



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region

PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE
Bgy. Sta. Monica, Puerto Princesa City, Palawan
Telfax No. (048) 434 - 8791
Email Add: penropalawan@denr.gov.ph

January 20, 2023

MEMORANDUM

FOR : The Regional Executive Director
DENR MIMAROPA Region
1515 DENR By the Bay Building, Roxas Boulevard,
Barangay 668, Ermita, Manila

THRU : The OIC, ARD for Technical Services

FROM : The Provincial Environment and
Natural Resources Officer

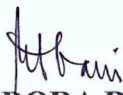
SUBJECT : SUBMISSION OF REPORT RE: NUMBER OF THREATS
OBSERVED REDUCED WITHIN THE ADMINISTRATIVE
JURISDICTION OF CENRO BROOKE'S POINT, PALAWAN

Respectfully forwarded is the undated memorandum of CENRO Brooke's Point, Palawan received on January 18, 2023 relative to the above subject.

Per report, a total of Twelve (12) environmental threats were documented for CY 2022 comprised of Cutting of trees, Typhoon-related threats, Charcoal making/production and Pest and Diseases. In comparison, for CY 2021 there were Sixteen (16) environmental threats observed such as of Cutting of trees, Typhoon-related threats, Slash and burn (kaingin), Annual and perennial farming and Landslide and mudslide.

For information and further instruction.

For the PENRO;


RHODORA B. UBANI

Supervising Ecosystem Management Specialist / Chief, CDS
In Charge, Office of the PENRO

Copy Furnished:
CENRO Brooke's Point, Palawan
<cenrobrokepoint@denr.gov.ph>
KVE/MES Doc. No. 2023-0429

DENR-PALAWAN
PENRO-RECORDS
RELEASED
By Rhea
Date: 23 JAN 2023 2023-193



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE
Brooke's Point, Palawan

MEMORANDUM


FOR : The Regional Executive Director
DENR MIMAROPA Region
1515 DENR By the Bay Buiding, Roxas Boulevard,
Barangay 668, Ermita, Manila

THRU : The Provincial Environment and
Natural Resources Officer
Sta. Monica, Puerto Princesa City

FROM : The Community Environment and
Natural Resources Officer/Hearing Officer

SUBJECT : **SUBMISSION OF REPORT RE: NUMBER OF THREATS
OBSERVED REDUCED WITHIN THE ADMINISTRATIVE
JURISDICTION OF CENRO BROOKE'S POINT, PALAWAN**

**DENR PENRO
PALAWAN RECORDS
RECEIVED**

BY: 
DATE: 01/16/2023 DN 23-0429

Respectfully submitted herewith is the copy of the above-cited report relative to the number of threats observed and reduced through the implementation of Lawin Forest and Biodiversity Protection System within the administrative jurisdiction of this Office.

Per record for CY 2022, a total of 12 environmental threats comprised of Cutting of Trees, Typhoon-related Threats, Charcoal Making/Production and Pest and Diseases had been documented during Lawin patrolling within the AOJ of CENRO Brooke's Point. In comparison, in CY 2021 there were 16 environmental threats observed composed of Cutting of Trees, Typhoon-related Threats, Slash and Burn Farming (Kaingin), Annual and Perennial Farming and Landslide and Mudslide. Accordingly, the number of observed threats had slightly decreased. In addition, although there is an upward trend in the number of cutting of trees (common threat) observed per kilometer patrolled over time observed from CY 2021-2022, it can be noted that this has been influenced by the area of distribution of the observation. In CY 2021, the cutting of trees were observed in the municipalities of Sofronio Española and Brooke's Point, Palawan; on the other hand, for CY 2022, the incidences of cutting of trees were mostly recorded in the municipality of Bataraza, Palawan which was the result of intensive monitoring and other forest protection and law enforcement activities in collaboration with other law enforcement agencies/uniformed personnel in the municipality

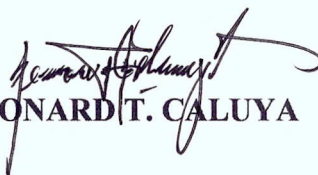
M.Rodriguez St. Poblacion District I, Brooke's Point Palawan 5305
Mobile Phone: Globe: 0917-502-8961
Email: cenrobrookespoint@denr.gov.ph

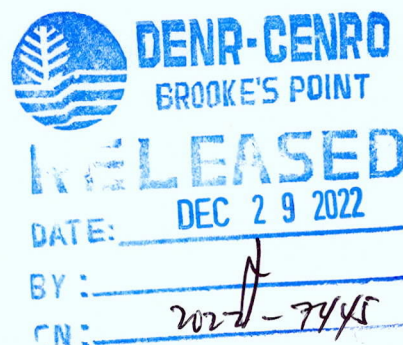


in line with the implementation of the action plan for the delisting/exclusion of the municipality in the list of illegal logging hotspots in MIMAROPA Region. The areas wherein the cutting of trees were observed were not considerably and regularly patrolled in the past years due to security reasons but with the strengthened enforcement activities and linkages, the DENR personnel had mobilized in this areas.

Further, with regards to post patrol responses, it can likewise be noted that in CY 2021, recorded responses are mainly Coordination with LGU/concerned agency and Education, this is to capacitate and strengthen linkages and coordination with the different agencies and stakeholders to solicit their support and cooperation to detect and address environmental threats particularly illegal activities within their administrative jurisdictions. On the other hand, for CY 2022 particularly for the cutting of trees and charcoal production recorded, post patrol responses undertaken are mostly Administrative Adjudication Proceedings. Meanwhile, coordination with LGU/concerned agency is mainly conducted for typhoon-related threats.

For your information, record and further instruction.


LEONARD T. CALUYA





December 12, 2022

MEMORANDUM

FOR : The Community Environment and
Natural Resources Officer
Brooke's Point, Palawan

THRU : The Chief, Monitoring and Enforcement Section

FROM : The Team Leader, Quick Response Team
The Lawin Data Manager

SUBJECT : **SUBMISSION OF REPORT RE: NUMBER OF THREATS
OBSERVED REDUCED WITHIN THE ADMINISTRATIVE
JURISDICTION OF CENRO BROOKE'S POINT, PALAWAN**

Respectfully submitted herewith is the report regarding the number of threats observed reduced within the administrative jurisdiction of CENRO Brooke's Point, Palawan.

On October 3, 2018, former DENR Secretary Roy A. Cimatu signed Department Administrative Order No. 2018-21 entitled, "Adoption of the Lawin Forest and Biodiversity Protection System as a national strategy for forest and biodiversity protection in the Philippines". This is pursuant to Section 16, Article II of the 1987 Philippine Constitution, Presidential Decree No. 705, as amended, Executive Order No. 192, series of 1987 which reorganized the Department of Environment and Natural Resources, Republic Act (RA) No. 11038 or the E-NIPAS Act of 2018, RA No. 9072 which mandates the management and protection of caves and cave resources and RA No. 9147 otherwise known as "Wildlife Resources Conservation and Protection Act. Accordingly, Lawin shall be implemented at all levels within the DENR and shall apply to all closed, open, inland terrestrial and mangrove forests in the country regardless of size, use, tenurial condition and administrative jurisdiction.

The DAO aims to adopt the Lawin Forest and Biodiversity Protection System as a National Strategy for Forest Biodiversity in the country which will strengthen forest and biodiversity through the application of a science-based and technology-aided forest protection that is relevant to forest and biodiversity management. It also ensures transparency, accountability and efficiency in forest and biodiversity protection and conservation activities.

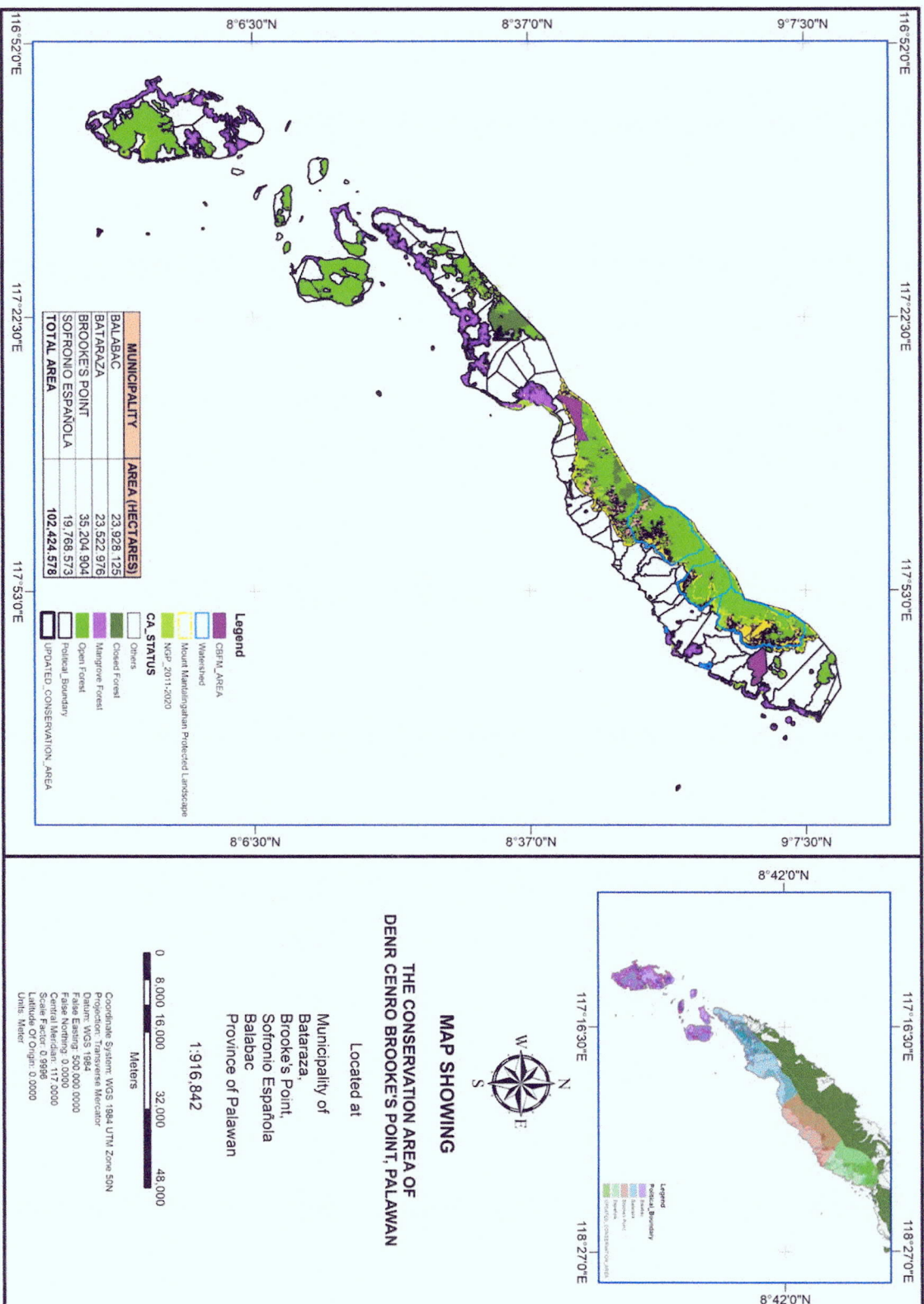
As defined in the Joint FMB-BMB Technical Bulletin No. 2016-02, Lawin is a forest and biodiversity protection system that integrates forest, biodiversity and threats monitoring, implementation of interventions to address threats and monitoring of the response of the forest ecosystem to these management interventions. The forest and biodiversity protection system uses open-source technology for biodiversity and threats monitoring through a

smartphone app (cybertracker app) for electronic encoding of field data and an open-source software (SMART software) for geo-spatial analysis of collected data in forest ecosystem. The data analyzed generate the necessary information that could show the state of a forest ecosystem in terms of forest condition, threats and wildlife, which provide decision makers with a basis for identifying and implementing adequate responses for addressing threats. The system also monitors the effectiveness of these responses and forest ecosystem improvement.

The Lawin System is comprised of four (4) components - Forest Conservation Area Planning, Patrol Planning and Implementation, Data Management and Response to Threats. The first component – Forest Conservation Area Planning is composed of seven (7) steps which include describing the area of the natural or the identified forest conservation area under the responsibility of the CENRO and describing the current forest condition in these areas.

In CENRO Brooke's Point, the conservation areas can be found in the municipalities of Sofronio Española, Brooke's Point, Bataraza, and Balabac; most of which form part of the Mt. Mantalingahan Protected Landscape (MMPL). It stretches from the ridge of Pulot Range in Barangay Labog, Sofronio Española towards Mt. Maruyog in Brooke's Point down to the rolling hills of Barangay Tarusan in Bataraza. The elevation ranges from 130 meters above sea level (m asl) to 700 m asl (Sofronio Española); 250 m asl to 1000 m asl (Brooke's Point), 100 m asl to 600 m asl (Bataraza), and 200 m asl to 900 m asl (Balabac). In general, the terrain of the landscape where the natural forests are located ranges from rolling to very steep. The Pulot River in Sofronio Española, Sabsaban and Mainit waterfalls in Brooke's Point, Kapangyan and Kennedy waterfalls in Bataraza and the Indalawan waterfalls in Balabac are important features found in the natural forests situated in the municipalities mentioned above.

Areas previously developed and rehabilitated under the National Greening Program and/or Mangrove Beach Forest and Development Project are also included in the conservation area. In summary, the Forest Conservation Area of CENRO Brooke's Point has a total area of 102,698.83 hectares.



Map 1: Forest Conservation Area of CENRO Brooke's Point, Palawan

Meanwhile, the type of natural forests within the area of jurisdiction of CENRO Brooke's Point are consists of patches of mangrove and beach forest in the lower portion, molave, dipterocarp and mossy forest in the upper portion which are dominated by species of apitong, molave, red nato, amugis, manguis, narra, ipil, almaciga and mangrove species (bakaw lalaki, bakaw babae, pagatpat, tangal, api-api, tabigue). The forest cover of the natural forest is generally open. In areas wherein current threats such as Slash and burn, illegal cutting, charcoal making, tanbarking, timber poaching and illegal gathering of NTFP are commonly observed, the forest has reached a disturbing rate of degradation. Portions of intact forests are concentrated in the Municipalities covered by Mt. Mantalingahan Protected Landscape.

The second and third component of the Lawin System is Patrol Planning and Implementation and Data Management. Field data are gathered during patrolling activities using the cybertracker and Lawin application which are then summarized and analyzed through queries and reports run via SMART software. In CENRO Brooke's Point, there are four (4) Patrol Teams conducting patrol works covering the municipalities of Sofronio Española, Brooke's Point, Bataraza, and Balabac.

Based on the assessment and analysis of all patrol data collected and submitted for CY 2022 as of November 30, 2022, a total of 836.537 kilometers of foot and sea-borne patrolling within the identified Forest Conservation Area had been reported equivalent to 139.42% of the 600 Kilometers annual target of this Office as indicated on the Approved 2022 Work and Financial Plan. However, this figure still includes patrol data subject for deletion in reference to the Lawin Data Assessment from January to August 2022 submitted to the Regional Office and patrol data with GPS error/s reported to the Lawin Help Desk for further assessment and updating of FMB Lawin Unit. Thus, the total accomplished patrol distance may still be further reduce/decrease.

Table 1: Monthly distance patrolled/covered in kilometers of Lawin within the administrative jurisdiction of CENRO Brooke's Point, Palawan for CY 2022

Month	Distanced Patrolled/Covered (Km)
January	34.997
February	73.218
March	83.783
April	60.124
May	49.576
June	50.550
July	68.512
August	100.772
September	62.252
October	161.342
November	52.409
December	39.002
TOTAL	836.537

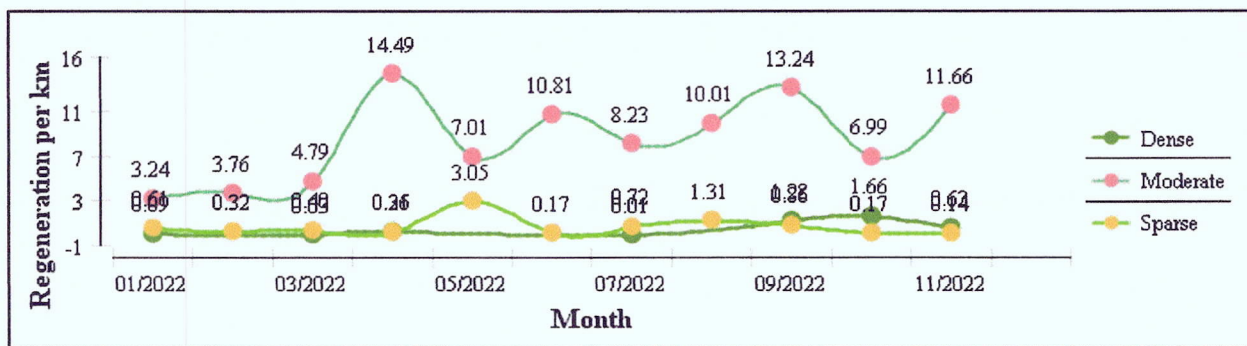
On the other hand, observation records show that for CY 2022, the forest condition in the areas patrolled is mainly characterized by Advanced Secondary Growth Forests which is defined as forests that were previously disturbed and show an advance level of recovery, which have a less dense understory (a layer of vegetation under the main forest canopy) and are dominated by medium to large trees (above 30 to 55 centimeter dbh and up to 30 meters in height). Significant number of observations of open areas both cultivated and uncultivated were also recorded nonetheless in comparison with the combined total number of observations of early secondary growth to old growth forests, the percentage of observed/patrolled open areas is only equivalent to approximately 18.29%.

Table 2: Count of Observation of Forest Conditions and Forest Regeneration

Month	Forest Condition					Regeneration			
	Old Growth	Advanced Secondary	Early Secondary	Open Cultivated	Open Uncultivated	Dense	Moderate	Sparse	None
January	0	47	32	37	44	5	136	19	0
February	0	195	89	45	17	0	318	25	3
March	27	174	22	49	2	0	259	15	0
April	0	308	62	94	43	9	393	47	58
May	1	448	6	160	6	1	506	114	0
June	2	352	26	141	2	0	477	46	0
July	1	194	123	123	14	1	424	30	0
August	51	231	333	102	1	0	674	41	3
September	8	539	121	58	26	1	676	75	0
October	24	1167	398	43	0	173	1441	18	0
November	0	347	264	75	0	101	555	28	2
December	1	467	3	27	0	14	484	0	0
TOTAL	115	4469	1479	954	155	305	6343	458	66

The presence of regeneration is likewise recorded alongside the forest condition and is classified into four (4) categories – dense, moderate, sparse and none. For this year, moderate regeneration was most commonly observed during patrolling activities. Moderate regeneration is characterized by 40 to 80 forest tree wildlings within a 5-meter radius. In terms of Forest Protection Effectiveness, an increasing trend in regeneration means effective forest protection; a decreasing trend means the opposite. However, as can be observed in the graph below, the trends in regeneration density for CY 2022 still varies/fluctuates monthly. Accordingly, it can be said that the area patrolled significantly affects/influence the presence of natural regeneration.

Trends in Regeneration Density



In addition, indicator species can also be recorded during patrolling activities. An indicator species is an organism whose presence, absence or abundance reflects a specific environmental condition. They can likewise signal a change in the biological condition of an ecosystem, and thus may be used as a proxy to diagnose the health of an ecosystem. Unfortunately, for CY 2022, there are a limited number of observations of indicator species recorded during patrolling activities within the administrative jurisdiction of CENRO Brooke's Point. The only record was that of Palawan bearcat which was observed during patrolling within the area covered by Mount Mantalingahan Protected Landscape in Barangay Ipilan, Brooke's Point, Palawan on October 4, 2022.

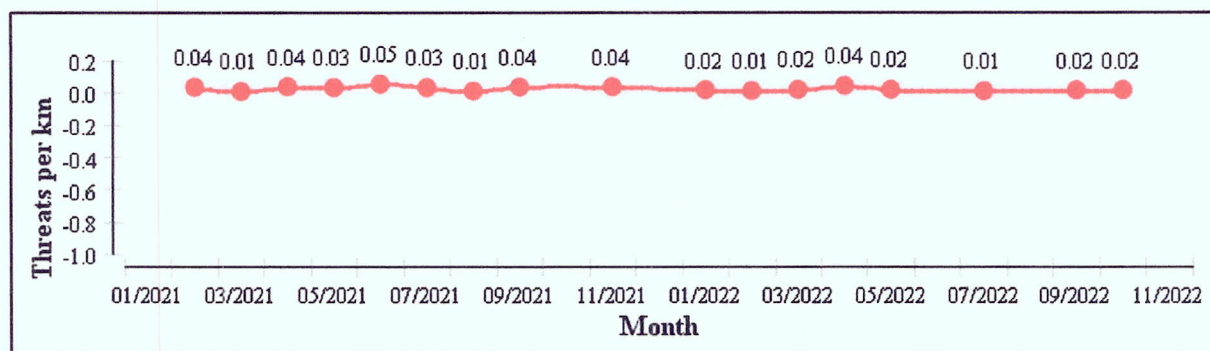
Threats Monitoring and Response

The fourth component of the Lawin System is Response to Threats. The main purpose of patrolling activities is to detect and respond to threats so that the forest is well-protected and can naturally regenerate. Lawin focuses on reducing the occurrence of 16 common threats to the forest in the Philippines – cutting of trees, slash and burn farming, hut, house and other infrastructure, annual and perennial farming, collection of NTFP, charcoal production, hunting, mining and quarrying, logging trail, garbage, livestock and poultry farming, fire, pest and diseases, invasive species, landslide and mudslide and typhoon damage.

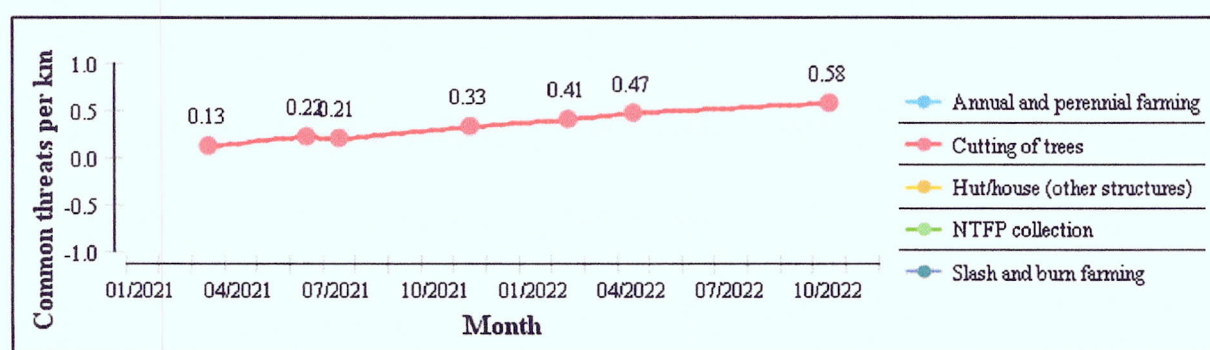
For CY 2022, a total of 12 environmental threats had been recorded during Lawin patrolling within the AOJ of CENRO Brooke's Point. In comparison, in CY 2021 there were 16 environmental threats recorded/documented. Accordingly, the number of observed threats had slightly decreased.

Trends of Observations per Patrol Kilometer in the Forest Conservation Area

Trend in Threats



Trends of most common Threats



As shown in the linear graphs, the number of observations of threats per kilometer patrolled tends to remain almost constant/consistent over time. Hence, based on the trend, it is quite difficult to establish if whether or not the implemented actions to address threats are successful. In addition, from CY 2021-2022, there is an upward trend in the number of cutting of trees (common threat) observed per kilometer patrolled over time. It can be noted that this has been influenced by the area of distribution of the observation. In CY 2021, the cutting of trees were observed in the municipalities of Sofronio Española and Brooke's Point, Palawan; on the other hand, for CY 2022, the incidences of cutting of trees were mostly recorded in the municipality of Bataraza, Palawan which was the result of intensive monitoring and other forest protection and law enforcement activities in collaboration with other law enforcement agencies/uniformed personnel in the municipality in line with the implementation of the action plan for the delisting/exclusion of the municipality in the list of illegal logging hotspots in MIMAROPA Region. The areas wherein the cutting of trees were observed were not considerably and regularly patrolled in the past years due to security reasons but with the strengthened enforcement activities and linkages, the DENR personnel had mobilized in this areas.

Type of Threat	CY 2021					CY 2022				
	Sofronio Española	Brooke's Point	Bataraza	Balabac	TOTAL	Sofronio Española	Brooke's Point	Bataraza	Balabac	TOTAL
Cutting of Trees	2	3			5			4	1	5
Typhoon-related Threats	2	3	1		6	1	4			5
Slash and Burn Farming (Kaingin)	2				2					0
Annual and Perennial Farming		2			2					0
Charcoal					0			1		1
Landslide and Mudslide		1			1					0
Pests and Diseases					0		1			1
TOTAL	6	9	1	0	16	1	5	5	1	12

Map of Location of Threats

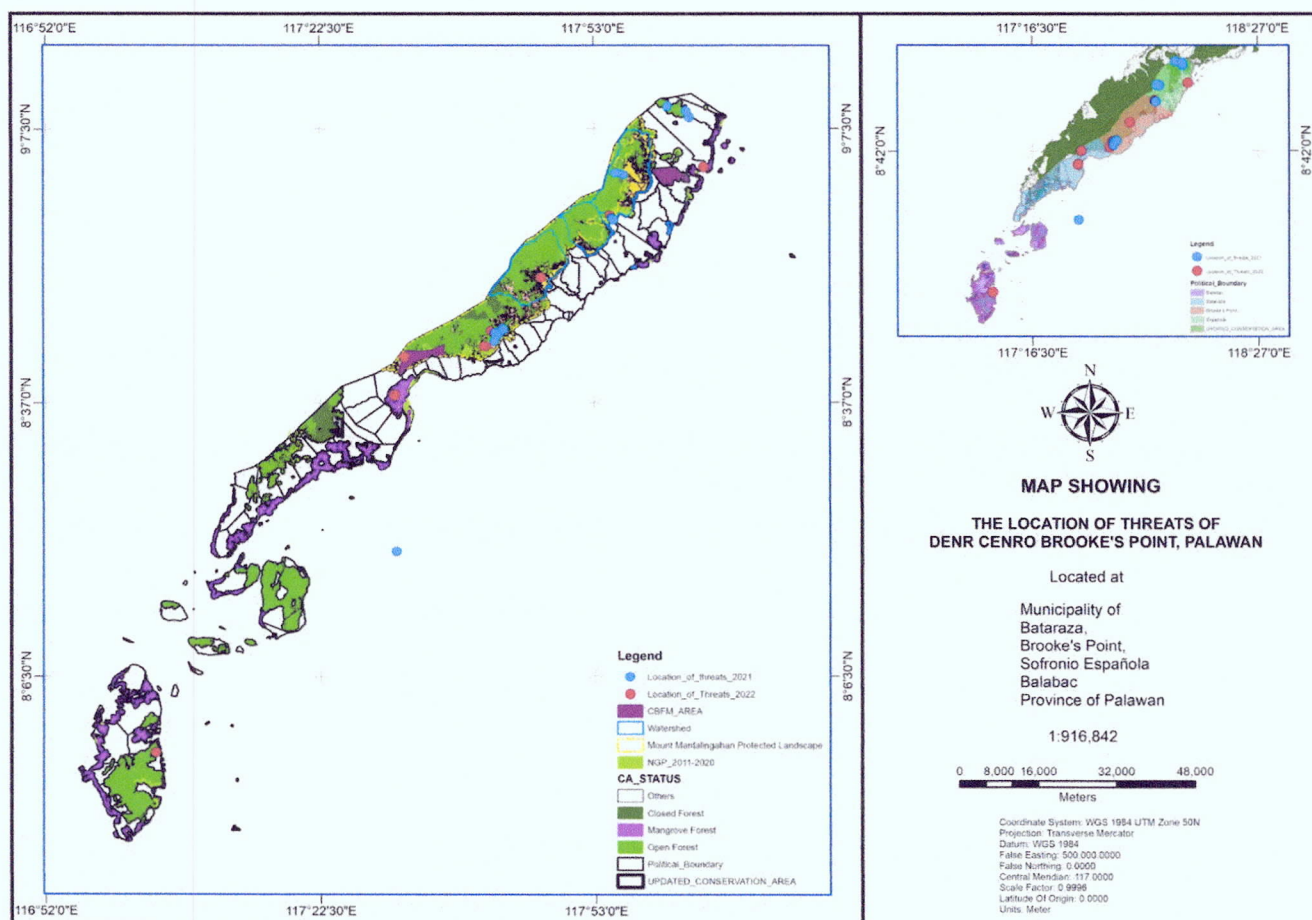


Table of Threats Observed and Level of Response Required

Patrol Date	Type of Threat	Action Taken during patrols	Approximate distance (in meter)	Level of Post-Patrol Response required	Species	Unit	Volume or Count
CY 2021							
February 10, 2021	Annual and Perennial Farming	Documented Only	5	Level 3			
February 10, 2021	Typhoon-related Threats	Documented Only	10	Level 3			
March 4, 2021	Cutting of Trees	Documented Only	1	Level 2	Malamangga	piece	1
April 15, 2021	Slash and Burn Farming (Kaingin) Newly burned	Documented Only	1	Level 1			
April 15, 2021	Slash and Burn Farming (Kaingin) With crops	Documented Only	1	Level 1			
May 7, 2021	Typhoon-related Threats	Documented Only	1	Level 3			
May 20, 2021	Typhoon-related Threats	Documented Only	1	Level 3			
June 2, 2021	Cutting of Trees	Documented Only	5	Level 2	sakot, palomaria, batino	piece	50
June 3, 2021	Cutting of Trees	Documented Only	1	Level 2	Akle	piece	1
July 22, 2021	Cutting of Trees	Documented Only	1	Level 1	apitong	piece	1
July 22, 2021	Typhoon-related Threats	Documented Only	2	Level 3			
August 3, 2021	Typhoon-related Threats	Documented Only	2	Level 3			
September 16, 2021	Annual and Perennial Farming	Documented Only	2	Level 3			
September 30, 2021	Typhoon-related Threats	Documented Only	1	Level 3			
November 2, 2021	Cutting of Trees	Documented Only	2	Level 1	sampuragat, ipil, amugis	piece	3
November 2, 2021	Landslide and Mudslide	Documented Only	2	Level 1			
CY 2022							
January 14, 2022	Typhoon-related	Documented Only	1	Level 3			
February 9, 2022	Cutting of Trees	Apprehended	0	Level 3	Anaan	piece	11
March 23, 2022	Typhoon-related	Documented Only	1	Level 2			

March 23, 2022	Typhoon-related	Documented Only	1	Level 2			
April 12, 2022	Cutting of Trees	Apprehended	1	Level 1	Apitong	piece	45
May 17, 2022	Typhoon-related	Documented Only	10	Level 3			
July 8, 2022	Pests and Diseases	Documented Only	1	Level 3			
September 8, 2022	Typhoon-related	Documented Only	1	Level 3			
October 30, 2022	Charcoal	Apprehended	2	Level 1		piece	28
October 30, 2022	Cutting of Trees	Apprehended	2	Level 1	Mangrove species	piece	26
October 30, 2022	Cutting of Trees	Apprehended	2	Level 1	Mangrove species	piece	43
October 30, 2022	Cutting of Trees	Apprehended	2	Level 1	Mangrove species	piece	42

Legend:

Emergency (immediate action required)

Level 1 (requires action within a week)

Level 2 (requires action within a month)

Level 3 (no further action required)

Table of Post Patrol Response

Patrol Date	Type of Threat	Post Patrol Action Taken
CY 2021		
March 4, 2021	Cutting of Trees	Coordination with LGU/concerned agency
April 15, 2021	Slash and Burn Farming (Kaingin) Newly burned	Coordination with LGU/concerned agency and Education
April 15, 2021	Slash and Burn Farming (Kaingin) With crops	Coordination with LGU/concerned agency and Education
June 2, 2021	Cutting of Trees	Coordination with LGU/concerned agency
June 3, 2021	Cutting of Trees	Coordination with LGU/concerned agency
July 22, 2021	Cutting of Trees	Coordination with LGU/concerned agency
November 2, 2021	Cutting of Trees	Coordination with LGU/concerned agency
November 2, 2021	Landslide and Mudslide	Coordination with LGU/concerned agency
CY 2022		
January 14, 2022	Typhoon-related	Coordination with LGU/concerned agency
February 9, 2022	Cutting of Trees	Administrative Adjudication Proceedings
March 23, 2022	Typhoon-related	Coordination with LGU/concerned agency
March 23, 2022	Typhoon-related	Coordination with LGU/concerned agency
April 12, 2022	Cutting of Trees	Administrative Adjudication Proceedings
May 17, 2022	Typhoon-related	Coordination with LGU/concerned agency
July 8, 2022	Pests and Diseases	Coordination with LGU/concerned agency
September 8, 2022	Typhoon-related	Coordination with LGU/concerned agency

October 30, 2022	Charcoal	Administrative Adjudication Proceedings
October 30, 2022	Cutting of Trees	Administrative Adjudication Proceedings
October 30, 2022	Cutting of Trees	Administrative Adjudication Proceedings
October 30, 2022	Cutting of Trees	Administrative Adjudication Proceedings

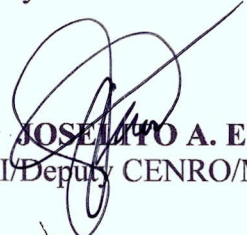
Recorded environmental threats labelled with Post Patrol Responses category Emergency, Level 1 and Level 2 are automatically added under Threat/Response Tracking in the SMART software in which report or supporting documents/attachments relative to post patrol/follow-up action undertaken must be updated and uploaded. There are nine (9) identified/indicated responses in the system which includes: Administrative Proceedings, Coordination with LGU/concerned agency, Development Project, Education, Garbage Clean-up, Invasive species removal, Prosecution, Policy Formulation and Wildlife rescue. As shown in the table, for CY 2021, post patrol responses are mainly Coordination with LGU/concerned agency and Education, this is to capacitate and strengthen linkages and coordination with the different agencies and stakeholders to solicit their support and cooperation to detect and address environmental threats particularly illegal activities within their administrative jurisdictions. On the other hand, for CY 2022, for the cutting of trees and charcoal production recorded, post patrol responses undertaken included Administrative Adjudication Proceedings. Meanwhile, coordination with LGU/concerned agency is mainly conducted for typhoon-related threats.

Prepared by:


REYNALDO V. PALISOC
 Forest Technician I


ROSEVILLE I. MITRA
 Forest Technician I

Noted by:


JOSE LITO A. EYAL
 FIIL/Deputy CENRO/MES Chief