cotabato, formerly ranked first, which produced a volume of 76,607 MT in 2004 and 77,459 MT in 2005 (DAR). This is one of the primary source of income of the upland communities. Others rely on coastal and marine resources which are also rich in the province.

However, the fast-growing population tends to overexploit these resources and engage illegal activities for their livelihood. Per the PSA report, Zamboanga Sibugay was the fastest growing province in the region with an average annual population growth rate (PGR) of 1.53 percent during the period 2010 to 2015.

With this growing population, many preferred to establish a living and even residence in both forest and coastal areas. The source of livelihood is their primary reason. Forest and coastal and marine resources became their primary source of income.

With the presence of these informal settlers and to sustain their living, they illegally extracted natural resources even those considered to be an endangered species. They also contributed to environmental pollution. Others threw their garbage anywhere and even use chemicals in farming unaware of its impact to the environment. Most of the community did not practice proper waste disposal.

All of these may be due to a lack of awareness on the existing ENR laws. Most people were unaware that there are laws pertaining to the protection and conservation of the environment. They were even uninformed that their illegal actions could be punishable by the law. Even worse is the fact that many people chose to ignore the ENR laws.

The agency had conducted monitoring and enforcement activities to address these issues. Information, Education, and Communication (IEC) Campaigns were conducted. But due to the outsized area of coverage and due to limited personnel, constant monitoring of the area was not conducted most especially to areas with unstable peace and order condition.

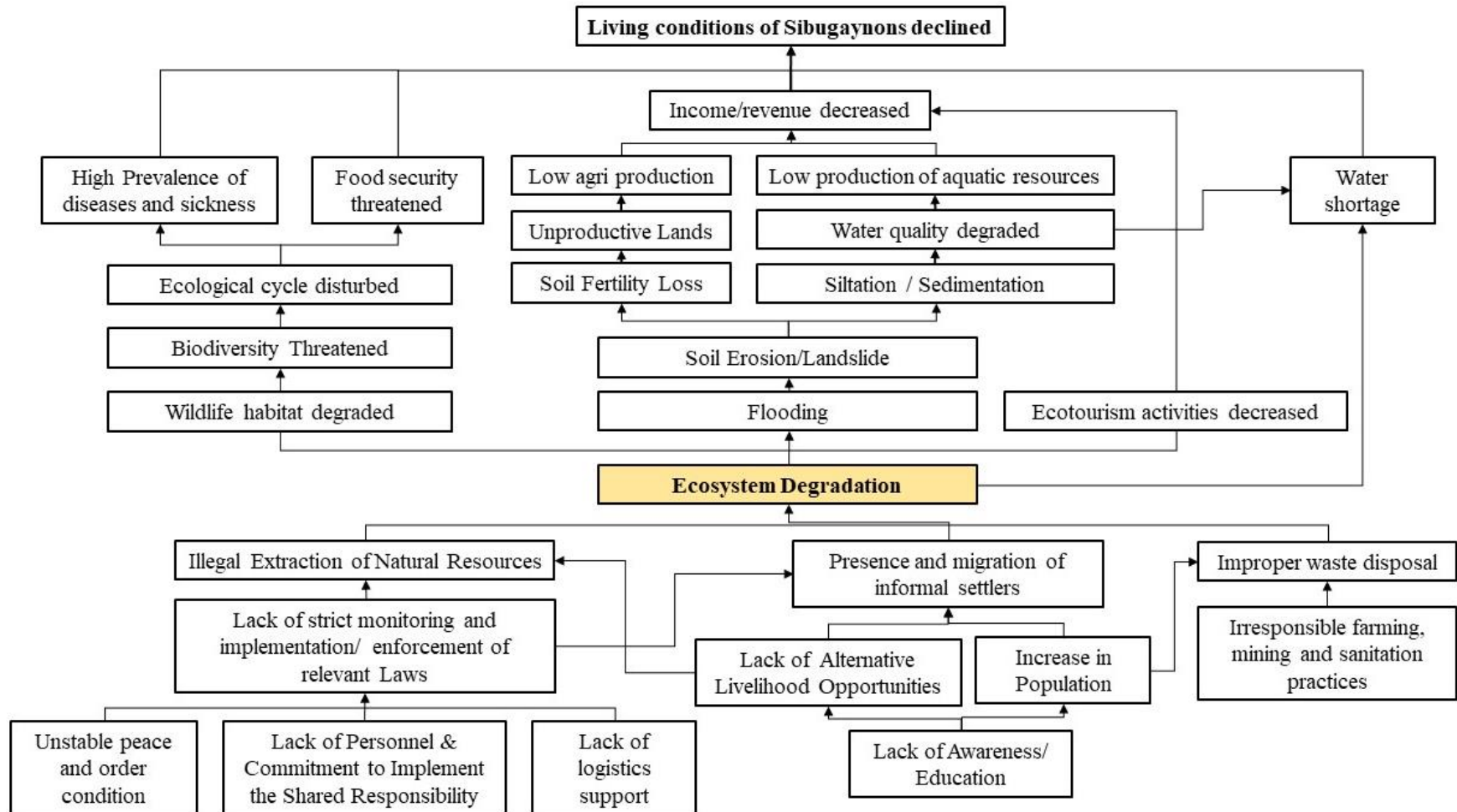
All these problems may probably lead to ecosystem degradation, and if left unaddressed, the environment may not handle the increasing demand of the community. Thus, further lead to the destruction of wildlife habitat where most people rely their food. Later on lead to malnutrition and increase the incidence of diseases and sickness of the community.

This may even result in the occurrence of calamities which could threaten the lives of many due to the destruction of the natural barriers. These calamities include flooding, landslides, typhoons which will destruct the remaining resources and decrease the production of agricultural products. These calamities may damage properties and even cause death.

Other than that, ecosystem degradation will also affect the tourism activities which are also one of the primary sources of income of the community. Recreational values will decrease as the biodiversity also decreased.

All of there will affect the economic growth of the community. With the effects, the living condition of the Sibuganons will decline.

**Diagram 1. Zamboanga Sibugay Province Problem Tree**

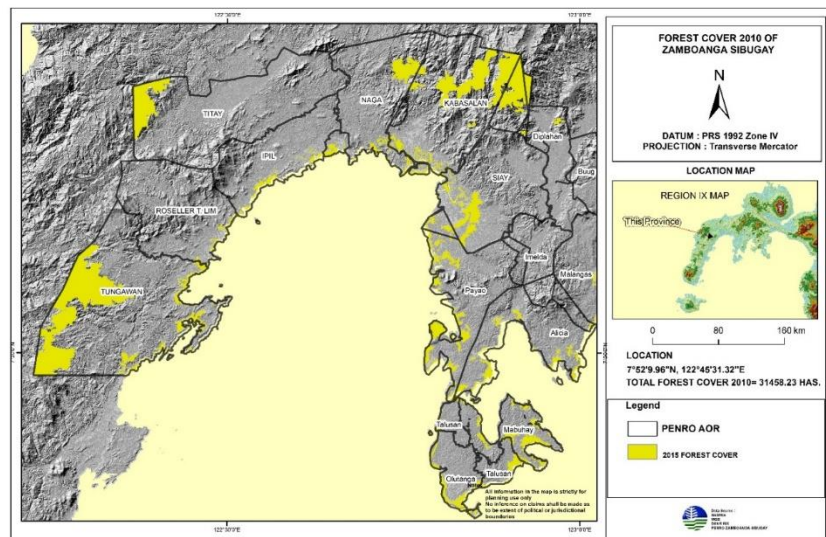




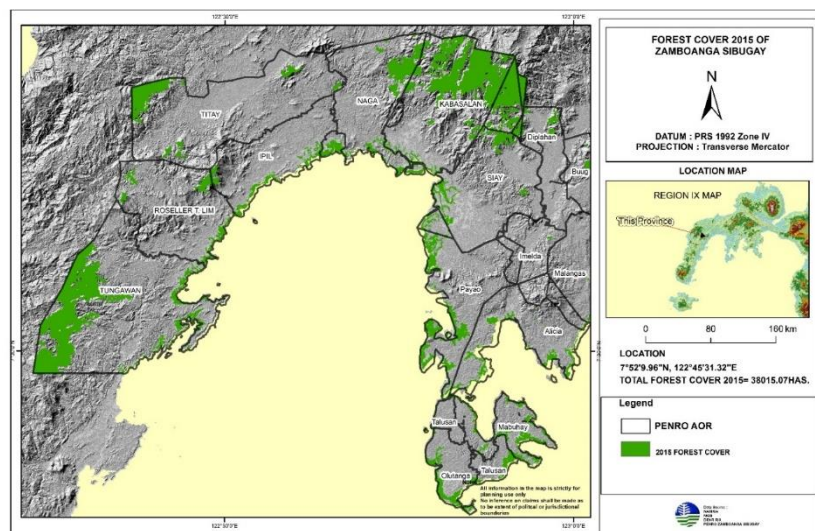
## FORESTRY

Forests are invaluable to all life on Earth. They contain most of all the terrestrial biodiversity. People depend on the forest for their livelihood, however, some unknowingly overexploit these resources leading to deforestation. Illegal extraction of forest resources is the core problem wherein people harvested resources in excess of the allowable limits. These were driven by subsistence demand from the growing population of the community. Figure 20 above shows the current situation of our forest.

The forest cover of the province increased 17% from 2010 to 2015 which is equivalent to 31,458.23 hectares to 38,015.07 hectares respectively.

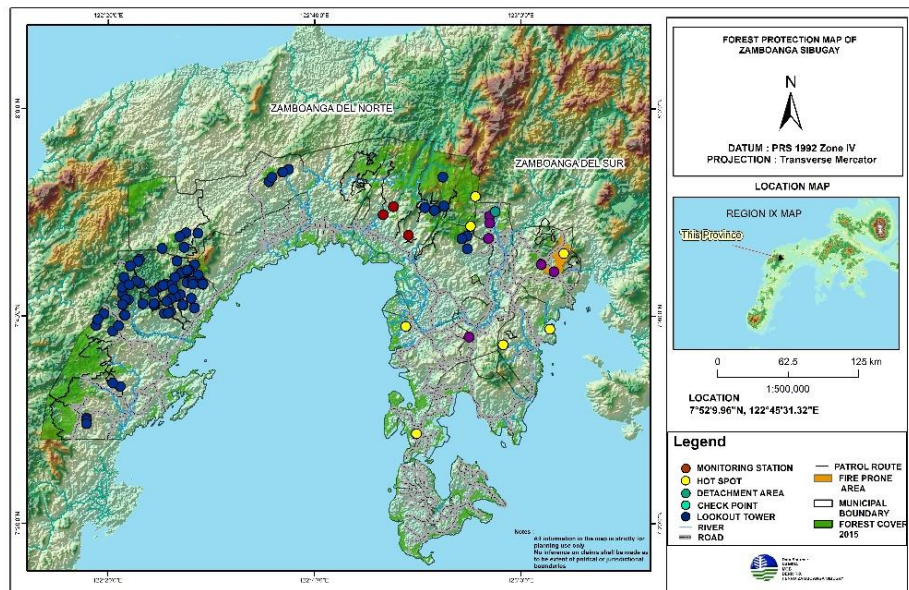


*Map 35. 2010 Forest Cover of Zamboanga Sibugay*



*Map 36. 2015 Forest Cover of Zamboanga Sibugay*

This is due to the effort of the department to protect and conserve our natural resources. In fact, forest protection activities were initiated by the department to include (a) establishment of monitoring stations, look out towers and check points, (b) identification of fire prone areas, and (c) conduct of patrolling through LAWIN Forest and Biodiversity Protecting System. Recently, the CENR offices had apprehended forest products that are illegally extracted from the forestlands. Through the conduct of LAWIN Forest and Biodiversity Protecting System, illegal activities were immediately detected.



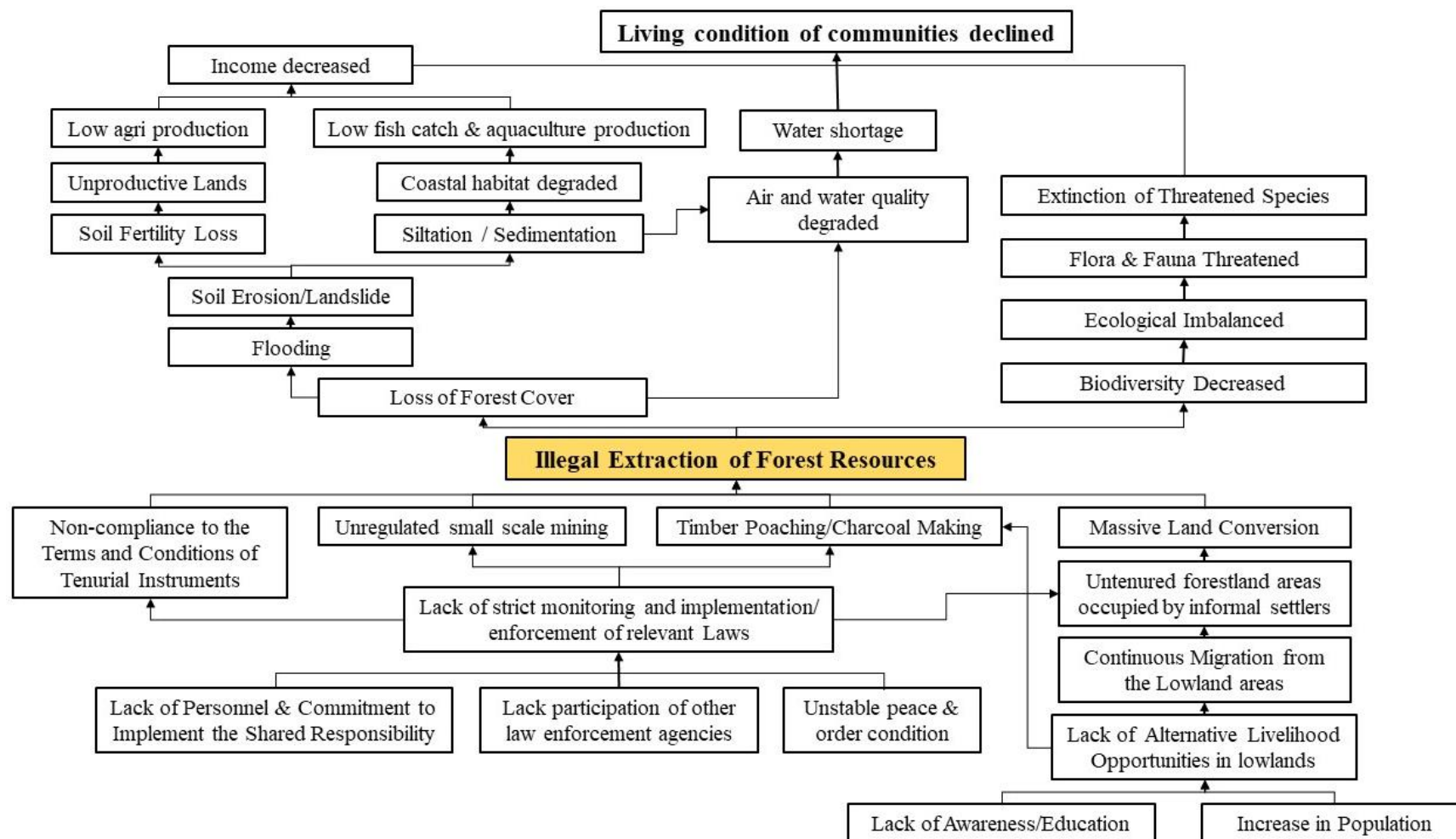
*Map 37. Map showing the Forest Protection Activities within Zamboanga Sibugay Province*

Despite these enforcement initiatives, there are still areas wherein illegal activities are still practiced. These include places classified as areas of concerns of the province. Because of the unstable peace and order conditions of the area, enforcers cannot penetrate instantly.

The outgrowing population also contributed to the occurrence of illegal extraction of the forest resources. Due to insufficient information, some migrated to upland areas for livelihood purposes. Further converted the forest area for agricultural purposes. Unaware of the existing ENR laws, they occupied and tilled areas with no tenural instrument issued to them. Detailed illustration of the problems relating to our forest resources can be explained by the following diagram.



**Diagram 1.1 ZSP Problem Tree - Forestry Sector**



## LANDS

Land management is the process of managing the use and development (in both urban and rural settings) of land resources. Land resources are used for a variety of purposes which may include organic agriculture, reforestation, water resource management and eco-tourism projects. Land management can have positive or negative effects on terrestrial ecosystems. Land being over- or misused can degrade and reduce productivity and disrupt natural equilibriums. ([https://en.wikipedia.org/wiki/Land\\_management](https://en.wikipedia.org/wiki/Land_management))

Insufficient knowledge in land management may result in unresolved land issues and conflict. Further, cause the existence of unsatisfied clienteles and could affect the patent issuance. These happened because of inadequate training conducted and participated with regards to handling land-related issues as well as land records management.

One of the ten (10) priority programs of the department is the issuance of residential free patents that was authorized by virtue of Republic Act No. 10023, otherwise known as the Residential Free Patent Act. As stated in Section 2 of the said Act issuance covers all lands that area zoned as residential areas, including townsites as defined under the Public Land Act; Provided, that none of the provisions of Presidential Decree No. 705 shall be violated. It was further stated that zoned residential areas located inside a delisted military reservation or abandoned military camp, and those of local government units (LGUs) or townsites which preceded Republic Act No. 7586 or the National Integrated Protected Areas System (NIPAS) law, shall also be covered by this Act.

All throughout the year, Zamboanga Sibugay was given targets in the issuance of residential free patents. This will serve as an instrument to avail investment opportunities and other financial assistance. The continuing implementation of this activity will lessen those untitled areas. However, as time goes by, lead to the lowering of the potential areas for the issuance. For the past 6 years (2011-2017) record shows that around 42,192 Residential Free Patents was awarded to the rightful lot-owners with an equivalent area of 5,570.56 hectares in the entire Philippines. Record also shows that 2,097 (62 ha) Residential Free Patents Granted for Region 9. (*ENR Compendium 2017*).

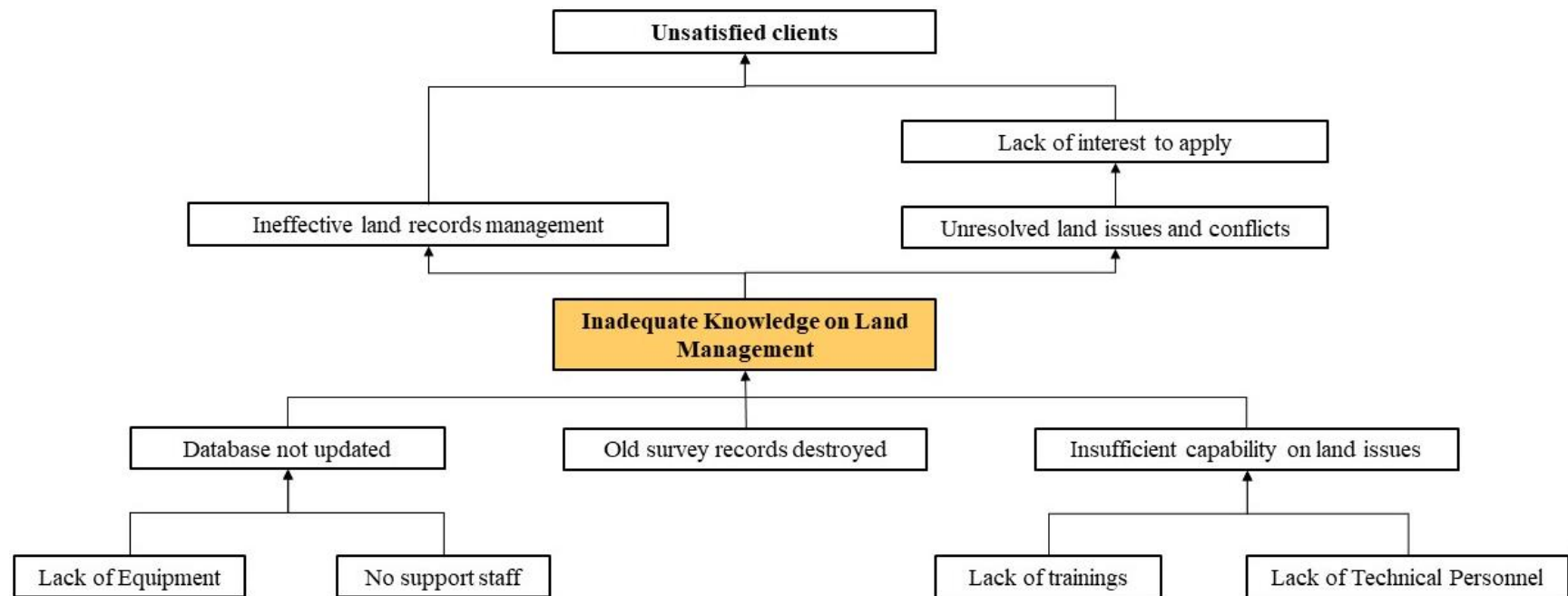
There are some factors which directly contributed to such problem. These include the existence of land conflicts within an area. There are situations wherein claimants have conflict/issues on the portions of lands that they claimed may it be boundary conflicts or others.

Other residences also are not within the residential zone. Hence, cannot be issued with LGU certification. And the usual reason is that residential zoned areas were already covered with a title.

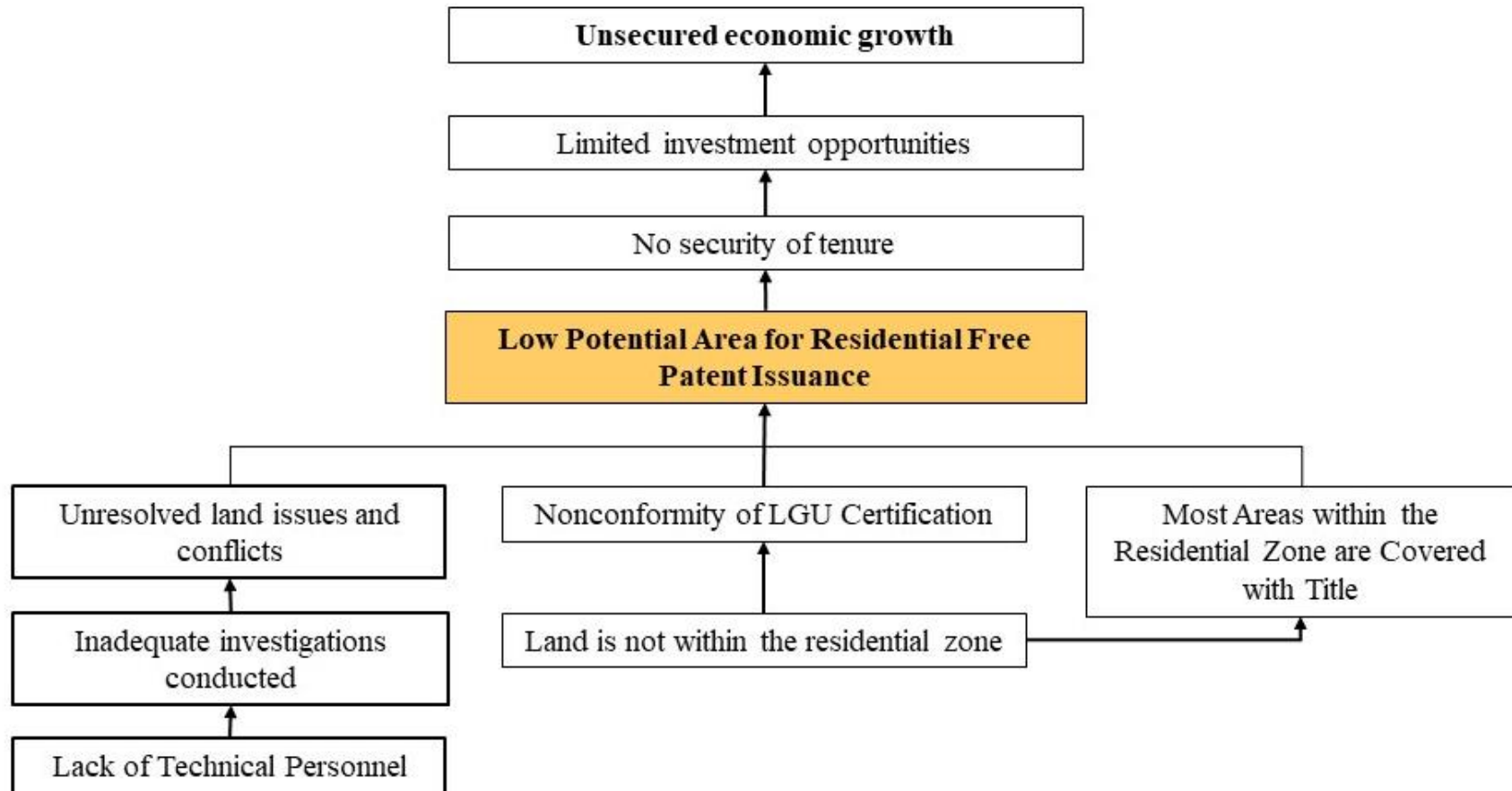
Concerning agricultural free patent, the province found difficulty in determining the potential areas for the reason that there is no updated baseline data due to the inadequacy of the assessment being conducted.

All of this problems, both in residential and agricultural free patents, could further result in lack of security of tenure which will serve as an instrument to be used of other investment opportunities and even to access government assistance. If left unresolved, this may lead to unsecured economic growth of the community.

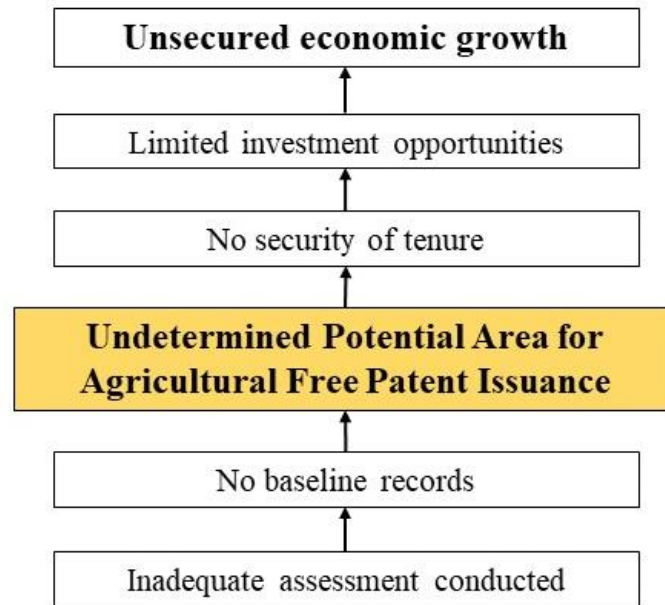
**Diagram 1.2.1 ZSP Problem Tree - Land Management**



**Diagram 1.2.2 ZSP Problem Tree - Land Disposition (Residential)**



**Diagram 1.2.3 ZSP Problem Tree - Land Disposition (Agricultural)**



## **FORESHORE**

According to the Philippine Fisheries Code of 1998 foreshore is “string of land margining a body of water, the part of a seashore between the low waterline usually as the seaward margin of a low tide terrace and the upper limit of wave wash at high tide usually by a beach scarp or berm.”

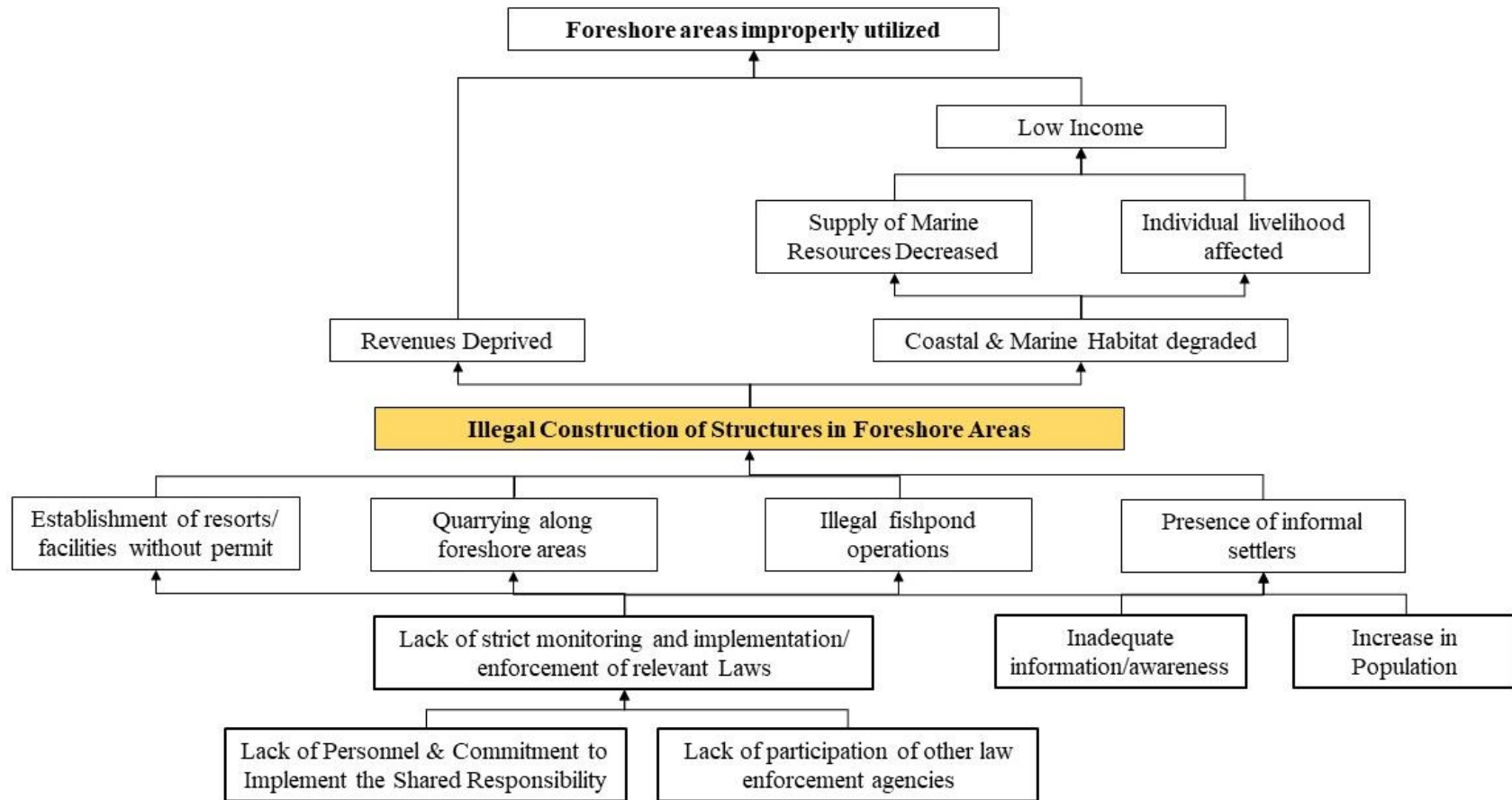
Zamboanga Sibugay had already prepared the Provincial Foreshore Management and Development Plan covering the period of 10 years (2019-2028). This will serve as a guiding framework on the best management scheme to be adopted in a specific environment particularly on the identification of the highest and best use (legally permissible, ecologically viable, economically valuable, socially acceptable and compatible with adjacent land uses) of a particular area in the foreshore. And, to map out the current uses of the lands adjacent to the sea with the aim of better management and regulation.

Along with the formulation with the plan, an assessment was conducted. And it was found out that there are problems arising to our foreshore areas. The core problem is the illegal construction of structures to include the establishment of resorts and facilities which do not have Foreshore Lease Agreements (FLA). Quarrying within the classified foreshore areas was also present. These resulted from a lack of strict monitoring, implementation, and enforcement of relevant laws within the area. Occupancy of informal settlers is also considered to be part of the driving factors.

If all these problems will not be addressed, the coastal habitat where the community mostly depend to will be degraded. Thus, affect the income of the people particularly the fisherfolks. Revenues were also not properly collected. This could be proof that the foreshore areas improperly managed.



**Diagram 1.2.4 ZSP Problem Tree - Foreshore**

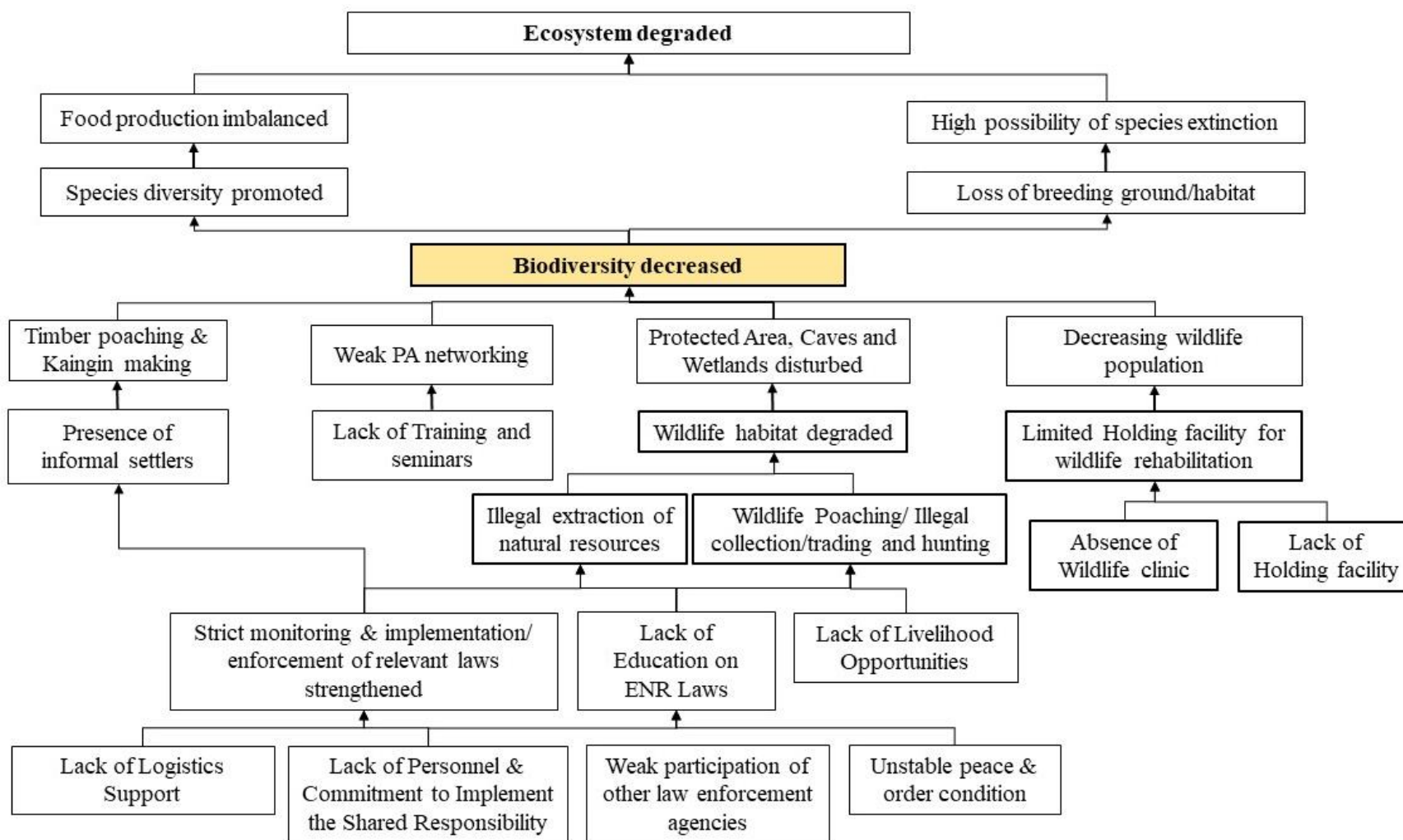


## **PROTECTED AREA AND BIODIVERSITY**

Many factors affect the core problem in Biodiversity is the decrease in Biodiversity. One is timber poaching and Kaingin-making which may be addressed with interventions/ activities from the forestry sector. A weak Protected Area networking also contributes to the core problem caused by inadequate trainings, seminars and capacity building for stakeholders and PASu staff. Another reason may be attributed to the disturbance in the Protected Area, Caves and Wetlands and decreasing wildlife population in the province, which includes degradation of wildlife habitat from illegal extraction of natural resource; wildlife poaching, illegal collection, trading and hunting and limited holding facility for wildlife rehabilitation.

Since the biodiversity is decreased, species diversity decline will lead to food production imbalanced. Moreover, loss of breeding ground/habitat will give a high possibility of species extinction. All these will lead to a longer –term problem which is Ecosystem degradation.

**Diagram 1.3 ZSP Problem Tree - Protected Area & Biodiversity Sector**



## **COASTAL AND MARINE**

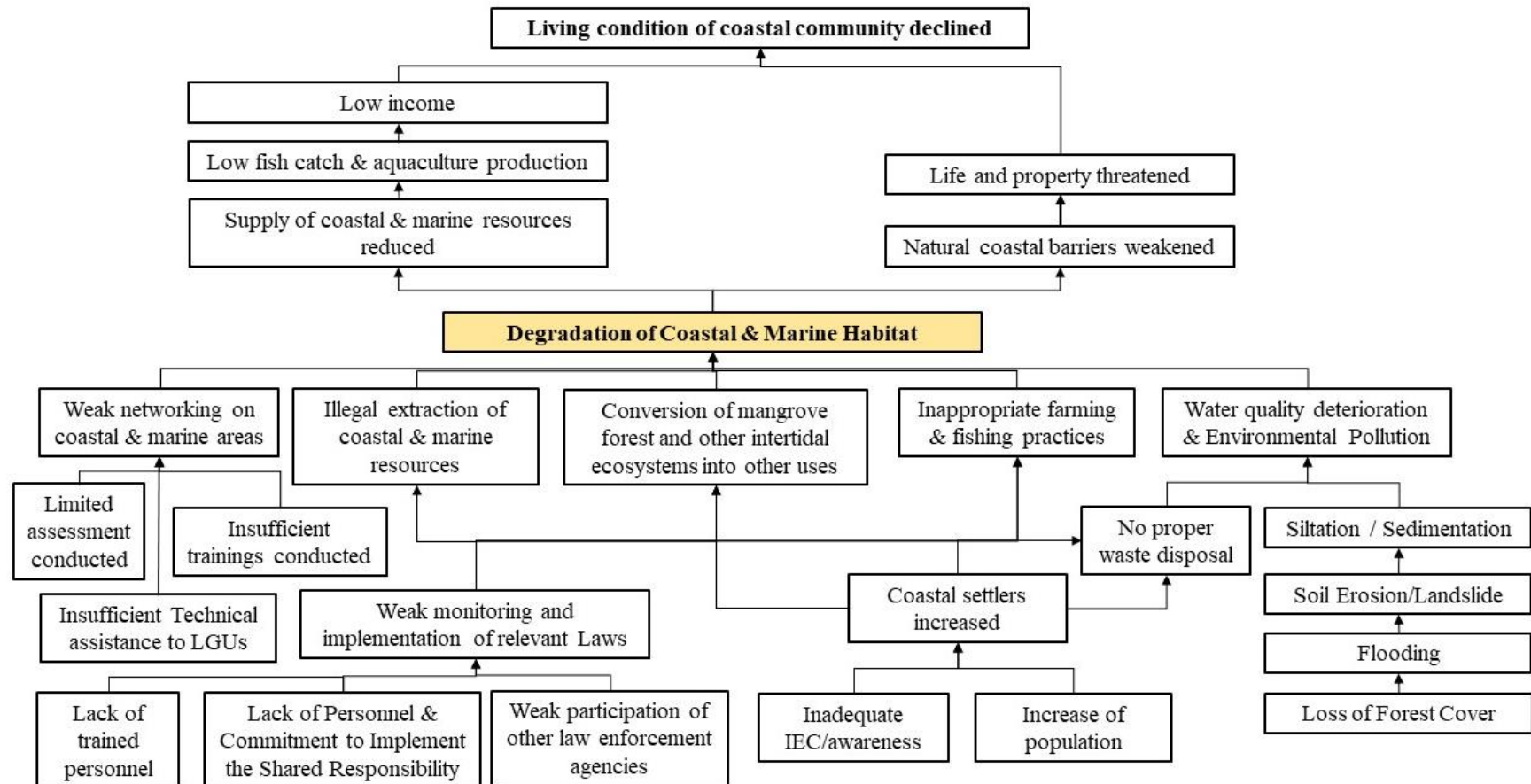
Coastal resources include all natural resources occurring within coastal waters and their adjacent shorelands. Coastal resources include islands, transitional and intertidal areas, salt marshes, wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs which are considered to be home of most of the marine species. The coastal ecosystem also plays as protection against environmental hazards.

Coastal resources within Zamboanga Sibugay plays an important role in the economic development of the province wherein most people in the community depends on their livelihood and food supply. However, people are unaware that there are areas in which extraction is prohibited, and should be conserved and protected instead.

Weak networking on coastal & marine areas due to the limited marine assessment conducted within the Zamboanga Sibugay Province, to include lack of technical assistance to LGUs and insufficient training to technical staff, is one of the immediate causes of the Degradation of coastal & marine habitat. Other factors contributing to the degradation include illegal extraction of coastal & marine resources, conversion of mangrove forest and other intertidal ecosystems into other uses, and inappropriate farming & fishing practices. The weak monitoring and implementation of relevant laws play an important part in all these. Loss of forest cover leads to flooding which then leads to soil erosion and landslide. It will then cause siltation and sedimentation, which plays a role in Water quality deterioration & Environmental Pollution, the last element of the core problem.

Because of this degradation, the supply of coastal & marine resources reduced, which will lead to low fish catch & aquaculture production. The effect of this is low-income to fisher folks and other coastal residents. To another angle, degradation will lead to weakened natural coastal barriers. It will then cause a threat to life and property. All these will eventually lead to a declined living condition of the coastal community.

**Diagram 1.4 ZSP Problem Tree – Coastal and Marine**





## **Zamboanga City**

Zamboanga City faces various development constraints and challenges that need to be addressed in order to move forward. The social sector deals with the issues that directly affect Zamboanga City's residents. Issues that will be covered in this section include Demography, Education, Employment, Health, Housing, Social Welfare Programs, and Protective Services.

As of July 2016, a total of 24,202 households are living in informal settlements both private and government-owned lands. Approximately 21% of the said households are also situated in hazardous areas such as the shorelines and riverbanks. Several of these informal settlers are indigenous people like the Samal and Badjaos. With that, pollution comes in different forms: air, solid, and water. This is an issue that could give negative long term effects not only to the environment but also to the citizens if it is not mitigated.

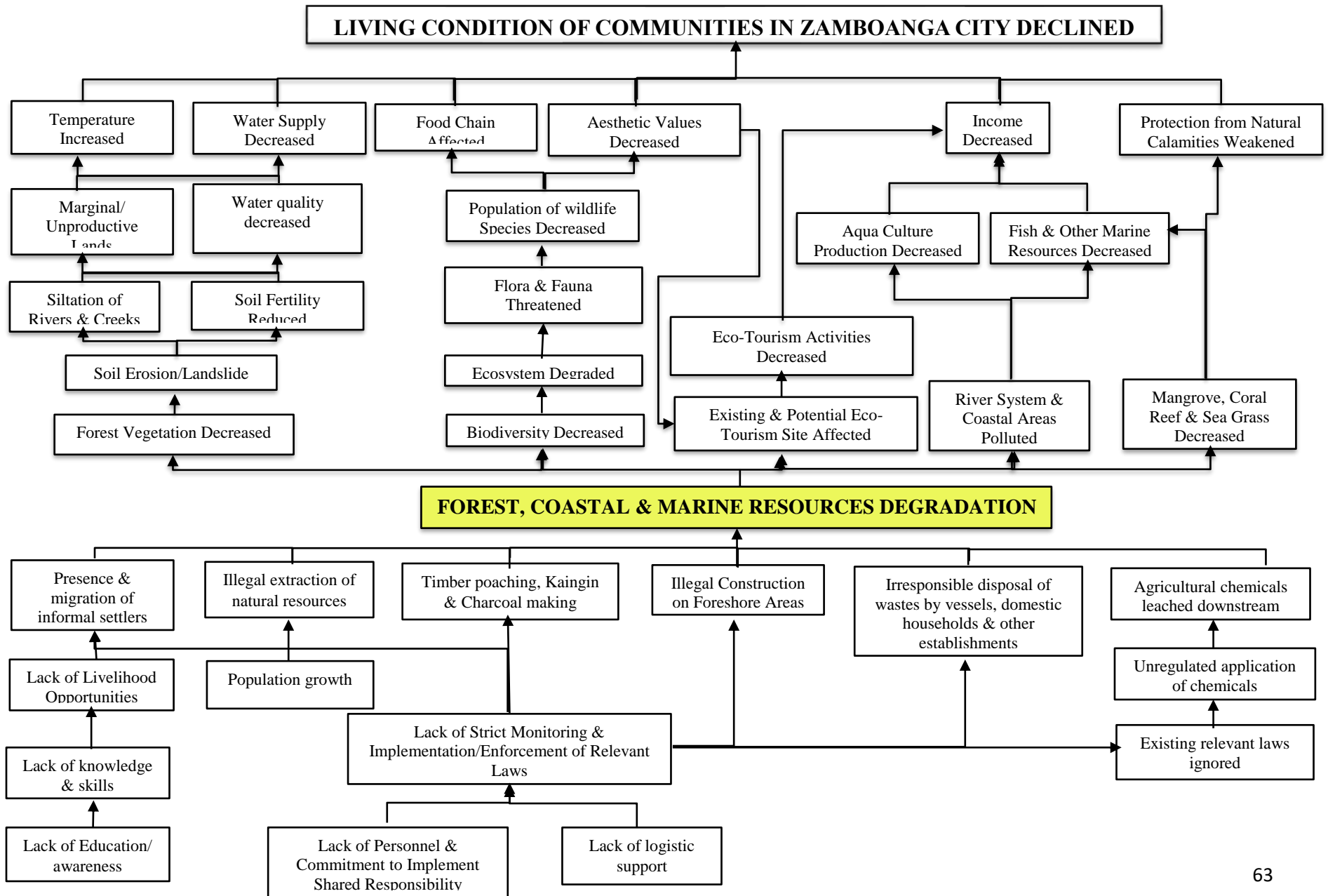
As per observation, the city proper and poor communities, particularly with informal settlers are the most exposed to almost of the problem because of the incapability of the area to cope with the occurring rapid urbanization. This rapid urbanization is reflected by the increasing number of developments and industries within the city. In effect, there would be a prevalence of various sicknesses such as respiratory problems, gastroenteritis and untreated diseases to name a few.

With the population increasing at a growth rate of 2.38%, there will be a 21% increase or 159,188 tons of waste generated by 2025. For 2015, 87,149 tons (63.86% of the total) of the generated waste was collected, and 49,323 tons (36.14% of the total) was disposed or dumped into water bodies. There will be an increase in the total volume of solid waste in the city if there are no effective management measures to regulate waste is to be taken. This could negatively affect the residents particularly the most vulnerable groups such as the senior citizens, women, and children of Zamboanga City since this could be potential sources for various diseases, and could greatly damage the natural environment if not handled and managed properly.

One of the most prioritized issues to consider is the contamination of water supply sources. Various developments have to consider its effect on the environment especially

since the water supply of Zamboanga City is considered to be limited. An implication of this issue is the risk of acquiring waterborne diseases such as skin disease and diarrhea which are some of the top causes of morbidity and have mostly affected the children. It was revealed that there are 27 barangays that are experiencing water supply deficit as of the year 2016, namely, Sta. Barbara, Rio Hondo, Mariki, Kasanyangan, Arena Blanco, Campo Islam, Lumbangan, Maasin, Tulungatung, Cawit, Recodo, Ayala, Sangali, Zambowood, Labuan, Guisao, Lanzones, Tolosa, Vitali, Lamisahan, Lumayang Tictapul, Cacao, Capisan, Baluno, Licombo, and Mampang, which has the largest water deficit experienced amounting at 1,110,373 cubic meters. This issue could be greatly worsened when El Niño occurs.

**Diagram 1.5 Zamboanga City Problem Tree**



## **FORESTRY**

The current situation of Forestland and Forest Resources of the City is most likely to aggravate due to the continuous illegal activities perpetuated by informal settlers and influx of migrants/forest occupants and traders which depend most of their livelihood/source of income on the existing forest and forest resources.

Significantly, open access areas of the forestland are most vulnerable in terms of illegal extractions of natural resources. Consequently, timber poaching, charcoal making, and slash & burn activities contribute much of the denudation and destruction of natural habitats and eventually the ecosystem as a whole.

It can be gleaned from the perspective view of the problem tree diagram, that the lack of education, increase in population/migration and lack of livelihood opportunities are the major causes of forest and forest resources dwindling situation. Furthermore, ENR and other relevant laws are being ignored due to lack of proper awareness and concerns on the environment, and natural resources can provide both short and long term benefits that can be derived.

The present conditions and setbacks if left unabated may lead to a more devastating situation in the near future. Though there have been attempts done to prevent these illegal activities within the forest and forest resources, still the lack of strict monitoring and implementation/enforcement of relevant laws. This can be attributed to the lack of personnel and commitments of other agencies/ stakeholders in terms of shared responsibilities, and environmental concerns, particularly in the preservation, conservation and protection aspect.

Eventually, the long term effect of the core problem identified may lead to forest degradation and will result to decrease in forest vegetation, biodiversity, increase the occurrence of soil erosion/ landslide/ flashflood which contributes to the situation of rivers/ creeks. On the other hand, flora and fauna will be threatened and could reach the level of critically endangered species and possible extinction. In terms of other environmental attributes, the supply of water will be greatly affected by both quantity and quality. Soil

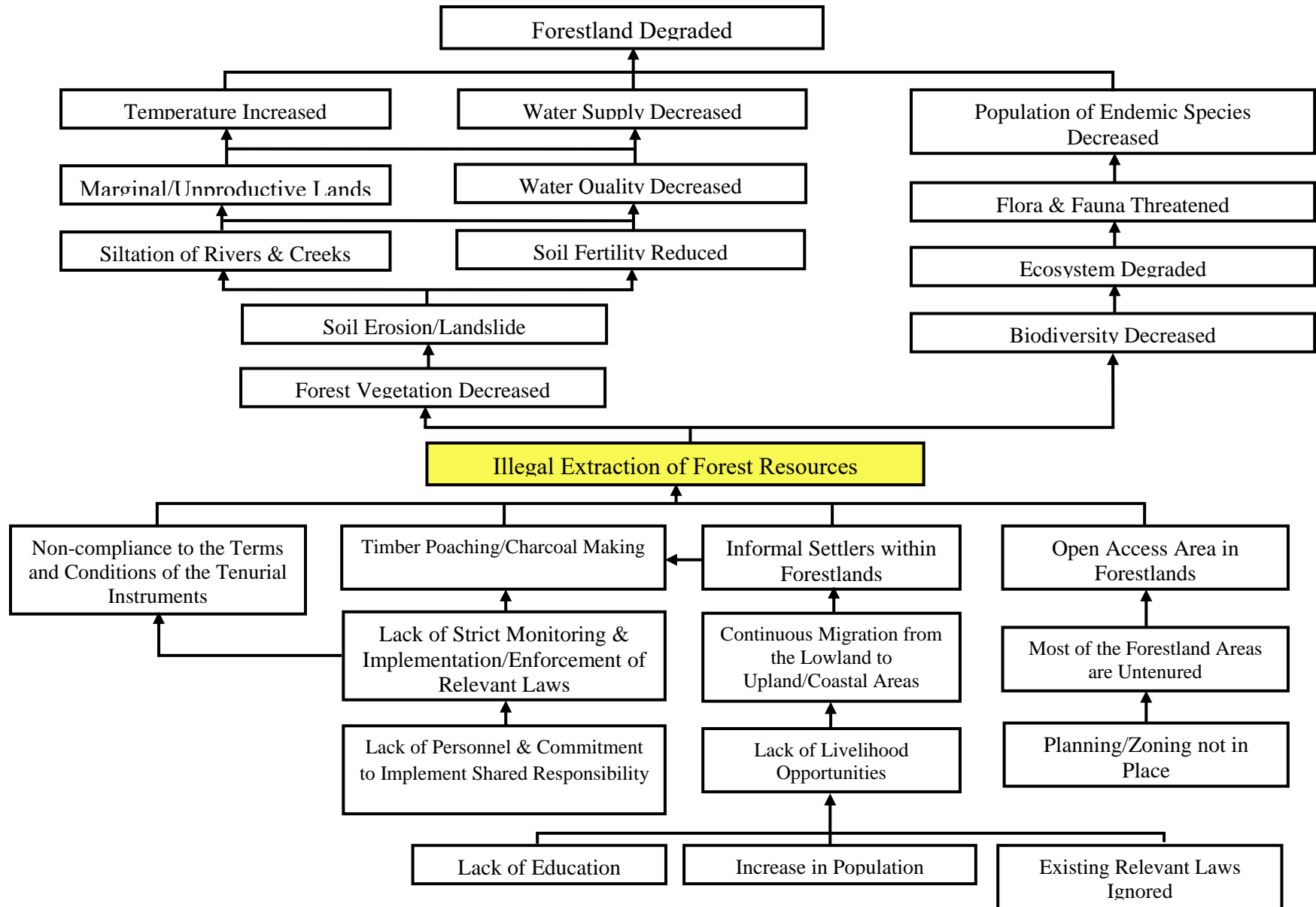
fertility will be drastically reduced thereby rendering unproductive lands. Meantime, an increase in temperature is likely to happen due to the loss of forest vegetation.

Evidently, climate change has been felt as early as 2000. This was the effect of global warming which have been reported worldwide due to various environmental destruction made by human intervention and natural causes. Despite the level of awareness, advancing, treaties forged, to combat the problem of climate change due to global warming.

Generally, the overall outcome of the identified causes and its effect will result eventually to a more serious problem and will greatly affect the living conditions of the communities in Zamboanga City



**Diagram 1.6 Zamboanga City Problem Tree – Forestry**



## **LANDS**

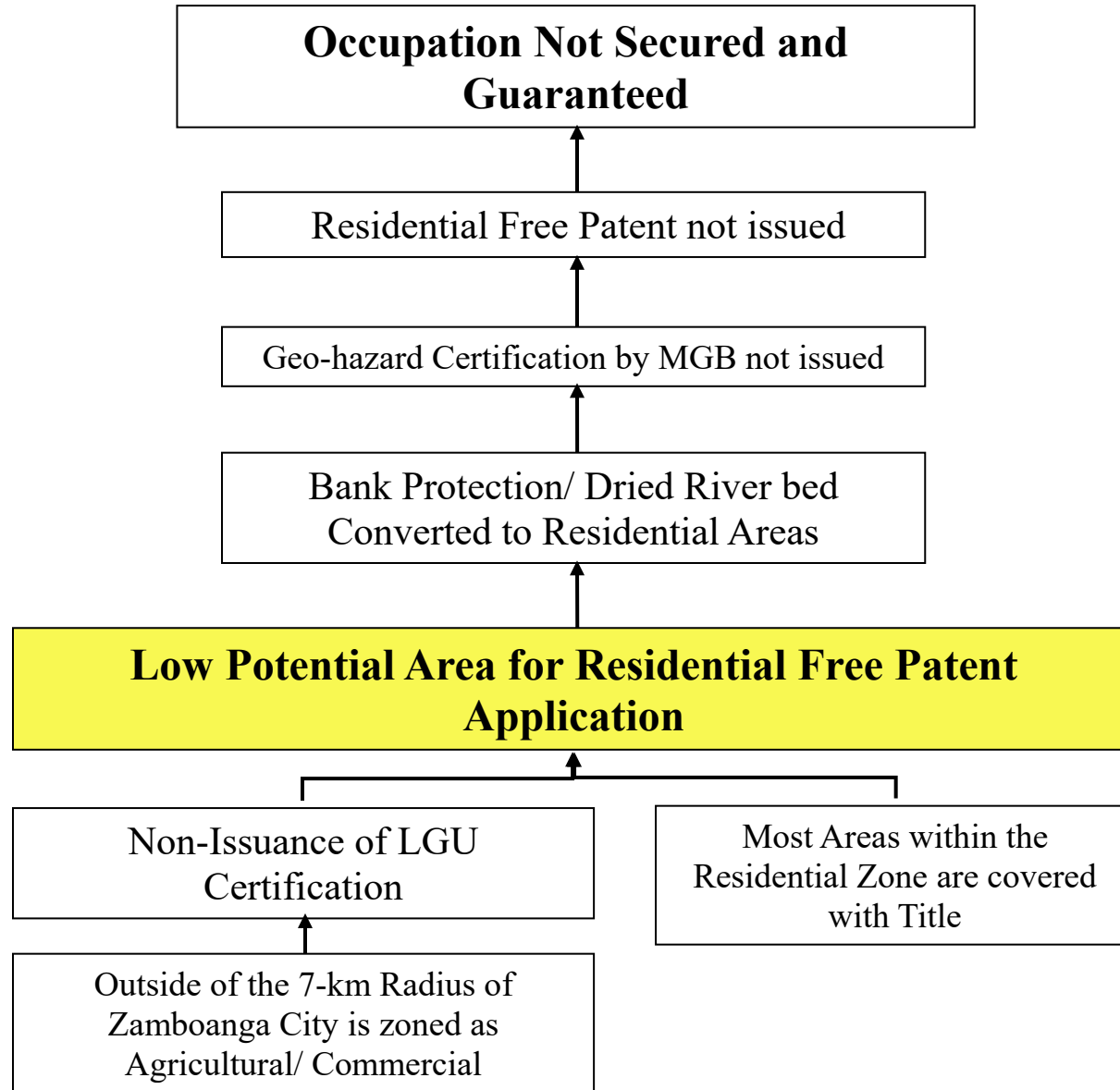
### **Residential**

One of the essential requirements for a residential free patent is a certification from the Local Government Unit (LGU) that the area is within the residential zone. However, most areas within the residential zone of Zamboanga City area already covered with title/patent. Moreover, areas outside the seven (7) kilometer radius of the city are zoned as agricultural or commercial. In effect, areas being utilized for residential purposes outside the seven (7) km. radius could not be issued certification as areas zoned as residential.

Since most areas within the residential zone are already covered with title, people opt to build/construct their residential houses within bank protection and dried river bed, hence, certification necessary for a residential free patent could not be secured as well as the issuance of Geo-hazard certification from the Mines and Geo-Sciences Bureau.

As a result, lots in those areas to include areas outside the 7 km. radius being utilized for residential purposes could not be issued title/patent, thereby, the occupation of which is not secured and guaranteed.

**Diagram 1.7.1 Zamboanga City Problem Tree – Land Disposition (Residential)**



## **FORESHORE**

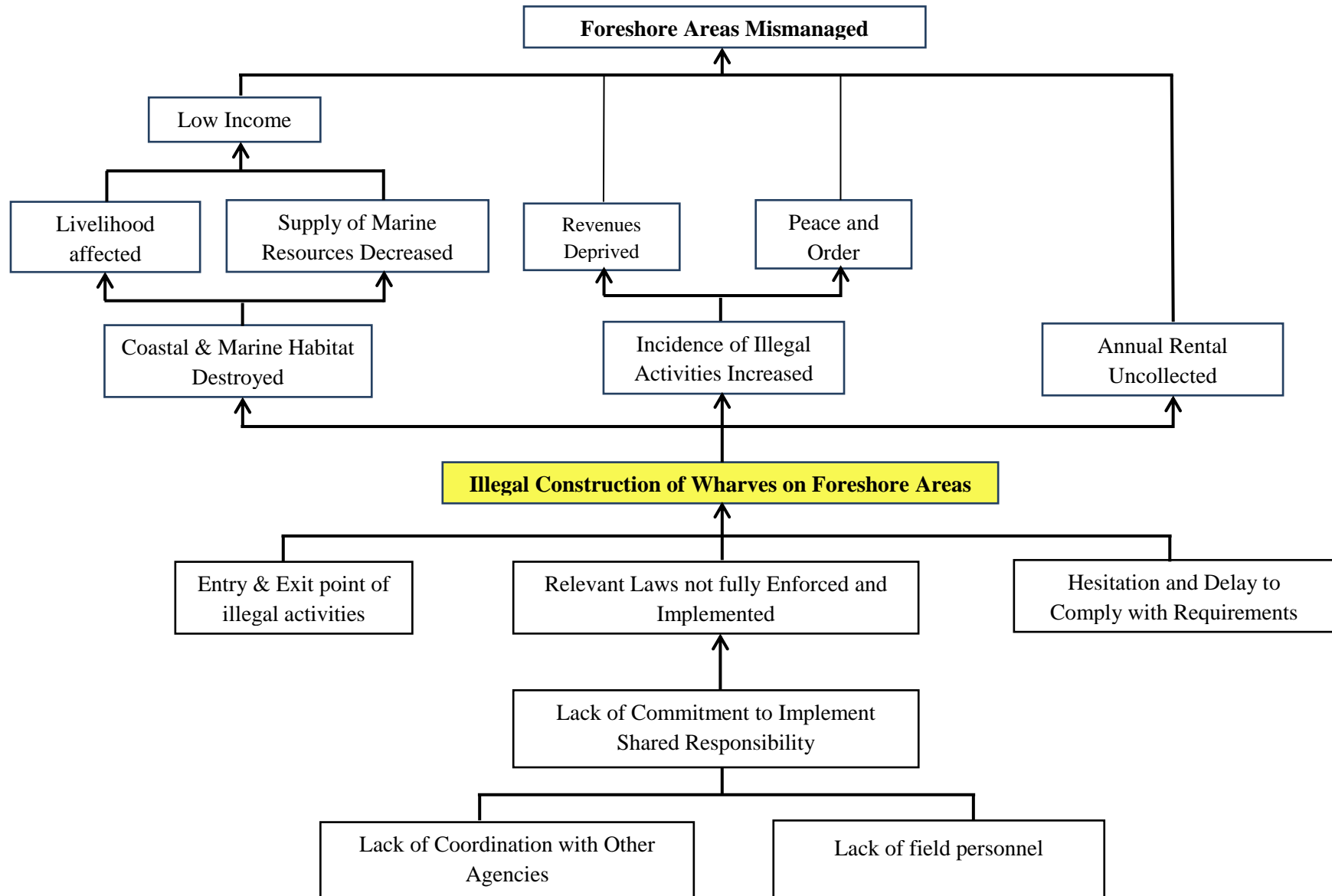
The proliferation of illegal construction of wharves on foreshore areas is caused by the illegal activities in the area, the illegally constructed wharves serve as the entry and exit point of said illegal activities, this is so, because relevant laws are not enforced and implemented fully due to lack of commitment of concerned agencies to implement the shared responsibility, lack of coordination and insufficient number of field personnel.

Another reason for not securing the necessary permits prior to the construction of the wharves is the hesitation of the proponent to comply with all the long list of requirements as well as complying other environmental requirements to ensure the preservation of coastal and marine resources.

Construction of wharves on foreshore areas without being subjected to environmental impact assessment system would tantamount to coastal and marine habitat destruction, hence, the supply of marine resources will be decreased thereby affecting the livelihood/income of the residents in the area.

Since these wharves are not covered with the necessary permits fees/revenues due to the government could not be collected. In the absence of the necessary permits from the concerned agencies both national and local, relevant laws and monitoring in the area could not be affected, hence, posing threat to the peace and order in the area as well as in the whole City.

**Diagram 1.7.2 Zamboanga City Problem Tree – Foreshore**





## **PROTECTED AREA**

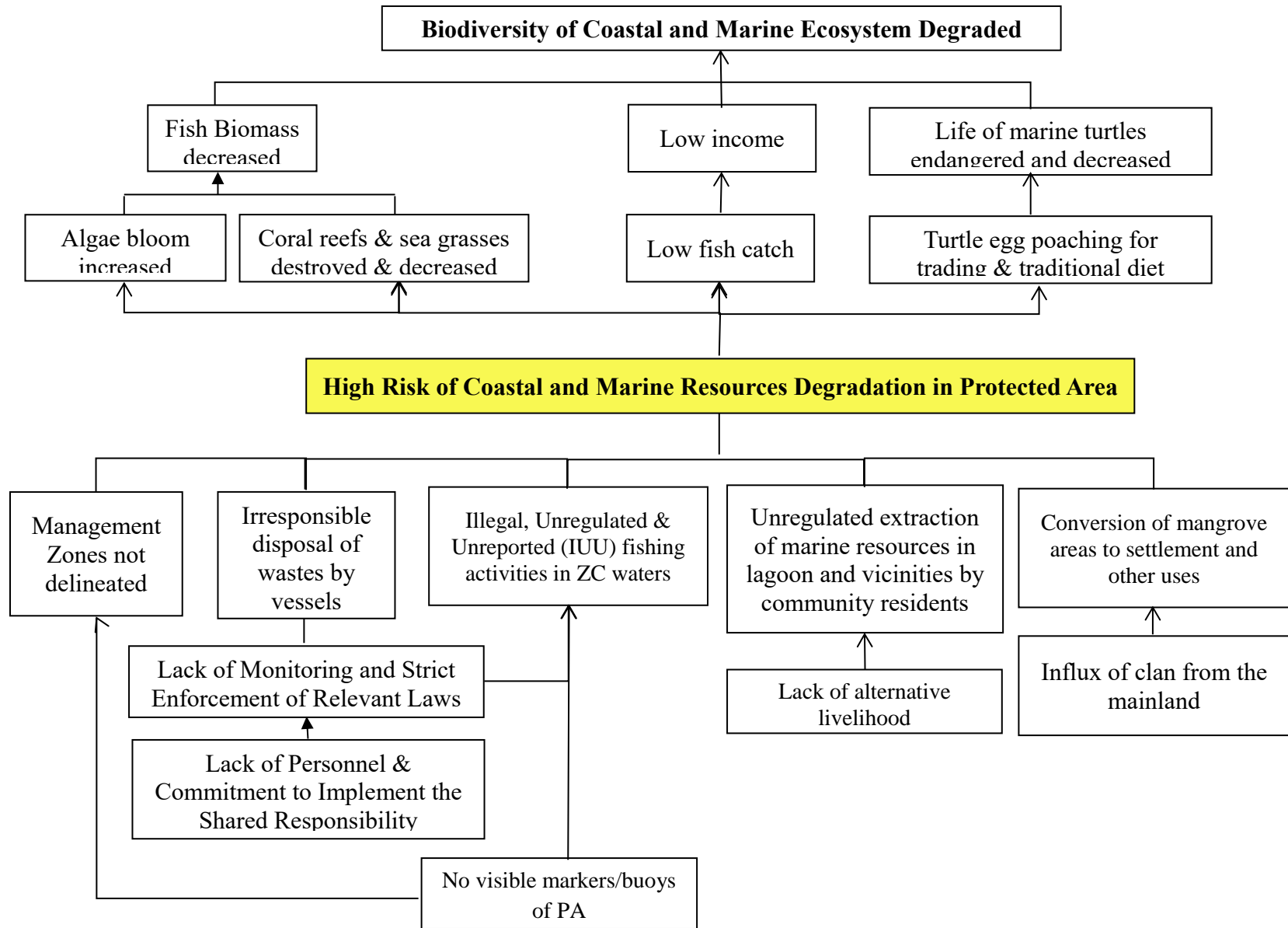
The protected area sector arrived with a core problem of a high risk of coastal and marine resource degradation in the protected areas. They raised and addressed the immediate causes of why it is the core problem. These are the immediate causes, management zones not delineated, irresponsible disposal of wastes by vessels, illegal, unregulated & unreported (IUU) fishing activities in Zamboanga City waters, unregulated extraction of marine resources in lagoon and vicinities by community residents, conversion of mangrove areas to settlement and other uses. The intermediate causes are lack of monitoring and strict enforcement of relevant laws, lack of personnel & commitment to implement share responsibility, no visible markers/buoys of protected area boundaries, lack of alternative livelihood, and the influx of clan from the mainland. The immediate effects of the said core problem are algae bloom increased, coral reefs & seagrasses destroyed & decreased, low fish catch and turtle egg poaching trading & traditional diet, with the intermediate causes are the fish biomass decreased, low income and life of marine turtles endangered and decreased. The protected area sector arrived with overall problem is the biodiversity of coastal and marine ecosystem degraded.

## **BIODIVERSITY**

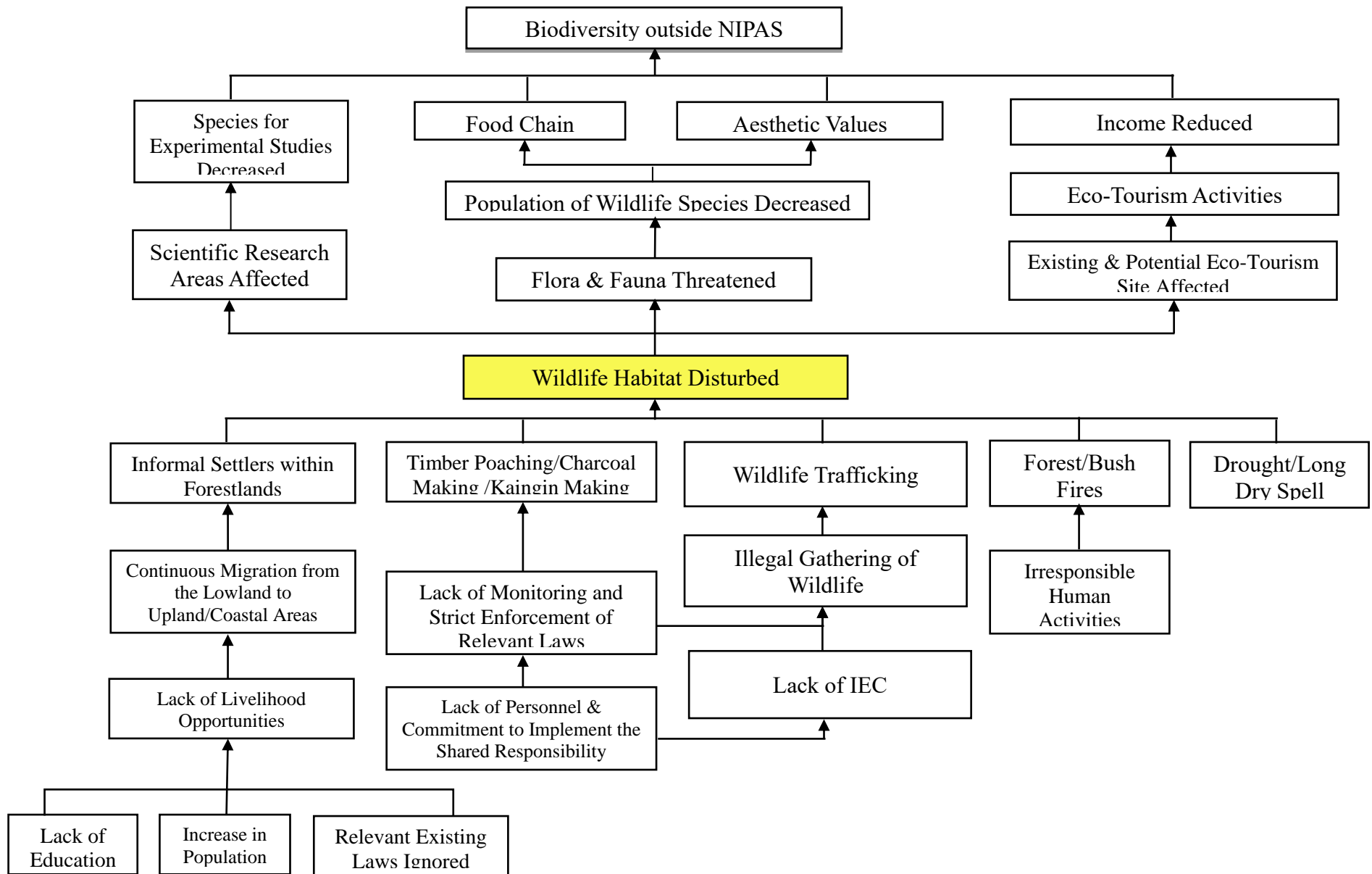
The body brainstormed, discussed and attained with a core problem of wildlife habitat disturbed. The body addressed the immediate causes to the core problems are the informal settlers within forestlands, timber poaching/charcoal making/ kaingin making, wildlife trafficking, forest/bush fires and drought/long dry spell. With its intermediate causes are the continuous migration from the lowland to upland/coastal areas, lack of livelihood opportunities, lack of education, increase in population, relevant existing laws ignored, lack of monitoring and strict enforcement of relevant law, lack of personnel & commitment to implement shared responsibility, illegal gathering of wildlife, lack of IEC and irresponsible human activities involving fire. After addressing the causes to the core problem the body discussed what the possible effects to the said problem are and they came up with the intermediate effects are scientific research areas affected, flora and fauna threatened and existing & potential eco-tourism site affected. The intermediate effects are

the species for experimental studies decreased, the population of wildlife species decreased, food chain affected, aesthetic values decreased, ecotourism activities decreased and income reduced that resulted in biodiversity outside NIPAS decreased.

**Diagram 1.8.1 Zamboanga City Problem Tree – Protected Area**



**Diagram 1.8.2 Zamboanga City Problem Tree – Biodiversity**



## COASTAL AND MARINE

The Philippine archipelago is endowed with ecologically diverse and economically important coastal resources such as coral reefs, mangroves, estuarine areas, beaches, and a variety of fisheries. The coastal areas and seas have served as the lifeblood of communities near and far for hundreds if not thousands of years. (White and Cruz-Trinidad 1998).

Despite these important direct and indirect benefits to humans, coastal resources in the Philippines are being severely degraded (White and Cruz-Trinidad 1998).

For Zamboanga City, the perennial problems, pressures/threats that contribute to the degradation of these coastal resources are: Irresponsible disposal of waste by passengers of sea vessels, domestic households and commercial establishments, Conversion of Mangrove Areas to Settlement and for other Uses.

On the other hand, Illegal and unregulated fishing is considered as a major threat. Also, excessive/unregulated use of agricultural chemicals such as pesticides and other poisonous substances poses hazards to marine and coastal resources when leached downstream. In like manner, siltation/sedimentation due to erosion and flashfloods also destroys life forms.

The improper disposal of waste by the passengers of some sea vessels who use some single-use plastics, prevalent throwing and dumping of domestic wastes in the river and coastal areas by the communities living there at cause the clogging of drainage canals and masses of plastic trash swirling in sea water cause degradation of our coastal resources. Solid wastes that are considered non-biodegradable like plastics, styro-foams are mistakenly eaten as food by fishes and other marine animals which cause suffocation and eventually lead them to death.

In addition, some commercial establishments are directly and discriminately disposing their untreated wastewater in rivers and other water bodies leading to the sea which causes water pollution.

With regards to conversion of mangrove areas, people prefer to settle along coastal areas and convert the area into residential, commercial and industrial establishments. They



often disregard the importance of mangroves as potential coastal habitat that nurture various marine life. Consequently, if conversion of mangrove areas is continued, destruction of sea grass and coral reef ecosystems will be greatly affected leading to degradation of coastal resources and the environment as a whole.

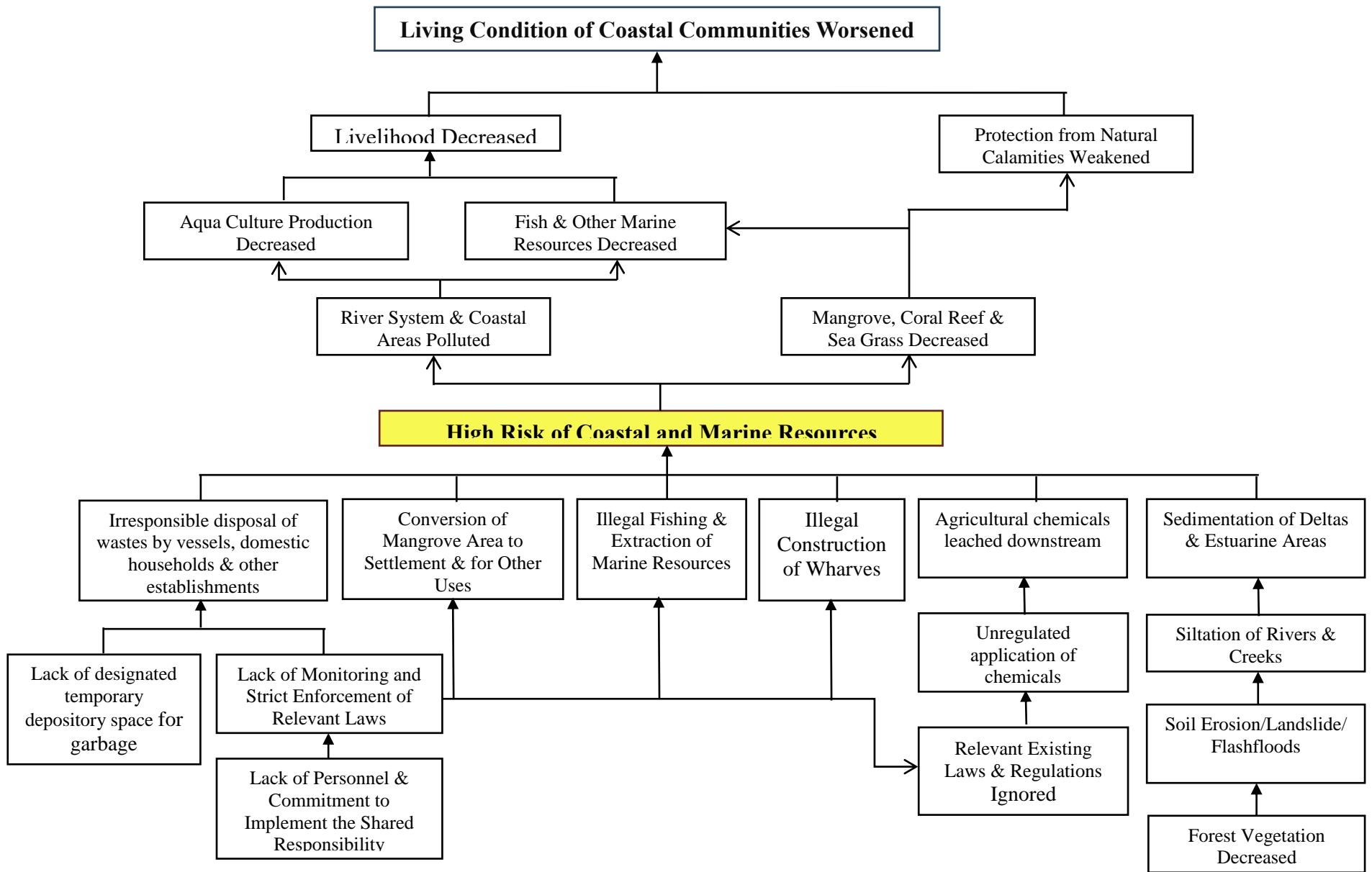
Another immediate cause of the coastal and marine resources degradation is the unregulated and unreported illegal fishing activities such as the use of dynamite, trawls and other illegal methods which contributes degradation of coastal resources thereby decreasing the production/population of fish and other marine resources.

The above-mentioned immediate causes will eventually lead to pollution of the River System and Coastal Areas and definitely decrease the production of aqua culture, fish and other marine resources that will result to the decrease/loss of livelihood of coastal communities.

These issues are all clustered around human interventions and behavior collectively destroying our coastal resources and environment. Addressing the problems involve proper planning, management and appropriate use of coastal resources. Management of the coastal resources on the other hand is of great importance for sustainability as well as for economic benefits of the city in particular.

The protection, conservation and management of the coastal and marine resources should be the collaborative efforts, prime concern and responsibilities between the National Government Agencies and Local Government Units in accordance with their mandates and in partnerships with the identified stakeholders.

**Diagram 1.9 Zamboanga City Problem Tree – Coastal and Marine**



### **III. PLAN GOALS AND OBJECTIVES**

#### **Zamboanga Sibugay Province**

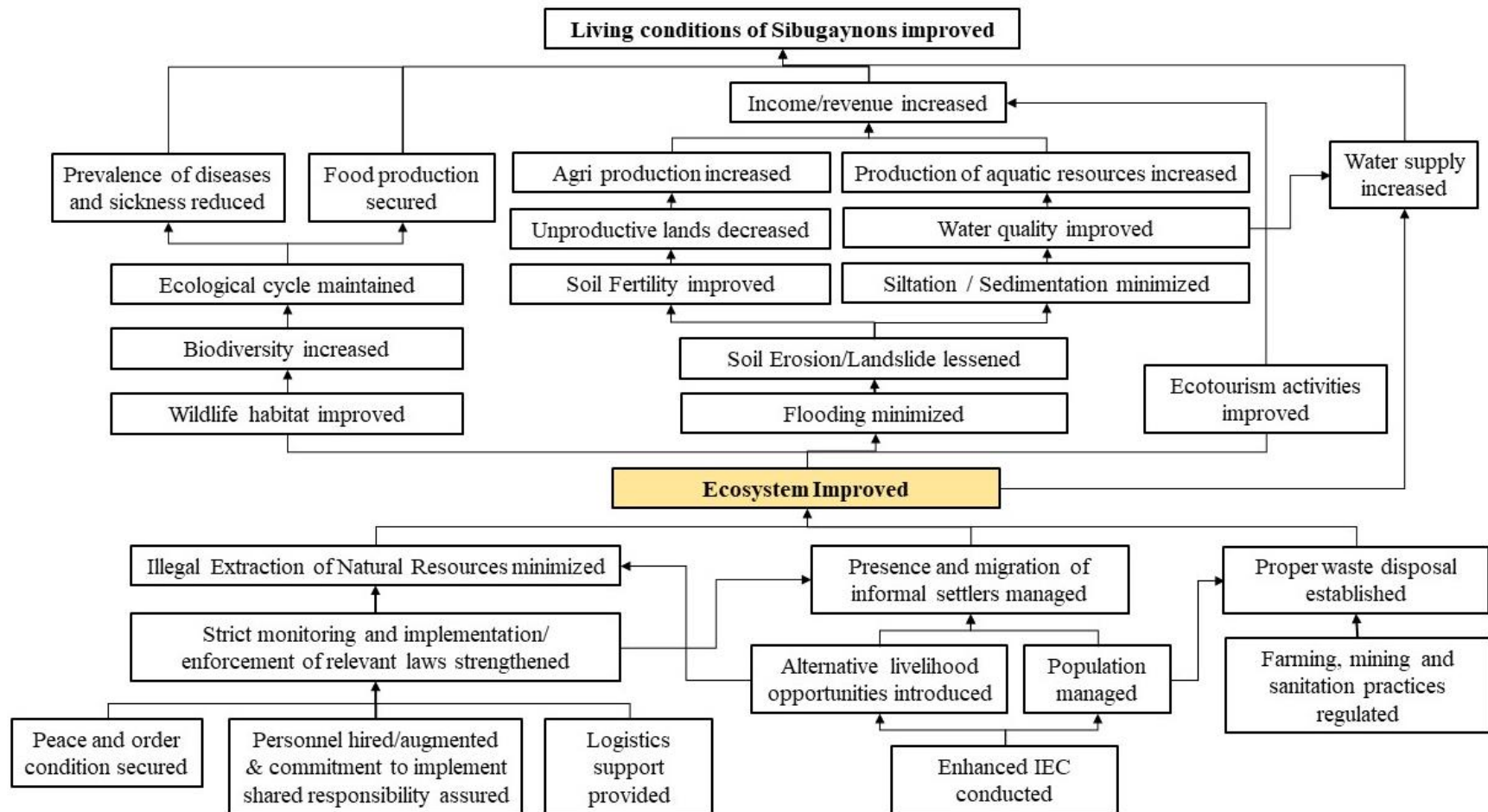
The plan aims to improve the living condition of Sibugaynons by initiating activities relating to the environment which is the primary source of their livelihood. Present activities conducted by the office contributed to addressing the core problem of the province. Strict monitoring, implementation/enforcement of ENR laws must be strengthened to include the consistent apprehension of illegally extracted resources and imposed proper sanctions. These would not be possible without the coordination of the other law enforcement agencies and the support of the Local Government Units. Thus, strengthening our networks to them will eventually lead to achieving our goals.

The community should be given awareness of these laws by linking them to different orientation training; giving them also the inputs for them to established their alternative livelihood. Proper waste disposal should also be introduced.

The outgrowing population should also be taken into consideration. Other government agency particularly the Population Commission should do continuous and constant awareness, particularly in family planning.

In effect, the wildlife habitat will be improved, thus ensuring the security of food production and even lower the incidences of sickness and diseases. With the protected and improved beauty of Nature, ecotourism activities will increase which will further give livelihood opportunities. With this, the living condition of the community will finally improve.

**Diagram 2. Provincial Objective Tree**



## **FORESTRY**

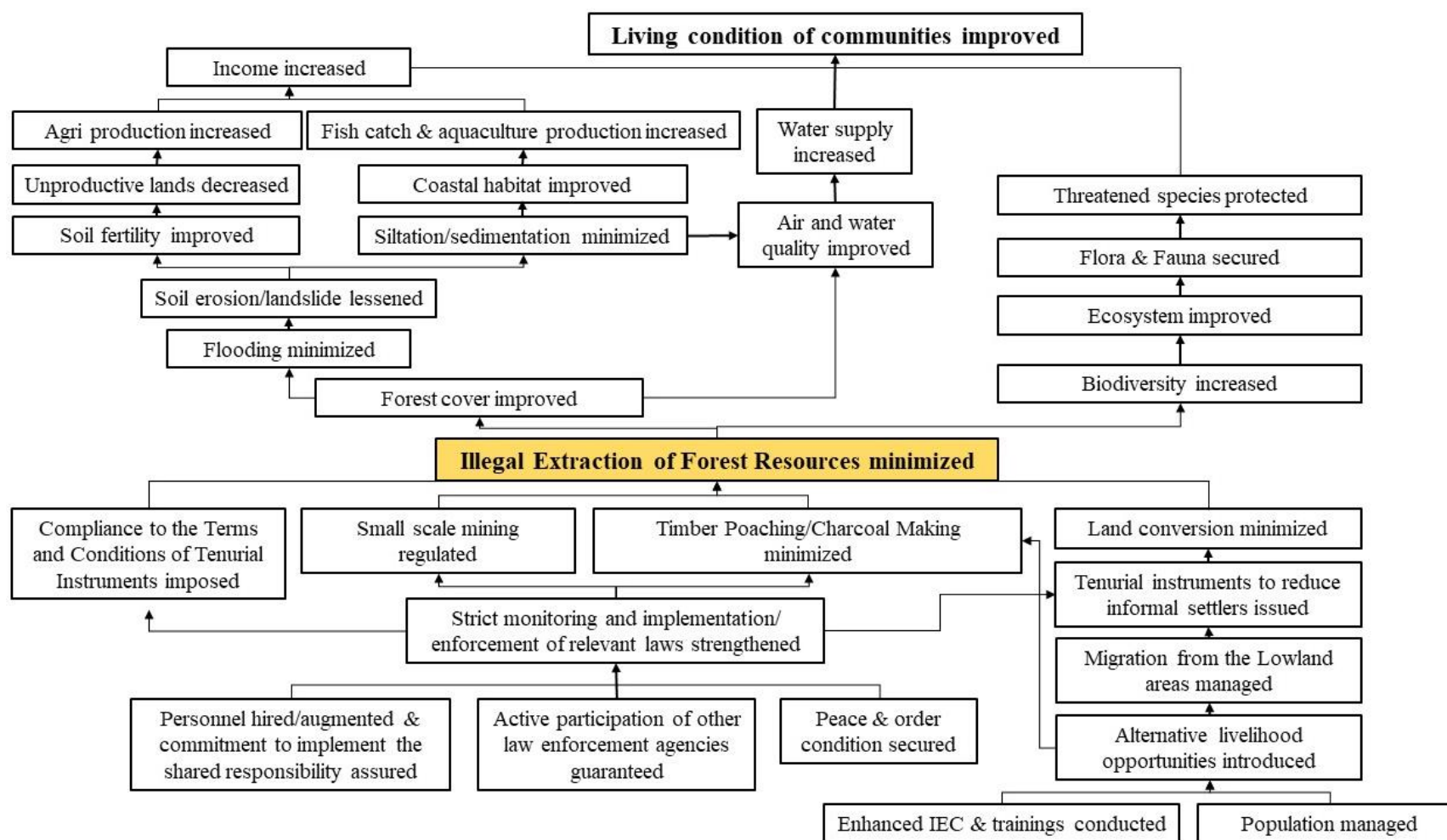
Forest must be managed sustainably to help reverse the effects of land degradation and deforestation. Widespread forest restoration and tree planting are significantly reducing the net loss of forest area. The DENR had conducted monitoring and enforcement of our forestland. In fact, monitoring stations were already established in some areas of the province (see Figure 23). The office also conducted patrolling through the LAWIN Forest and Biodiversity Protecting System wherein concerned personnel have identified their patrol routes (see Figure 24). Multi-Sectoral Forest Protection Committee is also strengthened. By continuously doing these activities, illegal extraction of forest resources will be minimized. Strict monitoring and implementation of relevant laws should also be considered as well as the support from other stakeholders.

Rehabilitation programs were also introduced. Presently the government initiated a reforestation program through the implementation of ENGP with the active participation of the partnered people's organization. This would also need the support of the respective LGUs where the project will be implemented.

All those initiatives will be ineffective if the growing population will not be managed. Thus, the help of other government agencies should also be integrated. Alternative livelihood should be introduced for the community who are previously dependent on the forest resources. Enhanced information, education, and communication campaign should be conducted to instill public awareness among the community and be informed of the existing laws.

Taking the same path in addressing those problems could lead to the improvement of the forest resources and ensuring its sustainability. Further, preventing the occurrence of natural calamities. Thus, may lead to the improvement of the living conditions of the community.

**Diagram 2.1 ZSP Objective Tree – Forestry Sector**





## **LANDS**

Enhanced land management strategies should be imposed in order to achieve satisfaction of the clientele. This factor will contribute to increase their interest to apply for patent. These strategies will be acquired from the trainings to be attended by the technical personnel. Other than that, land records should also be given priority by continuous maintenance of database. Support staff should be hired to ensure the maintenance of the database with regards to land patents. These will also probably address the unresolved land issues and conflicts.

Upon the assurance of effective land records management, client's interest to apply for land disposition may it be for residential, agricultural or special patent will increase. To further increase potential patentable areas, adequate assessment should be conducted. Detailed illustration of the objective can be seen in diagrams 3.2.1, 3.2.2 and 3.2.3.

**Diagram 2.2.1 ZSP Objective Tree - Land Management**

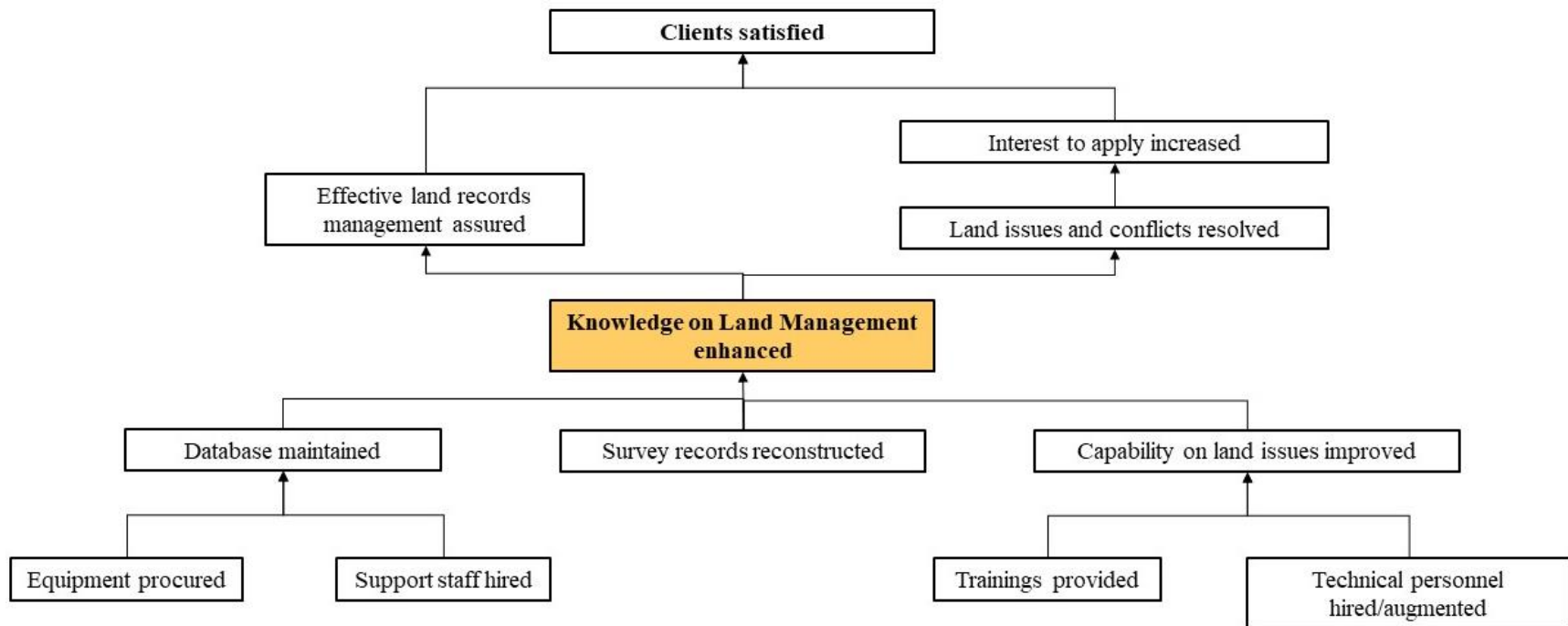
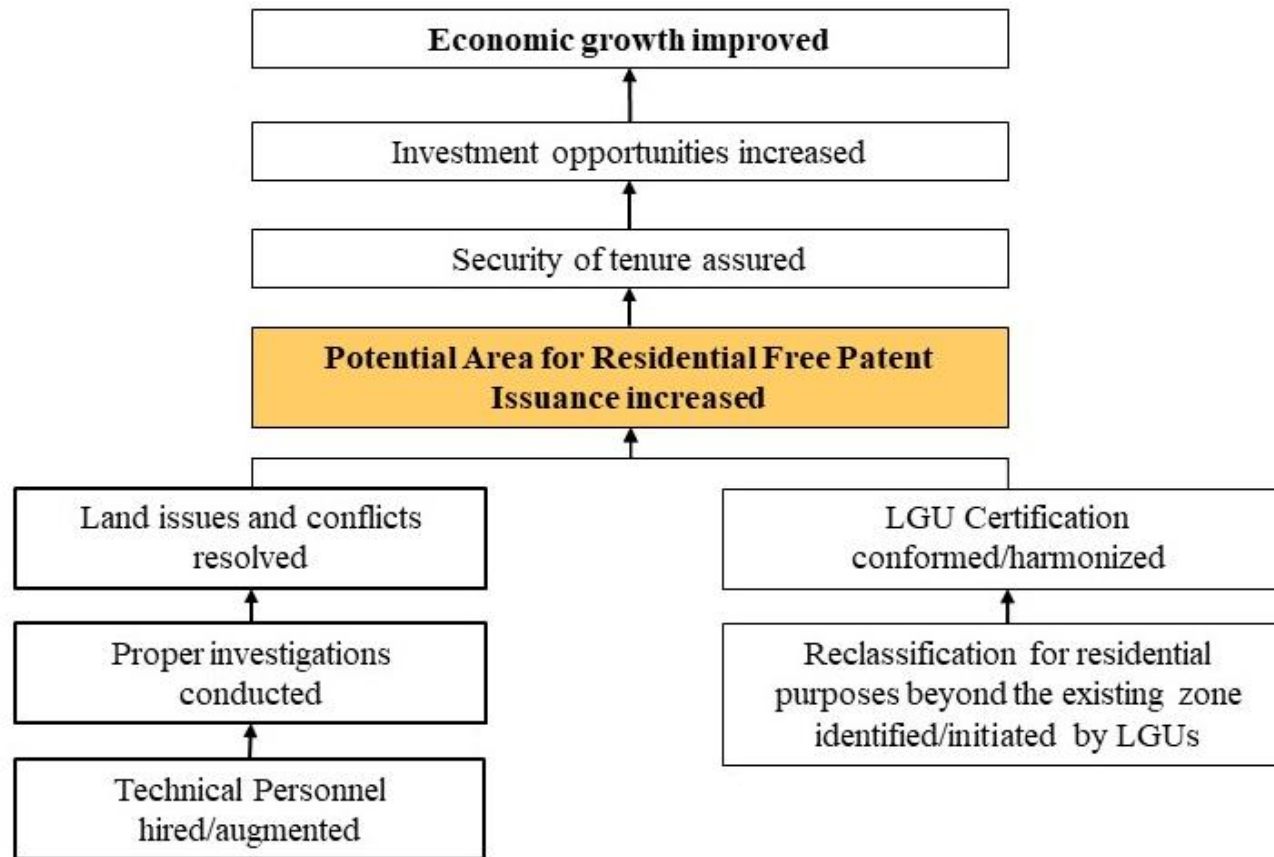
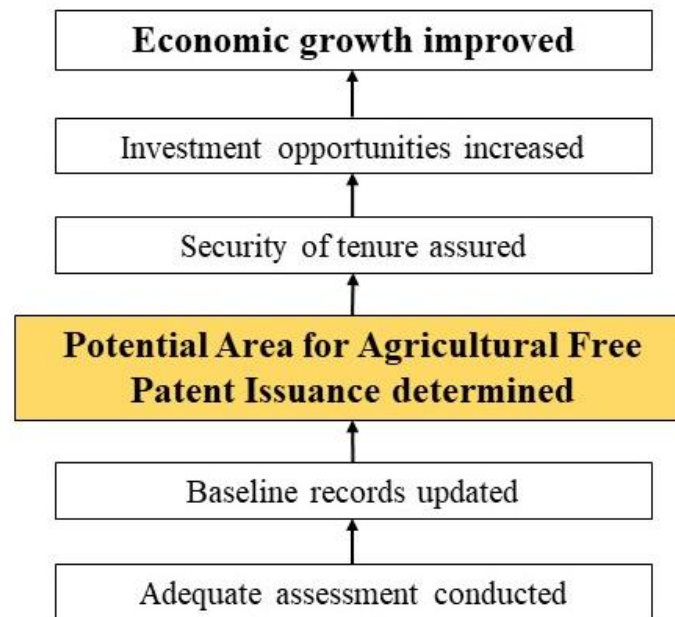


Diagram 2.2.2 ZSP Objective Tree - Land Disposition (Residential)



**Diagram 2.2.3 ZSP Objective Tree - Land Disposition (Agricultural)**



## **FORESHORE**

Zamboanga Sibugay had already formulated the Provincial Foreshore Development and Management Plan (PFDMP). Accordingly, upon the observation and assessment of the area, it was found out that there are illegally constructed structures therein which need to be addressed. It should start with the strengthening of the networks to Local Government Units and other concerned agencies. Both PLGU and MLGU should have an active participation in managing the foreshore areas. It is their best interest to ensure that the foreshore with their territorial jurisdiction is placed under effective management because it is where the constituents get their livelihood and generated income for LGU's. Therein it has been recommended that the LGUs should make ordinances regarding the foreshore areas not contrary to national laws, to include ordinances in establishing different kind of zones within the Foreshore areas such as: Industrial, Commercial, Recreational, Sports, Beach resort, eco-tourism, open space, mangrove rehabilitation, protected area, mix uses, special uses, storm surge protection, infrastructure and utility and Government use zone. It was further recommended that the coastal LGU's with mangrove areas should formulate their own ordinance to stop all cuttings of trees for economic and residential use. Solid waste problem should also be addressed.

Strict monitoring, implementation, and enforcement of relevant laws should be imposed and those who will violate and would be given proper sanctions. Personnel should be hired/augmented to conduct constant monitoring of the foreshore areas within the province. With this, illegal activities within the area will be minimized and regulated.

Likewise, informal settlers should also be managed. Most wastes are generated from the informal settler occupying the areas. The community should be given proper awareness by conducting enhanced Information, Education, and Communication campaign emphasizing to them the laws relating to this matter. They should also be given orientations and trainings on the introduction of other livelihood opportunities as their alternative source of income.

Assessment of all the illegally constructed structures should be conducted. They should enter into contract or Foreshore Lease Agreements. Appraisal/reappraisal of foreshore areas should be conducted as basis of annual rental by the lessee. The appraisal

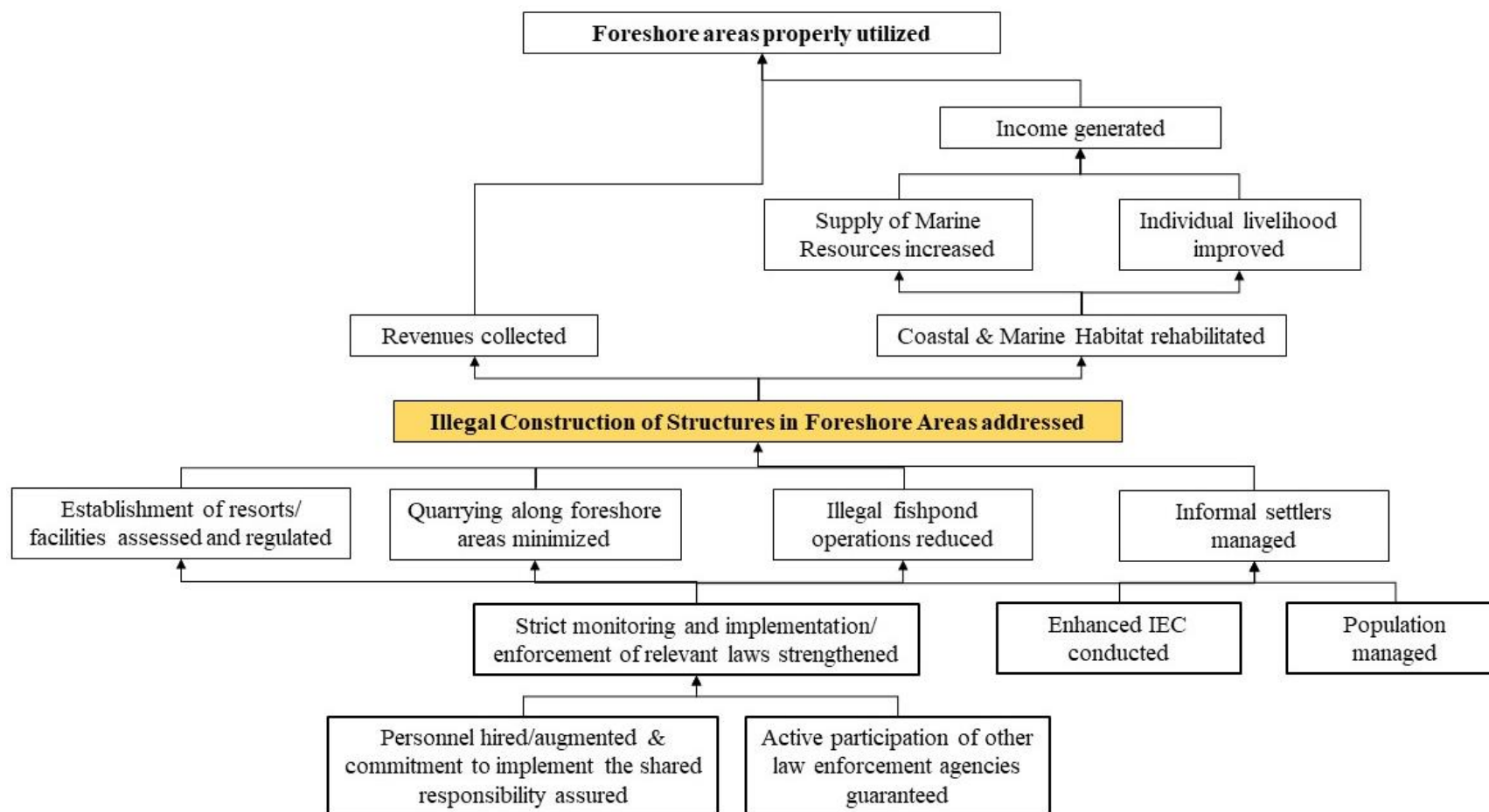
and/or reappraisal shall be in accordance with the manner prescribed in DAO 98-20 and DAO 2010-26.

As stated in the PFDMP, Communication, Education and Public Awareness to each coastal barangay about the proper management and protection of the foreshore areas as well as the risks that may happen should be conducted. It will promote and encourage understanding and develop education and public awareness programs. It should deal with the processes that attract, motivate and mobilize individual and collective action for biodiversity and brings out common interests amongst stakeholders to conserve and use biodiversity sustainably. It will help in managing the foreshore areas specially in preserving the biodiversity in the rich foreshore areas.

By addressing this issues, it could be assured that proper collection of revenues will be imposed and increased. Thus, foreshore areas within the province will be properly utilized and sustainably managed.



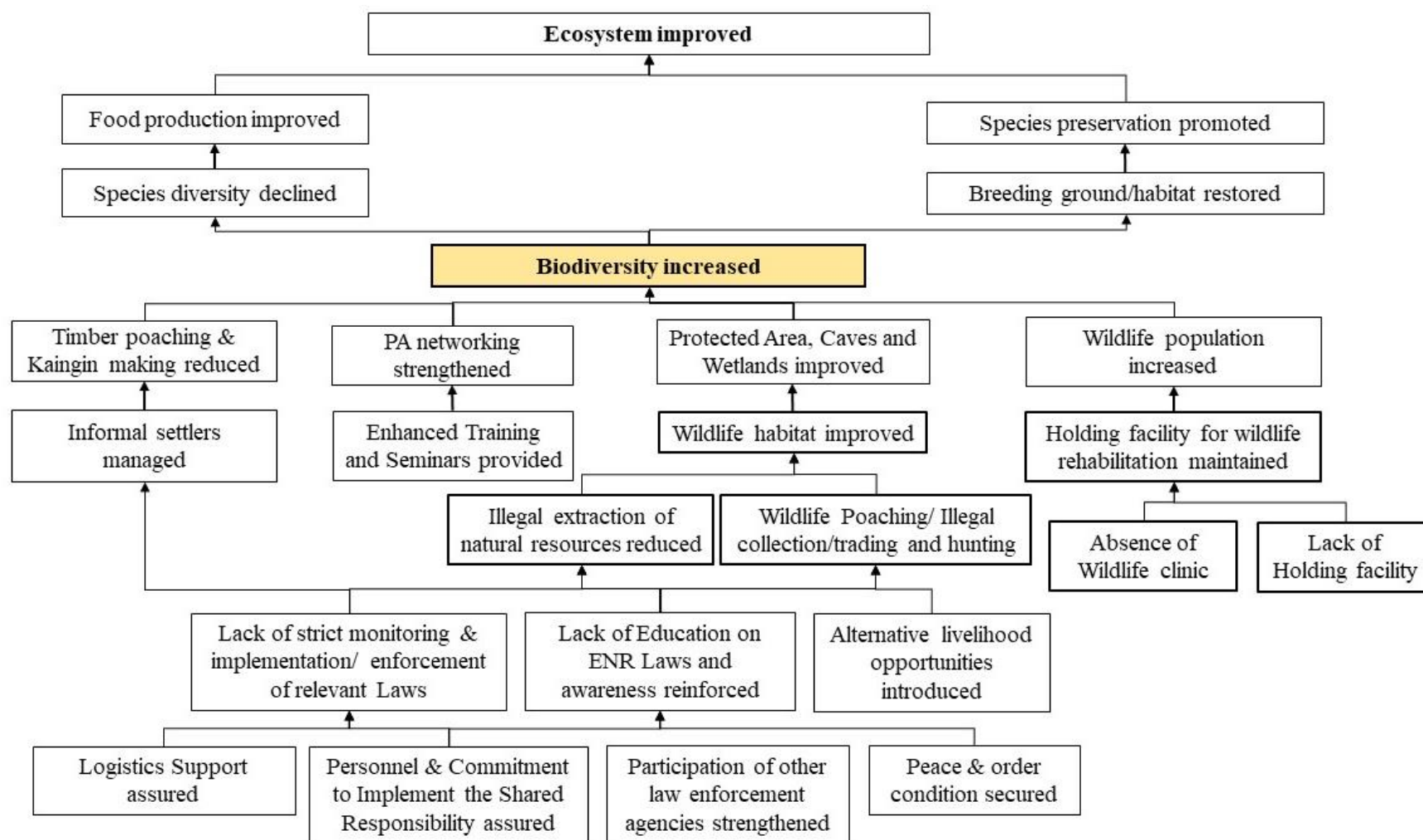
Diagram 2.2.4 ZSP Objective Tree – Foreshore



## **PROTECTED AREA AND BIODIVERSITY**

The core problem will be addressed when the factors contributing to it will be intervened. If timber poaching & Kaingin making is reduced; PA networking strengthened and protected area, caves and wetlands are improved; and wildlife population increased, then biodiversity is increased. It will then lead to promotion of species diversity and food production improved. Also, if biodiversity is increased, breeding ground/habitat is restored. This will then lead to species preservation. All these will lead to a long-term impact on the improvement of the Ecosystem.

**Diagram 2.3 ZSP Objective Tree - Protected Area & Biodiversity Sector**

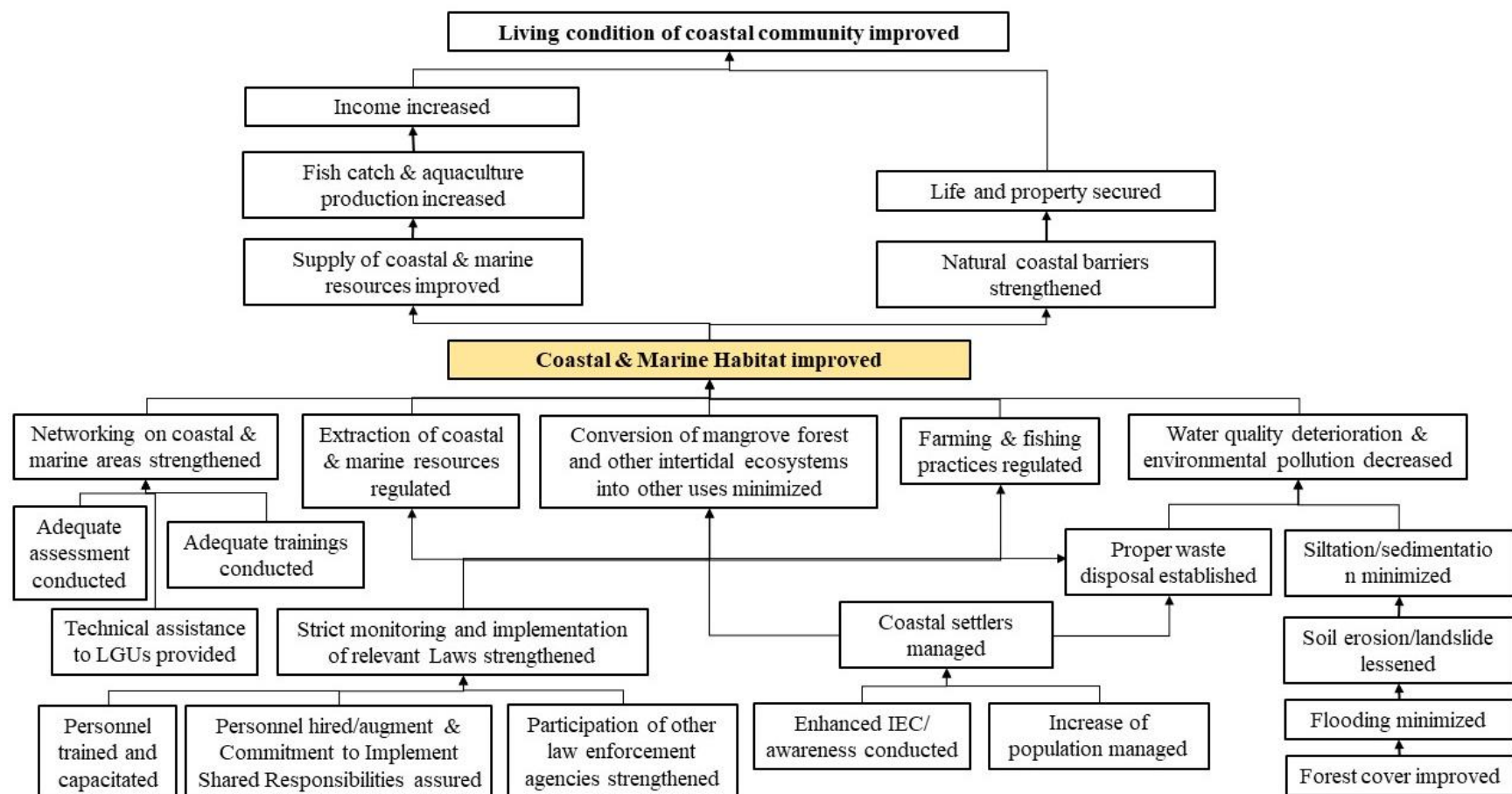


## **COASTAL AND MARINE**

There are measures to be taken to improve coastal & marine habitat. If we will provide and conduct adequate training and assessments and technical assistance to LGUs on ICM, then the networking on coastal & marine areas is strengthened. Also, to improve coastal and marine habitat, extraction of coastal & marine resources, conversion of mangrove forest and other intertidal ecosystems into other uses, and farming & fishing practices must be thoroughly regulated and minimized. These will be achieved through the strengthening of strict monitoring and implementation of relevant laws, including capacitating personnel through training, strengthening of the participation of other law enforcement agencies, and hiring of committed staff. The impact of decreased water quality deterioration and decreased environmental pollution will lead to improved coastal and marine habitat.

An improved coastal and marine habitat will eventually lead to an improved supply of the coastal & marine resource. This will cause the fish catch & aquaculture production to increase, then the income of the coastal residents will increase. Furthermore, an improved coastal and marine habitat will strengthen the natural coastal barriers, thus life and property of the community are secured. All these measures will aid in the goal of an improved living condition of the coastal community.

**Diagram 2.4 ZSP Objective Tree – Coastal and Marine**



## **Zamboanga City**

Zamboanga City is considered one of the most vulnerable cities to the effects of climate change. The governance structure and leadership in addressing forest degradation, biodiversity, climate change, coastal and marine ecosystem, and other environmental destruction, threats and issues must be consistent both at the national and local levels. Plans and programs geared towards adopting measures to combat such threats/issues should also be consistent with the policies/strategies to be implemented or undertaken.

Geographically, the city of Zamboanga is seldom hit by strong typhoons or natural calamities during the past few years ago. However, lately, the city has experienced flash floods/flooding, prolonged long dry spell, rain-induced landslide and erosion, high temperature, sea level rise, and storm surges. These phenomena expose the city to a heightened disaster risk. Dramatic impacts were noted. Recently, the whole city was placed under the state of calamity. Agriculture production and fishery resources were greatly affected. Meantime, the spread of epidemics/diseases is prevalent, particularly on young children and elders.

As envisioned by the Local Government Unit, the city of Zamboanga should be a safer and more livable place to be. However, this vision or goal is at stake considering that disaster and calamity have been felt or experienced already and probably to be experienced in the next years to come.

Comparably, the city is endowed with several important watersheds and several river systems that emanate from these watersheds. These natural assets could best serve the city's growing population, irrigate agricultural lands, support agri-industrial and establishments as well as commercial and domestic needs.

In order for these visions to be realized, proper planning and management strategies are of paramount importance. Plans/Programs/Projects (PPP) to be implemented should adhere to the norms and standards of the stakeholders/communities which should be socially acceptable, economically feasible/viable and environmentally sound.

Several gaps and weaknesses have been identified during the planning process. With this, the City's strength and opportunities in so far as enhancing, improving and



harmonizing the natural assets will pave way for the development and economic growth, of the City of Zamboanga in particular.

As presented in the Objective Tree diagram, several PPP's have been identified as well as the strategies and initiatives/innovations to address the core problem which could lead to the desired objectives and goal.

Admittedly, DENR alone cannot do or achieve this goal, consequently, the proposed plans and program strategies should act as a catalyst towards achieving the desired vision. However, these should be undertaken collaboratively and collectively by all concerned agencies and stakeholders, each complementing thru convergence initiatives whereby resources and manpower will work for hand in hand in order to ensure the success of the desired target. Most importantly, the organizational structure and strong political will through good governance will serve as guide and as a determining factor enabling all concerned sectors to do and share their part/commitment as mandated by their respective offices/departments.

Due to the notable degraded state of the environmental remaining resources in Zamboanga City, particularly on the decline of forest cover on some if not most of the watershed areas such as protection, conservation, development and management should be given top priority.

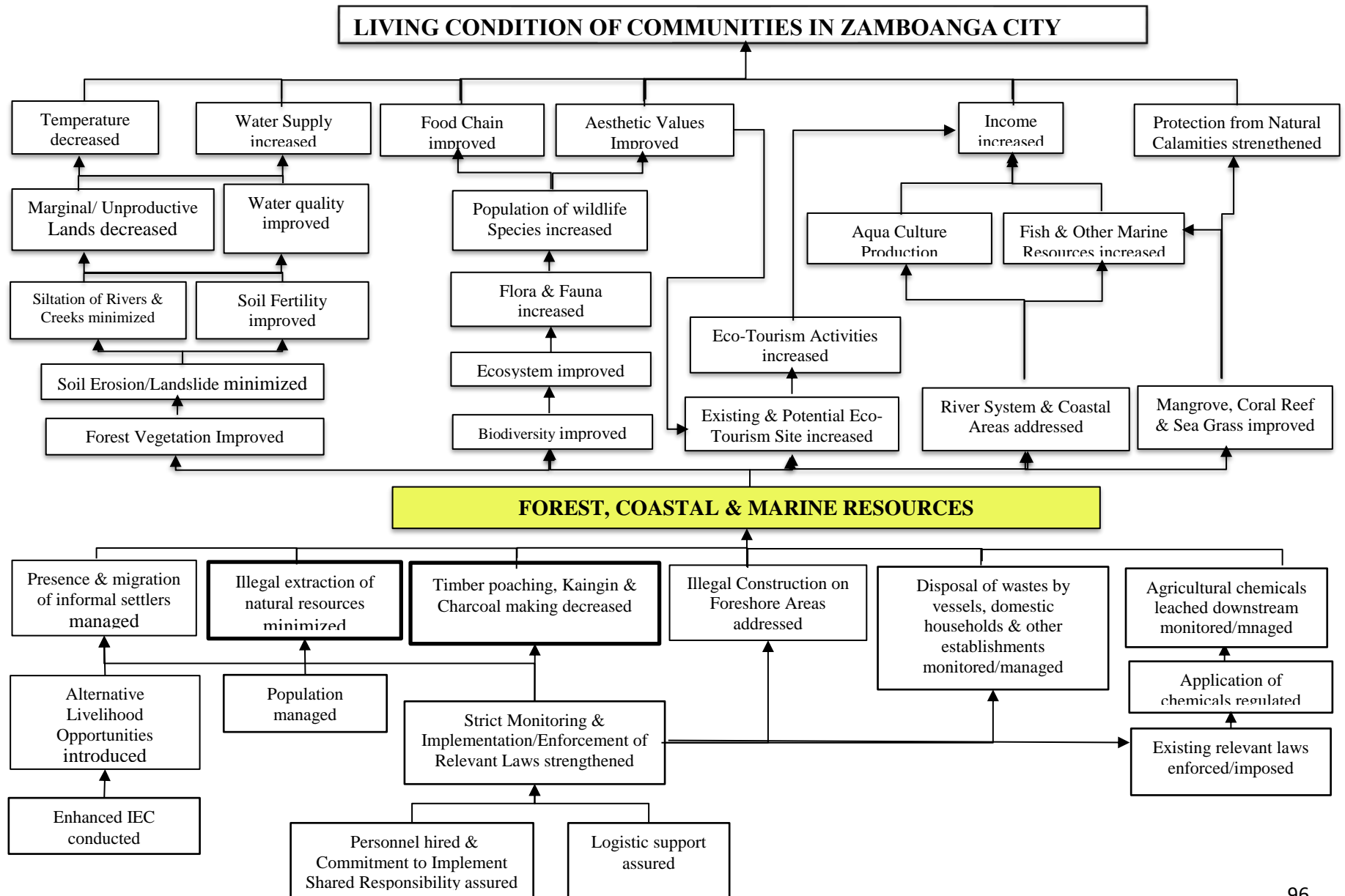
Consequently, the Forest Land Use Plan (FLUP) for Zamboanga City is underway. The developmental aspect has been tied up with the formulation of the city's ENR Medium Term Plan. The Plan (FLUP) covers all forest and forest resources into consideration all programs/projects specific to the identified land use category Protection Conservation Area (PCA) and Production Area (PA). The proposed interventions-programs/projects consist of long term and medium term development planned strategies. Both ENR Medium Term Plan and FLUP are in conjunction in so far as development and management aspect is concerned. Other concerns were also taken into consideration such as protection/conservation/preservation.

In addition, the two (2) identified watersheds were programmed as priority areas of development/rehabilitation and restoration. Fortunately, the proposed Integrated

Watershed Management Plan for both watersheds is also currently underway and is subject for review and approval by CY 2019.

These objectives if properly administer will ultimately lead to be a better living condition of the communities in particular and the City of Zamboanga as a whole.

**Diagram 2.5 Zamboanga City Objective Tree**



## **FORESTRY**

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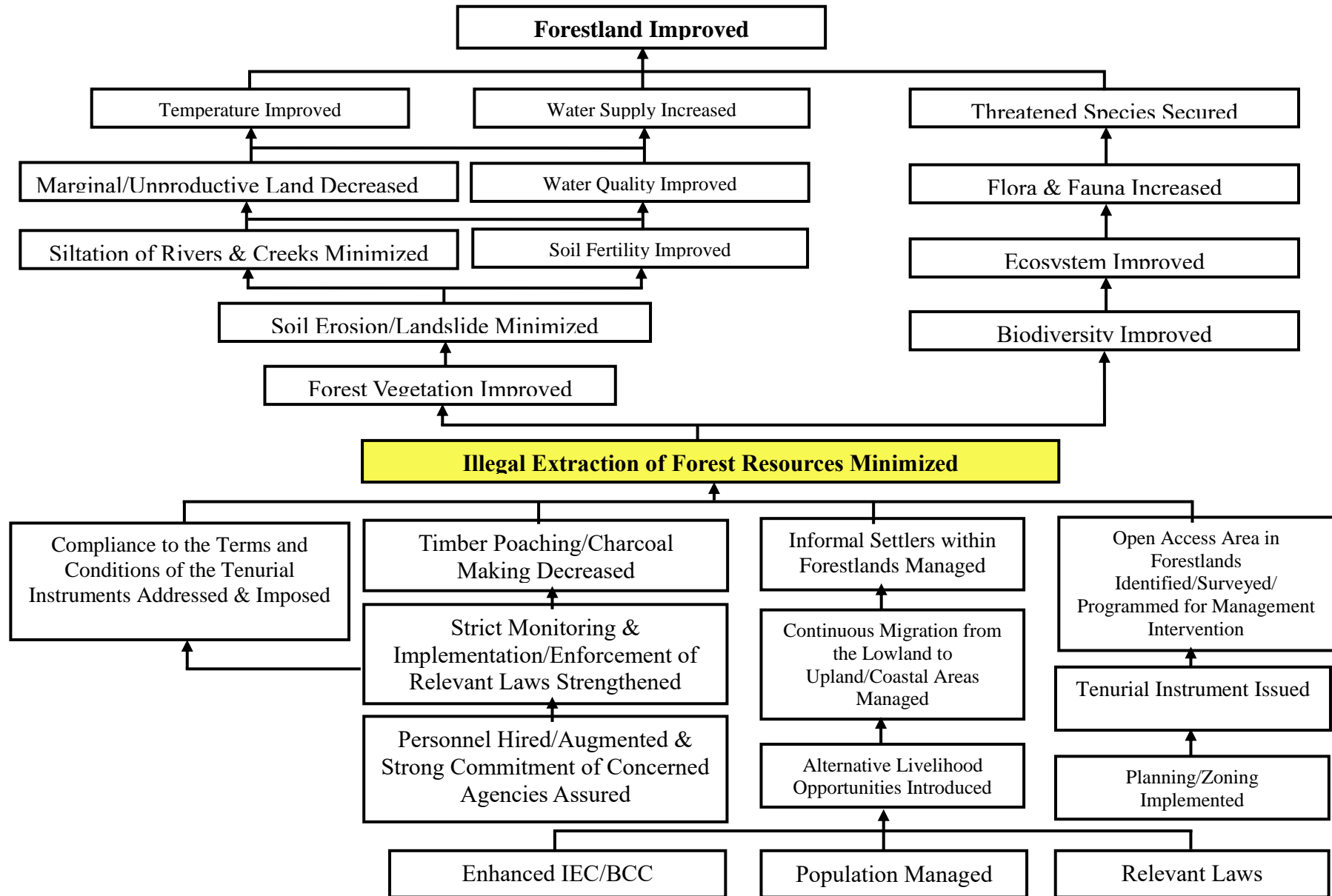
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**Diagram 2.6 Zamboanga City Objective Tree – Forestry**



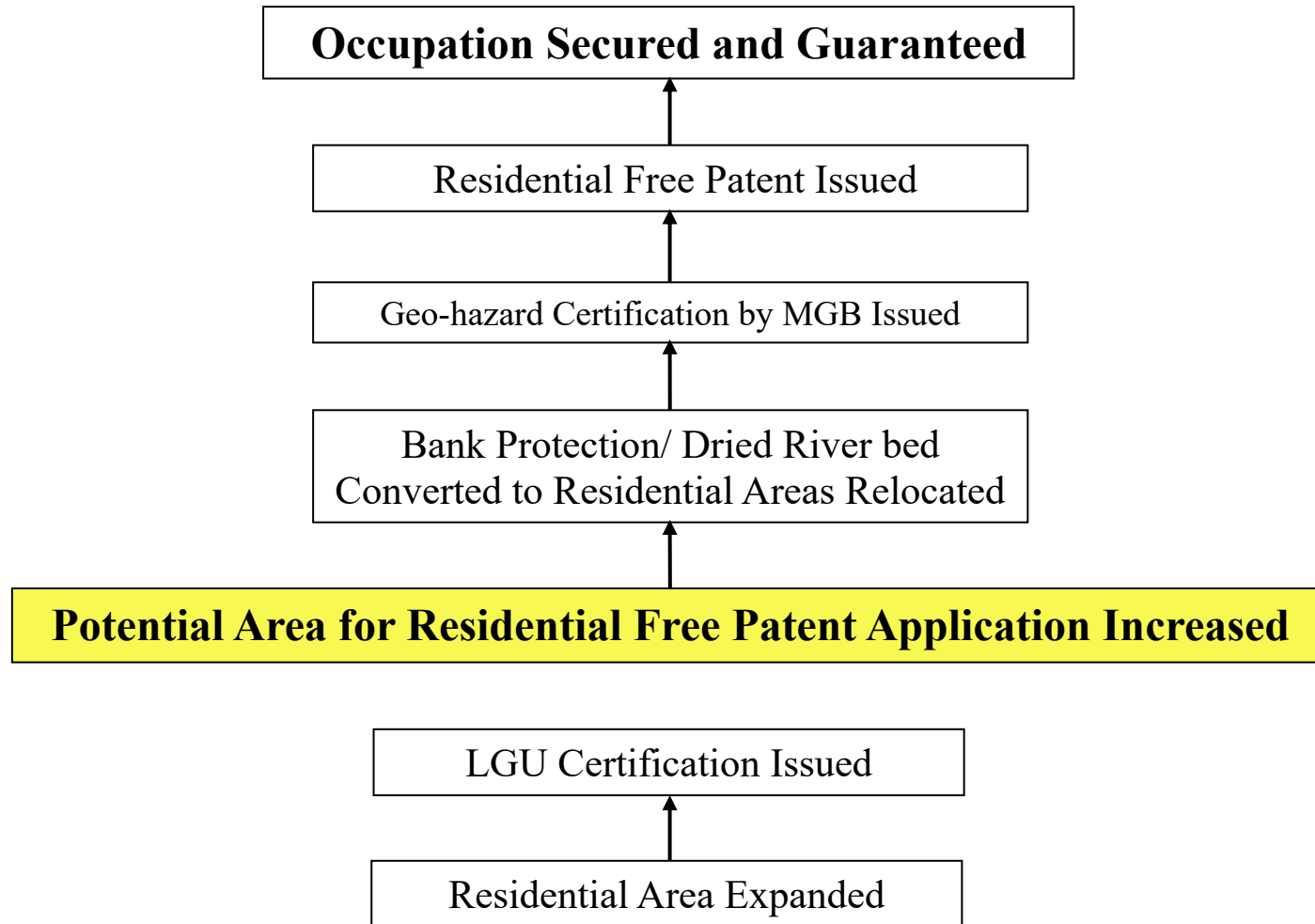


## **LANDS**

Strong representation with LGU of Zamboanga City must be made to expand the residential area of the city. Conduct Information, Education and Communication (IEC) Campaign in barangays to identify workable lots in the city. These activities would be undertaken within the period of three (3) years from 2020 to 2022.

The interventions stated above are aimed to give the occupants on residential lots legal rights to be in possession of the same, hence, making their occupation secured and guaranteed.

**Diagram 2.7.1 Zamboanga City Objective Tree – Land Disposition (Residential)**



## **FORESHORE**

There are ninety-eight (98) barangays in the City of Zamboanaga and fifty-four (54) are coastal barangays. To be able to address the problem of proliferation of illegal construction of wharves on foreshore areas, the fifty-four (54) coastal barangays must be oriented and capacitated on foreshore management as well as intensify monitoring to prevent further proliferation of the same. There should be regular coordination with the fifty-four (54) coastal barangays by concerned national and local government agencies.

Assessment must be conducted on all illegally constructed wharves to determine whether permits could be issued or not, if in the negative note, necessary recommendations must be made for the proper and appropriate disposition of the same.

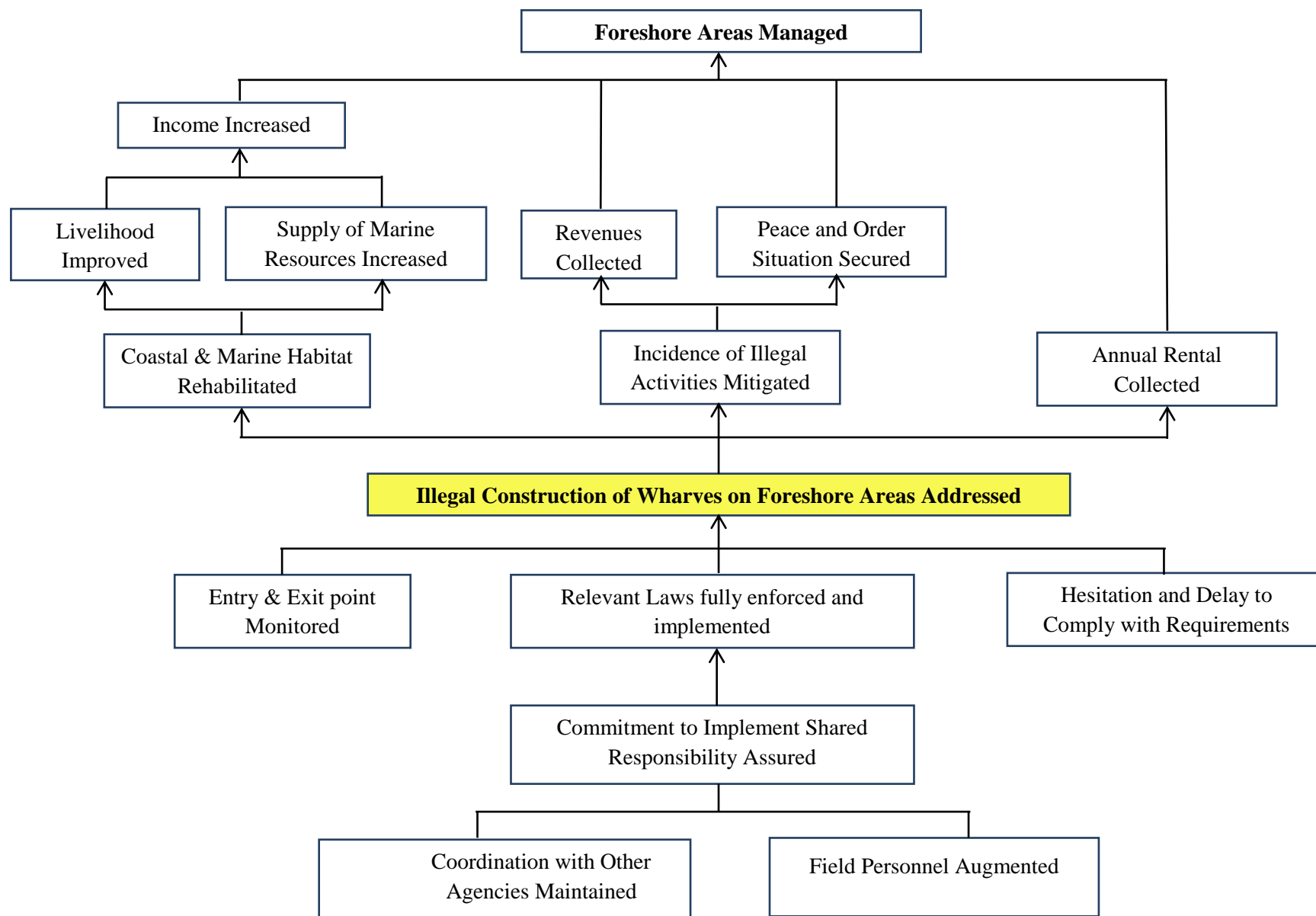
Task Force Pantalan was created by virtue of an Executive Order issued by Mayor Climaco of this City to conduct inventory on all wharves, piers, and the likes; it is therefore the plan of this office to maintain its attendance on the quarterly meeting of the Task Force.

This office is also planning to hire eight (8) field personnel yearly to augment the personnel component of the Foreshore Area Management Unit (FAMU) of this office which at present has only two (2) personnel.

It is envisioned that this office will be equipped with all the necessary tools to implement and enforce efficiently and effectively, the relevant laws relative to the proliferation of illegal construction of wharves and ultimately enable the office to manage the foreshore lands properly.

This office envisions a nation enjoying and sustaining its natural resources and clean and healthy environment.

**Diagram 2.7.2 Zamboanga City Objective Tree – Foreshore**



## **PROTECTED AREA AND BIODIVERSITY**

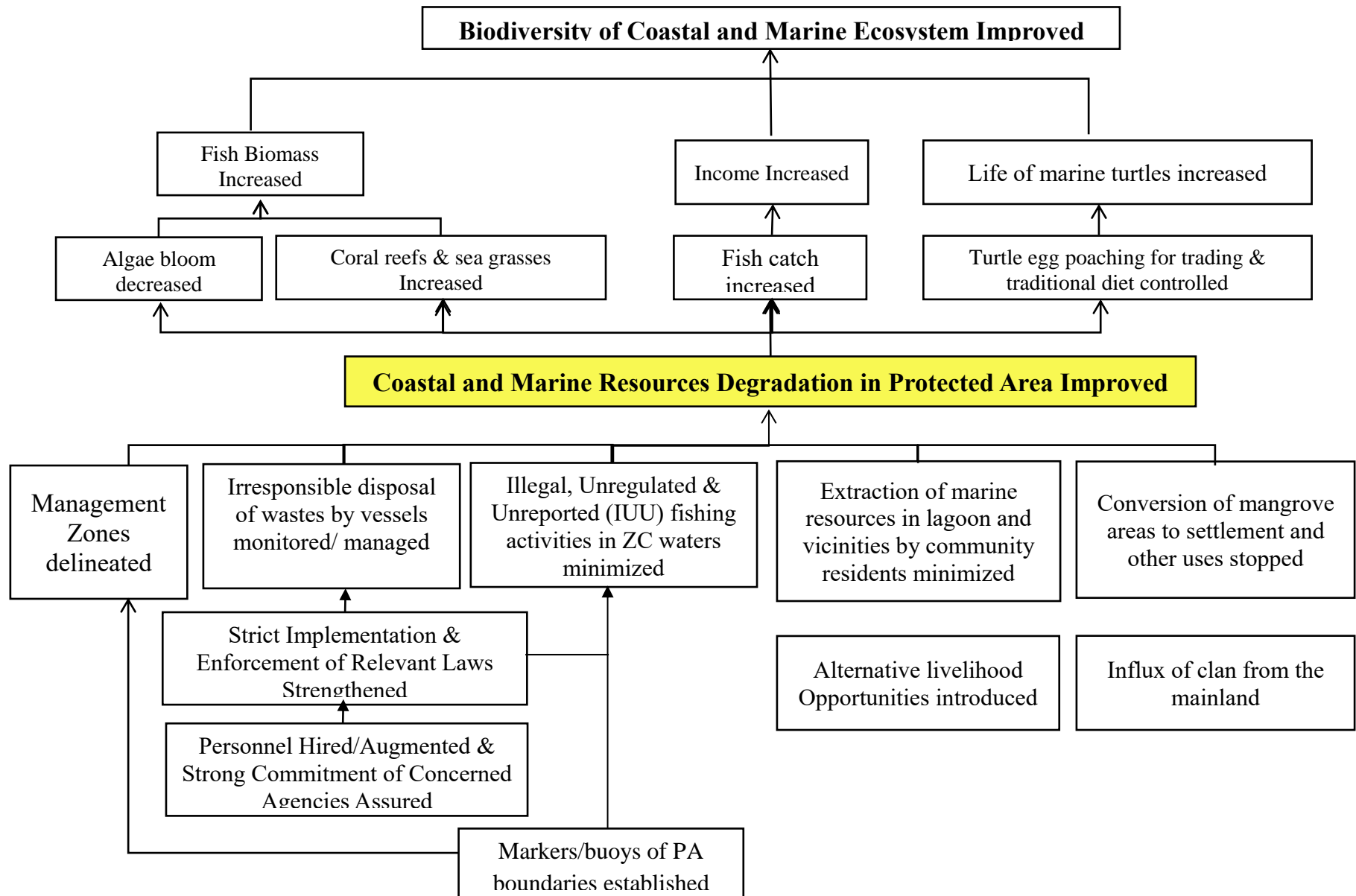
The objectives of the Biodiversity Management Unit of this office is to improve Wildlife habitat and biodiversity outside NIPAS as well. The continuous migration of informal settlers within Forestlands from lowland to upland areas should be regulated. Part of the strategy is to introduce alternative livelihood to divert informal settlers to trade wildlife. There must be a formulation of an up-to-date listing of endangered Philippine flora and fauna and a program of conservation and propagation of wildlife species so as to increase their population. The strict enforcement and monitoring of relevant laws should be strengthened with the strong commitment and shared responsibilities of concerned agencies as part of the advocacy. This could be attained if the proposed plans and programs of the department are strictly implemented and enforced.

On the other hand, information education and communication campaign re: importance of biodiversity and illegal gathering of wildlife should be consistently and continuously being conducted in schools and community stakeholders to instill in their minds the importance of wildlife species and its roles and functions to the ecosystem and environment as well.

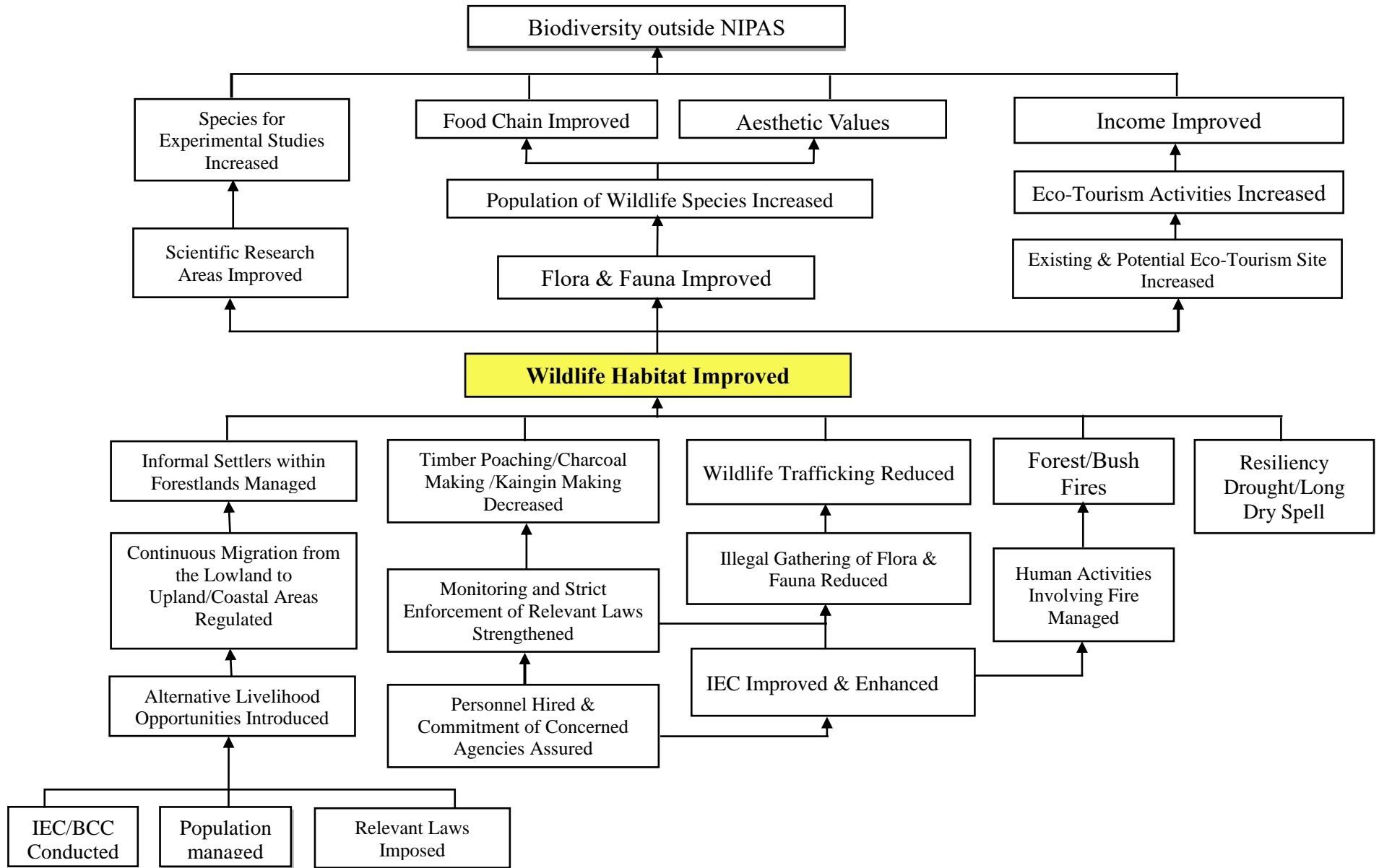
Another important objective is to maintain the existing and potential Eco-tourism sites. The aesthetic value of our natural resources is of a great help particularly in the income generation and employment opportunity. The benefits of this objectives extends towards the overall increase in the quality-of-life of the populace especially those who dwell on the rural areas. It is also the prestige for the Philippines' as a whole with diverse and unique wildlife. These can be achieved through enhancing the aesthetic-value of the environment.

Through these plans and programs Biodiversity outside NIPAS will be improved. The protection, preservation and conservation of wildlife and its habitat, is vital and is of paramount importance. Hence, the advocacy on Biodiversity thru the continuous IEC should be given priority.

**Diagram 2.8.1 Zamboanga City Objective Tree – Protected Area**



**Diagram 2.8.2 Zamboanga City Objective Tree – Biodiversity**





## **COASTAL AND MARINE**

Objectives define the techniques of this office use to improve the living conditions of the coastal communities. The objectives must be well-defined, simple, achievable, measurable and time-bounded.

The main objective of the coastal resource management unit of this office is to improve the living condition of the coastal communities. This objective could be attained if the following proposed plans and programs are implemented effectively: Proper disposal of wastes by sea vessels, domestic households and other commercial establishments thru periodic monitoring and reporting system. Designation of temporary depository space for garbage should be adopted. This issue/concern can be addressed through strict implementation and enforcement of ENR relevant laws such as, RA 9003 otherwise known as the Solid Waste Management Act of 2000 and or city ordinance. The strong commitment and shared responsibilities of all concerned agencies. With the impending problems at hand, hiring of additional personnel to augment the workforce of the office is necessary to handle activities such as patrolling and monitoring of garbage disposals within the coastal areas.

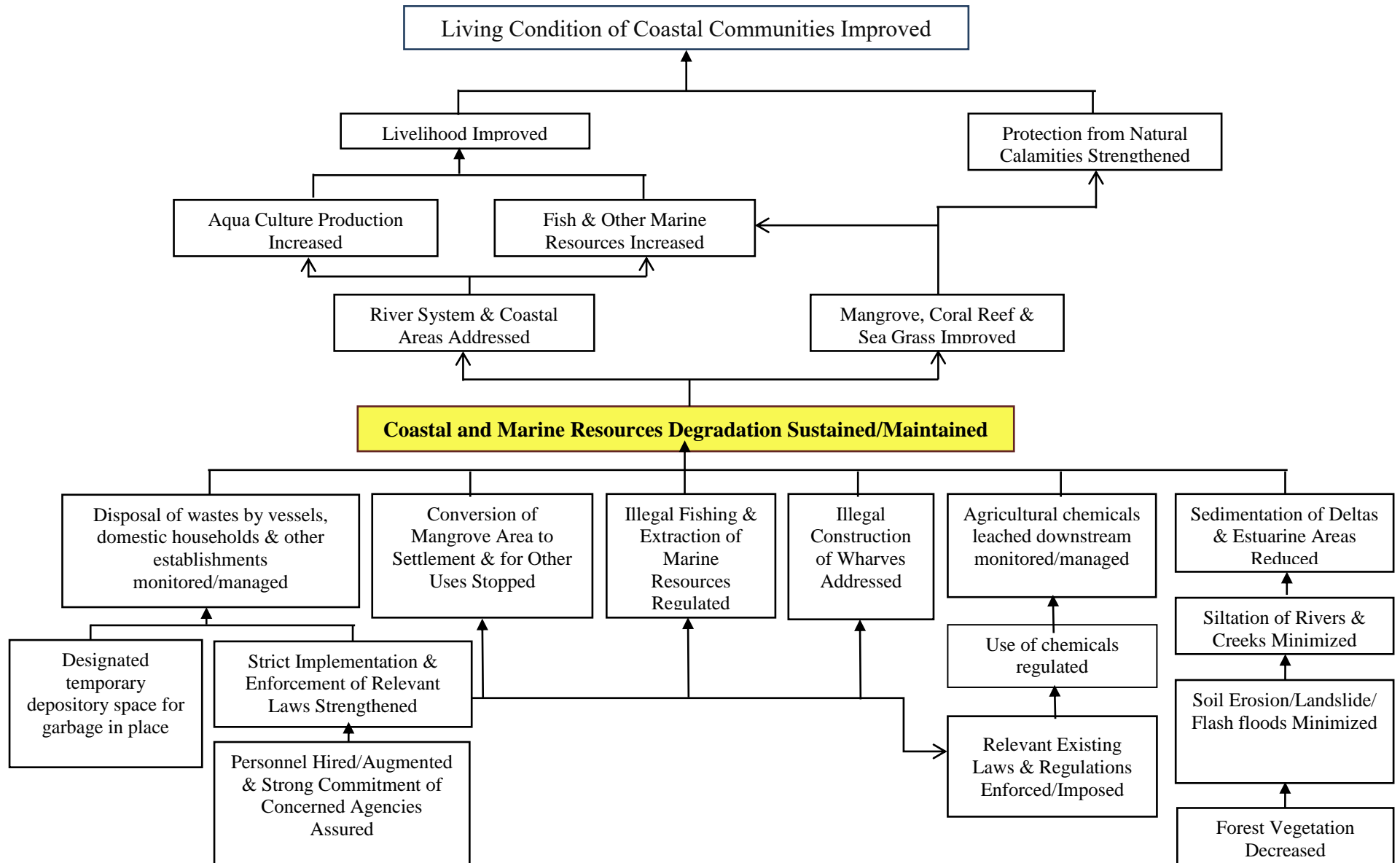
On the other hand, the Conversion of mangrove areas to settlement for residential, commercial and industrial purposes should be stopped. The concerned agencies shall look for alternative livelihood for the coastal communities. It is reported that about 62% of the people prefers to settle along coastal areas due to the economic benefits that can be derived from the coastal resources. Majority of residents, unknowingly and or intentionally convert mangrove areas to settlement without proper consultation and clearance, hence, strict implementation of relevant law such as P.D. 705/RA 7061 shall be strengthened. Another objective to be achieved is the regulation on the appropriate illegal fishing and extraction of marine resources. Concerned agencies who have direct supervision and control should enforce pertinent laws and policies in order to sustainably regulate the harvest and extraction of such resources.

The next objective is the effective monitoring and managing of chemicals use in agricultural production. Applicable existing laws on the matter shall be strictly enforced by the concerned agencies.

One of the root causes of marine pollution comes from the land in the form of surface run-off if this be properly address, soil erosion and flashfloods, siltation of river creeks can be minimized including the sedimentation of deltas and estuarine areas. The effective restoration of forest vegetation will eventually be of great help particularly in sustaining/maintaining the coastal and marine resources.

The above-mentioned objectives are of paramount importance in protecting, conserving and managing the coastal resources as well as its ecosystems using the ridge to reef approach thereby maintaining the ecological balance of flora and fauna as well as the biodiversity aspect of the environment. These objectives if properly administer will ultimately lead to a better living condition of the coastal communities in particular and the City of Zamboanga as a whole.

**Diagram 2.9 Zamboanga City Objective Tree – Coastal and Marine**



#### IV. STRATEGIES, PROGRAMS, PROJECTS AND ACTIVITIES

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
General Administration and Support Services										
General Management and Supervision										
1. Procurement Services	Bidding conducted (no) including bidding for supplies and materials over P40,000	PENRO Sibugay			4	25	4	26	4	27
2. Property Management	Inventory conducted (no)	PENRO Sibugay				40		42		44
3. Records Management	(includes hiring of 1 JO)	PENRO Sibugay				127		152		170
4. Budget/Finance Management	(includes hiring of 1 JO)	PENRO Sibugay				150		165		175
5. Accounting/Finance Management	(includes hiring of 1 JO)	PENRO Sibugay				160		175		180
6. Cashiering		PENRO Sibugay				30		35		40
7. Top Level Management										
	Papers/documents acted upon (no)	Zamboanga Sibugay			2,000	20	2,400	24	3,200	32
		PENRO Sibugay			500	5	600	6	800	8

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Imelda			500	5	600	6	800	8
		CENRO Kabasalan			500	5	600	6	800	8
		CENRO Zamboanga City			500	5	600	6	800	8
	Meetings/conferences/chair/ participated/attended (no)	Zamboanga Sibugay			64	256	80	360	100	500
		PENRO Sibugay			16	64	20	90	25	125
		CENRO Imelda			16	64	20	90	25	125
		CENRO Kabasalan			16	64	20	90	25	125
		CENRO Zamboanga City			16	64	20	90	25	125
8. Buildings, Structures Infrastructure, ICT, Land Improvements, Machinery Equipment and Transportation (MOOE/CO)										
a. DENR Office Building	Buildings completed (no)	Zamboanga Sibugay			14	18,975		15,500		3,000
		PENRO Sibugay			3	3,750		6,500		3,000
		ENR Field Office Building			1			3,000		
		Stock Room			1	250				
		Guest House			1	3,500		3,500		3,000
		BMS Stations - Naga- Kabasalan PL - Basilan Natural Biotic Area								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		(Additional BMB Stations)								
		CENRO Imelda			5	5,450		4,000		
		Conference Room/Multi- purpose Hall			1	1,000				
		Motorpool and Garage			1	500				
		ENR Field Office Building						3,000		
		Stock Room			1	250				
		Deep Well (with equipment)			1	200				
		Guest House			1	3,500				
		Conference Room						1,000		
		CENRO Kabasalan			3	4,025				
		Stock Room			1	250				
		Deep Well (with equipment)			1	275				
		Guest House			1	3,500				
		CENRO Zamboanga City			3	5,750		5,000		
		ENR Field Office Building - Curuan						5,000		
		Covered Court			1	2,000				
		Stock Room			1	250				
		Guest House			1	3,500				
	Buildings rehabilitated/ improved (no)	Zamboanga Sibugay			6	20,000	1	5,000		
		PENRO Sibugay			1	5,000				
		Expansion of Training Center								
		DENR Center in Lantawan			1	5,000				
		CENRO Kabasalan								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Rooftop			1	1,000				
		CENRO Imelda								
		ENR Field Office - Buug						3,000		
		CENRO Zamboanga City			4	14,000	1	2,000		
		CENR Office building			1	3,000				
		ENR Field Office - Isabela City			1	3,000				
		ENR Field Office - Tawi-tawi			1	5,000				
		ENR Training & Research Center - Baluno			1	3,000	1	2,000		
	Perimeter Fencing of DENR Office Compound *(includes gates and guardhouses)	Zamboanga Sibugay			4	3,700				
		PENRO Sibugay			1	1,000				
		CENRO Imelda			1	1,000				
		CENRO Kabasalan			1	1,200				
		CENRO Zamboanga City			1	500				
		Zamboanga Sibugay								
	Rip-rapping/ Retaining wall	CENRO Imelda			1	2,000				
8.2 Procurement/Repair/ Maintenance of Vehicles							-	-	-	-



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
a. Repair and Maintenance of Vehicles	Vehicles maintained/repared (no)	Zamboanga Sibugay			8	1,040	8	1,070	7	940
		PENRO Sibugay			1	100	1	130	-	
		CENRO Imelda			3	540	3	540	3	540
		CENRO Kabasalan			4	400	4	400	4	400
		CENRO Zamboanga City								
b. Procurement of Vehicles	Vehicles procured (no)									
	a. pick-up	Zamboanga Sibugay			4	4,800				
		PENRO Sibugay			1	2,000				
		CENRO Imelda			1	2,000				
		CENRO Kabasalan			1	2,000		-	-	-
		CENRO Zamboanga City			1	2,000				
	b. PA vehicles	Zamboanga Sibugay			1	1,800	3	4,300	1	800
		CENRO Imelda - Buug Natural Biotic Area					1	1,800		
		CENRO Zamboanga City			1	1,800	2	2,500	1	800
		- Great & Little Sta. Cruz Islands Protected Landscape & Seascape							1	800
		- Pasonanca Natural Park			1	1,800				
		- Basilan Natural Biotic Area					1	1,800		

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		- Turtle Islands & Wildlife Sanctuary					1	700		
8.3 Procurement of Furnitures, Fixtures, Office Equipment and Wellness Equipment	Furnitures, Fixtures, Office Equipment and Wellness Equipment procured (no)									
8.3 Procurement of Furnitures, Fixtures, Office Equipment and Wellness Equipment		Zamboanga Sibugay				4,000				
		PENRO Sibugay				2,000				
		CENRO Imelda				2,000				
		CENRO Kabasalan				2,000				
		CENRO Zamboanga City				2,000				
10. Project Management and Supervision		PENRO Sibugay				100		125		150
11. Fixed Expenditures	Fuel	Zamboanga Sibugay			-	2,165	-	2,385	-	2,610
		PENRO Sibugay			-	545	-	600	-	660
		CENRO Imelda			-	540	-	595	-	650
		CENRO Kabasalan			-	540	-	595	-	650
		CENRO Zamboanga City			-	540	-	595	-	650
		CENRO Guipos			-	630	-	695	-	760
	Water	Zamboanga Sibugay			-	140	-	154	-	168
		PENRO Sibugay			-	50	-	55	-	60

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Imelda			-	30	-	33	-	36
		CENRO Kabasalan			-	30	-	33	-	36
		CENRO Zamboanga City			-	30	-	33	-	36
	Electricity	Zamboanga Sibugay			-	934	-	1,027	-	1,129
		PENRO Sibugay			-	444	-	488		537
		CENRO Imelda			-	240	-	264	-	290
		CENRO Kabasalan			-	240	-	264	-	290
		CENRO Zamboanga City			-	240	-	264	-	290
	Landline & Internet	Zamboanga Sibugay			-	200	-	220	-	240
		PENRO Sibugay			-	50	-	55	-	60
		CENRO Imelda			-	50	-	55	-	60
		CENRO Kabasalan			-	50	-	55	-	60
		CENRO Zamboanga City			-	50	-	55	-	60
	Cable	Zamboanga Sibugay			-	48	-	60	-	72
		PENRO Sibugay			-	12	-	15	-	18
		CENRO Imelda			-	12	-	15	-	18
		CENRO Kabasalan			-	12	-	15	-	18
		CENRO Zamboanga City			-	12	-	15	-	18
	Insurance	Zamboanga Sibugay			-	68	-	72	-	76
		PENRO Sibugay			-	17	-	18	-	19
		CENRO Imelda			-	17	-	18	-	19
		CENRO Kabasalan			-	17	-	18	-	19
		CENRO Zamboanga City			-	17	-	18	-	19

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
	Fidelity Bond	Zamboanga Sibugay			-	49	-	53	-	57
		PENRO Sibugay			-	43	-	47	-	51
		CENRO Imelda			-	2	-	2	-	2
		CENRO Kabasalan			-	2	-	2	-	2
		CENRO Zamboanga City			-	2	-	2	-	2
12. Other Expenditures	Security Services	Zamboanga Sibugay			12	1,800	12	2,520	12	2,664
	(Hiring/Contracting 12 Security Guards)	PENRO Sibugay			3	600	3	630	3	666
		CENRO Imelda			3	600	3	630	3	666
		CENRO Kabasalan			3	600	3	630	3	666
		CENRO Zamboanga City			3	600	3	630	3	666
	Janitorial Services	Zamboanga Sibugay			8	1,600	12	2,520	12	2,664
		PENRO Sibugay			2	400	3	630	3	666
		CENRO Imelda			2	400	3	630	3	666
		CENRO Kabasalan			2	400	3	630	3	666
		CENRO Zamboanga City			2	400	3	630	3	666
<b>Human Resource Development</b>										
1. Client Satisfaction Survey	Client satisfaction survey conducted (no)	Zamboanga Sibugay			48	48	48	48	48	48
		PENRO Sibugay			12	12	12	12	12	12
		CENRO Imelda			12	12	12	12	12	12
		CENRO Kabasalan			12	12	12	12	12	12
		CENRO Zamboanga City			12	12	12	12	12	12
2. Planning, Implementation and	Training design prepared, training/seminars/									

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Coordination of Training Activities	workshops/conferences conducted/facilitated and training report submitted to RO (no)									
2.1 Training/Workshop Activities										
- Land records maintenance		Zamboanga Sibugay			8	400	8	400	8	400
		PENRO Sibugay			2	100	2	100	2	100
		CENRO Imelda			2	100	2	100	2	100
		CENRO Kabasalan			2	100	2	100	2	100
		CENRO Zamboanga City			2	100	2	100	2	100
- Provincial foreshore commitment to implement shared responsibilities		Zamboanga Sibugay								
		PENRO Sibugay			1	150				
- Implementation and enforcement of ENR laws		Zamboanga Sibugay								
		PENRO Sibugay			2	200	2	200	2	200
<b>Support to Operations</b>										
Data Management including Systems Development and Maintenance										
1. Information and Communications Technology										
1.1 Management and Maintenance of ICT Resources/Facilities										

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
	Internet connectivity maintained and monitored (no)	Zamboanga Sibugay			4	440	4	460	4	480
		PENRO Sibugay			1	110	1	115	1	120
		CENRO Imelda			1	110	1	115	1	120
		CENRO Kabasalan			1	110	1	115	1	120
		CENRO Zamboanga City			1	110	1	115	1	120
	Maintenance & repair of IT equipment (no)	Zamboanga Sibugay				400		440		480
		PENRO Sibugay				100		110		120
		CENRO Imelda				100		110		120
		CENRO Kabasalan				100		110		120
		CENRO Zamboanga City				100		110		120
1.2 Management & Maintenance of VoIP, Safety & Security System Equipment	Safety and Security System equipment maintained (no)	Zamboanga Sibugay			4	120	4	120	4	120
		PENRO Sibugay			1	30	1	30	1	30
		CENRO Imelda			1	30	1	30	1	30

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Kabasalan			1	30	1	30	1	30
		CENRO Zamboanga City			1	30	1	30	1	30
1.3 Procurement of ICT Equipment	- Server Room	PENRO Sibugay				200				
	- Other IT Equipment	Zamboanga Sibugay				2,000				
2. Operation and Maintenance of Forestry Information System	Newly approved/existing forest tenure/CTPO data transformed to MDE form and submitted to PENRO (no)	Zamboanga Sibugay			600	120	600	120	600	120
		CENRO Imelda	2,129	1,842	200	40	200	40	200	40
		CENRO Kabasalan	6,875		200	40	200	40	200	40
		CENRO Zamboanga City			200	40	200	40	200	40
	Newly approved/existing forest tenure/CTPO record created, reviewed and submitted online to RO (no)	PENRO Sibugay			600	120	600	120	600	120
Production and Dissemination of Technical and Popular Materials in the Conservation and Development of Natural Resources including Environment Education					-	-	-	-	-	-
1. Information, Education, and Communication	News article prepared and submitted to RO (no)	PENRO Sibugay			4	8	4	10	5	12



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
2. Environmental Education	School/community visited (no)	Zamboanga Sibugay			18	225	24	3200	30	450
		CENRO Imelda			6	75	8	100	10	150
		CENRO Kabasalan			6	75	8	100	10	150
		CENRO Zamboanga City			6	75	8	100	10	150
6. Public Information and Media Relations										
6.1 Development of press releases, multimedia and web materials on DENR policies, programs, projects and activities	Press releases, multimedia, and web materials developed and endorsed for clearance (no)	Zamboanga Sibugay			12	60	12	60	12	60
		CENRO Imelda			4	20	4	20	4	20
		CENRO Kabasalan			4	20	4	20	4	20
		CENRO Zamboanga City			4	20	4	20	4	20
7.1.1 Competitions (Photo, Poster-Making, Mural, Jingle, Quiz, etc.)										
		Zamboanga Sibugay			1	80	1	85	1	90

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Formulation and Monitoring of ENR Sector Policies, Plans, Programs and Projects					-	-	-	-	-	-
1. Watershed Management planning					-	-	-	-	-	-
1.1 Preparation of Integrated Watershed Management Plan (including NGP areas)	IWMP updated/prepared and submitted (no)	Zamboanga Sibugay							2	680
		CENRO Kabasalan	7	2					2	680
		Surabay River Watershed							1	340
		Guilinan River Watershed							1	340
		CENRO Zamboanga City								
		Tumaga River Watershed						340		

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		A=17,650.00 ha					1			
1.2 Review and Updating of Integrated Watershed Management Plan (IWMP)	IWMP reviewed/updated & submitted (no)									
		Sibuguey River Basin					1	340		
		Doña Josefa Watershed							1	340
3. Updating of Community Resource Management Framework including map and 5-year workplan	CRMF approved and endorsed to USEC Field Ops for affirmation (no) 5-year workplan reviewed and recommended for approval by USEC Field Ops (no)									
		Zamboanga Sibugay				660		495		385
	CRMF and 5-year workplan prepared and submitted with CSW (no)									

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Zamboanga Sibugay			12	600	9	450	7	350
		CENRO Imelda	23	6	2	100	2	100	2	100
		CENRO Kabasalan	23	12	4	200	4	200	3	150
		CENRO Zamboanga City			6	300	3	150	2	100
	CRMF and 5-year workplan with CSW reviewed and endorsed to RO (no)									
		PENRO Sibugay			12	60	9	45	7	35
4. Forest Products Utilization and Price Monitoring										

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
- Price monitoring of forest products	Price data report with monthly breakdown submitted quarterly to FMB (no)									
		Zamboanga Sibugay				78		78		78
	Monthly price data survey from pre-identified respondents per forest product collected, processed, summarized and submitted to PENRO (no)									
		Zamboanga Sibugay			36	75	36	75	36	75
		CENRO Imelda	12	12	12	25	12	25	12	25
		CENRO Kabasalan	12	12	12	25	12	25	12	25
		CENRO Zamboanga City			12	25	12	25	12	25

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
	CENRO Price data report consolidated, summarized and submitted quarterly to RO with monthly breakdown (no)									
		PENRO Sibugay			12	3	12	3	12	3
5. Formulation Provincial Foreshore Management and Development Plan (PFMDP)	Provincial Foreshore Management and Development Plan formulated and approved (no)	Zamboanga Sibugay								
		CENRO Zamboanga City - Zamboanga City - Isabela City			2	3,000				
6. Preparation/updating of PA Management Plans	PAMP endorsed to Sec. thru BMB for affirmation (no)									
		Zamboanga Sibugay								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		PENRO Sibugay			1	620	1	620		
		- Basilan Natural Biotic Area								
		- Naga- Kabasalan PL			1	620	1	620		
7. Implementation of Biodiversity Monitoring System (BMS)	Regional BMS report with analysis and summary submitted to BMB (no) - Database developed and maintained (no)									
		Zamboanga Sibugay				1,255		1,255		1,255
	BMS site monitored with report submitted (no)									
		Zamboanga Sibugay			5	1,250	5	1,250	5	1,250
		CENRO Imelda - Buug Natural Biotic Area			1	250	1	250	1	250
		CENRO Zamboanga City			4	1,000	4	1,000	4	1,000
		- Great & Little Sta. Cruz Islands			1	250	1	250	1	250



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Protected Landscape & Seascape								
		- Pasonanca Natural Park			1	250	1	250	1	250
		- Basilan Natural Biotic Area			1	250	1	250	1	250
		- Turtle Islands & Wildlife Sanctuary			1	250	1	250	1	250
	BMS report with analysis submitted to RO (no)									
		PENRO Sibugay			5	5	5	5	5	5

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
9. Preparation of site management plans for classified caves	Cave management plans reviewed and endorsed to BMB (no)									
		Zamboanga Sibugay			27					
	Cave management plans prepared/updated and submitted (no)									
		Zamboanga Sibugay								
		PENRO Sibugay			1	250	3	750	3	750

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
	Cave management plans reviewed and endorsed to RO (no)									
		PENRO Sibugay			1	5	3	15	3	15
12. Monitoring and Evaluation										
		Zamboanga Sibugay				107		30		35
13. Project Management and Supervision										
		Zamboanga Sibugay				250		65		80
Natural Resources Enforcement and Regulatory Program										

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Natural Resources Management  Arrangement/Agreement										
1. Issuance of Tenure Instrument/  Management Arrangement										
1.1 Processing/Issuance and  Monitoring of Wildlife Permits	Permits issued within 7 working days or as prescribed by law (no)	Zamboanga Sibugay			15	3	15	3	15	3
		PENRO Sibugay			15	3	15	3	15	3
	Holders of Certificate of Wildlife Registration (CWR) and Wildlife Farm Permit (WFP) monitored relative to their compliance with the terms and conditions of the Wildlife Permits with report submitted to RO (no)	Zamboanga Sibugay			12	24	12	24	12	24
		CENRO Kabasalan			2	4	2	4	2	4

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City			10	20	10	20	10	20
1.4 Site assessment, mapping and issuance of CBFMA in Suitable Untenured Areas	Hectares of untenured forestland placed under appropriate tenure (CBFMA)	Zamboanga Sibugay			2,500	1,125	2,500	1,125	2,500	1,125
450/ha.		CENRO Imelda			500	225	500	225	500	225
		CENRO Kabasalan			2,000	900	2,000	900	2,000	900
		CENRO Zamboanga City			-	-	-	-	-	-
	CBFM Application requirements submitted to PENRO (no)	Zamboanga Sibugay			-	-	-	-	-	-
		CENRO Imelda								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Kabasalan								
		CENRO Zamboanga City								
	CBFM Application requirements reviewed, certified and endorsed to RO (no)	Zamboanga Sibugay								
		PENRO Sibugay								
2. Compliance Monitoring										
2.1 Compliance monitoring of existing agreements and permits	Compliance of tenure holders according to the Terms and Conditions of the Agreement, approved management plans and related policies evaluated with categorical recommendations, and report submitted to PENRO (no) - 29 tenure holders									

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Zamboanga Sibugay			15	180	15	180	15	180
		CENRO Kabasalan - SIFMA	11	11	11	132	11	132	11	132
		CENRO Zamboanga City - IFMA	4	4	4	48	4	48	4	48
	Recommendations of CENRO reviewed/analyzed and endorsed to RO for action (no)	Zamboanga Sibugay								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		PENRO Sibugay								
2.2 Compliance Monitoring of Existing CBFMAs	CBFMA holders monitored, evaluated on compliance to CBFM agreements (no) - Consolidated report of Compliance Monitoring with categorical recommendations submitted to the PENRO	Zamboanga Sibugay			64	576	64	768	64	768
		CENRO Imelda A= 8,359.01 ha	23	23	23	207	23	276	23	276
		CENRO Kabasalan A= 12,625.68 ha	23	23	23	207	23	276	23	276
		CENRO Zamboanga City A= 13,737.36 ha	18	18	18	162	18	216	18	216
2.3 Assessment of CSCs (devolved CSCs) Including expired,	Summary report of results of CS indicating reasons for such and actions taken									



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
expiring, outside CBFMA	on the recommendations submitted to FMB (no)									
		Zamboanga Sibugay								
	CSC assessed and development herein indicated in the map Management action implemented based on the recommendation by the Team (no)									
		Zamboanga Sibugay			700	700	700	700	700	700
		CENRO Imelda	2098	1441	200	200	200	200	200	200
		CENRO Kabasalan	6875	6408	200	200	200	200	200	200
		CENRO Zamboanga City			300	300	300	300	300	300

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
	Reports evaluated and recommendations for action at the PENRO level acted upon (no) - Consolidated report endorsed to RO									
		PENRO Sibugay								
4. Support to EMB and MGB Monitoring Activities	EMB and MGB monitoring activities conducted with reports submitted to RO (no.)									
		Zamboanga Sibugay			48	576	48	576	48	576

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Imelda	12	12	12	144	12	144	12	144
		CENRO Kabasalan	12	12	12	144	12	144	12	144
		CENRO Zamboanga City			12	144	12	144	12	144
4. Conduct of initial investigation on complaints related to: a) Mineral Resource and Geosciences (MRGS) b) Environmental concerns (Clean	No. of investigation reports submitted to MGB/EMB (no)									

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Air, Clean Water and Solid Waste Management)										
		Zamboanga Sibugay			8	40	8	40	8	40
		PENRO Sibugay			2	10	2	10	2	10
		CENRO Imelda			2	10	2	10	2	10
		CENRO Kabasalan	2	2	2	10	2	10	2	10
		CENRO Zamboanga City	2	2	2	10	2	10	2	10
6. Forest Protection Program										
1.1 Procurement of vehicles/motocycles	vehicles procured (no) - Boom Truck	Zamboanga Sibugay			3	6,000				
		CENRO Imelda			1	2,000				
		CENRO Kabasalan			1	2,000				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City			1	2,000				
	vehicles procured (no) - Service Vehicle	Zamboanga Sibugay			4	8,000				
		PENRO Sibugay			1	2,000				
		CENRO Imelda			1	2,000				
		CENRO Kabasalan			1	2,000				
		CENRO Zamboanga City			1	2,000				
	motorcycles procured (no)	Zamboanga Sibugay			4	440				
		PENRO Sibugay			1	110				
		CENRO Imelda			1	110				
		CENRO Kabasalan			1	110				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City			1	110				
1.2 Maintenance of vehicles	vehicles maintained (no)	Zamboanga Sibugay			7	840				
		PENRO Sibugay			2	240	2	240	2	240
		CENRO Imelda			2	240	2	240	2	240
		CENRO Kabasalan			2	240	2	240	2	240
		CENRO Zamboanga City			1	120	1	120	1	120
1.3 Maintenance of motorcycles	motorcycles maintained (no)	Zamboanga Sibugay			16	320	16	320	16	320
		PENRO Sibugay			5	100	5	100	5	100

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Imelda			5	100	5	100	5	100
		CENRO Kabasalan			5	100	5	100	5	100
		CENRO Zamboanga City			1	20	1	20	1	20
1.5 Procurement of Equipment and Gadgets for the Implementation of LAWIN	Equipment procured (no)	Zamboanga Sibugay				6,640				
		PENRO Sibugay				160				
		CENRO Imelda				2,160				
		CENRO Kabasalan				2,160				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City				2,160				
a. Drone		Zamboanga Sibugay			4	320				
		PENRO Sibugay			1	80				
		CENRO Imelda			1	80				
		CENRO Kabasalan			1	80				
		CENRO Zamboanga City			1	80				
b. Laptop		Zamboanga Sibugay				240				
		PENRO Sibugay				60				



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Imelda				60				
		CENRO Kabasalan				60				
		CENRO Zamboanga City								
c. External Drives		Zamboanga Sibugay				28				
		PENRO Sibugay				7				
		CENRO Imelda				7				
		CENRO Kabasalan				7				
d. Personal Protective Equipment		Zamboanga Sibugay								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
5,000/FR		PENRO Sibugay								
		CENRO Imelda								
		CENRO Kabasalan								
		CENRO Zamboanga City								
e. Medical Supplies		Zamboanga Sibugay								
1,500/patrol team		CENRO Imelda								
		CENRO Kabasalan								
		CENRO Zamboanga City								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
f. Powerbank and solar power panel for gadgets for the Lawin		Zamboanga Sibugay								
2,500/unit		CENRO Imelda								
		CENRO Kabasalan								
		CENRO Zamboanga City								
g. Procurement of handheld satellite phones for Lawin Patrolling		Zamboanga Sibugay								
35,000/unit/patrol team		CENRO Imelda								
		CENRO Kabasalan								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City								
Menu 2. Improvement of infra-structures and provision of institutional support in investigation, filing of information and/or criminal complaints and prosecution of forestry cases										
2.1 Construction of Forest Ranger Stations cum Lookout Tower	Forest Ranger Stations/ ENR Center constructed (no.)	Zamboanga Sibugay			1	800	3	2,400		

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Ranger Station and ENR Information Center Lookout Tower		CENRO Imelda					2	1,600		
		CENRO Kabasalan			1	800	1	800		
		CENRO Zamboanga City			-	-	-	-		
2.2 Radio Communications with repeater base & handheld units	Radio Communication and Handheld units purchased (no.)	Zamboanga Sibugay			-	-		-		

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
P1,200,000 – P2,400,000 / Reg.		CENRO Imelda								
		CENRO Kabasalan								
		CENRO Zamboanga City								
2.3 Solar Panels	Solar panels purchased, installed and operationalized (no.)	Zamboanga Sibugay					1	75	3	225
		CENRO Kabasalan					1	75	1	75
		CENRO Zamboanga City								
2.4 Close Circuit TV (CCTV)	CCTV purchased and installed (no.)	Zamboanga Sibugay					1	50	3	150
		CENRO Imelda							2	100
		CENRO Kabasalan					1	50	1	50

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City					-	-	-	-
2.5 Support to investigation & filing of criminal complaints	apprehension of undocumented forest products (no) (volume)	Zamboanga Sibugay				300		300		300
		CENRO Imelda				100		100		100
		CENRO Kabasalan				100		100		100
		CENRO Zamboanga City				100		100		100
2.6 Support to prosecution of criminal complaints	report per criminal cases (no.)	Zamboanga Sibugay				300		300		300
		CENRO Imelda				100		100		100
		CENRO Kabasalan				100		100		100
		CENRO Zamboanga City				100		100		100
2.7 Support to Law Enforcement, Investigation and Filing of Cases	Laywer hired (no.)	Zamboanga Sibugay			3	1,204	3	1,204	3	1,204

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
a. Hiring of Lawyer reporting at CENR Office		CENRO Imelda			1	573	1	573	1	573
		CENRO Kabasalan			1	574	1	574	1	574
		CENRO Zamboanga City			1	57	1	57	1	57
Menu 3. Active collaboration and involvement of forest communities and other stakeholders in forest protection and law enforcement undertakings										
3.1 LAWIN Forest and Biodiversity Protection System	Forest Protection Officers hired to support the implementation of LAWIN Forest and Biodiversity Protection System (no)	Zamboanga Sibugay			129	2,968	129	2,968	129	2,968
		PENRO Sibugay			2	204	2	204	2	204
		CENRO Kabasalan			12	1,224	12	1,224	12	1,224



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City			100	10.20	100	10.20	100	10.20
- Patrolling	Patrol conducted within conservation area (km)	Zamboanga Sibugay			225	2,113	225	2,113	225	2,113
		CENRO Imelda			50	480	50	480	50	480
		CENRO Kabasalan			40	384	40	384	40	384
		CENRO Zamboanga City			135	1,249	135	1,249	135	1,249
	Reports from CENROs monitored and evaluated (no)									
		PENRO Sibugay			4	4	4	4	4	4
	Reports from CENROs monitored and evaluated (no)	Regional Office			4	4	4	4	4	4
Menu 4. Undertake Capacity Building for DENR Field and enhanced their skills and competence for effective protection of										

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
forest and plantation and biodiversity conervations										
4.1 Para-legal training to DENR personnel for law enforcement	Para-legal training conducted (no)	Zamboanga Sibugay			16	2,300	16	600	12	158
		CENRO Imelda			4	150	4	150	4	150
		CENRO Kabasalan			4	150	4	150	4	150
	(proposed by LGU ZC)	CENRO Zamboanga City			4	150	4	150	4	150
4.4 Training of Forest Officers on Law Enforcement and Forest Protection with gun handling operations, safety, maintenance and basic self-defense and survival skills		Zamboanga Sibugay								
P 2,200/pax /day (@ 4 days)		PENRO Sibugay								
		CENRO Imelda								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Kabasalan								
		CENRO Zamboanga City								
4.5 Training in addressing environmental crimes through an integrated enforcement of Environment and Natural Resources Laws	Personnel attended (no.)	Zamboanga Sibugay								
P 2,200/pax /day (@ 3 days)		PENRO Sibugay								
		CENRO Imelda								
		CENRO Kabasalan								
		CENRO Zamboanga City								
4.6 Re-orientation training of field managers on electronic-Filing and Monitoring System (e-fms)	Personnel attended (no.)	Zamboanga Sibugay								
P 2,200/pax /day (@ 3 days)		PENRO Sibugay								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Imelda								
		CENRO Kabasalan								
		CENRO Zamboanga City								
Menu 5. Sustained a well-planned Information, Education and Communications (IEC) campaign regionwide down to CENRO level										
1. IEC Campaign CENRO level meetings, consultations orientations, seminars, symposium	IEC campaign conducted (no) consultation, orientation, seminars, module with costing prepared & implemented (no)	Zamboanga Sibugay			16	2,300	16	600	12	158
		CENRO Imelda			4	150	4	150	4	150
		CENRO Kabasalan			4	150	4	150	4	150
	(proposed by LGU ZC)	CENRO Zamboanga City			4	150	4	150	4	150

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Menu 6 : Consistent apprehension and mandatory administrative adjudication and confiscation of undocumented forest products including conveyances and other implements										
1. Apprehension of undocumented forest products including NTFPs, vehicles, equipment and other implements with or without claimants	Incident report on the apprehension of undocumented forest products including NTFPs, vehicles, equipment and other implements endorsed to the Office of Use for Filed Ops cc FMB (no)	Zamboanga Sibugay				600		600		600
		CENRO Imelda				200		200		200
		CENRO Kabasalan				200		200		200
		CENRO Zamboanga City				200		200		200

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
2. Hauling of apprehended forest products and vehicles, equipments and other implements to CENR Office or any nearest Government Office	Apprehended forest products hailed to designated area (vol) Apprehended vehicles, equipments and other implements hauled to designated area (no) - reports on volume and number including custodial report submitted	Zamboanga Sibugay				600		600		600
		CENRO Imelda				200		200		200
		CENRO Kabasalan				200		200		200
		CENRO Zamboanga City				200		200		200
3. Immediate administrative and adjudication proceedings for apprehended forest products including conveyances and implements	Administrative and adjudication proceedings report carried out within the prescription period of DAO 97-32 (no)	Zamboanga Sibugay				600		600		600
		CENRO Imelda				200		200		200
		CENRO Kabasalan				200		200		200

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City				200		200		200
Menu 7. Effective forest fire, pest and disease management measures										
7.1 Identification, survey, mapping & monitoring of fire prone areas	forest fire prone areas identified, surveyed, and mapped (ha) & GIS map produced (no	Zamboanga Sibugay				360				
		CENRO Imelda				120				
		CENRO Kabasalan				120				
		CENRO Zamboanga City				120				
7.2 Fireline establishment (to include NGP completed project)	Fireline established with report submitted to PENRO (ha)	Zamboanga Sibugay			13	143				
		CENRO Imelda			5	55				
		CENRO Kabasalan			4	44				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City			4	44	4	44	4	44
	Reports from CENROs consolidated and submitted to RO (no)									
		PENRO Sibugay								
8. Revenue Generation	Revenue generated (P)									
		Zamboanga Sibugay			528,750	-	528,750	-	528,750	-
		CENRO Kabasalan			258,000	-	258,000	-	258,000	-
		- Lands			175,000	-	175,000	-	175,000	-
		- Forestry			82,000	-	82,000	-	82,000	-
		- Wildlife			1,000	-	1,000	-	1,000	-



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City			270,750	--	270,750	--	270,750	--
		- Lands			209,750	-	209,750	-	209,750	-
		- Forestry			60,000	-	60,000	-	60,000	-
		- Wildlife			1,000	-	1,000	-	1,000	-
9. Monitoring and Evaluation										
		Zamboanga Sibugay								
10. Project Management and Supervision										
		Zamboanga Sibugay								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Operations Against Illegal Environment and Natural Resources Activities										
		Zamboanga Sibugay				259		259		259
		PENRO Sibugay								
		CENRO Imelda				88		88		88
		CENRO Kabasalan				64		64		64
		CENRO Zamboanga City				96		96		96
1. Monitoring of Entry and Exit Points of Forest Products	Entry and exit points of forest products monitored with monthly report submitted to RO (no)									
		Zamboanga Sibugay			9	108	9	108	9	108
	*Diplahan (2), Imelda (1), Buug (1)	CENRO Imelda	4	4	4	48	4	48	4	48

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
	*Goodyear, *Buayan	CENRO Kabasalan	2	2	2	24	2	24	2	24
	*Pier, Ayala, Curuan	CENRO Zamboanga City			3	36	3	36	3	36
2. Strengthening/Maintainanc e of Zamboanga Peninsula Anti-illegal Logging Task Force	Zamboanga Peninsula Anti-illegal Logging Task Force strengthened/maintained with report submitted to RO (no)									
		Zamboanga Sibugay			3	120				
		CENRO Imelda	1	1	1	40				
		CENRO Kabasalan	1	1	1	40				
		CENRO Zamboanga City			3	60				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Protected Areas, Caves, and Wetlands Development and Management Sub-Program										
Protected Areas Development and Management										
1. Management of Protected Areas										
1.1 PA management zoning	Length of PA Management zones delineated on the ground or marked based on the PAMP (km)									
		Zamboanga Sibugay								
		PENRO Sibugay			10	65	10	65	10	65
1.3 Protected Area Management Board operationalization	Minutes of meeting and PAMB resolutions submitted to the Secretary thru the BMB (no)									
		Zamboanga Sibugay				740		740		740
	PAMB meetings conducted (no) - Minutes of meeting prepared and number of									

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
	resolutions adopted/implemented									
		Zamboanga Sibugay			15	710	15	710	15	710
		CENRO Imelda - Buug Natural Biotic Area	4	4	4	100	4	100	4	100
		CENRO Zamboanga City			9	225	9	225	9	225
		- Turtle Islands & Wildlife Sanctuary			2	150	2	150	2	150
		- Pasonanca Natural Park			4	300	4	300	4	300
		- Basilan Natural Biotic Area			2	150	2	150	2	150
	PAMB meetings attended (no) - Report on the attendance of PAEMB	- Great & Little Sta. Cruz Islands Protected Landscape & Seascape			1	5	1	5	1	5
	Minutes of PAMB meetings and resolutions submitted to RO (no)									

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		PENRO Sibugay			15	30	15	30	15	30
	Attendance to PA/Cave/ Ecotourism/Wetlands related trainings/seminars/ workshops with report submitted (no)									
		Zamboanga Sibugay			10	500	10	500	10	500
	Attendance to PA/Cave/ Ecotourism/Wetlands related trainings/seminars/ workshops with report submitted (no)									
		Zamboanga Sibugay			10	500	10	500	10	500
		PENRO Sibugay			2	100	2	100	2	100
		CENRO Imelda - Buug Natural Biotic Area			2	100	2	100	2	100
		CENRO Zamboanga City			6	300	6	300	6	300
		- Pasonanca Natural Park & Great & Little Sta. Cruz Islands Protected			2	300	2	300	2	300

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Landscape & Seascape								
		- Basilan Natural Biotic Area			2	300	2	300	2	300
		- Turtle Islands & Wildlife Sanctuary			2	300	2	300	2	300
	Capacity building conducted/attended by PAMB members and PA Staff (no)	PENRO Sibugay			5	500	5	600	5	600
1.5 PAMB Operations Manual Preparation	PAMB Operations Manual prepared (no)									
		Zamboanga Sibugay			5	1,250				
		CENRO Imelda - Buug Natural Biotic Area			1	250				
		CENRO Zamboanga City			4	1,000				
		- Great & Little Sta. Cruz Islands Protected Landscape & Seascape			1	250				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		- Pasonanca Natural Park			1	250				
		- Basilan Natural Biotic Area			1	250				
		- Turtle Islands & Wildlife Sanctuary			1	250				
1.7. Provision of PA Protection Facilities	Facilities constructed (no)	Zamboanga Sibugay			6	5,100	6	1,800	6	1,300
		CENRO Imelda - Buug Natural Biotic Area			1	500	1	200	2	300
		CENRO Zamboanga City			5	2,300	8	800	5	500
		- Great & Little Sta. Cruz Islands Protected Landscape & Seascape			1	100	1	100	1	100
		- Pasonanca Natural Park			1	100	1	100	1	100
		- Basilan Natural Biotic Area			1	100	1	100	1	100



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		- Turtle Islands & Wildlife Sanctuary			2	2,000	5	500	2	200
1.8. Procurement of equipment for  monitoring/documentation and surveillance (no)	Procurement of equipment for monitoring/ documentation and surveillance (no)	Zamboanga Sibugay			15	3,000	5	1,000	9	2,000
		PENRO Sibugay			5	1,000				
		CENRO Imelda - Buug Natural Biotic Area					5	1,000		
		CENRO Zamboanga City			15	3,000			10	
		- Great & Little Sta. Cruz Islands Protected Landscape & Seascape			5	1,000				
		- Pasonanca Natural Park			5	1,000				
		- Basilan Natural Biotic Area							4	1,000
		- Turtle Islands &			5	1,000				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Wildlife Sanctuary								
1.9 Ecotourism Development										
1.9.1 Site development	Regional Ecotourism Committee (REC) meeting conducted (no.)									
		Zamboanga Sibugay			1	1,000		1,000		1,000
		CENRO Zamboanga City			2	1,000	2	1,000	2	1,000
		- GLSCIPLS			1	500	1	500	1	500
		- PNP			1	500	1	500	1	500
	Ecotourism facilities constructed (no)	Zamboanga Sibugay			1	3,000	1	3,000		
		CENRO Imelda - Buug Natural Biotic Area	1	1			1	3,000		
		CENRO Zamboanga City  - Pasonanca Natural Park			1	3,000				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
1.10 Hiring of PASu staff	PASu staff Hired (no)									
		Zamboanga Sibugay			10		10		10	
		CENRO Imelda - Buug Natural Biotic Area			2	284	2	284	2	284
		CENRO Zamboanga City			8	1,136	8	1,136	8	1,136
		- Great & Little Sta. Cruz Islands Protected Landscape & Seascape			2	284	2	284	2	284
		- Pasonanca Natural Park			2	284	2	284	2	284
		- Basilan Natural Biotic Area			2	284	2	284	2	284
		- Turtle Islands & Wildlife Sanctuary			2	284	2	284	2	284
1.11 Community development thru the engagement of park volunteers	Blue/green brigades/volunteers organized/operationalized (no)									
		Zamboanga Sibugay			20	360	20	360	20	360

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Imelda - Buug Natural Biotic Area	2	2	2	36	2	36	2	36
		CENRO Zamboanga City			18	324	18	324	18	324
		- Great & Little Sta. Cruz Islands Protected Landscape & Seascape			2	36	2	36	2	36
		- Pasonanca Natural Park			6	108	6	108	6	108
		- Basilan Natural Biotic Area			4	72	4	72	4	72
		- Turtle Islands & Wildlife Sanctuary			6	108	6	108	6	108
2. Management of Caves and Cave Resources										
2.1 Inventory and mapping of caves	Caves inventoried/identified with report, geotagging and mapping of caves submitted to RO (no)									
		Zamboanga Sibugay								

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City			2	100	2	100	3	150
2.2 Cave assessment and classification	Cave assessment with recommended classifications and maps endorsed to BMB (no)									
		Zamboanga Sibugay				1,780		1,430		1,580
	Caves assessed with report/recommended classifications and maps prepared and submitted to PENRO (no)									
		Zamboanga Sibugay			8	1,750	10	1,400	10	1,550
		PENRO Sibugay			2	250	4	500	4	500
		CENRO Imelda			2	500	2	300	2	350
		CENRO Kabasalan			2	500	2	300	2	350
		CENRO Zamboanga City			2	500	2	500	2	500
	Cave assessment report with recommended classifications and maps reviewed and endorsed to RO (no)									

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		PENRO Sibugay			8	30	10	30	10	30
	Conduct of in depth research to new species of cave dwelling fauna/cave fauna	PENRO Sibugay			1	300				
	Procurement of monitoring equipment to support cave research activities	PENRO Sibugay			1	200				
3. Conservation of Inland Wetlands										
3.1 Inventory and mapping of inland wetlands	Regionwide inventory report on identified wetlands with location maps endorsed to BMB (no)									
		Zamboanga Sibugay				60		60		60
	Inland wetlands assessment report submitted to PENRO (no)									
		Zamboanga Sibugay			1	50	4	200	4	200
		PENRO Sibugay			1	50	1	50	1	50
		CENRO Imelda					1	50	1	50
		CENRO Kabasalan					1	50	1	50

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City					1	50	1	50
	Initial evaluation report with recommendation submitted to RO (no)									
		PENRO Sibugay			1	10	4	10	4	10
3.2 Profiling of priority inland wetlands	Wetland profile with map and geotagged photos of priority wetlands (no)	PENRO Sibugay			1	200	1	200	1	200
3.3 Data Generation of physico- chemical parameters of 2018 (onwards) assessed wetlands	Data of physico-chemical parameters of 2018 assessed wetlands generated (no)	Zamboanga Sibugay								
		PENRO Sibugay			1	100	1	200	1	300
6. Hiring of Job Contracts for Turtle Islands Wildlife Sanctuary (TIWS)	Job contracts hired (no)	Zamboanga Sibugay								
		CENRO Zamboanga City			10	1,521	10	1,521	10	1,521
7. Patrolling of TIWS	Patrolling conducted (no)	Zamboanga Sibugay								
		CENRO Zamboanga City			48	240	48	240	48	240

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
8. Monitoring & Evaluation										
		PENRO Sibugay				66		45		48
9. Project Monitoring and Supervision										
		PENRO Sibugay				153		102		108
Wildlife Resources Conservation Sub-Program										
Protection and Conservation of Wildlife										
2. Population and Habitat Monitoring and Protection of Priority Threatened Species					-	-	-	-	-	-
		Zamboanga Sibugay			-	454	-	454	-	454
	Monitoring conducted/ behavioral study documented with report submitted to PENRO (no) - Includes species population population count									



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Zamboanga Sibugay			8	450	8	450	8	450
		PENRO Sibugay - Technical assistance			-	100	-	100	-	100
		CENRO Kabasalan			4	150	4	150	4	150
		CENRO Zamboanga City			4	200	4	200	4	200
	Report endorsed to RO (no)									
		PENRO Sibugay			8	4	8	4	8	4
	Organization/Operationaliz ation of Community Monitoring Group (CMG)	PENRO Sibugay			2	100	2	100	2	100
2.2 Pawikan	Wildlife monitoring report submitted to BMB (no)									
		Zamboanga Sibugay			-	203	-	203	-	203
	Identified nesting sites monitored with report submitted to PENRO (no)									
		Zamboanga Sibugay			5	200	5	200	5	200

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		PENRO Sibugay - Technical assistance			-	50	-	50	-	50
		CENRO Imelda			2	60	2	60	2	60
		CENRO Kabasalan			1	30	1	30	1	30
		CENRO Zamboanga City			2	20	2	20	2	20
		PENRO Sibugay - Turtle Island Wild life Sanctuary			4	200	4	200	4	200
	Monitoring report endorsed to RO (no)									
		PENRO Sibugay			5	3	5	3	5	3
	Consolidated report submitted to BMB (no)									
		Zamboanga Sibugay			-	47	-	47	-	47
	Turtles rescued, rehabilitated, tagged & released with report submitted to PENRO (no)									
		Zamboanga Sibugay			9	45	9	45	9	45
		CENRO Imelda			1	5	1	5	1	5

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Kabasalan			4	20	4	20	4	20
		CENRO Zamboanga City			4	20	4	20	4	20
	Monitoring Reports reviewed & endorsed to RO (no)									
		PENRO Sibugay			9	2	9	2	9	2
2.3 Bats	Wildlife monitoring report submitted to BMB (no)									
		Zamboanga Sibugay			-	445	-	345	-	345
	Monitoring conducted/ behavioral study documented with report submitted to PENRO (no) - Includes species population count									
		Zamboanga Sibugay			6	330	6	330	6	330
		PENRO Sibugay - Technical assistance			-	30	-	30	-	30
		CENRO Imelda			1	50	1	50	1	50
		CENRO Kabasalan			2	100	2	100	2	100

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City			3	150	3	150	3	150
	Report endorsed to RO (no)									
		PENRO Sibugay			6	15	6	15	6	15
					-	-	-	-	-	-
	Genetic/population study for Acerodon Jubatus- endangered species	PENRO Sibugay			1	100	-	-	-	-
2.4 Swallows	Wildlife monitoring report submitted to BMB (no)									
		Zamboanga Sibugay			-	72	-	72	-	72
	Monitoring conducted/ behavioral study documented with report submitted to PENRO (no) - Includes species population count									
		Zamboanga Sibugay			4	70	4	70	4	70
		PENRO Sibugay - Technical assistance)			-	50	-	50	-	50

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City - Climaco Ave. Area			3	15	3	15	3	15
	Reports reviewed & endorsed to RO (no)									
		PENRO Sibugay			4	2	4	2	4	2
	Holding facilities maintained (no)									
		Zamboanga Sibugay			2	200	2	600	2	600
		PENRO Sibugay			1	100	1	100	1	100
- Maintenance of wildlife in WRC		CENRO Zamboanga City			1	100	1	100	1	100
- Infrastructure Support		PENRO Sibugay			1	7,400	-	-	-	-
- Rescue/Rehab./Release of wildlife		PENRO Sibugay			4	100	4	100	4	100
7. Migratory Bird Conservation					-	-	-	-	-	-
7.1 Wildlife Risk Management & Emergency Response Program	Monitoring report submitted to BMB (no)									
		Zamboanga Sibugay			-	362	-	202	-	202

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
	Annual water bird Census/monitoring conducted with report submitted to PENRO (no)									
		Zamboanga Sibugay			10	360	10	200	10	200
		CENRO Kabasalan			4	240	4	-	4	-
		- Siay/Kabasalan wetland			1	180	1	180	1	180
		- Titay Valley wetland			1	20	1	20	1	20
		- Ipil wetland wetland			1	20	1	20	1	20
		- R.T. Lim/Tungawan wetland			1	20	1	20	1	20
		CENRO Zamboanga City			6	49	6	49	6	49
		- Calarian wetland			1	20	1	20	1	20
		- Sa-az River mouth & San Ramon shoreline including Ecozone pond			1	20	1	20	1	20

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		- Vitali wetland			1	20	1	20	1	20
		- Victoria wetland			1	20	1	20	1	20
		- Mampang-Tugbungan wetland			1	20	1	20	1	20
		- Talon -Talon wetland			1	20	1	20	1	20
	Monitoring Report endorsed to RO (no)									
		PENRO Sibugay			10	2	10	2	10	2
<b>Land Management Sub-Program</b>										
<b>Land Survey, Disposition and Records Management</b>										
1. Land Disposition/Distribution and Survey										
1.1 Patent issuance										
1.1.1 Residential Free Patent disposed under Republic Act No. 10023	Patents issued (no)									
		Zamboanga Sibugay			272	301	202	224	132	148

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
	Applications processed within 120 working days									
		Zamboanga Sibugay			272	211	202	157	132	104
		CENRO Imelda	1,524	375	100	77	80	62	60	47
		CENRO Kabasalan	2,093	87	152	118	102	79	52	41
		CENRO Zamboanga City			20	16	20	16	20	16
	Patents approved and transmitted to ROD within 5 working days									
		PENRO Sibugay			272	90	202	67	132	44
1.1.2 Agricultural Areas	Patents issued (no)									
		Zamboanga Sibugay			98	111	76	86		
	Applications processed within 120 working days									
		Zamboanga Sibugay			98	78	76	60		
		CENRO Imelda	342	60	17	14				



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Kabasalan	2,603		25	20	20	16		
		CENRO Zamboanga City			56	44	56	44		
	Patents approved and transmitted to ROD within 5 working days									
		PENRO Sibugay			98	33	76	26		
1.2 Survey of Residential Areas	Lot surveyed and approved (no)									
		Zamboanga Sibugay			272	327	202	243	132	159
		CENRO Imelda			100	120	80	96	60	72
		CENRO Kabasalan	2,093	87	152	183	102	123	52	63
		CENRO Zamboanga City			20	24	20	24	20	24
1.3 Survey of Agricultural Areas	Public land survey approved (ha)									
		Zamboanga Sibugay			118	456	91	353		
		CENRO Imelda			20	79				
		CENRO Kabasalan	2,603		30	117	24	93		

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Zamboanga City			68	260	67	260		
1.4 Special Patents under Section 4 of RA 10023	Patents issued (no)									
		Zamboanga Sibugay								
	Applications processed with CSW and endorsed to PENRO (no.)									
		Zamboanga Sibugay								
		CENRO Imelda								
		CENRO Kabasalan								
		CENRO Zamboanga City								
	Applications reviewed and special patent issued(no.)									
		PENRO Sibugay								
2. Management of Foreshore Areas	Draft permits/ lease contracts reviewed and endorsed to LMB (no) (ha)									

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Zamboanga Sibugay				8		8		10
	Applications processed and endorsed to PENRO (no) (ha)									
		Zamboanga Sibugay			2	6	2	6	2	8
		CENRO Kabasalan	1		1	3	1	3	1	4
		CENRO Zamboanga City			1	3	1	3	1	4
	Applications reviewed and endorsed to Regional Office (no) (ha)									
		PENRO Sibugay			2	2	2	2	2	2
5. Inspection, Verification and Approval of Surveys (IVAS) using LAMS	Survey plans approved thru LAMS (no)									
		Zamboanga Sibugay				233				
6.1 Conduct of Training & Immersion	Training & immersion conducted (no)									
		Zamboanga Sibugay			1	30				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
6.2 Preparation of Consolidated Cadastral Map (CCM)	Consolidated Cadastral Map (CCM) prepared (no)									
		Zamboanga Sibugay			30	30				
6.3 Preparation of Land Tenure Profile (LTP)	Land Tenure Profile (LTP) prepared (no)									
		Zamboanga Sibugay			30	795				
6.5 Issuance of Residential Free Patents	Residential Free Patents issued (no)									
		Zamboanga Sibugay			1,000	1,500				
6.7 Monitoring and Evaluation										
		Zamboanga Sibugay				70				
6.8 Project Monitoring & Supervision										
		Zamboanga Sibugay				163				
7. Land Records Management										
8. Land Records Maintenance	Land records maintained (no)									

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Zamboanga Sibugay			4	800	4	800	4	800
		PENRO Sibugay			1	200	1	200	1	200
		CENRO Imelda			1	200	1	200	1	200
		CENRO Kabasalan			1	200	1	200	1	200
		CENRO Zamboanga City			1	200	1	200	1	200
Forest Development, Rehabilitation and Protection										
Expanded National Greening Program										
1. Site Assessment	Area surveyed and mapped (ha)									
		Zamboanga Sibugay			1,150	1,380	1,100	1,320	1,100	1,320
	2,580	CENRO Imelda		1,976	250	300	200	240	200	240
		CENRO Kabasalan			500	600	500	600	500	600
		CENRO Zamboanga City			400	480	400	480	400	480
2.Comprehensive Site Development										

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
2.1. Seedling Production										
	35,563	Zamboanga Sibugay			1,286,460	14,382	808,200	10,591	808,200	10,590
		Bamboo								
		Agroforestry			220,000	7,700	175,000	6,125	175,000	6,125
		Mangrove			250,000	750				
		Potted								
		Propagules			250,000	750				
		Timber			516,460	4,132	333,200	2,666	333,200	2,665
		Fuelwood			300,000	1,800	300,000	1,800	300,000	1,800
		CENRO Imelda			636,560	7,082	158,300	3,292	158,300	3,291
		Agroforestry			120,000	4,200	75,000	2,625	75,000	2,625
		Mangrove			250,000	750				
		Potted								
		Propagules			250,000	750				
		Timber			266,560	2,132	83,300	667	83,300	666
		CENRO Kabasalan			649,900	7,300	649,900	7,299	649,900	7,299
		Agroforestry			100,000	3,500	100,000	3,500	100,000	3,500
		Timber			249,900	2,000	249,900	1,999	249,900	1,999

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Fuelwood			300,000	1,800	300,000	1,800	300,000	1,800
2.2. Site Preparation & Planting										
	15,600	Zamboanga Sibugay			1,000	6,500	700	4,550	700	4,550
		Bamboo								
		Agroforestry			440	2,860	350	2,275	350	2,275
		Mangrove			100	650				
		Potted								
		Propagules			100	650				
		Timber			310	2,015	200	1,300	200	1,300
		Fuelwood			150	975	150	975	150	975
		CENRO Imelda			500	3,250	200	1,300	200	1,300
		Agroforestry			240	1,560	150	975	150	975
		Mangrove			100	650				
		Potted								
		Propagules			100	650				
		Timber			160	1,040	50	325	50	325
		CENRO Kabasalan			500	3,250	500	3,250	500	3,250
		Agroforestry			200	1,300	200	1,300	200	1,300

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Timber			150	975	150	975	150	975
		Fuelwood			150	975	150	975	150	975
2.3. Maintenance & Protection	Area maintained and protected (ha)									
		Zamboanga Sibugay			33,799	165,995	13,683	66,315	10,414	49,970
	164,185.00	CENRO Imelda			6,195	29,475	5,093	24,865	3,917	18,985
		CENRO Kabasalan			7,420	35,600	6,400	30,500	5,252	24,760
		CENRO Zamboanga City			20,184	100,920	2,190	10,950	1,245	6,225
Year 1 (2020)										
		Zamboanga Sibugay			1,000	2,000	700	1,400	700	1,400
		Bamboo								
		Agroforestry			440	880	350	700	350	700
		Mangrove			100	200				
		Potted								
		Propagules			100	200				
		Timber			310	620	200	400	200	400
		Fuelwood			150	300	150	300	150	300
		CENRO Imelda			500	1,000	200	400	200	400



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Agroforestry			240	480	150	300	150	300
		Mangrove			100	200				
		Potted								
		Propagules			100	200				
		Timber			160	320	50	100	50	100
		CENRO Kabasalan			500	1,000	500	1,000	500	1,000
		Agroforestry			200	400	200	400	200	400
		Timber			150	300	150	300	150	300
		Fuelwood			150	300	150	300	150	300
Year 2 (2019)										
		Zamboanga Sibugay			2,515	12,575	1,000	5,000	700	3,500
	1,772	CENRO Imelda			700	3,500	500	2,500	200	1,000
		CENRO Kabasalan			1,072	5,360	500	2,500	500	2,500
		CENRO Zamboanga City			743	3,715				
Year 3 (2018)										
		Zamboanga Sibugay			5,499	27,495	2,515	12,575	1,000	5,000
	4,997	CENRO Imelda			2,317	11,585	700	3,500	500	2,500

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		CENRO Kabasalan			2,680	13,400	1,072	5,360	500	2,500
		CENRO Zamboanga City			502	2,510	743	3,715		
Year 4 (2017)										
		Zamboanga Sibugay			3,969	19,845	5,499	27,495	2,515	12,575
	3,024	CENRO Imelda			1,376	6,880	2,317	11,585	700	3,500
		CENRO Kabasalan			1,648	8,240	2,680	13,400	1,072	5,360
		CENRO Zamboanga City			945	4,725	502	2,510	743	3,715
Year 5 (2016)										
		Zamboanga Sibugay			20,816	104,080	3,969	19,845	5,499	27,495
	2,822	CENRO Imelda			1,302	6,510	1,376	6,880	2,317	11,585
		CENRO Kabasalan			1,520	7,600	1,648	8,240	2,680	13,400
		CENRO Zamboanga City			17,994	89,970	945	4,725	502	2,510
3. Hiring of Extension Officer	Extension officers hired (no)									
	32,854	Zamboanga Sibugay			116	30,985	56.00	14,959.00	37.00	9,883.00

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		PENRO Sibugay			3	801	3.00	801.00	3.00	801.00
		CENRO Imelda			21	5,609	17.00	4,541.00	13.00	3,472.00
		CENRO Kabasalan			25	6,678	21.00	5,610.00	17.00	4,541.00
		CENRO Zamboanga City			67	17,897	15.00	4,007.00	4.00	1,069.00
4. Maintenance of Seed Production Areas (SPAs)	SPA maintained (no) - Seeds produced (no)									
	- Gmelina (605 plus trees)	Zamboanga Sibugay CENRO Kabasalan			1 (10 kg)	500	1 (10 kg)	500	1 (10 kg)	500
8. Procurement of Drones	Drones procured (no)									
		Zamboanga Sibugay			3	450				
9. Procurement of Ipad Mini for Drone RC	Ipad Mini for drone RC procured (no)									
		Zamboanga Sibugay			3	90				
10. Project Management and Supervision										

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Zamboanga Sibugay				19,714		24,590		45,903
- PMS										
		Zamboanga Sibugay				13,800		18,206		33,167
- Monitoring and Evaluation										
		Zamboanga Sibugay				5,914		6,384		12,736
Forest and Watershed Management Sub-Program										
Soil Conservation and Watershed Management including River Basin Management & Development										
2 Watershed Management Planning										
2.1 Formation and operationalization of Watershed Management Council	Watershed Management Council created and operationalized (no)									
		Zamboanga Sibugay					1	180	2	360
		CENRO Kabasalan							2	360

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Surabay River Watershed							1	180
		Guilinan River Watershed							1	180
		CENRO Zamboanga City								
		Tumaga River Watershed A=17,650.00 ha					1	180		
2.2 Strengthening and operationalization of Watershed Management Council (WMC)	WMC strengthened & operationalized (no)									
		Zamboanga Sibugay								
		CENRO Kabasalan			3	540	3	540	3	540
		- Sibuguey River Basin			1	180	1	180	1	180
		- Doña Josefa Watershed			1	180	1	180	1	180
		- Palomoc Watershed			1	180	1	180	1	180
4. Soil and Water Conservation and Development: Climate										

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Change Mitigation & Resiliency										
4.1 Structural Measure										
4.1.1 Small Water Impounding System (SWIS)		Regional Office			1,200	87,902	700	51,275	750	54,938
		- Zamboanga Sibugay			1,200	87,902	200	14,650		
		CENRO Kabasalan								
		- Kabasalan River Watershed (22,306.68 ha) Kabasalan & Siay, ZSP, Bayog, ZDS & Salug & Godod, ZDN					200	14,650		
		CENRO Zamboanga City			1,200	87,902				
		- Tumaga River Watershed (17,560.00 ha.)			200	14,650				
		- Vitali-Taguite River Watershed (21,002.00 ha)			250	18,313				

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		- Curuan River Watershed (5,499.88 ha)			200	14,650				
		- Bolong River Watershed (3,280.00 ha)			150	10,988				
		- Manicahan River Watershed (4,035.00 ha)			250	18,313				
		- Ayala River Watershed (1,469.00 ha)			150	10,988				
4.1.2 Checkdam	- Monitor the level of surface water and its volume discharge of river/creek - Serve as basis for collection of Payment of Ecosystem Services (PES  ) to water users - Serve as basis for scientific study and research and development program of the watershed									
		Zamboanga Sibugay			180	720	180	720	80	840
		CENRO Kabasalan			60	240	60	240	20	600
		- Kabasalan River Watershed (12,219.00			20	80	20	80		

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		ha) (Kabasalan & Siay, ZSP, Bayog, ZDS & Salug & Godod, ZDN)								
		- Sibuguey River Basin			40	160	40	160	20	600
		CENRO Zamboanga City			120	480	120	480	60	240
		- Tumaga River Watershed (17,560.00 ha.)			20	80	20	80		
		- Vitali- Taguite River Watershed (21,002.00 ha)			20	80	20	80	20	80
		- Curuan River Watershed (5,499.88 ha)			20	80	20	80	20	80
-		- Bolong River Watershed (3,280.00 ha)			20	80	20	80		
		- Manicahan River Watershed (4,035.00 ha)			20	80	20	80	20	80
		- Ayala River Watershed (1,469.00 ha)			20	80	20	80		



PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
Environmental and Natural Resources Resiliency Program										
Natural Resources Assessment										
1. Watershed characterization cum vulnerability assessment	Watershed characterized cum vulnerability assessment (no)									
		Zamboanga Sibugay			3	3,460	2	1,740		-
		CENRO Kabasalan				-	2	1,740		-
		- Surabay River Watershed				-	1	780		-
		- Guilinan River Watershed				-	1	960		-
		CENRO Zamboanga City			3	3,460		-		-
		- Vitali-Taguite River Watershed (21,002.00 ha)				-		-		-
		- Curuan River Watershed (5,499.88 ha)			1	780		-		-

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		- Bolong River Watershed (3,280.00 ha)			1	780		-		-
		- Manicahan River Watershed (4,035.00 ha)				-		-		-
		- Ayala River Watershed (1,469.00 ha)				-		-		-
		- Tumaga River Watershed (17,650.00 ha)			1	1,900		-		-
2. Conservation of Threatened Species	Conduct of Payment for Ecosystems Services (PES) study (no)	Zamboanga Sibugay			2	500	2	500	1	250
		CENRO Imelda - Buug Natural Biotic Area (BNBA)			1	250	1	250		-
		CENRO Zamboanga City			1	250	1	250	1	250
		- Pasonanca Natural Park (PNP)			1	250		-		-
		- Great and Little Sta.Cruz Island Protected Landscape and				-		-	1	250

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)
		Seascape (GLSIPLS)								
		- Basilan Natural Biotic Area (BNBA)				-		-		-
		- Turtle Island Wildlife Sanctuary (TIWS)				-	1	250		-
3. Biodiversity Assessment and Monitoring (BAMS) for Terrestrial	BAMS site monitored with analysis and report submitted (no)									
		Zamboanga Sibugay			3	3,100		-	3	300
		PENRO Sibugay - Basilan Natural Biotic Area (BNBA)			1	1,300		-	1	100
		CENRO Imelda - Buug Natural Biotic Area (BNBA)			1	1,300		-	1	100
		CENRO Zamboanga City - Pasonanca Natural Park (PNP)			1	500		-	1	100

PROGRAMS/ ACTIVITIES/ PROJECTS	PERFORMANCE INDICATORS	LOCATION	UNIVERSE	BASELINE	IMPLEMENTING PERIOD					
					2020		2021		2022	
					TARGET	BUDGET ('000)	TARGET	BUDGET ('000)	TARGET	BUDGET ('000)

**Table 23 Zamboanga Sibugay Province Logical Framework – Forestry**

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Goal:</b> Living condition of communities improved	▪ 5% of poverty incidence reduces by 2022		▪ Monitoring Reports (PSA)	
<b>Outcome:</b> Illegal Extraction of Forest Resources Minimized	▪ 50% of apprehension reduced by 2022		▪ Apprehension Report ▪ Monthly Monitoring Report	Assumption: Active participation of other stakeholders
<b>Outputs:</b> ▪ Timber Poaching/Charcoal Making Minimized	▪ 100% of tenure holders monitored yearly		▪ Apprehension Report ▪ Monthly Monitoring Report	Assumption: Active participation of other stakeholders Risk: Unstable peace and order condition
<b>Activities:</b> ▪ Strict Monitoring and Implementation/Enforcement of Relevant Laws Strengthened	Menu 1. Provision of logistics & material support that are essential in forest law enforcement ▪ 7 vehicles procured by 2020 ▪ 10 vehicle maintained ▪ 4 motorcycle procured ▪ 20 motorcycles maintained ▪ equipment/gadgets procured by 2020 a. gadgets - 3 units drone b. laptops c. external drives d. 6 geo-tagging equipment e. personal protective equipment f. medical supplies	14,000 3,600 440 400  240 180 21 240 (5,000/FR) 1,500/team	▪ Purchase Orders ▪ Contract/MOA ▪ Notice of delivery ▪ Inspection Report	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
	<p>Menu 2. Improvement of infra-structures and provision of institutional support in investigation, filing of information and/or criminal complaints and prosecution of forestry cases</p> <ul style="list-style-type: none"> <li>▪ 4 forest ranger stations / ENR center constructed</li> <li>▪ 2 lawyers hired yearly</li> <li>▪ Radio communication with repeater base &amp; handheld units purchased</li> <li>▪ 4 solar panels purchased, installed and operationalized</li> <li>▪ 4 CCTV purchased and installed</li> <li>▪ Support to investigations &amp; filing of criminal complaints</li> <li>▪ Support to prosecution of criminal complaints</li> </ul>	<p>3,200</p> <p>3,440</p> <p>1.2-2.4M/ reg.</p> <p>300</p> <p>200</p> <p>200</p> <p>200</p>	<ul style="list-style-type: none"> <li>▪ Contract/MOA</li> <li>▪ Contract of Service</li> <li>▪ Purchase Orders</li> <li>▪ Contract/MOA</li> <li>▪ Notice of delivery</li> <li>▪ Inspection Report</li> <li>▪ Accomplishment Reports</li> </ul>	
▪ Personnel Hired/Augmented & Commitment of to Implement Shared Responsibility Assured	<p>Menu 3. Active collaboration and involvement of forest communities and other stakeholders in forest protection and law enforcement undertakings</p> <ul style="list-style-type: none"> <li>▪ 29 Forest Protection Officers hired yearly</li> <li>▪ 90 km. LFBPS routes patrolled monthly</li> </ul>	<p>8,874</p> <p>2,592</p>	<ul style="list-style-type: none"> <li>▪ Contract of Service</li> <li>▪ Accomplishment report</li> </ul>	

Design Summary	Performance Indicators	Budget (‘000)	Sources of Verification	Assumptions and Risks
▪ Active participation of other law enforcement agencies guaranteed	Menu 4. Undertake capacity building to DENR field personnel and enhance their skills and competence for effective protection of forests and plantations for biodiversity conservations ▪ 8 capacity building/trainings on enforcement of ENR Laws conducted yearly ▪ 4 orientations/trainings on enforcement of ENR Laws attended yearly	250  2,200/pax	▪ Narrative Reports & Photo documentations	
▪ Peace & order condition secured	Menu 5. Sustained a well-planned Information, Education and Communications (IEC) campaign region-wide down to CENRO level ▪ 1 Training on the conduct of effective IEC by June 2020 ▪ 12 IEC campaign conducted yearly ▪ 6 Entry and exit points of forest products monitored monthly ▪ 2 Zamboanga Peninsula Anti- illegal Logging Task Force strengthened/ maintained	200  900 216 240	▪ Narrative Reports & Photo documentations	Assumption: Active participation of other stakeholders

Design Summary	Performance Indicators	Budget (‘000)	Sources of Verification	Assumptions and Risks
	<p>Menu 6. Consistent apprehension, &amp; mandatory administrative adjudication and confiscation of undocumented forest products including conveyances and other implements</p> <ul style="list-style-type: none"> <li>▪ Incident report on the apprehended of undocumented forest products including NTFPs, vehicles, equipment and other implements endorsed to the Office of USEC for Field Ops cc FMB</li> <li>▪ Apprehended forest products hauled to designated area <ul style="list-style-type: none"> <li>- reports on volume and number including custodial reports submitted</li> </ul> </li> <li>▪ Administrative and adjudication proceedings report carried out w/in the prescribed period of DAO 97-32</li> </ul>	<p>1,200</p> <p>1,200</p> <p>1,200</p>	<ul style="list-style-type: none"> <li>▪ Monitoring Report</li> <li>▪ Accomplishment report</li> <li>▪ Apprehension Report</li> <li>▪ Copies of Cases filed</li> </ul>	Assumption: Active participation of other stakeholders
	<p>Menu 7. Effective Forest Fire, Pests &amp; Diseases Management measures</p> <ul style="list-style-type: none"> <li>▪ 10 forest fire prone areas identified, surveyed, and mapped (ha) &amp; GIS map produced</li> <li>▪ 10 ha. fire lines established by 2020</li> </ul>	<p>720</p> <p>99</p>	<ul style="list-style-type: none"> <li>▪ Accomplishment Report</li> <li>▪ Maps</li> <li>▪ Geotagged photos</li> </ul>	



Design Summary	Performance Indicators	Budget (‘000)	Sources of Verification	Assumptions and Risks
<b>Outputs:</b> ▪ Small Scale Mining Regulated	▪ 100% monitoring conducted yearly		▪ Monitoring Report	Assumption: Active participation of other stakeholders
<b>Activities:</b> ▪ Strict Monitoring and Implementation/Enforcement of Relevant Laws Strengthened	▪ EMB and MGB monitoring activities conducted monthly ▪ Initial investigation on complaints related to Mineral Resource and Geosciences (MRGS) & Environmental concerns (Clean Air, Clean Water and Solid Waste Management) conducted ▪ Procurement of gadgets	1,296  90	▪ Monitoring Report ▪ Investigation Report ▪ PO ▪ Inspection Report	
<b>Outputs:</b> ▪ Compliance to the Terms and Conditions of the Tenorial Instruments imposed	▪ 100 % of tenure holders monitored yearly		▪ Monitoring Report	Assumption: Active participation of other stakeholders
<b>Activities:</b> ▪ Strict Monitoring and Implementation/Enforcement of Relevant Laws Strengthened	▪ 11 Compliance of tenure holders according to the Terms and Conditions of the Agreement, approved management plans and related policies evaluated with categorical recommendations, and report submitted ▪ 46 CBFMA holders monitored, evaluated on compliance to CBFM agreements	495  2,070	▪ Monitoring Reports with categorical recommendation ▪ Accomplishment Reports	





▪ Enhanced IEC & Trainings conducted	▪ Environmental lecture for students, communities, and other groups conducted monthly ▪ ____ hours aired of radio program	240	▪ Accomplishment Report ▪ Photo Documentation	
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**Table 24.1 Zamboanga Sibugay Province Logical Framework – Land Management**

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Goal:</b> Clients Satisfied	▪ 100% of quality service provided by 2020 ▪ 100% of satisfied by 2020		▪ Clients' Satisfactory Survey	
<b>Outcome:</b> Knowledge on land management enhanced	▪ 100% of quality service provided by 2020 ▪ 100% of land records maintained yearly		▪ Clients' Satisfactory Survey	
<b>Outputs:</b> Database maintained	▪ 100% of land records maintained yearly		▪ Monitoring Report ▪ Accomplishment Report	
<b>Activities:</b> ▪ Equipment procured	▪ 3 land records maintained yearly ▪ ____ equipment procured - 2 Total Station / RTK surveying instrument (1M) - 2 Plotter (800) - Computer set ▪ Static Public IP internet connection Solely dedicated for the operationalization of LAMS Philippines procured (no.)	540 (insert cost) (insert cost)  (insert cost) (insert cost)  648	▪ Accomplishment Report ▪ PO/Inspection Report	

▪ Support staff hired	▪ 5 support staff hired (332.14 per staff)	1,319	▪ Contract of Service	
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Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Outcome:</b> Survey records reconstructed	▪ 500 lots reconstructed by 2022		▪ Accomplishment report	
<b>Activities:</b>	▪ 500 lots reconstructed	150	▪ Accomplishment report	
<b>Outputs:</b> Capability on land issues improved	▪ 100% of land conflicts addressed yearly			Assumptions: Active participation of stakeholders
<b>Activities:</b> ▪ Trainings provided	▪ Trainings on land record management conducted/participated	200		
▪ Technical personnel hired/augmented	▪ 4 technical personnel hired yearly ▪ Orientation/Seminar conducted	1,055	▪ Contract of Service	

**Table 24.2 Logical Framework – Land Disposition (Residential)**

Design Summary	Performance Indicators	Budget (‘000)	Sources of Verification	Assumptions and Risks
<b>Goal:</b> Economic conditions improved	▪ 5% of poverty incidence reduced by 2022		▪ Monitoring Reports (PSA)	
<b>Outcome:</b> Potential Area for Residential Patent Issuance increased	▪ 546 patent issued by 2022		▪ Title issued	Assumption: Active participation of stakeholders
<b>Outputs:</b> Land issues and conflicts resolved				
<b>Activities:</b> ▪ Proper investigations conducted	▪ Land disputes/cases investigated with reports submitted to PENRO by 2022 ▪ Land cases resolved/settled amicably by 2022	3,500 each  1,500 each	▪ Investigation Report	
	▪ 546 residential lots surveyed by 2022 ▪ 546 residential free patent applications processed by 2022 ▪ 546 residential free patents approved and transmitted to ROD by 2022	655 420 180	▪ Survey plan ▪ Transmittal ▪ Judicial forms ▪ Title issued	
▪ Technical Personnel hired/augmented	▪ 2 technical personnel hired/augmented by 2020		▪ Contract of Service	

**Table 24.3 Logical Framework – Land Disposition (Agricultural)**

Design Summary	Performance Indicators	Budget (‘000)	Sources of Verification	Assumptions and Risks
<b>Goal:</b> Economic conditions improved	▪ 5% of poverty incidence reduced by 2022		▪ Monitoring Reports (PSA)	
<b>Outcome:</b> Potential Area for Agricultural Patent Issuance determined	▪ 62 agricultural free patent issued by 2022		▪ Title issued	Assumption: Active participation of stakeholders
<b>Outputs:</b> Baseline records provided				
<b>Activities:</b> Adequate survey conducted	<ul style="list-style-type: none"> <li>▪ 74 agricultural lots surveyed by 2022</li> <li>▪ 62 agricultural free patent applications processed by 2022</li> <li>▪ 62 agricultural free patents approved and transmitted to ROD by 2022</li> </ul>	<div>286</div> <div>48</div> <div>20</div>	<ul style="list-style-type: none"> <li>▪ Survey plan</li> <li>▪ Transmittal</li> <li>▪ Judicial forms</li> <li>▪ Title issued</li> </ul>	

**Table 25 Logical Framework – Foreshore**

Design Summary	Performance Indicators	Budget (‘000)	Sources of Verification	Assumptions and Risks
<b>Goal:</b> Foreshore Areas properly utilized	▪ 100% of FLA assessed/reappraised yearly		▪ Monitoring report	
<b>Outcome:</b> Illegal Construction of Structures in Foreshore Areas Addressed	▪ 100% of illegally constructed structures issued with Notice of Violation		▪ Investigation Report	▪ Support from other concerned agencies
<b>Outputs:</b> ▪ Establishment of resorts/ facilities assessed and regulated ▪ Quarrying along foreshore areas minimized ▪ Illegal fishpond operations reduced ▪ Informal settlers reduced	▪ 100% assessment and monitoring of foreshore areas conducted yearly		▪ Monitoring Report ▪ Accomplishment Report	
<b>Activities:</b> ▪ Strict monitoring and implementation/enforcement of Relative Laws strengthened ▪ Active participation of other law enforcement agencies guaranteed	▪ 13 coastal barangays coordinated quarterly ▪ 13 coastal barangays oriented/capacitated on foreshore management by 2020 ▪ Foreshore areas monitored monthly	66  200	▪ Monitoring Report ▪ Accomplishment Report	





### Table 26 Logical Framework – Protected Area & Biodiversity

<b>Design Summary</b>	<b>Performance Indicators</b>	<b>Budget ('000)</b>	<b>Sources of Verification</b>	<b>Assumptions and Risks</b>
<b>Goal:</b> Ecosystem improved	<ul style="list-style-type: none"> <li>▪ Wildlife population improved by 2022</li> <li>▪ 100% Wildlife habitat protected</li> </ul>		<ul style="list-style-type: none"> <li>▪ AWC Report</li> <li>▪ Nesting incident report</li> <li>▪ Quarterly monitoring report</li> <li>▪ Duly filled-up wildlife forms</li> </ul>	
<b>Outcome:</b> Biodiversity increased	<ul style="list-style-type: none"> <li>▪ 70% of wildlife hunting/poaching reduced by Year 2022</li> </ul>		<ul style="list-style-type: none"> <li>▪ AWC Report</li> <li>▪ Nesting incident report</li> <li>▪ Quarterly monitoring report</li> <li>▪ Duly filled-up wildlife forms</li> </ul>	
<b>Outputs:</b> Protected Area, Caves and Wetlands improved	<ul style="list-style-type: none"> <li>▪ 70% of poaching incidents reduced by Year 2022</li> </ul>		<ul style="list-style-type: none"> <li>▪ Nesting incident report</li> <li>▪ Quarterly monitoring report</li> <li>▪ Duly filled-up wildlife forms</li> </ul>	<ul style="list-style-type: none"> <li>▪ Strict implementation of RA 9147</li> <li>▪ Support from enforcement agencies, LGU and community</li> </ul>
<b>Activities:</b> <ul style="list-style-type: none"> <li>▪ Wildlife habitat improved</li> </ul>	<ul style="list-style-type: none"> <li>▪ 30 km of PA management zones delineated on the ground based on the PAMP by end of 2022</li> <li>▪ 13 PAMB meetings conducted yearly</li> </ul>	<div>195</div> <div>1,846</div>	<ul style="list-style-type: none"> <li>▪ Accomplishment report with maps</li> <li>▪ Minutes of the meeting with resolutions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Community involvement is strong</li> <li>▪ Stakeholders strong support</li> </ul>



	<ul style="list-style-type: none"> <li>▪ 6 caves assessed yearly</li> </ul>	3,840	<ul style="list-style-type: none"> <li>▪ Assessment report with recommended classification</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Procurement of 4 caving equipment and survey materials by end of 2020</li> </ul>	1,000	<ul style="list-style-type: none"> <li>▪ Maps</li> <li>▪ Purchase order</li> <li>▪ Inspection report</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ 1 In depth research to new species of cave dwelling fauna/cave flora by end of 2020</li> </ul>	300	<ul style="list-style-type: none"> <li>▪ Comprehensive report</li> <li>▪ Purchase order</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Procurement of 1 monitoring equipment to support cave research activities</li> </ul>	200	<ul style="list-style-type: none"> <li>▪ Inspection report</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ 7 Inland-Wetlands assessed by end of 2022 - including Initial evaluation for Inland-wetlands</li> </ul>	380	<ul style="list-style-type: none"> <li>▪ Assessment report with photo documentation</li> <li>▪ Evaluation report</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ 1 Wetland profiled yearly</li> </ul>	600	<ul style="list-style-type: none"> <li>▪ Geo-tagged photos of priority wetland</li> <li>▪ Wetland profile/report</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ 1 Data of Physico-chemical parameters of 2018 assessed wetlands generated and updated yearly</li> </ul>	600	<ul style="list-style-type: none"> <li>▪ Physico-chemical Database report</li> </ul>	



Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Outputs:</b> PA networking strengthened				
<b>Activities:</b> ▪ Enhanced training & seminars provided	<ul style="list-style-type: none"> <li>▪ Attendance to 6 PA/Cave/Ecotourism/ Wetlands related trainings/seminars/ workshops yearly</li> <li>▪ 2 Capacity building conducted/attended by PAMB members and PA staff yearly</li> <li>▪ 2 PAMB operations manual prepared by end of 2020</li> <li>▪ 12 PA facilities constructed by end of 2022</li> </ul>	<ul style="list-style-type: none"> <li>900</li> <li>600</li> <li>500</li> <li>3,700</li> </ul>	<ul style="list-style-type: none"> <li>▪ Report with photo documentation</li> <li>▪ Report with photo documentation</li> <li>▪ Accomplishment report</li> <li>▪ Minutes of meetings</li> <li>▪ Resolution</li> <li>▪ Final output (Operations manual)</li> <li>▪ Contract/MOA</li> <li>▪ Inspection report</li> </ul>	

Design Summary	Performance Indicators	Budget (‘000)	Sources of Verification	Assumptions and Risks
<b>Outputs:</b> Wildlife population Increased	<ul style="list-style-type: none"> <li>▪ 100% of Important Wildlife sites monitored</li> </ul>		<ul style="list-style-type: none"> <li>▪ Monitoring report with photo documentation</li> </ul>	
<b>Activities:</b> <ul style="list-style-type: none"> <li>▪ Wildlife Poaching/ Illegal collection/trading and hunting reduced</li> </ul>	<ul style="list-style-type: none"> <li>▪ 4 monitoring activities conducted for Philippine Eagle yearly</li> <li>▪ 4 monitoring activities conducted for Tarsier yearly</li> <li>▪ 4 behavioral study documented/monitored for Swallows yearly</li> <li>▪ 12 behavioral study documented/monitored for Bats yearly</li> <li>▪ 1 Genetic/population study for Flying foxes conducted by end of 2020</li> <li>▪ 9 identified Turtle nesting sites monitored yearly</li> <li>▪ 5 Turtles rescued/ rehabilitated/ tagged/ released</li> <li>▪ 8 Annual water bird census/monitoring conducted yearly</li> <li>▪ 28 monitoring report on proposed RAMSAR Site conducted yearly</li> </ul>	<ul style="list-style-type: none"> <li>600</li> <li>360</li> <li>360</li> <li>510</li> <li>100</li> <li>330</li> <li>75</li> <li>480</li> <li>1,680</li> </ul>	<ul style="list-style-type: none"> <li>▪ Monitoring report with photo documentation</li> <li>▪ Monitoring report with photo documentation</li> <li>▪ Monitoring report with photo documentation</li> <li>▪ Monitoring report with photo documentation</li> <li>▪ Comprehensive report for publication</li> <li>▪ Monitoring report with photo documentation</li> <li>▪ Incidence report</li> <li>▪ Wildlife forms</li> <li>▪ AWC Report</li> <li>▪ Quarterly monitoring report</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Holding facility for wildlife rehabilitation adequate</li> </ul>	<ul style="list-style-type: none"> <li>▪ 1 Holding facility maintained yearly</li> <li>▪ 4 Wildlife rescued/ rehabilitated/ released yearly</li> </ul>	<ul style="list-style-type: none"> <li>300</li> <li>300</li> </ul>	<ul style="list-style-type: none"> <li>▪ Accomplishment report with photo documentation</li> </ul>	

**Table 27 Logical Framework – Coastal and Marine**

Design Summary	Performance Indicators	Budget (‘000)	Sources of Verification	Assumptions and Risks
<b>Goal:</b> Living condition of coastal community improved	▪ 5% Poverty incidence reduced by 2022		▪ Report (PSA)	
<b>Outcome:</b> Coastal & Marine Habitat improved	▪ 100% of coastal and marine habitat maintained and protected by Year 2022		▪ Apprehension Report ▪ Monthly Monitoring Report	
<b>Outputs:</b> Networking on coastal & marine areas strengthened	▪ 100% of coastal and marine habitat maintained and protected by Year 2022		▪ Apprehension Report ▪ Monthly Monitoring Report	Strong participation and cooperation from partner agencies
<b>Activities:</b> ▪ Adequate Assessment conducted	▪ 1,865 ha of coral reef assessed and mapped by end of 2022 ▪ 2,519 ha of sea grass beds assessed and mapped by end of 2022 ▪ 9 MPA updated using MEAT by end of 2022	3,053  1,261  450	▪ Assessment report with photo documentation	
▪ Adequate trainings conducted	▪ 3 stakeholders and MPA managers consultation/meetings conducted by end of 2022	600	▪ Minutes of meeting ▪ Report on activities conducted with photo documentation	



Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
▪ Technical assistance to LGUs provided	▪ Technical assistance to 6 LGUs on ICM by end of 2022	300	▪ Report with Photo documentation	
<b>Outputs:</b> ▪ Extraction of coastal & marine resources regulated	▪ 100% of monitoring and patrolling in coastal areas yearly		▪ Monitoring report with Photo documentation	
<b>Activities:</b> ▪ Monitoring and implementation of relevant Laws strengthened	▪ 2 Extension officers hired yearly ▪ 5 MPA network established by end of 2020 ▪ 1 MPA maintained and protected yearly ▪ 32 signage installed by end of 2020 ▪ 10 equipment purchased by end of 2021  ▪ 1 stakeholders/community capacitated-building conducted yearly	1,332 2,500 1,500 480 1000  100	▪ Contract of service ▪ Report with photo documentation ▪ Report with photo documentation ▪ Report with photo documentation ▪ Purchase Order ▪ Inspection report ▪ Activity/training reports with attendance list and photo documentation	▪ Personnel capacitated to execute



**Table 28 Zamboanga City Logical Framework - Forestry**

<b>Design Summary</b>	<b>Performance Indicators</b>	<b>Budget (‘000)</b>	<b>Sources of Verification</b>	<b>Assumptions and Risks</b>
<b>Goal:</b> Forestland Improved	<ul style="list-style-type: none"> <li>• 50 has. of Protection Conservation Area developed by Year 2022</li> <li>• 50 has. of Production Forest developed by Year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• Validation Report</li> </ul>	
<b>Outcome:</b> Illegal Extraction of Forest Resources Minimized	<ul style="list-style-type: none"> <li>• 80% of apprehension reduced by Year 2022</li> <li>• 50% of Lumber Dealers reduced by Year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• Apprehension Report</li> <li>• Monthly Monitoring Report</li> </ul>	
<b>Outputs:</b> <ul style="list-style-type: none"> <li>• Timber Poaching/Charcoal Making Decreased</li> </ul>	<ul style="list-style-type: none"> <li>• 80% of apprehension reduced by Year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• Apprehension Report</li> <li>• Monthly Monitoring Report</li> </ul>	
<b>Activities:</b> <ul style="list-style-type: none"> <li>• Lack of Strict Monitoring &amp; Implementation/Enforcement of Relevant Laws Strengthened</li> <li>• Personnel Hired/ Augmented &amp; Strong Commitment of Concerned Agencies Assured</li> </ul>	<p>Menu 1. Provision of logistics &amp; material support that are essential in forest law enforcement</p> <ul style="list-style-type: none"> <li>• 1 vehicle maintained yearly</li> <li>• 8 motorcycles maintained yearly</li> <li>• 2 motorcycle purchased by 2020</li> </ul> <p>Menu 3. Active collaboration &amp; involvement forest communities &amp; other stakeholders in forest protection &amp; law enforcement undertakings.</p> <ul style="list-style-type: none"> <li>• Strengthening of MFPC <ul style="list-style-type: none"> <li>- 4 Orientations/trainings on ENR Laws &amp; Policies conducted by Year 2020</li> <li>- 25 Partners/stakeholders deputized by Year 2020</li> </ul> </li> </ul>	120 160 220   200 13	<ul style="list-style-type: none"> <li>• DENR Admin report</li> </ul>	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
	<p>Cont.</p> <ul style="list-style-type: none"> <li>• 135 Km. LFBPS route patrolled monthly</li> <li>• 100 FPOs hired yearly</li> <li>• 1 Orientation on the implementation of LFBPS conducted yearly</li> <li>• 3 Participants in the LAWIN assessment/validation attended yearly</li> </ul> <p>Menu 4. Undertake capacity building for DENR field &amp; enhance their skills and competence for effective protection of forest and plantation &amp; biodiversity conservations</p> <ul style="list-style-type: none"> <li>• 100 % of FPOs trained/oriented yearly</li> </ul> <p>Menu 5. Sustained and well-planned information, education &amp; communication (IEC) campaign region wide down to CENRO level</p> <ul style="list-style-type: none"> <li>• 1 orientation conducted yearly</li> <li>• 2 seminars/workshop conducted yearly</li> </ul> <p>Menu 6. Consistent apprehension &amp; mandatory administrative adjudication &amp; confiscation of undocumented forest products including conveyances &amp; other implements</p> <ul style="list-style-type: none"> <li>• 50% of the Incident report on the apprehended of undocumented forest products including NTFPs, vehicles &amp; equipment reduced</li> <li>• 100% of the Apprehended/confiscated forest products hauled to designated area before the end of the year</li> <li>• 100% of Administrative and adjudication proceedings report carried out w/in the prescribed period under DAO 97-32 within the year</li> </ul>	<p>3,213</p> <p>30,600</p> <p>225</p> <p>225</p> <p>300</p> <p>165</p> <p>330</p> <p>600</p> <p>600</p> <p>600</p>	<ul style="list-style-type: none"> <li>• LAWIN report</li> <li>• Contract of Service</li> <li>• Documentation report</li> <li>• LAWIN report</li> <li>• CAASP report</li> </ul>	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
	<p>Menu 7. Effective forest fire, pest &amp; disease management measures</p> <ul style="list-style-type: none"> <li>• 4 has. Fireline established with report submitted to PENRO by year 2020</li> <li>• 2 personnel monitored the Fireline estab. Quarterly by year 2020</li> <li>• 4 has. Identified and mapped fire prone areas (NGP project) by year 2020</li> <li>• 4 has.established fireline maintained from year 2020 to 2022</li> </ul> <p>Zamboanga Peninsula Anti-illegal logging taskforce strengthened/maintained with report submitted to RO</p> <ul style="list-style-type: none"> <li>• 3 DENR forest products monitoring station manned with monthly report submitted to Regional Office from 2020 to 2022</li> </ul>	<p>44</p> <p>40</p> <p>22</p> <p>132</p> <p>108</p>	<ul style="list-style-type: none"> <li>• Accomplishment report</li> <li>• Documentation report</li> </ul>	
<p><b>Output:</b></p> <ul style="list-style-type: none"> <li>• Informal Settlers within Forestlands Managed</li> </ul>	<ul style="list-style-type: none"> <li>• 100% updating &amp; tagging of forest occupants within forestlands by year 2020 (Manicahan &amp; Ayala watershed)</li> <li>• 4 IEC conducted by year 2020</li> </ul>	<p>360</p> <p>400</p>	<ul style="list-style-type: none"> <li>• Documentation report</li> </ul>	
<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>• Alternative Livelihood Introduced</li> <li>• Continuous Migration from the Lowland to Upland/Coastal Areas Regulated</li> <li>• IEC/BCC Conducted</li> <li>• Population Managed</li> <li>• Relevant Laws Imposed</li> </ul>	<ul style="list-style-type: none"> <li>• 2 Alternative livelihood monitored by year 2022</li> <li>• 25 % of migration reduced by 2022</li> <li>• 25 % of the constituents adhere to the relevant laws imposed by year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• Monitoring report</li> <li>• PopCom Census report</li> <li>• DENR monitoring report</li> </ul>	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Output:</b> <ul style="list-style-type: none"> <li>Open Access Area in Forestlands Identified/Surveyed/Programmed for Management Intervention</li> </ul>	<ul style="list-style-type: none"> <li>50 has. SMP within Manicahan and Ayala Watershed for enrichment/supplemental planting by year 2020</li> <li>50 has. rehabilitated/developed within Manicahan and Ayala watershed by year 2020</li> <li>50,010 seedlings of timber species to be planted within Manicahan and Ayala watershed by year 2020</li> <li>10,000 seedlings of Agroforestry species to be planted within Manicahan and Ayala watershed by year 2020</li> <li>50 has. maintained &amp; protected within Manicahan and Ayala watershed by year 2022</li> <li>100 % monitoring &amp; evaluation within the area developed by year 2022</li> <li>100 has. SMP within open access area in forestland by year 2020</li> <li>100 has. developed within open access area in forestland by year 2021 &amp; Maint. &amp; Prot. For year 1 and year 2</li> <li>83,350 sdlns prod. For timber(50 has. @ 1,667 sdlg/ha)</li> <li>25,000 sdlns for agro-forestry 50 has. @ 500 sdlg/ha)</li> </ul>	60 325 400.080 350 600  120 1,350  666.8 875	<ul style="list-style-type: none"> <li>Geo-tagged photos</li> <li>Survey report/Maps</li> <li>Accomplishment report</li> <li>Monitoring/evaluation report</li>   <li>Accomplishment report</li>   <li>SMP/assessment report</li> </ul>	
<b>Activities:</b> <ul style="list-style-type: none"> <li>Tenurial Instrument Issued</li> <li>Planning/Zoning Implemented</li>   <li>PURCHASED OF GEOTAGGING EQUIPMENT</li> </ul>	<ul style="list-style-type: none"> <li>50 has. assessed &amp; evaluated for the issuance of tenurial instrument by year 2020</li> <li>100% of zoned areas co-managed with LGU to be implemented by year 2020</li> <li>150 has. Subject for SMP by 2020</li>   <li>2 Geotagging equipment purchased by 2020</li> </ul>	60  2,000  180  220	<ul style="list-style-type: none"> <li>Tenurial instrument issued</li>   <li>Approved MOA</li> <li>Approved LOA</li>   <li>Geotagged photo</li> <li>Validation report</li> <li>Accomp. Report</li>   <li>Report</li> </ul>	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Output:</b> <ul style="list-style-type: none"> <li>Compliance to the Terms and Conditions of the Tenorial Instruments Addressed &amp; Imposed</li> </ul>	<ul style="list-style-type: none"> <li>100% monitored &amp; evaluated compliance to the terms and conditions by the stakeholders by year 2020</li> </ul>		<ul style="list-style-type: none"> <li>Monitoring report</li> </ul>	
<b>Activities:</b> <ul style="list-style-type: none"> <li>Lack of Strict Monitoring &amp; Implementation/Enforcement of Relevant Laws Strengthened</li> <li>Personnel Hired/ Augmented &amp; Strong Commitment of Concerned Agencies Assured</li> </ul> <p>NOTE; Under GASS</p> <ol style="list-style-type: none"> <li>1. Estab. Of Watershed Micro-Climate Water &amp; Soil Monitoring Station/Facility</li> <li>2. Establishment of Solar Energy Facility</li> </ol>	<ul style="list-style-type: none"> <li>Refer performance indicator under Forest Protection Menu 3</li> <li>Watershed Micro-Climate Water and Soil Monitoring Station/Facility established by year 2020</li> <li>Solar Energy Facility established</li> </ul>	<p>7.5</p> <p>2.5M</p>	<ul style="list-style-type: none"> <li>Assessment result</li> <li>Monitoring report</li> </ul>	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
Goal: Occupation Secured and Guarantee	<ul style="list-style-type: none"> <li>Patent issuance increased yearly</li> </ul>		<ul style="list-style-type: none"> <li>Transmittal letter to the Registry of Deeds of Titles issued</li> </ul>	
Outcome: Potential Area for Residential Free Patent Application Increased	<ul style="list-style-type: none"> <li>Residential Free Patent Application increased yearly</li> </ul>		<ul style="list-style-type: none"> <li>Application forms</li> </ul>	
<b>Outputs:</b> <ul style="list-style-type: none"> <li>LGU Certification Issued</li> </ul>	<ul style="list-style-type: none"> <li>Certification from LGU issued</li> </ul>		<ul style="list-style-type: none"> <li>Certifications issued</li> </ul>	
<b>Activities:</b> <ul style="list-style-type: none"> <li>Residential Area Expanded</li> </ul>	<ul style="list-style-type: none"> <li>50% of Workable lots in Zamboanga City identified by year 2022 -conduct of Rapid Land Tenure Appraisal (RLTA)</li> <li>60 IEC in barangays conducted by year 2022</li> <li>180 Residential Free Patents issued by year 2022</li> </ul>	1,170  1,400  198	<ul style="list-style-type: none"> <li>Land Tenure Profile</li> <li>Documentation report</li> <li>Transmittal letter to the Registry of Deeds of Titles issued</li> </ul>	

**Table 29.1 Zamboanga City Logical Framework - Land Disposition (Residential)**



Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
Goal: Foreshore Areas Managed	<ul style="list-style-type: none"> <li>• 10% of assessed wharves issued with permit by year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• Copy of Lease Contract</li> </ul>	
Outcome: Illegal Construction of Wharves on Foreshore Areas Addressed	<ul style="list-style-type: none"> <li>• 100% of Illegally constructed wharves assessed by year 2022</li> <li>• 10% of assessed wharves issued with permit by year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• Investigation Report</li> <li>• Public Land Application</li> <li>• Appraisal Report</li> <li>• Copy of Lease Contract</li> </ul>	<ul style="list-style-type: none"> <li>• Support from other concerned agencies</li> </ul>
<b>Outputs:</b> <ul style="list-style-type: none"> <li>• Entry &amp; Exit Point Monitored</li> <li>• ENR Laws fully Enforced and Implemented</li> <li>• Compliance to Requirements Facilitated/Assisted</li> </ul>	<ul style="list-style-type: none"> <li>• 100% of assessed wharves monitored yearly</li> </ul>		<ul style="list-style-type: none"> <li>• Monitoring Report</li> <li>• Accomplishment Report</li> </ul>	
<b>Activities:</b> <ul style="list-style-type: none"> <li>• Commitment to Implement Shared Responsibility Assured</li> </ul>	<ul style="list-style-type: none"> <li>• 4 coastal barangays coordinated quarterly</li> <li>• 4 coastal barangays oriented/capacitated on foreshore management by June 2020</li> <li>• Task Force Pantalan meetings attended quarterly</li> <li>• 8 field personnel hired yearly</li> <li>• 100 % of clients assisted yearly</li> </ul>	66 200  2,448 324	<ul style="list-style-type: none"> <li>• Monitoring Report</li> <li>• Accomplishment Report</li> <li>• Accomplishment Report</li> <li>• Contract of Service</li> <li>• Requirements submitted</li> </ul>	

**Table 29.2 Zamboanga City Logical Framework - Foreshore**

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
Goal: Biodiversity of Coastal and Marine Ecosystem Degraded				
Outcome: Coastal and Marine Resources in Protected Area Improved				
<b>Outputs:</b> <ul style="list-style-type: none"> <li>• Management Zones delineated</li> <li>• Irresponsible disposal of wastes by vessels monitored/managed</li> <li>• Illegal, Unregulated &amp; Unreported (IUU) fishing activities in ZC waters minimized</li> </ul>	<ul style="list-style-type: none"> <li>• Refer performance under coastal</li> </ul>			

**Table 30.1 Zamboanga City Logical Framework – Protected Area**

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Activities:</b> <ul style="list-style-type: none"> <li>Protected Area Mgt Board Operationalization</li> <li>PAMB Operation Manual preparation</li> <li>Provision of PA Protection Facilities</li> <li>Procurements of equipment for monitoring/documentation and surveillance</li> <li>Ecotourism Site Development</li> <li>Hiring of PASU staff</li> <li>Community Dev. Thru the Engagement of Park Volunteers</li> <li>Inventory and Mapping of Caves</li> </ul>	<ul style="list-style-type: none"> <li>4 PAMB meetings conducted from 2020 to 2022</li> <li>2 Attendance to PA/Cave/Ecotourism/Wetlands related trainings/seminar/workshop From 2020 to 2022</li> <li>2 PAMB operations manual prepared by year 2020</li> <li>6 Facilities constructed from 2020 to 2022</li> <li>5 equipment for PNP procurement by 2020</li> <li>5 equipments for GLS by 2022</li> <li>2 ecotourism site development maint. From 2020 to 2022</li> <li>1 ecotourism site development facilities constructed under PNP for 2020</li> <li>4 PASU staff hired from 2020 to 2022</li> <li>8 Blue/Green Brigade volunteers org./operationalized from 2020-2022</li> </ul>	300 300  500  600  1,000 1,000  3,000 3,000 1,704  432	<ul style="list-style-type: none"> <li>Minutes of the meeting Reso.</li> <li>Doc. And Narrative rep.</li> <li>Report Manual</li> <li>Accomp Report</li> <li>Accomp Report Geotagged photo</li> <li>Contract of Service</li> </ul>	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Activities:</b> <ul style="list-style-type: none"> <li>• Caves Assessment s and Classification</li> <li>• Inventory and Mapping of Inlands &amp; Wetlands</li> </ul>	<ul style="list-style-type: none"> <li>• 7 Caves inventoried/identified from 2020 to 2022</li> <li>• 6 caves assessed &amp; classified from 2020 to 2022</li> <li>• 2 inland wetland assessed and mapped from 2021 to 2022</li> </ul>	350  1,150 100	<ul style="list-style-type: none"> <li>• Geotagged photo Report</li> </ul>	
<b>Outputs:</b> <ul style="list-style-type: none"> <li>• Extraction of marine resources in lagoon and vicinities by community residents minimized</li> <li>• Conversion of mangrove areas to settlement and other uses stopped</li> </ul>	<ul style="list-style-type: none"> <li>• Refer performance under coastal</li> </ul>			

**Table 30.2 Zamboanga City Logical Framework – Biodiversity**

<b>Design Summary</b>	<b>Performance Indicators</b>	<b>Budget (‘000)</b>	<b>Sources of Verification</b>	<b>Assumptions and Risks</b>
Goal: Ecosystem Improved	<ul style="list-style-type: none"> <li>• 50 has. of Protection Conservation Area developed by Year 2022</li> <li>• 50 has. of Production Forest developed by Year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• Validation Report</li> <li>• Key Informant Interviews (KII)</li> </ul>	
Outcome: Biodiversity Outside NIPAS Improved	<ul style="list-style-type: none"> <li>• 50% of wildlife increased by year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• Key Informant Interviews (KII)</li> <li>• Site assessment report</li> <li>• BMS report</li> </ul>	
Outputs: <ul style="list-style-type: none"> <li>• Informal Settlers within Forestlands Managed</li> <li>• Timber Poaching/ Charcoal /Kaingin Making Decreased</li> <li>• Illegal Gathering of Flora and Fauna Reduced</li> <li>• Forest/Bush Fires Minimized</li> <li>• Resiliency to Drought/Long Dry Spell</li> </ul>	<ul style="list-style-type: none"> <li>• Refer performance indicators under forest protection</li> <li>• 100% reactivation of firefighting brigade by year 2020</li> <li>• 50% of drought resistant species planted within PCA by year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• List of fire fighter brigade (BLGU)</li> <li>• Accomplishment report</li> </ul>	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Activities:</b> <ul style="list-style-type: none"> <li>• IEC Improved &amp; Enhanced</li> <li>• Human Activities Involving Fire Managed</li> <li>• Wildlife Trafficking Reduced</li> <li>• Bats</li> <li>• Swallows</li> <li>• Philippine Eagle</li> <li>• Tarsier</li> </ul>	<ul style="list-style-type: none"> <li>• Refer performance indicators under forest protection</li> <li>• 4 Monitoring in the entry and exit point conducted quarterly</li> <li>• 3 Annual water bird census conducted with report submitted to PENRO fr 2020-2023</li> <li>• 3 Monitoring conducted on behavioral study documented w/ report submitted to PENRO to include species &amp; Population count for 2020, 2021 &amp; 2022</li> <li>• 3 Monitoring conducted on behavioral study documented w/ report submitted to PENRO for 2020, 2021 &amp; 2022</li> <li>• 4 Monitoring conducted on behavioral study documented w/ report submitted to PENRO for 2020, 2021 &amp; 2022</li> <li>• 4 Monitoring conducted on behavioral study documented w/ report submitted to PENRO for 2020, 2021 &amp; 2022</li> </ul>	22.5 60  150  48  600  300	<ul style="list-style-type: none"> <li>• Documentation report</li> <li>• Transport of wildlife certification report</li> <li>• Geotagged photos</li> <li>• Thematic map</li> <li>• Monitoring report</li> <li>• Geotagged photos</li> <li>• Monitoring report</li> <li>• Geotagged photo</li> <li>• Monitoring report</li> <li>• Geotagged photo</li> </ul>	



**Table 31 Zamboanga City Logical Framework – Coastal and Marine**



Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
Goal: Living Condition of Coastal Communities Improved	<ul style="list-style-type: none"> <li>Household income increased 5% by year 2022</li> <li>50% of Children in the coastal communities are sent to school by year 2022</li> </ul>		<ul style="list-style-type: none"> <li>PSA report</li> <li>DepEd</li> <li>Barangay Statistics</li> </ul>	
Outcome: Coastal and Marine Resources Sustained/Maintained	<ul style="list-style-type: none"> <li>50% in the Production of Aqua Marine products increased by year 2022</li> <li>100% of Coastal habitat assessed by year 2021</li> </ul>		<ul style="list-style-type: none"> <li>OCA</li> <li>BFAR</li> <li>DENR assessment &amp; validation report</li> </ul>	
Outputs: <ul style="list-style-type: none"> <li>Disposal of wastes by vessels, domestic households &amp; other establishments monitored/ managed</li> <li>Conversion of Mangrove Area to Settlement &amp; for Other Uses Stopped</li> <li>Illegal Fishing &amp; Extraction of Marine Resources Regulated</li> <li>Illegal Construction of Wharves Addressed</li> <li>Agricultural chemicals leached downstream monitored/managed</li> <li>Sedimentation of Deltas &amp; Estuarine Areas Reduced</li> </ul>	<ul style="list-style-type: none"> <li>Performance indicators input from MARINA, OCA, BFAR, OCENR &amp; EMB</li> <li>Refer to Performance indicators under forest protection</li> <li>100% of Barangays in Zamboanga City subjected to IEC activities by year 2022</li> <li>Multi-Sectoral Coastal &amp; Marine Monitoring &amp; Protection Council (MCMMPCC) created by year 2020</li> <li>Refer to Performance Indicators under foreshore management</li> <li>Performance indicators input from OCA &amp; DA</li> <li>4 Water Quality Monitoring &amp; Assessments (WQMA) yearly</li> </ul>		<ul style="list-style-type: none"> <li>EMB</li> </ul>	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
<b>Activities:</b> <ul style="list-style-type: none"> <li>• Designated temporary depository space for garbage in place</li> <li>• Strict Implementation and Enforcement of Relevant Laws Strengthened</li> <li>• Personnel Hired/Augmented &amp; Strong Commitment of Concerned Agencies Assured</li> <li>• Relevant Existing Laws &amp; Regulations Enforced/ Imposed</li> <li>• Use of chemicals regulated</li> <li>• Soil Erosion/Landslide/Flashflood Minimized</li> <li>• Siltation of Rivers &amp; Creeks Minimized</li> </ul>	<ul style="list-style-type: none"> <li>• 1 depository space for garbage/coastal barangay in placed by 2021</li> <li>• Refer to Performance indicators under forest protection</li> <li>• 50% occurrence of soil erosion/ landslide/ flashflood reduced by year 2022</li> <li>• 50% of siltation of rivers and creeks minimized by year 2022</li> </ul>		<ul style="list-style-type: none"> <li>• BLGU monitoring report</li> <li>• DENR-CENRO Monitoring Report</li> <li>• Appointment/Contract of Services / Covenant/MOA</li> <li>• Report from OCA,DA &amp; BFAR</li> <li>• Monthly monitoring report of FPOs</li> <li>• DENR-CENRO Monitoring Report</li> <li>• MGB report</li> </ul>	
<ul style="list-style-type: none"> <li>• Forest Vegetation Increased</li> <li>• Assessment and mapping of coastal habitats (outside NIPAS/MPAs) <ul style="list-style-type: none"> <li>-Coral reefs</li> <li>-sea grass</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 100 has. of mangrove areas rehabilitated by year 2021</li> <li>• 250,000 propagules produced</li> <li>• 100 has for Maint. &amp; protection</li> <li>• 4,121 has. of coral reef assessed and mapped for 2020 to 2022</li> <li>• 2,653 has. Of sea grass bead assessed and mapped from 2020 to 2022</li> </ul>	650 750 200  4,696  1,327	<ul style="list-style-type: none"> <li>• NGP validation &amp; assessment report</li> <li>• Accomp Report</li> <li>• Geotagged photo</li> </ul>	

Design Summary	Performance Indicators	Budget ('000)	Sources of Verification	Assumptions and Risks
Activities: <ul style="list-style-type: none"> <li>• Inventory &amp; Assessment of Mangrove w/in abandoned, undeveloped and underutilized fishponds</li> <li>• Marine Protected Areas Networking(Locally-managed)</li> <li>• Maintenance &amp; Protection of Coastal and Marine Ecosystem (including reduction of threats and pressures identified)</li> </ul>	<ul style="list-style-type: none"> <li>• 1,750 has. Assessed and mapped</li> <li>• 5 MPA network established by 2020</li> <li>• 4 MPAs maintained &amp; Protected from 2020 to 2022</li> </ul>	1,050  2,500  1,170	<ul style="list-style-type: none"> <li>• Map</li> <li>• Accomp Report</li> <li>• Accomp. Report</li> <li>• Accomp report</li> <li>• photo</li> </ul>	
<ul style="list-style-type: none"> <li>• Installation of Signages</li> <li>• PCRA</li> <li>• CEPA               <ul style="list-style-type: none"> <li>-Conduct of Special events such as Month of the Ocean, CTI day, International Coastal clean-up and other environment events</li> <li>-Implementation of a Flagship communication campaign for NIPAS MPA</li> </ul> </li> <li>• Hiring of CMEMP EO</li> </ul>	<ul style="list-style-type: none"> <li>• 8 signages installed by2020</li> <li>• 1 PCRA conducted including 11 islands by 2020</li> <li>• 6 CEPA conducted from 2020 to 2022</li> <li>• 1 CEPA report material produced from 2020 to 2022</li> <li>• 2 Coastal Eos hired from 2020 to 2022</li> </ul>	160 1,080 600  300  1,336	<ul style="list-style-type: none"> <li>• Doc. Report</li> <li>• Attendance</li> <li>• Doc. Report</li> <li>• Doc. Report</li> <li>• Contract of Service</li> </ul>	
	<ul style="list-style-type: none"> <li>• Integrated pest management training</li> <li>• Regulated use chemicals</li> <li>• Training with Co farmers</li> <li>• Slowly Shifting from traditional to organic (10% target)</li> </ul>			

## **V. IMPLEMENTATION PLAN**

In order to have a successful implementation of the projects, there should be an active participation and coordination with the Local Government Units and other concerned agencies. Effective implementation of the project should start with prioritizing peace and order conditions in the municipalities. Peace and Order is an essential ingredient in maintaining economic development, social order and political stability. However, it is one of the major problem in the communities of Zamboanga Sibugay. Due to this problem, previous conducted plans by the PENR became less effective and unsuccessful. This problem is continuously happening throughout the municipalities. Competition over land and scarcity of resources are usually the cause of conflict in the upland areas. The PENR Office of Zamboanga Sibugay plan to tackle this problem in the year 2020-2022 by the collaboration of Law enforcement agencies and the support LGUs to solve the peace and order problem in the area and implement the strategies, programs and activities as stated in the log frame. Since the plans aims to improve the living condition of *Sibugaynons*. It aims to resolve first the conflict within the communities by hearing their suggestions, opinions and recommendations.

The DENR particularly the CENRO level shall determine the root of conflicts within the communities based on the previous recorded cases in the enforcement section. The DENR should also consult the POs and the beneficiaries of NGP including the holder of tenurial instruments regarding the issues and concern within their respective communities or areas. Information, Education campaign should also conduct by the CENRO to instill public awareness and promote peace and order.

Coordination with the Local Government Units should also be prioritized. It is the best interest of LGU's particularly the Department of Interior and Local Government to solve the peace and order problem in the area. Both LGUs and DENR should collaborate in conducting a meeting with the barangay officials and community leaders concerning the conflict over land, scarcity of resources and other issue/concern in lowland and upland areas including the coastal communities and to ensure the successful implementation of strategies and programs. Through the collaboration of DENR and LGUs, the issues and concern will successfully address and manage.

## **FORESTRY**

The extraction of forest resources is considered as the core problem in the forestry sector. In order to minimize the illegal activities directing contributing to this problem, the following activities will be conducted by the office, to wit;

- Information, Education and Communication campaigns to include environmental lectures for students, communities and other groups will be conducted on the first semester of 2020 to instil awareness with regard to environmental concerns. Due to limited time, as part of the strategy, DENR personnel will conduct IEC to the teachers who will echo the information relating to environmental concerns to the students. With this, the coverage of the spread of information will increase. In addition, 30-minute weekly radio program will be initiated to inform the public on the activities being implemented by the office.
- Capability building/trainings will be conducted as early as June 2020 to capacitate DENR field personnel and enhance their skills and competence for effective protection of forests and plantations for biodiversity conservations. The training shall be interactive to encourage participation and that retention will be assured.
- Hired 129 Forest Protection Officers (FPOs) as early as the first month of the year. There must be set qualifications for the hiring to include knowledge on ENR laws and must be familiar with the respective forest conservation areas where they will conduct patrolling on 225 LAWIN Forest Biodiversity Protection System (LFBPS) routes. They will be provided with logistic and material support which are essential in forest law enforcement. These materials namely 4 drones, laptops, external drives, personal protective equipment, medical supplies, power banks and solar panels for the gadgets and handheld satellite phones will be procured on the first quarter of 2020 and will be provided to each patrol team.
- 4 Forest Ranger Stations will be constructed in 2020 and 2021 to improve the infrastructure facilities and provide support in investigation of illegal activities within the jurisdiction. These stations will be installed with CCTV units and solar panels a year after the construction. In addition, 3 lawyers will be hired as early as January of every

year to support in investigation, filing of information and/or criminal complaints and prosecution of forestry cases. In addition, vehicles will be procured by 2020 to include 3 boom trucks, 4 service vehicles and 4 motorcycles. In addition, maintenance of these vehicles and other old vehicles and motorcycles that were used for enforcement activities will be provided. All these logistic and material support is necessary to strengthen the strict monitoring, implementation and enforcement of ENR laws.

- Coordinate with the LGUs and other law enforcement agencies in order to secure the peace and order condition of the area. Furthermore, 3 Anti-Illegal Logging Task Force will be strengthened by conducting quarterly meetings which focus on the implementation of ENR laws on operations against illegal environment and natural resources activities. Likewise, support from these agencies will be needed in monthly monitoring of identified 9 entry and exit points of forest products.
- As part of the protection and conservation initiatives, identification, survey, mapping and monitoring of fire prone areas be conducted as early as 2020. In addition, firelines will be established within the identified areas by doing clear brushing in 10m by 200m and planting with fire resilient species.
- As part of the strict implementation of ENR laws, investigation on complaints related to Mineral Resource and Geosciences (MRGS) & Environmental concerns (Clean Air, Clean Water and Solid Waste Management) conducted monthly. Focal persons, together with the EMB and MGB personnel will conduct monthly monitoring as to the compliance of the relevant laws. Moreover, logistic and material support will also be provided for the effective implementation of the activities.
- 4 IFMA and 11 SIFMA holders will be monitored semi-annually. On the other hand, 64 CBFMA holders will be monitored monthly. Monitoring of these areas is necessary to assess their compliance to the terms and conditions of the Agreement. Further, reports with categorical recommendations will be submitted. Moreover, 700 CSC holders will be assessed yearly. Evaluation forms will serve as a tool in assessing whether the holder complied with the contract including the development therein.

However, there are still untenured areas developed and occupied with settlers. Thus, site assessment, mapping and issuance of suitable tenurial instrument is necessary.

- In order to conserve and protect the remaining resources, management plans will be formulated and updated to include 3 IWMPs and 17 CRMFs.
- With its aim to increase the forest cover, at the same time provide alternative livelihood to upland communities, the National Greening Program will also be introduced. 2,200 hectares will be assessed by the first quarter of 2020 in order to determine the suitable species for the area. 2,400 hectares will be established by the third quarter of the year with corresponding 2,902,860 seedlings planted on the second quarter of every year. Technical assistance from 123 hired Extension Officers (EOs) will be provided to the partnered Peoples Organizations (POs). Previous established plantations will also be maintained from Year 1 to Year 5 in order to ensure the survival rate of the planted species. Logistic and material support will also be provided as early as the first quarter of 2020 to include geotagging equipment and gadgets.
- Maintenance of the identified Seed Production Area (SPA) will also be implemented throughout the year to include fencing, tree marking, pruning, installation of billboards, collection of seeds and others.

## **LAND MANAGEMENT**

Clients satisfaction is the utmost priority in giving services more particularly on land matters. Thus, enhanced knowledge on land management is necessary and can be achieved through the following activities:

- 5 support staffs will be hired on the first month of every year which will be trained and oriented on land record/database management and maintenance. Part of their function is to scan and encode land records and to include the reconstruction of 500 lots. Furthermore, equipment and other logistic support must be procured and provided as early as the first quarter of 2020 to effectively implement the set target activities.
- 4 technical personnel/staffs will also be hired on the first month of every year who will help in assisting investigations relevant to land issues and conflicts within the jurisdiction. In addition, they will be provided with necessary trainings relating to records management and land issues and conflicts on the first quarter of 2020. This will ensure the smooth implementation of the target activities to be implemented. It is the responsibility of DENR to improve the access to land records thereby realizing the delivery of quality land administration services to satisfy clients and enhance the knowledge regarding land management.

## **LAND DISPOSITION (RESIDENTIAL AND AGRICULTURAL)**

With regards to land disposition, the main goal of this plan is to improve economic conditions both for residential and agricultural areas. Therefore, the following shall be conducted, to wit:

- Proper investigations conducted- Land disputes/ cases must be investigated and all reports will be submitted and Land cases must be resolved amicably. Thus, 546 residential lots shall be surveyed and 546 residential free patent applications shall have be processed by 2022. Moreover, 546 residential free patents shall have been approved and transmitted to the regional office by the end of 2022.



- Technical Personnel Hired/Augmented- 2 technical personnel will be hired/augmented on the first month of 2020. Such personnel must be equipped with knowledge on land matters, computer literate and willing to do constant fieldwork in order to aid in the land issues and conflict resolution,
- Adequate survey conducted- In order for the office to provide baseline records of agricultural areas, adequate survey must be conducted. 74 agricultural lots must be surveyed by 2022. Moreover, 62 agricultural free patent applications must be processed and then approved by the Registry of Deeds by 2022. This will be verified through the survey plans, judicial forms, transmittal records and finally titles issued.

## **FORESHORE**

It is the goal of this plan to properly utilize the foreshore areas within the province. With its aim to address the illegal construction of structures within these areas, the following activities will be conducted.

- As part of its objective to strictly implement relevant laws and to ensure active participation of other law enforcement agencies, the 17 coastal barangays will be coordinated quarterly. Moreover, they will be provided with orientations on foreshore management and relevant laws including proper waste disposal. Proper information dissemination must be conducted to instill awareness to the community on the effects of illegal activities within the foreshore areas.
- Five (5) field personnel will be hired by January of every year who shall be equipped with knowledge on GIS, survey and relevant laws. They shall be part of the team who will be conducting monthly monitoring, assessment and survey and other activities as embodied in the Provincial Foreshore Development and Management Plan. They shall be subjected to assessment for the renewal of their contracts.
- Zone between agricultural lands and foreshore areas will be delineated starting on the first month of 2020 in order to determine the areas according to their use and management.

- Constructed establishments and facilities will be assessed and inventoried in order to monitor the compliance of foreshore laws. On the 1<sup>st</sup> quarter of the year, a close coordination with the LGU must be developed so that by the end of the year, the list of establishments and their claimants or occupants will be finalized. Based on the result of the assessment, they shall be encouraged to apply for permit/lease. In addition, information campaigns shall be conducted to inform stakeholders of the advantages and the requirements in applying for permits, which may be valid for 1 year, or 25 years. Acceptance of applications shall commence right after the IEC campaigns so that processing of applications shall start in the 2<sup>nd</sup> quarter and be completed by the 4<sup>th</sup> quarter of every year from 2020-2022.
- Quarrying and other illegal activities within the foreshore areas will be addressed. Constant monitoring of the area particularly those with reported incidences of illegal activities will be initiated. There shall be proper coordination with the LGUs and other law enforcement agencies in order to strictly implement and enforce the relevant laws and that commitment to implement shared responsibility be assured. Other agencies, particularly the Bureau of Fisheries and Aquatic Resources (BFAR) shall be coordinated on issues pertaining to illegal fishpond operations within the foreshore areas.
- Enhance IEC campaigns particularly on laws relating to patent issuance and foreshore management should be conducted to the community. This will instill awareness to the prospect clients on the process of the programs, projects and activities being implemented. In addition, this will promote awareness on relevant laws regarding proper regulation of land areas within the communities.
- Close coordination with the LGUs and other stakeholders and partner agencies should be implemented especially on resolving issues relating to foreshore management. It is the LGU's concern to make ordinances regarding the foreshore areas not contrary to national laws, and there is a need for ordinances in establishing different kind of zones within the Foreshore areas such as: Industrial, Commercial, Recreational, Sports, Beach resort, eco-tourism, open space, mangrove rehabilitation, protected area, mix uses, special uses, storm surge protection, infrastructure and utility and Government

use zone. It is recommended that the coastal LGU's with mangrove areas should formulate their own ordinance to stop all cuttings of trees for economic and residential use.

- Adequate assessment/inventory/survey should be conducted. In consideration for target setting on patent issuance, sufficient assessment should be considered to be a reliable basis. On the other hand, inventory on illegally constructed establishments within foreshore areas should properly regulated. Foreshore and marshy lands shall be inventoried and surveyed by the CENRO to determine their existing/ appropriate uses, availability of open areas, extent of the area and number of settlers with assistance of barangay officials, to become an input in the preparation of different zones in foreshore areas.
- The CENRO, with the assistance of the PENRO, should formulate strategy to effectively implement programs, projects, and activities on time.

## **PROTECTED AREA AND BIODIVERSITY**

An utmost need to protect and conserve with an improved ecosystem of the protected areas and its corresponding biodiversity shall a priority of this office. The Wildlife Act will be executed strictly as well as the new eNIPAS Act shall also be implemented.

- Protected Area, Caves and wetlands are important ecosystems therefore we foresee and improved protected area, caves and wetlands. Proper management of the protected areas is vital to improve wildlife habitat. Regular Protected Area Management Board shall be conducted to ensure the operations of the PAMB are strictly undertaken. For both Pasonanca Natural Park and Buug Natural Biotic Area, 4 quarterly PAMB meetings must be conducted yearly from 2020-2022. For both Basilan Natural Biotic Area and Turtle Islands Wildlife Sanctuary, bi-annual meetings must be conducted from 2020-2022. Finally, since the Great and Little Sta. Cruz Islands PLS is co-managed by the city government of Zamboanga City, only one meeting shall be attended yearly from 2020-2022.

- To facilitate improved wildlife habitat, 30 km. of PA management zones shall have been delineated on the ground based on the PAMP by the end of 2022. A digitized map, one for every PA, shall have been generated and maintained by the end of 2022. This will be verified through submission of reports including the digitized PA maps.
- In order to strengthen PA networking, enhanced trainings and seminars must be provided/ attended. 10 PA/Cave/Ecotourism/Wetlands related trainings/ seminars/ workshops shall be attended yearly from 2020-2022. Furthermore, 2 Capacity building by PAMB members and PA staff shall be conducted / attended yearly from 2020-2022. For a more strengthened PA management, Every PA must have their own operations manual, therefore, PA operations manual shall be prepared by the end of 2020. 12 PA protection facilities shall also be constructed by end of 2022.
- Improvement and maintenance of ecotourism facilities must be executed yearly for those PAs with existing ecotourism facilities from 2020-2022. Relatively, since not all PAs have competent facilities, 2 Ecotourism facilities shall be constructed- one each for Pasonanca Natural Park and Buug Natural Biotic Area.
- 2 PASu staff per PA shall be hired yearly starting from the first month of each year from 2020-2022. They must possess knowledge on protected area and ENR laws so that they can better assist in the operations of the PA.
- The community is an important element in the management of the protected area, therefore, it is vital that they take part in the protection and conservation of the area. 20 blue/green brigades shall be organized yearly from 2020-2022.
- To improve wildlife habitat, it is necessary to control the number of people that reside near the PAs and regulate the activities done by the community. Therefore, 13 Socio-Economic Assessment and Monitoring System shall be conducted by the end of 2022.
- Education on ENR Laws is also necessary so that awareness will be reinforced. Thus, 15 news articles shall be prepared yearly; 8 schools/ communities shall be visited for IEC yearly; and 2 News bulletin editions shall be produced yearly from 2020-2022.

- Caves are unique ecosystems. We also need to protect them because they hold wildlife habitat inside. For this, we need to have inventories for the caves in the province. 2 caves shall be inventoried/ identified yearly from 2020-2022. Furthermore, 6 caves shall be assessed yearly and divided into the three CENROs. 2 caves per CENRO shall be assessed from 2020-2022. The PENRO shall endorse the reports to the Regional Office.
- To better assess caves, caving equipment are necessary for protection because sometimes the conditions inside the cave are hazardous. 4 caving equipment and survey equipment, one per CENRO and one for PENRO, shall be procured by the end of 2020.
- There have been discoveries of fish inside caves that might possibly be new species. Therefore, 1 In-depth research to new species of cave dwelling fauna/ cave flora shall be conducted by the end of 2020. To support this, 1 monitoring equipment to support cave research activities shall be procured.
- The Inland-Wetlands of Zamboanga Sibugay play an important role in the promotion of improved ecosystem. If the Inland-Wetlands are healthy then it can sustain life for flora and fauna that thrive in this kind of ecosystem. 9 Inland-Wetlands shall be assessed including initial evaluation for Inland-Wetlands by end of 2022.
- 1 priority Inland-Wetland shall be profiled yearly so that the office shall have baseline records of all the inland-wetlands within the province.
- A database is important in determining trends and comparing data. Therefore, 1 Physico-chemical parameters of the 2018 assessed wetlands shall be generated and updated yearly from 2020-2022. Also, 1 Provincial laboratory shall be established and maintained by the end of 2022. This will be helpful to analyse or perform basic field data analysis and processing that will lessen the bulk of samples for EMB to be analyzed.
- Natural resource valuation has always had a fundamental role in the practice of cost-benefit analysis of environmental issues. Thus, 3 Resource/Ecosystem valuation study shall be conducted by end of 2022. Moreover, 2 Payment for Ecosystems Services (PES) shall be conducted by the end of 2022.

- To increase biodiversity for and improved ecosystem, Timber poaching and kaingin making must be reduced greatly. Additionally, if wildlife population is increased then biodiversity is also increased. Conduct of 4 monitoring activities each for Philippine Eagle, Tarsier and Swallows shall be documented and monitored yearly from 2020-2022. These shall be conducted quarterly. For flying foxes, 6 sites shall be monitored. 6 behavioural study shall be conducted yearly from 2020-2022. Moreover, a genetic/population study for flying foxes shall be conducted by end of 2020. For turtles, 9 identified turtle nesting sites monitored yearly 2020-2022. There is also a need to monitor the migratory birds here in the province for conservation purposes. Therefore, 10 annual water bird census/ monitoring conducted every January from 2020-2022.
- A RAMSAR site is an area with wetlands of high importance. In Zamboanga Sibugay, the Sibugay bay is the proposed RAMSAR, therefore, the 7 stations shall be monitored quarterly from 2020-2022.
- Wildlife population shall increase if there are more wildlife rehabilitated and released. It is therefore important to have adequate wildlife holding facility. Thus, 2 holding facilities shall be maintained yearly and 4 wildlife shall be rescued/rehabilitated/ released yearly.

## **COASTAL AND MARINE**

Living conditions of coastal communities shall be improved if coastal and marine habitats are also improved. Different strategies must be executed in order to do so. To achieve this, coastal activities must be undertaken, to wit;

- Networking on coastal and marine areas strengthened- 100% of coastal and marine habitat shall be protected and maintained from 2020-2022. For this, adequate assessments must be conducted yearly. Therefore, 5121 ha, 5198 ha and 4976 ha of coral reefs shall be assessed and mapped respectively from 2020-2022. Sea grass beds also need to be assessed. Thus, 3685 ha, 826 ha and 661 ha of sea grass beds shall be assessed and mapped respectively from 2020-2022. MPAs shall be updated using Management Effectiveness Assessment Tool by the end of 2022. Adequate training shall also be conducted. Therefore, 3 stakeholders and MPA

managers' consultation meetings shall be conducted by the end of 2022. Technical assistance to 6 LGUs, twice per year, on Integrated Coastal Management shall also be provided by the end of 2022.

- Extraction of coastal and marine resources shall be regulated monitoring and implementation of relevant laws are strengthened. For this, 2 Extension officers with knowledge on coastal and marine shall be hired yearly from 2020-2022. 1 MPA shall be maintained and protected yearly. 5 MPA network shall also be established in 2020. 32 signages shall be installed by end of 2020. 10 equipment to support monitoring and patrolling activities for TIWS shall be procured in 2021. Finally, 1 stakeholders/community capacity building shall be conducted yearly from 2020-2022.
- Conversion of mangrove forests and other intertidal ecosystems into other uses should be minimized, water quality deterioration and environmental pollution must be decreased and farming and fishing practices must be regulated to improve coastal and marine habitat. Communication, Education and Public Awareness activities shall be conducted. 9 Special events shall be conducted yearly from 2020-2022. 1 branding element shall be produced yearly from 2020-2022. 2 enhanced IEC shall be conducted yearly from 2020-2022.

## **VI. MONITORING AND EVALUATION PLAN**

Monitoring and Evaluation (M&E) is a process that helps improve performance and achieve results. Its goal is to improve current and future management of outputs, outcomes and impact. It is mainly used to assess the performance of projects, institutions and programs set up by governments, international organizations and NGOs. It establishes links between the past, present and future actions. (*United Nations development programme evaluation office - Handbook on Monitoring and Evaluating for Results.*)

In the same handbook, monitoring is defined as a continuous assessment that aims at providing all stakeholders with early detailed information on the progress or delay of the ongoing assessed activities. It is an oversight of the activity's implementation stage. Its purpose is to determine if the outputs, deliveries and schedules planned have been reached so that action can be taken to correct the deficiencies as quickly as possible.

On the other hand, an evaluation is a systematic and objective examination concerning the relevance, effectiveness, efficiency and impact of activities in the light of specified objectives. (*A UNICEF Guide for Monitoring and Evaluation - Making a Difference.*)

Acquiring feedbacks and observations from stakeholders and LGUs shall also be considered. It can be done in a form of interview to those who are directly involve with the project. This could be a great help in assessing and formulating strategies for the achievement of the set goals and objectives.

The conduct of Monitoring and Evaluation helps assess the progress of the activities as scheduled. The monitoring and evaluation of the programs as embodied in this plan shall be spearheaded by the Department of Environment and Natural Resources in coordination with the Local Government Units and other concerned agencies.

In order to effectively conduct M&E, as an initiative, Monitoring and Evaluation Team will be created which shall compose of the following:

1. PENRO
2. Chief, Technical Services Division
3. PENRO Planning Officer



4. PENRO GIS Focal Person
5. Planning Focal Person (CENRO concerned)

The general functions of the Monitoring and Evaluation Team shall be as follows:

- Monitor the status of implementation of the programs, projects and activities embodied in this Plan;
- Coordinate very closely with the LGUs and concerned agencies;
- Gather feedbacks and information from stakeholders directly involved in the implementation of the projects.
- Make analysis on gathered data and formulate strategies for the effective implementation of the projects.
- Submit regular monitoring reports.

The CENRO, being the implementer, should be responsible on making regular assessments whether the projects are properly implemented as scheduled. Furthermore, strategies shall be provided for the effective implementation of the projects.

The PENRO should conduct quarterly monitoring and provide assistance to the CENRO concerned. Getting feedbacks from stakeholders is also important during the conduct of the monitoring in order to formulate strategies which could best help the implementation of the project.

The Regional Office team shall also conduct evaluation to assess the trends of the implementation. They should also provide assistance to the implementing PENRO and CENRO with regards to effective strategies in achieving the set goals and objectives.

## **FORESTRY**

- Immediately after the implementation of the programs, projects and activities, the CENRO particularly the planning officer shall assess the level of implementation as embodied in the approved work and financial plan. For IEC campaigns conducted, minutes or narrative reports, modules or leaflets must be submitted 5 days after the IEC conducted to ensure the efficiency of the implementing personnel. To assess the

speaker's competency, an evaluation form shall be distributed at every end of the training or lecture, with the participants filling up the evaluation forms.

- Capability building/ trainings are conducted to capacitate personnel. Minutes or narrative report and training design must be submitted 5 days after the training / seminar conducted to ensure the efficiency of the implementing personnel. To assess the speakers' competency, an evaluation form shall be distributed at every end or last day of the training or lecture, with the participants filling up the evaluation forms.
- Hiring of Forest Protection Officers- Evaluation and submission of accomplishment report shall be submitted monthly. To assess the competency of the hired personnel, interview and examination during renewal shall be conducted.
- Forest ranger stations are needed to provide support in the investigation of illegal activities within the jurisdiction. Monthly reports shall be submitted by the personnel detailed in the stations. Report must include infrastructure condition as well as activities undertaken.
- Coordination with LGUs- Report containing minutes of meetings, geotagged photos, and signed resolution shall be submitted 10 days after meetings/coordination/dialogue and shall be relayed during Monday convocation.
- Entry and exit points need to be monitored. For evaluation, monthly reports are submitted from the CENR Offices to the Regional Office through the endorsement from the PENR Office.
- Identification, survey, mapping and monitoring of fire prone areas- Accomplishment report, maps and geotagged photos shall be submitted 5 days after the conduct of the activity.
- Monthly monitoring along with the EMB and MGB must produce and submit monthly report as to the compliance of relevant laws.
- 4 IFMA and 11 SIFMA holders will be monitored semi-annually. 64 CBFMA holders will be monitored monthly. 700 CSC holders will be assessed yearly. Monitoring reports shall be submitted 5-10 days after each assessment.

- IWMP and CRMF formulation- report including report on milestones such as narrative report on write shops and workshops, minutes of meetings shall be submitted 10 days after the activity.
- Assessment of area for suitable plant species for NGP- assessment report including geotagged photos and maps shall be submitted 5 days after the conduct of the activity.
- Maintenance of the identified Seed Production Area (SPA)- monitoring report shall be submitted monthly for effective evaluation.

## **LAND MANAGEMENT**

- Support staff to be hired or rehired shall be assessed his or her competency through examination. He or she must be evaluated by the direct supervisor. Moreover, technical staff shall also be assessed for competency through examination and interview before contract renewal.

## **LAND DISPOSITION (RESIDENTIAL)**

- Investigation reports, survey plans, transmittal and titles issued shall be submitted on a monthly basis from the CENR Offices to the Regional Office through the PENR Offices.
- Technical personnel hired shall be assessed for competency through interview and examination during renewal. He or she shall be evaluated on work performance by the direct supervisor.

## **LAND DISPOSITION (AGRICULTURAL)**

- Survey plans, free patent applications, transmittal and accomplishment reports shall be submitted monthly to ensure updated records. These reports will be submitted from the CENR Offices to the Regional Office through the PENR Office.

## **FORESHORE**

- Coordination with barangays- accomplishment report, minutes of meeting, narrative report and photo documentations shall be submitted on a quarterly basis to the Regional Office.
- The 5 field personnel who will be hired shall be assessed for competency through the conduct of interview and examination during renewal of contract.
- Narrative report and photo documentation on the delineation of the zone between agricultural lands and foreshore areas shall be submitted 5-10 days after the conduct of the activity.
- Inventory report on establishments and infrastructure constructed shall be submitted monthly. By the end of 2020, a list of establishments and their claimants shall be finalized and shall be encouraged to apply for permit/lease. The permits shall then be monitored yearly.
- Constant monitoring of the areas with reported incidents of quarrying and other illegal activities is important. To ensure that the areas are being strictly monitored, accomplishment reports will be submitted monthly to the Regional Office from the CENR Offices through the PENR Office.
- IEC on patent issuance and foreshore management- Minutes, program and narrative report must be submitted 5 days after the IEC conducted to ensure the efficiency of the implementing personnel. To assess the speakers' competency, an evaluation form shall be distributed at every end or last day of the training or lecture, with the participants filling up the evaluation forms.
- Coordination with LGUs and other foreshore stakeholders- Report containing minutes of meetings, geotagged photos, and signed resolution shall be submitted 10 days after meetings/coordination/dialogue and shall be relayed during Monday convocation.
- Assessment/ inventory/survey is used for target setting patent issuance. Assessment/ inventory reports will be submitted 15 days after conduct of the assessment activity.

## **PROTECTED AREA AND BIODIVERSITY**

- Minutes of the PAMB Meetings with photo documentation and resolutions passed shall be submitted within 15 days after the activity.
- PA management zone delineation- accomplishment report shall be submitted within 15 days after the activity.
- Trainings and seminars are deemed important in the aide of improving the operations of the PA. Narrative report, photo documentation shall be submitted within 5-10 days after the training/ seminar attended. The personnel who attended the seminar must re-echo the training/seminar within 5-10 days upon reporting back to the office.
- Ecotourism equipment and facilities conditions shall be included in the accomplishment report submitted monthly. For ecotourism facilities to be constructed, personnel from the technical services must inspect the project. Therefore, inspection report must be submitted to the regional office.
- The 10 PASu staff who will be hired yearly, 2 for each PA, shall be assessed for competency and knowledge on the protected area, relevant laws and activities through the conduct of interview and examination during renewal of contract.
- Narrative report with photo documentation on the organization of blue/green brigades shall be submitted to the regional office 5-10 days after the activity.
- SEAMS report will be submitted after the conduct of the activity. The CENR Offices will address the report to the Regional Office through the PENR Office.
- News articles, Narrative reports on community/school visits and news bulletins shall be published and submitted to the regional office from the PENR Office.
- Cave assessment reports and cave inventories shall be submitted 10 days after conduct of the activity.
- Inspection report on procured cave equipment shall be submitted to the regional office.
- Inspection report on monitoring equipment to support cave research activities shall be submitted. Comprehensive report on the in-depth research shall be submitted by the end of 2020.
- Assessment reports with photo documentation including maps on the assessed Inland-wetland. 7 inland-wetlands will be assessed from 2020-2022.

- Wetland profile/ report including geo-tagged photos of priority wetland profile submitted annually.
- 1 data of physico-chemical database report of parameters of 2018 assessed wetlands generated and updated then submitted annually.
- Upon completion of the establishment of provincial laboratory, inspection report and other pertinent documents on the establishment of provincial laboratory will be submitted to the regional office by the PENR Office.
- Comprehensive report on Resource/ Valuation study will be submitted annually to the regional office by the PENR Office.
- Comprehensive report on Payment for Ecosystem Services (PES) will be submitted to the regional office by the PENR Office. 2 PES will be conducted from 2020-2022.
- Monitoring reports with photo documentation on Philippine Eagle, Tarsier and Swallows will be submitted quarterly to the regional office. Monitoring reports with photo documentation on the 9 identified turtle nesting sites will be submitted quarterly to the regional office. Monitoring reports with photo documentation for Bats will be submitted monthly to the regional office. Comprehensive report for publication on genetic/population study for flying foxes will be submitted by the end of 2020. Annual water bird census report will be submitted 15 days after the conduct of the activity. This will be conducted every January from 2020-2022.
- Monitoring reports for the 7 RAMSAR stations will be submitted quarterly to the regional office.
- Accomplishment report with photo documentation on the maintenance of holding facilities and wildlife rescued/rehabilitated/released will be submitted monthly to the regional office.

## **COASTAL AND MARINE**

- Networking on coastal and marine areas strengthened- Assessment report, maps and photo documentation on coral reef and sea grass will be submitted 5-10 days after the conduct of the activity. MEAT forms of the MPAs will be submitted to the regional office. Minutes of the consultation meeting with photo documentation and report on activities conducted will be submitted 5-10 days after the conduct of the stakeholder's meeting.
- To assess the competency of the hired extension officers on coastal and marine, interview and examination during renewal will be conducted. Report with photo documentation on the maintenance of MPA will be submitted monthly to the regional office. Report with photo documentation on the establishment of 5 MPA network by the end of 2020. Report with photo documentation on the 32 signage installed 5-10 days after the conduct of the activity. Purchase order and inspection report on 10 monitoring equipment procured by end of 2021. Activity/training reports with attendance list and photo documentation on stakeholder's capacity building submitted 15 days after the conduct of the activity.
- Report with photo documentation including activity feedback results on special events will be submitted 5-10 days after the conduct of the activity. Report on materials produced on branding element will be submitted annually to the regional office. Narrative report with photo documentation on IEC conducted will be submitted 5-10 days after the conduct of the activity.