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Prepared by: **CHRISTINE MAE M. TUNGPALAN**  
Planning Officer II

Noted by: **CARLOS A. TAYAG**  
OIC, Regional Director
**MANDATE**

The Mines and Geosciences Bureau is the Primary government agency under Department of Environment and Natural Resources (DENR) responsible for the conservation, management, development and proper use of the country’s mineral resources including those in reservations and lands of public domain.

In pursuing the mandate, it envisions a mining and minerals industry that is not only prosperous but also socially, economically and environmentally sustainable, with broad community and political support while positively and progressively assisting in the government’s program on revitalizing the minerals industry and contribution to the general economic well-being of the nation.

**MISSION**

The MGB, as steward of the country’s mineral resources, is committed to the promotion of sustainable mineral resources development, aware of its contribution to national economic growth and countryside community development. It fully recognizes that the development of a responsive policy framework in partnership with stakeholders to govern mineral exploration, mining and investment decisions and an effective institutional structure, are fundamental requisites for the sustainable utilization of the country’s mineral resources. It is adherent to the promotion of geological studies as an integral element of socio-economic development, environmental protection and human safety. Yet, it is sensitive to the known environmental impacts of mining and the need for restoration and rehabilitation of mining affected areas and the development and adoption of environmental and geo-scientific technologies.
VISION

MGB envisions a minerals industry that is not only prosperous but also socially, economically and environmentally sustainable, with broad community and political support while positively and progressively assisting in government’s program on poverty alleviation and contributing to the general economic well-being of the nation.

MGB also aims to be the leading geoscience and geo-resources Bureau serving the public and nation with scientific reliability.

THRUST

To realize its vision for the industry, MGB subscribes to the core requirements of Sustainable Development as applied to mining and geoscience:

* Protection and rehabilitation of the environment;
* Promotion of social and community stability;
* Preservation of options for future generations;
* Competitive and prosperous mining industry; and
* Conduct of Geohazard Mapping and Assessment.
I. EXECUTIVE SUMMARY

2017 has been a year of opportunities and challenges for our environment sector particularly the minerals industry. Therefore we have been responding to these challenges and building a strong foundation with broader perspective and relevant strategies. The Mines and Geosciences Bureau Region I highlights notable achievements and accomplishments for this year. We celebrate these achievements and continued progress in pursuit of improved programs and projects for the environment and improvement of the lives of the citizenry. Along with this, we stay true to the mission, vision and thrusts of MGB anchored on Responsible Mining to address poverty alleviation, environmental protection and inclusive economic growth.

Our Environment Secretary Roy A. Cimatu expressed his support to the mining sector as he wants it to integrate to biodiversity conservation as part of our adherence to responsible mining. Furthermore, Sec. Cimatu emphasized that responsible mining is our mandate at the Department of Environment and Natural Resources as it benefits communities, protects the environment, doesn’t trample on IP rights, contributes fair share to national income and transform itself into an efficient, effective and competitive industry.

Overall, we have accomplished so much this year.
We have achieved international recognition through the International Organization for Standardization (ISO). This in line with our continuous development in providing world-class services while ensuring quality, safety and efficiency of our plans and programs; we have attained certification for Quality Management System (ISO 9001:2015), Environmental Management System, (ISO 14001:2015) and Occupational Health and Safety Assessment (ISO 18001:2007).

We also have sustained our partnerships with different sectors in our society through our dialogues, fora and consultations. Definitely, we are exerting effort in reaching out to more people especially those in the grassroots. MGB-I has intensified its Information, Education and Communication (IEC) campaign which heightens awareness and promotes the advocacy and thrusts and programs of the bureau as well as to address mining-related activities in the Ilocos Region.

Vulnerability Risk Assessment was done in 12 municipalities in the region including Santa Lucia, Narvacan, Santiago, Santa Cruz, Tagudin, Agoo, Currimao, Paoay, Pasuquin, Bangui and two (2) municipalities in the Province of Bohol in Region VII, Batuan and Sierra Bullones.

Karst Subsidence Mapping and Hazard Assessment were done in the Province of Pangasinan to identify and locate existing sinkholes as well as delineate areas of possible sinkholes and produce a sinkhole inventory and Karst susceptibility map. This assessment also aims to increase awareness of the public on sinkholes and other Karst subsidence hazards.
We were also able to partner and collaborate with the Department of Interior and Local Government (DILG) once again in our “Training-Workshop on Understanding 1:10,000 Scale Geohazard Maps” which was conducted to a total of 1,042 barangays in the Province of Pangasinan and Ilocos Sur. This is to educate and help leaders and local government officials on the proper use of these maps which is a crucial component in disaster and risk reduction management. We have already completed our target of 2,342 barangays regionwide. The last leg of the series of our Training-Workshop concluded in San Carlos City, Pangasinan on September 27-28,2017.

Coastal Geohazard Assessment and Mapping was also done along the eastern borders of the Bicol Region which we have assisted. Twelve (12) target areas within the Provinces of Catanduanes and Albay were accomplished.

As for Hydrogeological Assessment, the Province of Ilocos Sur was the target area. The office also accomplished our TIER II-Province of Ilocos Norte. Groundwater Resource and Vulnerability Assessment was done to assist LGUs in delineating areas feasible for the development of groundwater resource.

For our Mining Regulation Services, our office has issued sixty eight (68) Ore Transport Permits, nineteen (19) certificates of accreditations, six (6) certificate of Environmental Management and Community Relations Record and Certificate of Exemption and one hundred thirty six (136) Mineral Ore Export Permits.
On our Monitoring of Approved Mining Contracts/Permits and SHES Programs, we have audited a total of twenty five (25) contracts and permits including 11 MPSA Contracts, 1 Exploration Permit, 4 Mineral Processing Permits, and 9 Industrial Sand and Gravel Permits.

Forty (40) contracts/mining permits were monitored for our Integrated Social, Health, Environment and Safety (SHES) Monitoring. While the semi-annual ISHES monitoring covered two (2) Exploration Permits, one (1) Financial and/or Technical Assistance Agreement, twelve (12) Mineral Production Sharing Agreements, four (4) Mineral Processing Permits and twenty one (21) Industrial Sand and Gravel permits.

We are also empowering everyone in our Gender and Development activities where we have actively participated and initiated events for women and children. These events include the celebration of Women’s Month, IEC campaign, Gender Development and Sensitivity Training and Massage and Facial Make-up Training.

Much to our accomplishments this year, we are thankful to the mighty men and women of the Mines and Geosciences Bureau Region I. We acknowledge their on-going commitment and dedication. As we move on to a new year, we pledge to continue the quest for greater knowledge, improved programs and enhanced capacity for our environment and people’s welfare.
GENERAL ADMINISTRATION

AND SUPPORT SERVICES

General Management and Supervision

Administrative Services

Activities programmed for the year were all satisfactorily completed which are all demand driven. Maintenance and inventory of vehicles and equipment, buildings, records management, among others, are all 100% accomplished.

The Region has fully complied with all the requirements of the conditions of Good Governance by posting the Transparency Seal on the MGB-I Regional Website which consists of the mandate and function of the Office, List of personnel, approved Work and Financial Plan, Annual Procurement Plan and PHILGEPS certification; the Citizens’ Charter was also posted in a conspicuous area in the office;
All plantilla personnel submitted their respective Statement of Assets, Liabilities and Networth (SALN) for CY 2017 in compliance to Section 8 of Republic Act No. 6713 otherwise known as “Code of Conduct and Ethical Standards for Public Officials and Employees”, updated Personal Data Sheet (PDS), Individual Performance Commitments Review (IPCR), among other as required by the Civil Service Commission.

In line with the Philippine government’s program to promote efficiency and responsiveness, MGB-I partnered with top-notch training and consulting company, AGF Consulting Group to adopt/establish ISO certification particularly ISO: 2015 or Quality Management Systems (QMS) and implement the 10 key clauses of ISO 14001:2015 of the Environment Management System (EMS).

With the continuous development in providing high quality services, improving efficiency and attaining sustainability, the office took the step up on achieving international recognition and is now ISO certified (Quality Management System (ISO 9001:2015), the Environmental Management System, (ISO 14001:2015) and the Occupational Health and Safety Assessment (ISO 18001:2007)). MGB-I have attained the certification after the Stage 2 Audit on December 13-14 the certifying body, National Quality Assurance. The audit proved that the implementation of the quality, environmental and health & safety management systems were in
accordance to the requirements of the standards, therefore issuance of certification was recommended.

A series of trainings and seminars were conducted in preparation to the said audit. Operating Procedures such as Fire Safety, Health and Sanitation, Health & Safety, and Office Ergonomics were established. Health and Safety related signages and warning signs were provided. Well-organized, comfortable, and clean offices and restrooms were ensured. Purchasing records were organized well and the Divisions' records of operations were completed and made available.

MGB-1envisioned to develop a more professional culture, increase customer satisfaction and understand and communicate the bureau’s processes and services well fit for global standards.
Housekeeping, Building and Ground Improvement Services

Improvement of office facilities continues with the installation of office partitions, additional lightings, electrical fixtures and lines for internet connection.

With regard to the major improvement of Network Infrastructure of the Bureau, MGB-region I was the pilot region in the implementation of the Mines and Geosciences Bureau-Network Enhancement (MGBnet).

The Infobahn Communications, Incorporated provided the services for network cabling, installation of anti-virus, configuration of Virtual Private Network (VPN) and security implementation within the network.

On February 23-24, Mr. Jeffrey Ledesma from MGB Central Office conducted an assessment and validation of the installed network.

Inspection of the Intermediate Distribution Frame (IDF) wherein the Unified Threat Management or Firewall and Switches were installed.
Human Resource Management and Development Service

The Human Resource Development Service aims to provide responsive and excellent service in the development and administration of effective human resource management. Various trainings were coordinated, attended/ conducted for bettering the performance, gaining more knowledge of individuals and sharpening their skills.

Presentation of findings and highlights of the conducted assessment
Hereunder is the list of trainings/workshops attended:

<table>
<thead>
<tr>
<th>TITLE OF TRAINING</th>
<th>INCLUSIVE DATE</th>
<th>VENUE</th>
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</thead>
<tbody>
<tr>
<td>1. Coordination meeting on MGB Network Enhancement (MGBNet) and Finalization of</td>
<td>Jan. 12-13, 2017</td>
<td>MGB-Central Office, Quezon City</td>
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<td>MGB 2018-2020 Information Systems Strategic Plan</td>
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<td>3. JOGMEC Seminar on Sustainable Development and Environmental for the Mining</td>
<td>Jan. 23, 2017</td>
<td>New World Hotel, Makati City</td>
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<td>Sector of the Philippines</td>
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<td>4. National Geologic Mapping Workshop</td>
<td>Feb. 5-12, 2017</td>
<td>Legaspi City</td>
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<td>5. Values Orientation Workshop (VOW)</td>
<td>Feb. 7-8, 2017</td>
<td>CSC-Region I Training Center</td>
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<tr>
<td>8. 15th Annual National Convention and 6th National Congress of the MGBEA</td>
<td>Mar. 14-17, 2017</td>
<td>Pasay City</td>
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<td>9. Leave Administration Course for Effectiveness (LACE)</td>
<td>Mar. 21-22, 2017</td>
<td>CSC-Region I Training Center</td>
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<tr>
<td>10. Legal Information System (LeGIS) Users Training</td>
<td>Apr. 3-7, 2017</td>
<td>Icon Hotel, Quezon City</td>
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<td></td>
<td>Event</td>
<td>Date</td>
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<tr>
<td>11.</td>
<td>22nd Regional Continuing Professional Education for Human Resource Management Practitioners</td>
<td>Apr. 4-6, 2017</td>
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<td>12.</td>
<td>29th Annual Regional Convention of Geodetic Engineers</td>
<td>May 5-6, 2017</td>
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<td>14.</td>
<td>5th Seminar Workshop on Mining Conflict /Dispute Resolution</td>
<td>May 22-26, 2017</td>
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<td></td>
<td>Records Disposition Administration Seminar-Workshop</td>
<td>May 23-25, 2017</td>
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<td>16.</td>
<td>2017 Hydrogeology Workshop</td>
<td>May 21-27, 2017</td>
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<td>17.</td>
<td>39th Annual National Convention of Government Association of CPAs</td>
<td>May 24-27, 2017</td>
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<td>18.</td>
<td>Supervisory Development Course-Track 1 (SDC)</td>
<td>May 30-June 2, 2017</td>
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<td>19.</td>
<td>Supervisory Development Course-Track 2 and 3 (SDC)</td>
<td>June 13-16, 2017</td>
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<td>20.</td>
<td>Mindanao Association of Mining Engineers (MAEM) 24th Mining Conference</td>
<td>June 21-25, 2017</td>
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<td>21.</td>
<td>JOGMEC Seminar on Sustainable Development and Environmental for the Mining Sector of the Philippines</td>
<td>June 24-25, 2017</td>
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<td>22.</td>
<td>2017 Hunt for Ore Deposits Challenges and Opportunities</td>
<td>June 28-July 1, 2017</td>
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<tr>
<td>No.</td>
<td>Event Description</td>
<td>Date</td>
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<tr>
<td>23.</td>
<td>Climate and Disaster Risk Assessment (CDRA) Review and Ecological Profile Updating/Coaching and Mentoring on the preparation of a Risk Informed Comprehensive Development Plan</td>
<td>July 2-8, 2017</td>
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<tr>
<td>25.</td>
<td>Workshop on Practices, methodologies, concepts, tools and best geohazard on Coastal Assessment</td>
<td>August 2-6, 2017</td>
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<td>26.</td>
<td>Supervisory Development Course Track II &amp; III</td>
<td>August 14-18, 2017</td>
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<td>27.</td>
<td>Standard First Aid and Basic Life Support Training (BLS)</td>
<td>August 14-18, 2017</td>
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<td>28.</td>
<td>Basic Training Course for Pollution Control Officers</td>
<td>Aug. 28-Sept. 1, 2017</td>
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<td>29.</td>
<td>Flood Modelling and Mapping</td>
<td>Sept. 11-14, 2017</td>
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<td>31.</td>
<td>2017 Financial Performance and Reporting Accuracy Assessment Cum Administrative Policies and Compliance Reports</td>
<td>Sept. 18-22, 2017</td>
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<tr>
<td>No.</td>
<td>Event Description</td>
<td>Date/Duration</td>
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<td>32.</td>
<td>Statistical Data and Analysis, Website Maintenance and Information Dissemination</td>
<td>Sept. 18-22, 2017</td>
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<td>33.</td>
<td>A Re-Orientation of the National/Regional Standard Operating Procedures and Guidelines</td>
<td>Oct. 19, 2017</td>
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<td>34.</td>
<td>Training/workshop on the Application of the Digital Shoreline Assessment System (DSAS) and Other Techniques in Coastal Geohazard Mapping</td>
<td>Oct. 24-27, 2017</td>
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<tr>
<td>35.</td>
<td>Utilization of Climate and Disaster Risk Assessment (CDRA) Results in Program, Project and Activity Identification and Integration of CDRA in the CDP Process</td>
<td>Oct. 23-27, 2017</td>
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<tr>
<td>37.</td>
<td>2017 Annual Technical Forum</td>
<td>Nov. 7-11, 2017</td>
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<td>38.</td>
<td>33rd North Luzon Area Assembly of Geodetic Engineers of the Philippines</td>
<td>Nov. 17-18, 2017</td>
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<td>39.</td>
<td>5th National Community Relations Officers' Conference</td>
<td>Nov. 21-24, 2017</td>
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<td>40.</td>
<td>Legal Information System (LeGIS) Training Phase II</td>
<td>Nov. 22-24, 2017</td>
</tr>
<tr>
<td>41.</td>
<td>Strategic Planning for the 2019 Mines &amp; Geosciences Bureau Gender &amp; Development Work Plan &amp; Budget and Orientation</td>
<td>Dec. 4-8, 2017</td>
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</tbody>
</table>
Likewise, the Office has strengthened its Human Resource System through regular updating and implementation of CSC Program to Institutionalize Meritocracy and Excellence in Human Resource Management (PRIME-HRM). MGB Region I is one of the only sixteen (16) Level 2 CSC accredited agencies in the Province of La Union.

**Solidwaste Management Service**

The Office strictly implements waste segregation in collaboration with Mines and Geosciences Bureau Employees Association Region I Chapter.

**Implementation of Government Procurement**

With regard to the implementation of government procurement, a weekly Bids and Awards Committee (BAC) meeting is conducted to ensure that all purchase requests, request for quotations were in accordance to Republic Act No. 9184 “An Act Providing for the Modernization, Standardization and Regulation of the Procurement Activities of the Government and for Other Purposes”. Purchase requests were also posted at the Philippines Government Electronic Procurement System (PhilGEPs).
The cashiering unit created an Official Receipt System to expedite the issuance of receipt to stakeholders. This system also helped in generating reports submitted to MGB-CO, Bureau of the Treasury and COA.
FINANCIAL MANAGEMENT SERVICES

The Department of Budget and Management (DBM), through the General Appropriations Act (GAA) has released P44,499,000 budget for CY 2017, P22,218,000 for Personnel Services (PS) and P22,281,000 for Maintenance and Other Operating Expenses (MOOE).

The GAA shall be considered the allotment to obligate funds for the purpose specified and in accordance with its provisions. And there was a continuing appropriation of P116,916.94, P106,676.94 for Maintenance and Other Operating Expenses (MOOE) and P10,240 for Capital Outlay (CO).

Additional P4,842,973.16 was released by MGB Central Office, P316,000.00 Maintenance and Other Operating Expenses (MOOE), P258,000.00 for ICT Consultancy Services and P58,000.00 for Mine Rehabilitation Program; P4,526,973.16 Personnel Services (PS), P72,736.16 for Subsistence and Laundry Allowance, P3,720,985.00 for PS additional requirements and P733,252.00 for Miscellaneous Personnel Benefit Fund.

The MGB CO also released P1,086,465.00 in the conduct of Tier II, as an additional target, under the Groundwater Resource Assessment Program in the province of Ilocos Norte. An amount of P276,000.00 was released for
Fund 03 (Special Account-Locally Funded) under the Mine Rehabilitation Program. Thus, the total allotment for FY 2017 amounted to P50,821,355.10.

For the year ended December 31, 2017, Budget Utilization Rate (BUR 1) (Obligation/Allotment) reached 100% and Budget Utilization Rate (BUR 2) (Disbursement/Obligation) reached 98%. The total allotment P50,821,355.10 comprising PS of P27,869,973.16, MOOE of P22,941,141.94 and CO P10,240.00. Total obligation for FY 2017 amounted P50,809,727.29, PS P27,869,973.16 and MOOE P22,939,754.13.

All advances to special disbursing officers and employees were liquidated and aging of cash advances was verified by Commission on Audit (COA). All remittances, collections, payment of disallowances and refunds from cash advances were remitted to BTr, BIR, Philhealth, HDMF and GSIS. Budget and Financial Accountability Reports (BFARs) and Financial Statements for the year were submitted accurately and timely to MGB Central Office, COA, DBM thru the Unified Reporting System (URS) and NEDA thru Regional Project Monitoring and Evaluation System (eRPMES).

The Government Accounting Manual (GAM), generally accepted government accounting principles in accordance with the PPSAS and pertinent laws, rules and regulation, DBM issuances and guidelines and COA circulars were used as primary references for processing of payments to employees and creditors.
PLANNING AND POLICY FORMULATION

Monthly Physical Accomplishment Reports, Performance Information Report and Fund Utilization Reports were regularly submitted to MGB Central Office.

To improve the reporting of accomplishments of every Division as well as records filing and keeping, planning coordinators were designated in the respective divisions to effectively coordinate with the regional planning officer for the timely submission of reports.

Periodic assessment of accomplishments vis-à-vis target is conducted and timely feedbacks are provided to the division concern for immediate and appropriate course of action.
On November 27-29, 2017, Ms. Mary Anne C. Villegas and Ms. Fe Jocelyn DC. Francisco of MGB-CO Planning, Policy International Affairs Division (PPIAD) conducted the validation of the 2016 accomplishments. The objective of the activity is to validate the reported 2016 accomplishments; to determine actions taken on the recommendations of the validation of 2015 accomplishments; and to determine other concerns in the implementation of plans and programs.

Courtesy call to the OIC, Regional Director
Validation of accomplishments (A) Mine Safety, Environment and Social Development Division (MSESDD), (B) Geosciences Division (C) Communication Plan and Mine Management Division (MMD), (D) Exit Conference
MINERAL RESOURCE SERVICES
Communication Plan
for Minerals Development

Awareness and Advocacy on Mineral Resources
and Geosciences (MRGS)

Dialogues with Sangguniang Bayan

Experiences tell us that a well-informed stakeholder is a great ally in terms of heightening and promoting awareness and advocacy on the “Pro-People and Pro-Environment” thrusts and programs of the Office.

For the year under review, focus is on the honorable members of legislative bodies (Sangguniang Bayan) of different Municipal Government Units in the region.

The implementation of the Manila North Project, a big ticket program of the Duterte Administration was seen as an opportunity for the said law makers to become as “development partners” in terms of enacting or passing necessary Municipal Ordinances to stimulate efficient resource utilization within their respective areas of operations.
It may be stressed that the roles of these legislative bodies in terms of exacting their respective fair share from proceeds derived from a well-administered mineral development process are very much recognized.

Thus, for this year a total of eleven (11) engagements were made with the esteemed members of various Sannguniang Bayan in the Region, the breakdown of which including the topics covered by the discussions/presentations are as follows:

a. **LGU-Umingan, Pangasinan**

   Topics discussed:
   1. Status of the ISAG Permit issued to Oniol II Development;
   2. Monitoring of Sand and Gravel Extraction; and
   3. Proposed organization of a monitoring task force to address illegal quarrying.

b. **LGU- Sison, Pangasinan**

   Topics discussed:
   1. Proposed Bued River Enhancement Project; and
c.  **LGU-Sudipen, La Union**

Topics discussed:

1. Proposed dredging of the Amburayan River;
2. Status of sand and gravel extraction along amburayan river; and
3. Proposed protocol between and among concerned government agencies concerning sand and gravel quarrying near public structures.

Hon. Danilo Uy, Mayor, Sison, Pangasinan (center) presiding a meeting in relation to the implementation of the Bued River Enhancement Project in the covered court of said Municipality.
Safety protocols to protect public structures from any mining activity, status of commercial/industrial sand and gravel permits issued along the Amburayan River were some of the areas of concern discussed during a meeting with the honorable members of the Sangguniang Bayan of Sudipen, La Union.

d. **LGU-Sison, Pangasinan**

Topics discussed:

1. Presentation of the proposed Memorandum of Agreement between and among the following parties in relation to the Bued River Enhancement Project namely:
   - Office of the Governor, Pangasinan
   - Office of the Mayor, Sison, Pangasinan
   - MGB Region I
   - EMBR Region I
   - DPWH-3rd Pangasinan Engineering District
e. LGU – Sison, Pangasinan

Topics discussed:

1. Results of the Delineation Survey conducted for the proposed “dredging lane”, a component of the Bued River Enhancement Project;
2. Implications of the proposed project to existing holders of Industrial/Commercial Sand and Gravel in the area; and
3. Review of the responsibilities of participating government agencies.

The “quarry/dredging lane” was surveyed by the 3rd Pangasinan Engineering District and was subdivided into 5 ha. Lots by the Mines and Geosciences Bureau, Regional Office No. I.
f. LGU – Bauang, La Union

Topics discussed:
1. Proposed Municipal Ordinance on Treasure Hunting;
2. Status of treasure hunting areas in the locale; and
3. Status of sand and gravel extraction along the Bauang River.

g. LGU – Sudipen, La Union

Topics discussed:

1. Strengthening the Role of the LGU in the promotion of Responsible Mining;
2. Strengthening the system and procedure in the issuance of Endorsement of Mining Projects by the Municipal Government.

Hon. Raymond Boquing, Mayor, Sudipen, La Union (leftmost) stressing during the SB Meeting held at the Municipal Legislative Biding, Sudipen, La Union
h. LGU – Naguilian, La Union

Topics discussed:

1. Strengthening the Role of the LGU in the promotion of Responsible Mining;
2. Strengthening the system and procedure in the issuance of Endorsement of Mining Projects by the Municipal Government; and
3. Review on the status of permits issued within the vicinity of the Ribsuan Bridge.

i. LGU – Aguilar, Pangasinan

Topics Discussed:

1. Implications of the No-Mining Municipal Ordinance in the locale;
2. Review on the status of previous sand and gravel mining areas; and
3. Presentation of the Responsible Mining Concept.

j. LGU – Carasi, Pangasinan

Topics Discussed:

1. Presentation of the Responsible Mining Concept;
2. Salient provisions of the Philippine Mining Act of 1995; and
A Map indicating the area proposed for Mineral Reservation within the Municipality of Carasi, Ilocos Norte

k. LGU – Sarrat, Ilocos Norte

Topics Discussed:

1. Proposed 2017 Quarry Tax Ordinance;
2. Proposed extraction fees of sand and gravel materials;
3. Proposed rates of penalties;
4. Monitoring protocol; and
5. Status of sand and gravel quarrying along the Padsan River.
Dialogue/Consultation with Other groups

(Religious group, CSO, Academe, etc.)

a. Consultation with Cervantes- Isalakan, Salakniban Movement on May 12, 2017 at Cervantes Covered Court, Poblacion, Cervantes, Ilocos Sur

It was organized by the Cervantes - Ipateg, Salakniban Movement (C-ISM), the group showing strong opposition against mining and any other mining-related activities within the town's territorial jurisdiction.

Plenary speakers coming from the MGB-Region I were invited to enlighten the people of Cervantes on Mining Exploration and Mining Operation during the People’s Convention held on May 12, 2017 at the covered court, Poblacion, Cervantes, Ilocos Sur.

Engr. Renato A.D. Rimando, the Chief, Mine Management Division together with Engr. Nandry Clae B. Lagman and Engr. Christopher S. Sibayan were the representatives of the office to the convention.
b. CSOs/Brgy. Residents of Umingan, Pangasinan at Umingan Municipal Gymnasium on February 8, 2017

c. NGA's with Cong. DV Savellano at NSCC Bath and Coffee, Vigan City Ilocos Sur on April 4, 2017

d. Residents of Brgy. Barlo, Mabini, Pangasinan

e. Presidential Communications Operations Office, Various NGA's Information Officers

f. Accredited Dealers, Traders and Retailers of Luna Pebbles

g. Dialogue with the neighboring communities of HPI in Bacnotan, La Union regarding the MGB Memo Circular 2017-02

Radio/TV Broadcast/ Guesting
A total of twelve (12) Radio/TV Broadcast/ Guesting were completed for the year.
Capacity Building on MRGS laws, rules and regulations

Workshop/ Trainings Participated/Conducted/Coordinated

MGB Personnel to attend:

a. 16th Regional Mining Summit

The 16th Regional Mining Summit with the theme “Right Attitude towards Responsible Mining” was held on March 29-31, 2017 at Puerto de San Juan Resort Hotel, Ili Sur, San Juan, La Union.

It involved convergence of diverse approaches to mining issues with main consideration on the implementation of Best Mining Practices, community empowerment and environmental protection. Similarly it tackled the problems faced by the minerals industry in the region. It provided further the venue for the exchange of knowledge, information, ideas, and culture of members.

It was primarily highlighted by paper presentations that engaged sharing and providing the participants relevant information on a wide range of matters relating to mineral resource utilization and development. It provided conductive and lively interactions between speakers and participants and among participants themselves by sharing knowledge and experiences. It also laid the foundation for future collaborations among individuals of related fields.
The event achieved its objective of bonding together the participants to discuss and exchange ideas on how to address issues on environmental degradation, permit applications, Mining Education and Mine Rehabilitation funding. It was also a venue and an opportunity of finding greater ideas from other participants on approaches to effectively manage our environmental and mineral resources.

b. Symposium on Biodiversity and Mining;
c. 24th Mindanao Association of Mining Engineers Convention
d. Mines Adjudication and Panel of Arbitrators 5th Seminar Workshop on Mining Conflicts/ Dispute Resolution on May 22-26, 2017 at Icon Hotel, North EDSA, Quezon City
The Workshop has the theme: “Alternative Dispute Resolution: A Catalyst for Change in Dispute Resolution on Mining Conflict”

It was attended to orient the Members of the Panel of Arbitrators and the Mines Adjudication Board of the Legal Information System (LegIS), an innovation under the MGB ISSP (Network Integration Project) in line with the transparency direction of the government to finalize the Proposed Revised Rules on Pleading, Practice and Procedure before the Mines Adjudication Board and the Panel of Arbitrators;

It was also a venue for participants to update their knowledge on the new laws, rules and regulations on mining and jurisprudence; To orient the and To formulate Alternative Dispute Resolution Principles and Procedures on Mining Cases and to draft a Memorandum Circular for the Panel defining its jurisdiction based on actual cases decided.

The Luzon Group during the workshop for the formulation of Alternative Dispute Resolution Principles and Procedures on Mining Cases.

e. 64th Annual National Mine, Safety and Environment Conference (ANMSEC)
LGUs and other Stakeholders

1. **16th Regional Mining Summit**

2. **Seminar on Salient Provisions of the Philippine Mining Act of 1995 on May 3-4, 2017 at the Auditorium, Provincial Capital, Laoag City, Ilocos Norte**


Participants comprising of Police Officers, Provincial Quarry council personnel and Mayor Alex Calucag, LGU- Solsona, Ilocos Norte.
The participants were seventy two (72) Police Commissioned and Non-Commissioned Officers of the Philippine National Police, Ilocos Norte Police Provincial Office, Barangay Captains and members of Provincial Quarry Council.

The seminar was carried-out basically to equip the police officers and local government officials with sufficient knowledge and information specifically on the provisions of the Mining Law specifically on the transport of minerals and mineral products. As to the personnel who are authorized to effect arrests and confiscation/seizures, Sec. 118 of DAO 2010-21, s. 2010, provides.

3. Regional Law Enforcement Coordinating Council (RLECC) Seminar on Environmental Law, Rules and Regulations on June 29, 2017 at DENR Conference Hall, Sevilla, City of San Fernando, La Union

4. Procedural guidelines for Application of Accreditation, Ore Transport Permit (OTP) and Mineral Ore Export Permit (MOEP)

5. IEC on Deputation and Provisions of RA 7942

6. General Assembly for ISAG CSAG and Special Permit Holders, La Union

7. General Assembly of ALL ISAG/CSAG/SSM, Ilocos Sur

8. General Assembly of ALL ISAG/CSAG/SSM, Ilocos Norte
For Small Scale Miners

1. 16th Regional Mining Summit


Conduct of IEC on June 21, 2017 at the Multi-purpose Hall of Brgy. Dilavo, Pasuquin, Ilocos Norte. The topic presented was on update of the petition of the Barangay for their Minahang Bayan and the process flow of approval for a Declaration of Minahang Bayan and issuance of a Small Scale Mining Contract.

3. General Assembly of ISAG CSAG and Special Permit Holders, La Union
4. General Assembly of ALL ISAG/CSAG/SSM, Ilocos Sur
5. General Assembly of ALL ISAG/CSAG/SSM, Ilocos Norte
Generation/Publication/Dissemination of Information and IEC Materials:

a. MGB-1 Website [www.region1.mgb.gov.ph](http://www.region1.mgb.gov.ph) is being maintained by the Office for better and easier access of clients to the services being offered by the Office.

b. Thirty Seven (37) articles posted on the Website.

c. Three (3) IEC materials were produced and one hundred fifty (150) were reproduced and distributed during fora, conferences, dialogues and meetings. Some were requested by walk-in clients.

d. Thirty Two (32) Statistical Reports were prepared and submitted to MGB-Central Office
e. Twenty Four (24) updating of tenement maps which is done on a bi-monthly basis.

f. Thirty Five (35) MRGS reports were prepared. These are the databases of the Mining Tenement Statistics Report, SHES Database Management, Mining Tenement Database, Mine Rehabilitation Fund Report.

National Linkages

Thirteen (13) Linkages were coordinated for the reporting period, namely:

1. Attendance to Regional Budget Review and Consultation
2. Attendance to Environment and Natural Resources Sectoral Committee Meeting (ENR SECOM)

3. Linkages coordinated with the Office of Civil Defense re: holding of earthquake drill

4. Attendance to DENR Regional Management Conference

5. Attendance to hearing of the Committee Laws and Ordinances of the 9th Sangguniang Panlalawigan
6. Linkages coordinated with the Office of Civil Defense on the one-day Incident Command System Executive Course for Head of Agencies

7. Linkages coordinated Department of Energy (DOE) in the conduct of E-Power mo campaign on November 29, 2017 at the Fontana Hot Spring Leisure Parks, Clark Freeport Zone
8. Linkages coordinated with Department of Agrarian Reform (DAR) in the conduct of Kilos Sambayanan anti-poverty campaign on October 20, 2017 at the Vigan Convention Center.

9. 53rd Annual Session of the Coordinating Committee for Geoscience Programmes in East and Southeast Asia at the Waterfront Hotel in Cebu City.

10. Linkages coordinated with DepEd- School-Based Youth for Environment in Schools Organization (YES-O) Camp and Environmental Summit of Science Leaders on September 15-17, 2017 at the MNHS Open Gymnasium.

11. Linkages coordinated with the Philippine Society of Youth Science Club (PSYSC)

12. Linkages coordinated with I-MINE in the conduct of Meeting/Assessment

Mineral Reservation

The mineral reservation is one of the flagship programs of the Mines and Geosciences Bureau. This program aims to locate, identify and determine the available and extent of mineral resources/mineral deposit inside the proposed mineral reservation area and to know the economic importance of it.

Geological Mapping along Cura River in the Municipality of Carasi, Ilocos Norte.
Based on the recent findings of the geologic study conducted, two (2) areas were found to have potential for the development of its iron ores, per map projection, the said mineralized areas are within the jurisdiction of Brgys. Virbira and Barbaquezo, both in the Municipality of Carasi, Ilocos Norte.

Public Consultation Conducted for the Establishment of Mineral Reservation in the Municipality of Carasi, Ilocos Norte. Lectures on the Guidelines in the Establishment of Mineral Reservation and the results of the detailed geological study in the area was discussed and presented.
Geosciences Development Services
Geohazard Survey and Assessment

Vulnerability Risk Assessment and
Updating of 1:10,000 Scale Geohazard Maps

For CY 2017, twelve (12) municipalities were targeted for Vulnerability and Risk Assessment. Of the twelve (12) targets, ten (10) were conducted in the region while the other two were conducted in the Province of Bohol, Region VII in compliance with Special Order No. 2017-15 authorizing the conduct of Vulnerability and Risk Assessment in Typhoon Yolanda-affected areas of Region VII and VIII by certain MGB Regional Offices. The conduct of the Vulnerability and Risk Assessment is in line with the government’s efforts aimed at determining the potential harm or loss a city or municipality may suffer as well as its capacity to anticipate, cope, and recover from the impacts of various hazards. It also aims to understand the types or different dimensions of vulnerability to wit; physical, social, economic and environmental as well as the elements at risk (e.g. all objects, building, facilities, population/people, animals, economic activities, public services, environment and cultural heritage and processes that may be adversely affected by hazardous phenomena (disaster) in a particular area either directly or indirectly and reducing if not totally mitigating the destructive effects and impacts of
natural hazards on the populace. This activity is also an updating and/or a follow-up to the Geohazards Assessment and Mapping (1:50,000 and 1:10,000 Scale) previously conducted by MGB-I Geologists.

Below is a list of the targeted and accomplished municipalities:

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<tr>
<th>MUNICIPALITY/CITY</th>
<th>PROVINCE</th>
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<tr>
<td>1. Santa Lucia</td>
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<td>2. Narvacan</td>
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<tr>
<td>6. Santiago</td>
<td>Ilocos Sur</td>
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<td>7. Santa Cruz</td>
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<td>8. Tagudin</td>
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<td>9. Agoo</td>
<td>La Union</td>
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<td>10. Currimao</td>
<td>Ilocos Norte</td>
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<td>11. Paoay</td>
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<td>12. Pasuquin</td>
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<td>13. Bangui</td>
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<td>14. Batuan</td>
<td>Bohol</td>
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<tr>
<td>15. Sierra Bullones</td>
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The said assessment consists of two components namely: data gathering and Geographic Information System (GIS) analysis. During data gathering, barangay officials and residents are interviewed to gather the
information needed for the VRA and to validate and update the results of the 1:10,000 Scale Geohazard Mapping previously conducted. As the data needed for the VRA relies heavily on the information that is to be provided by the barangay officials, one of the issues commonly encountered during the conduct of the VRA is the unavailability of interviewees and difficulty in obtaining the data/updated information from concerned officials. In addition to the interview, geographic coordinates of critical infrastructures, i.e. barangay hall, medical clinics, schools, and bridges were recorded.

Using the updated geohazard maps as the main basis, the data gathered are then analyzed using ARCGIS to generate risk exposure maps. Outputs include maps of population (number of people), roads (in kilometers), and built up areas (in square meters) exposed to flood and rain-induced landslide which may be utilized by the municipality/city in their comprehensive land use planning, development and infrastructure projects and disaster and risk management programs.
Interview with the barangay officials of Sta. Monica, Agoo, La Union (upper left), Sapat, Pasuquin, Ilocos Norte (upper right), San Roque, Paoay, Ilocos Norte (lower left), and Quinarayan, Narvacan, Ilocos Sur (lower right)
Areas affected by flooding during heavy rainfall in Abachanan, Sierra Bullones, Bohol (upper left), Patiqui, Sta. Cruz, Ilocos Sur (upper right), Dacutan, Tagudin, Ilocos Sur (lower left), and Caruan, Bangui, Ilocos Norte (lower right) being checked by the MGB Team.
Generally, areas vulnerable to flooding in the abovementioned municipalities include areas located near or adjacent to river channels, in low-lying places, and in flat plains commonly situated in the western portion of the municipalities of Ilocos Sur and Ilocos Norte. Flooding is commonly exacerbated by clogged and inadequate drainage. On the other hand, areas exposed and vulnerable to rain-induced landslide hazard are generally those located near or along the flanks of slopes.

**Sub-surface Assessment**

Karst Subsidence Mapping and Hazard Assessment was conducted in the City of Alaminos, province of Pangasinan. The main objective of the said survey and assessment is to identify and locate existing sinkholes as well as to delineate areas of possible sinkholes, in order to produce sinkhole inventory and Karst subsidence susceptibility map. It also aimed to increase awareness on sinkholes and other Karst subsidence hazard, and to issue threat advisories to LGUs and recommend possible prevention and mitigation relative to the hazard.

Using satellite images – IFSAR (Interferometric Synthetic Aperture Radar) Interpretation, Geologic and Geomorphologic information combined with anecdotal accounts from the locals, and conducting of Ground Penetrating Radar survey, personnel from the Geosciences Division was able to determine the location of existing sinkholes and surface collapse/subsidence susceptibility of the study area.
A. Interview conducted to barangay officials and residents for the ground validation of IfSAR sink-depth maps. Anecdotal accounts were significant information for the validation of the identified sinkhole in the IfSAR maps.

B. MGB-RO1 personnel together with the barangay officials planning for the ground truthfuling of the identified sinkholes in IfSAR using the topographic and geologic map prepared by the team.

C. MGB-RO1 personnel locating the direction and location of the identified sinkholes generated in the sink-depth IfSAR map.

D. Located at 16°11′41.2″ N latitude and 120°1′54.5″ E longitude

Century Cave with an opening of 20 meters by 15 meters. One of the caves identified within the Hundred Islands National Park. It was observed that caves in HINP have the same signature with the caves in some barangays, the rocks were porous and composed of coralline limestone.
Geohazard IEC Materials Dissemination

IEC materials consisting of maps (1,953), posters (1,166), VCD (85), pamphlets and/or flyers on “BAHA” and “GUHO” were distributed to LGUs, students and clienteles. Geohazard maps with a scale of 1:10,000 scale were uploaded in the website. Advisories were likewise re-issued to all cities and municipalities in the region.

Conduct of IEC to LGUs

A series of seminar entitled “Training-Workshop on Understanding 1:10,000 scale Geohazard Maps” was conducted by the office in partnership with the Department of Interior and Local Government (DILG) to thirty municipalities in Pangasinan and eight (8) municipalities in Ilocos Sur consisting of one thousand forty two (1,042) barangays. It aims to equip the local government leaders with knowledge and skills on the use of geohazard maps, a crucial component in disaster preparedness, risk reduction and management.
It was attended by the city, municipal and barangay officials of the targeted cities and municipalities in the provinces of Pangasinan and Ilocos Sur consisting of two thousand one hundred two (2,102) males and one thousand three hundred sixty two (1,362) females.

The first part of the training consisted of lecture series on the following topics: “Introduction to Geohazards Mapping and Assessment Program (GMAP), “Rain Induced-Landslides”, ‘Floods”, “Coastal Hazards”, and “Reading and Understanding a Geohazard Map”. The second part of the training was spent on the distribution of geohazard maps to all barangays of the targeted LGUs followed by workshop and/or critiquing of geohazard maps. This allowed the local officials to identify the susceptible area in their barangays and/or communities and to critique or correct the said maps.

Miss Vilma A. Vecino also included a lecture on “Earthquake and Tsunami” in line with the observance of the 3rd Quarter National Simultaneous Earthquake Drill (NSED) since the IEC coincided with the 3rd Quarter NSED in September 29, 2017 and in support to the program of the National Disaster Risk Reduction and Management Council (NDRRMC) through the Office of Civil defense (OCD). Local Officials from the target municipalities (Alcala, Bautista, Mabini and Mangatarem, Pangasinan) were encouraged to participate and support the said drill.
After the workshop, selected participants from the different LGUs were asked to give their comments and impression on the training conducted. Generally, the participants find the geohazard maps very useful in their Comprehensive Land use Planning, CDRA, Local Climate Change Action Planning, PDRRM planning, MDRRM planning, BDRRM planning, Development and Infrastructure Projects and Disaster Risk Reduction and Management Plans and Programs and thanked the MGB-R1 for conducting such training.

Ms. Vilma A. Vecino delivering her lecture on “Earthquake and Tsunami” to the local officials of Alcala, Bautista, Mabini and Mangatarem, Pangasinan in support to the 3rd Quarter National Simultaneous Earthquake Drill spearheaded by the National Disaster Risk Reduction Management Council (NDRRMC) and Office of Civil Defense (OCD).
Series of lectures were also presented/conducted, namely:

1. Mr. Socrates G. Gaerlan rendered Technical Assistance in the conduct of Geo Resistivity Survey Training (Instrumentation and Data Interpretation) for the Technical Personnel of MGB Regional Office VII - Cebu last March 6-11, 2017.

2. Ms. Vilma A. Vecino conducted lecture on Geohazard Map (GMAPs) during the Local Climate Change Orientation / Workshop by the Municipality of Santol, Province of La Union last March 17-18, 2017.

3. Ms. Marie Rose B. Aguda rendered technical assistance on a one day Seminar on the Establishment and Management of Sanitary Landfill participated by the MENRO in all the Municipalities of the Province of Ilocos Sur - April 21, 2017.

4. Mr. Socrates G. Gaerlan attended as speaker/lecturer of the National Science Clubs Summit (SUMMIT) specially designed for high school students in connection with the celebration of the National Science Club
Month (NSCM) with the Theme “Earth Beat: Excavating the Abyss, Pulsing the Current, Steering Science Clubbers as Stewards of Sustainable Development” held at Sinait National High School, Sinait, Ilocos Sur last September 9-10, 2017.


6. Ms. Vilma A. Vecino attended as Resource Speaker in celebration of the 2017 Science Club Month this September as per invitation of the Mangaldan National High School, Science Department held at MNHS Open Gymnasium, Mangaldan, Pangasinan last September 15-17, 2017.

7. Mr. Socrates G. Gaerlan attended as lecturer on the Georesistivity Training as per invitation of the Hydrogeology and Environmental Geology Section (HEGS) held in Zamboanga Peninsula (Region IX) on September 25-29, 2017.
8. Mr. Socrates G. Gaerlan attended as trainer/speaker in the conduct of Georesistivity Training for the Groundwater Resource Assessment and Mapping Project in Region X last October 9-13, 2017

9. Mr. Socrates G. Gaerlan attended as trainer/speaker in the conduct of Georesistivity Training for the Groundwater Resource Assessment and Mapping Project in Region XIII last October 9-13, 2017


11. Mr. Socrates G. Gaerlan attended as lecturer on the Georesistivity Training as per invitation of the Hydrogeology and Environmental Geology Section (HEGS) held in Region XII last October 23-27, 2017.
12. Mr. Socrates G. Gaerlan attended as lecturer on the Georesistivity Training as per invitation of the Hydrogeology and Environmental Geology Section (HEGS) held in Region XI last October 23-27, 2017.

Coastal Geohazard Mapping and Assessment

For the Calendar Year 2017, the Mines and Geosciences Bureau – Regional Office No. 1 was tasked to conduct Coastal Geohazard Assessment and Mapping within certain areas along the eastern borders of the Bicol Region. The twelve (12) target cities/municipalities are as follows:

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<th>MUNICIPALITY/CITY</th>
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<tr>
<td>1. San Andres</td>
<td>Catanduanes</td>
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<td>2. Caramoran</td>
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<td>3. Pandan</td>
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<td>6. Malinao</td>
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<td>9. Bacacay</td>
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<td>10. Rapu-Rapu</td>
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<td>11. Sto. Domingo</td>
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<td>12. Legazpi City</td>
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The Coastal Geohazard Assessment and Mapping Program was undertaken to be able to assess the hazards present on the coastal community, as well as to provide and recommend appropriate mitigating measures to address the problem. This will provide the public with the information on the susceptibility of their coastal areas to erosion or accretion. This program aims to deliver significant information to the policy makers and the public regarding the risks their community faces. Thus, helping the community enhance their preparedness, response, resilience and to minimize the adverse impacts of these events.

The conduct of the coastal geohazard assessment and mapping includes gathering of anecdotal accounts through dialogue with the locals. An interview with a resident from Brgy. Carogrog, Rapu-Rapu, Albay is shown in this picture.

The output of this fieldwork may be incorporated in the creation of land use and development plans of the affected communities.

The methods used in the survey consist of Anecdotal Data Gathering, Beach Profiling and Shoreline Mapping. Profile of the beach area using slope height and slope angle was attained by the means of a meter tape, for length measurement, and two ranging poles for horizon sighting. This method aims to compare coastlines in different assessment locations. Interview of the long-time residents in the area is conducted to obtain historical accounts regarding coastal flooding, coastal erosion and accretion, and coastal geohazard occurrences in the area, such as tsunami or storm surges. Shoreline mapping was done using the hand-held
Global Positioning System (GPS) unit while tracking the present water line. The newly acquired GPS data will be compared with those from the old NAMRIA topographic map, which were gathered during the 1950’s.

Initial threat advisories were issued to the barangays. A copy of the threat advisories issued were also given to the MDRRMOs and the Municipal/City Mayors. The erosion and accretion ratings indicated on the advisories issued were based on the on-site evaluation of the coastal areas. The type of material on the coast, settlement areas, and anecdotal accounts on the coastal hazards experienced within the area, were taken into consideration.
Two maps will be generated as a product of this assessment. A shoreline shift map, using the historical shoreline data versus the actual GPS tracks acquired during the field survey, which will show the long term shoreline changes on the study areas. And an erosion-accretion map, which will show the total change in land area in hectares. These maps will be incorporated on the final report.

Different cities/municipalities varied on susceptibility to erosion or accretion depending on the coastal processes and factors prevailing in their respective locality. Areas open to strong current and wave coming from the Philippine Sea and without existing coastal protection or natural barrier are prone to coastal erosion. Meanwhile, susceptibility to accretion of an area increases with its proximity to large river system and active source of sediment transport. This is evident in certain barangays within the city/municipalities of Tiwi, Malinao, Sto. Domingo and Legazpi City, located on the perimeter of Mount Mayon.
In conducting the assessment, challenges such as bad weather condition, ocean currents, monsoon and poor road network were encountered. Remote coastal areas inaccessible by the available road networks were reached via boat, which is subject to weather conditions and ocean currents. Southeast monsoon wind (Habagat) caused some delay in the conduct of the fieldwork, as this season brings heavy rains and strong winds to the Bicol Region. The municipalities of Rapu-Rapu and Bacacay were the most laborious study areas out of the twelve cities/municipalities. Rapu-Rapu is composed of two islands with a total of thirty (30) coastal barangays. While Bacacay is composed of thirty three (33) coastal barangays, wherein a few are situated in the open water of the Philippine Sea.

**Geologic Mapping**

One of the priority projects of the Mines and Geosciences Bureau (MGB) under Geological Assessment Program is the conduct of the 1:50,000 scale geologic quadrangle mapping within the CALABARZON Region. This undertaking is one of the government’s efforts to produce and complete the geological maps of the CALABARZON Region. These maps are important as base maps for other geological survey (i.e. geohazards, hydrogeological and other geological resources) and can be used for land use and development planning of the local government units (LGUs).
In line with this, a special order no. 2017-109 was issued on February 1, 2017 authorizing the conduct of geologic quadrangle mapping in regions CALABARZON and V by certain MGB Regional Offices (ROs). A total of five quadrangles, three of which have already published and unpublished geologic maps and two with no data, were assigned per region. The updating of existing maps focuses mainly on field verification of established lithostratigraphic units and contact between these units found on the map in the area.
The geological quadrangle mapping team of MGB RO1 was assigned to conduct a geologic quadrangle mapping in Atimonan and Perez Quadrangles (no data) and Mauban, Lucban, and Unisan Quadrangles (updating) in the provinces of Quezon and Laguna. As of November 2017, all the target quadrangles were accomplished.

Figure 1. MGB RO1 Geologists collecting data in (a) Brgy. Tapukan, Atimonan, Quezon (b) Sitio Sabang, Cagbalete Island, Mauban, Quezon (c) Cagbalete Island, Mauban, Quezon and in (d) San Jose River, Cagbalete Island, Mauban, Quezon.
Field data were collected through pace-compass traverses in streams, mountains and along the roads. GPS, Brunton compasses, measuring tape, sample picks, and rock identification kit were used to get a detailed description and composition of the outcrops encountered during the fieldwork. A 1:50,000 topographic map from the National Mapping and Resource Information Authority (NAMRIA) was used to plot the locations of the outcrops.

For the five quadrangles, the following rock units of the Bondoc Peninsula Stratigraphic Group were observed: The Gumaca Schist, Unisan Formation, Panaon Limestone, Vigo Formation, Canguinsa Formation, Hondagua Formation, Vinas Formation, Malumbang Formation and Quaternary Alluvium.

MGB R01 Geologists measuring the orientation of bedding planes with respect to north and the dip angle of geological features using a brunton compass in Tinibnan River, Brgy. Rosario, Mauban, Quezon and in
Additionally, the Guadalupe Formation of the Southern Sierra Madre Stratigraphic Group were observed in Perez Quadrangle. Some portions of the study area were not mapped due to lack of roads and trails, privately-owned properties, safety and security (e.g. landslide-prone areas).

Other problems encountered which resulted to the delay of fieldworks include the processing of funds/cash advance, strictness in purchasing of field supplies, severe weather conditions (i.e. heavy rain/storm, thunderstorms, strong wave action in the sea).

MGB RO1 Geologists collecting rock samples for petrographic and paleontological analysis using sample picks in (A) Brgy. Villa Manzano Norte, Perez, Quezon (B) Brgy. Sta. Catalina, Atimonan, Quezon.
Groundwater Resources and Vulnerability Assessment

For TIER I, The whole province of Ilocos Sur was the targeted area for Groundwater Resource and Vulnerability Assessment.

For the year, the whole province of Ilocos Sur and Ilocos Norte for TIER II was assessed and surveyed through well measurement and structural mapping.

The fieldwork was done to assess the groundwater resource potential of the area and to assist the local government units in delineating areas feasible for the development of groundwater resource for the consumption of its populace.

The survey conducted primarily consists of geological mapping and water level measurements of the pump/dug wells in the area. The static water level of each well is used to generate a piezo metric map by means of software called Surfer. This map will show the delineated areas with groundwater resource potential.
Photos above show the hydrogeological assessment survey team doing well depth measurement of a pump well at Barangay Carcarabasa (left) and water quality test at Poblacion Sur (right), all in the municipality of Lidiidda, province of Ilocos Sur.

Photos above show the measurement of strike and dip of a roadcut structure (left) at barangay Alfonso and GPS reading of a antiform (right) at barangay Dapdappig, all in the municipality of Gregorio del Pilar, Ilocos Sur.
Miscellaneous Geological Services

A total of Twenty Four (24) Geological Investigations were conducted by the Office for various purposes:


2. Geological Site Scoping on the proposed site of River View States Subdivision located at De Venecia Road, Brgy. Pantal, Dagupan City, Pangasinan (February 8-10, 2017)

3. Geological Assessment on the proposed site of Sanitary landfill in the Municipality of Tagudin, Province of Ilocos (March 15-17, 2017)
4. Follow-up Geologic Investigation at Northern Luzon Heroes Hill, Santa, Ilocos Sur (April 4-6, 2017)

5. Geological assessment on the proposed sanitary landfill site located at the Barangay Tanap, Municipality of Burgos, Province of Ilocos Norte (April 4-7, 2017)

6. Technical assistance in the conduct of Water Quality Assessment in line with the wetlands Assessment in Matangra Lake, in Burgos Ilocos Norte (April 4-7, 2017)


10. Geological Site Scoping on the proposed sanitary landfill site located at the Municipality of Sarrat, Province of Ilocos Norte (May 8-10, 2017)

11. Geological Site Scoping (GSS) on the proposed Sanitary Landfill Site located at the Municipality of Tayug, Pangasinan (May 10-12, 2017)


15. Ms. Mariel B. Tuonan, Mr. Louie Francis U. Oliver and Engr. Randie A. Apilado conducted Geological Site Scoping on the proposed Sanitary Landfill at Barangay Lydia, Marcos, Ilocos Norte and at Laoag City Ilocos Norte last July 4-8, 2017.


18. Mr. Socrates G. Gaerlan, Clara Mia P. Namingit, Charlene Gem L. Farro, Crispin G. Ebuen, Louie Francis U. Oliver, Mariel B. Tuonan and Randie Ceasar A. Apilado conducted an inspection and evaluation last September 6-8, 2017 on the following:

a. displacement re: the presence of fissure/soil movement on the top of the mountain above the residential and school area of Barangay Aluling, Cervantes Ilocos Sur which they believe that is critical especially this onset of the rainy days ;

b. reported cracks along the surface of the mountain near Kalumsing Elementary School in the Municipality of San Emilio, Ilocos Sur.

19. A team headed by Engr. Renato A.D. Rimando with the assistance of Engr. Christopher E. Sibayan, Ms. Clara Mia P. Namingit and Ms. Precious T. Endaya conducted an inspection inside the private
property of Mr. Jorge Cariño last October 2, 2017 upon the request of the Sangguniang Barangay of Bangcusay.

20. Mr. Jose D. Lignes, Jr., Ms. Clara Mia P. Namingit and Ms. Precious T. Endaya conducted Geohazard Identification Survey for the proposed Camella Urdaneta Subdivision with an Area of 95,907 sq.m. located at Barangay Anonas, Urdaneta City, Pangasinan last October 4-6, 2017.

21. Mr. Jose D. Lignes, Jr., Ms. Clara Mia P. Namingit and Ms. Precious T. Endaya conducted Geohazard Identification Survey for the Northlands Pacific Builders and Devt Corp. Mountain Resort located at Barangay Cacapian, Municipality of San Juan, Prov. of LU last October 18-20, 2017.

22. Mr. Jose D. Lignes, Jr., Ms. Clara Mia P. Namingit, Ms. Marie Rose B. Aguda and Ms. Precious T. Endaya conducted Geohazard Identification Survey for the proposed Sanitary Landfill Site in Barangay Paitan, Sta. Maria, Pangasinan last November 8-10, 2017.

23. Mr. Socrates G. Gaerlan, Mr. Crispin G. Ebuen, Jr. and Mr. Randie Ceasar A. Apilado conducted Geological Site Scoping for the proposed five (5) storey building within an adjacent parcels of land situated at Barangay Saud, Pagudpud, Ilocos Norte last December 1-3, 2017.

24. Mr. Socrates G. Gaerlan and Mr. Lester T. Valdez conducted Geological Site Scoping for the proposed Wind Solar and Transmission line located at Pasuquin, Ilocos Norte last December 11-15, 2017.
MINING REGULATION SERVICES
Mining Regulation Services

MINERAL LANDS ADMINISTRATION

Mineral Investment Promotion Program

Issuance of Permits/Contracts

The Office issued sixty eight (68) Ore Transport Permits, nineteen (19) Certificates of Accreditations, six (6) Certificate of Environmental Management and Community Relations Record and Certificate of Exemption and one hundred thirty six (136) Mineral Ore Export Permits (MOEP). (Please see Performance Information Report for the list)

Validation on the Ore Transport Permit (OTP) Application of E.A.S Enterprises for the Transport of 1,600MT /800 cu.m of Aggregates.
“Use It, Lose It” Policy

In compliance to the Department Memorandum Order No. 2010-04 “Reforms in the Department Mining Tenement System”, which directs the Bureau to expedite the grant of mining contracts and permits, cleanse and process all pending mining applications and strengthen all compliance requirements, the Office have endorsed twenty three (23) permits and eighteen (18) of which were approved.

Permit Endorsed

<table>
<thead>
<tr>
<th>Tenement ID</th>
<th>Tenement Holder</th>
<th>Date Endorsed</th>
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<tbody>
<tr>
<td>AMPP 000021 (MGB CO)</td>
<td>Isla Verde Mining &amp; Dev. Corp.</td>
<td>02-20-17</td>
</tr>
<tr>
<td>06-007 (IPA-144)</td>
<td>Ramoncito Tan</td>
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<td>06-006 (IPA-143)</td>
<td>Melchor S. de Leon</td>
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<td>Flor T. Lagang</td>
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<td>Joseph L. Chua</td>
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<tr>
<td>06-022 (IPA-161)</td>
<td>Omnico Natural Resources, Inc.</td>
<td>05-15-17</td>
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<td>06-008 (IPA-145)</td>
<td>Mae Ann L. Chua</td>
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<td>06-015 (IPA-157)</td>
<td>Betty Ngo Chua</td>
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<tr>
<td>06-026 (IPA-163)</td>
<td>Ramon Chua</td>
<td>05-15-17</td>
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</table>
Permit Issued/Approved

Isla Verde Mining & Dev. Corp. has applied for a Mineral Processing Permit (MPP) in July 12, 2015. And in February 20, 2017, the application was endorsed to the Mines and Geosciences Bureau (MGB) - Central Office. Finally, in June 27, 2017, this office has approved and registered the permit of said MPP of IVMDC.
Seventeen (17) Industrial Sand and Gravel Permits of OMNICO Natural Resources Incorporated were also approved.

Signing of approved Mineral Processing Permit of Isla Verde Mining and Dev’t Corp on June 27, 2017. Terms and conditions of the MPP were also discussed with the personnel from MGB and IVMDC. (in photo: RD Socrates G. Gaerlan, Engr. Renato A.D. Rimando and representatives from IVMDC Mr. Tena Po-Wei [a.k.a Paul Tena], Ms. Rosana Santos and Mr. Jeff Lin)
Approval of SHES Program

For the year, twenty nine (29) Annual EPEPs and thirty two (31) Annual SHPs were evaluated and subsequently issued Certificates of Approval; forty three (43) 5-year Social Development Management Programs (SDMPs) and thirty (30) Annual SDMPs were approved. Three (3) EPEP/FMRDP/PEIR endorsed to MRFC and one (1) Environmental Work Program (EWP) was endorsed to MMD. Two (2) Quarterly Monitoring Reports for National Greening Program were also submitted to Central Office.

Assistance to P/CMRB/LGUs and Stakeholders

The Provincial Mining Regulatory Boards of all the four provinces in the region are fully operationalized. A total of forty eight (48) Provincial Mining Regulatory Board meetings were attended/conducted by the office.

This is to monitor the compliance of Quarry and Commercial Sand and Gravel Permit Holders in their applied areas and to address issues and concerns arising in the operations of PMRB.
Likewise, the four (4) provinces of the region were inventoried for Small Scale Mining.

There are only two (2) small scale mining areas with intermittent operations in Region I namely by the Peoples Small Scale Mining Association (PSSMA) and the Sulongan Miners Association (SMA).

The small scale mining area of the Peoples Small Scale Mining Association (PSSMA) is located in Barangay Patiacan, Quirino, Ilocos Sur within an area of about 50 hectares and the mineral commodity is gold. The PSSMA has filed with PMRB-Ilocos Sur a petition for Minahang Bayan (MB) area over their small scale mining areas but was found to be totally inside the Exploration Permitted area of Northern Horizon Exploration and Mining corporation (NHEMC). NHEMC objected and opposed the granting of a Minahang Bayan over their EP area and denied the granting of consent for the MB petitioned area.

Recent information from one of the Sangguniang Bayan Members of Quirino, Ilocos Sur, revealed the intermittent small scale mining operations in the area as the Executive Order No. 31 of the Municipal Mayor of Quirino, Ilocos Sur ordering for the immediate cease and desist of all illegal small scale mining activities in the municipality is still in effect and being
implemented and due to the unstable peace and order condition in the area.

On the other hand, the small scale mining area of Sulongan Miners Association (SMA) is located in Barangay Solungan, Pasuquin, Ilocos Norte with an area of about 40 hectares and the mineral commodity is feldspar and quartz. The source of which is from the remnants or stockpiles of previous small scale mining permit operator in the same area. It is usually disposed to the market as landscape materials. SMA filed a petition/request for declaration for a Minahang Bayan over their small scale mining areas, which was endorsed to the Office of the DENR Secretary through the MGB Director on November 28, 2016. After initial review and evaluation by MGB-Central Office, it was found to be in conflict with the Ilocos Norte Metropolitan Watershed Forest Reserve and was returned to MGB-1 for rectification.

Recent information from the Provincial Quarry Council of Ilocos Norte revealed the intermittent small scale mining operations in the area due to unstable market demand and the inaccessible rough mine road leading to the area.
Uniformity of actions, streamlining of procedures in the acceptance and processing of applications for mining permits, more efficient delivery of services to the mining public and a common stand on issues facing the minerals industry in the region are the guideposts in holding this year’s Annual Provincial Mining Regulatory Board (PMRB) Consultation held at the Metro Vigan, Garden Fiesta Spa and Restaurant, Bantay, Ilocos Sur on 13 December 2017.

The said annual event also served as an avenue for the Provincial Environment and Natural Resources Officers to compare and share notes on Good Governance, promotion of Responsible Mining.

The sixty (60) participants were welcomed by Mr. Yabes of Ilocos Sur followed by an inspirational message given by RD Carlos A. Tayag, MGB Regional Office No. I, San Fernando City, Ia Union.

Both speakers emphasized the need to institute reforms and to innovate in the acceptance and processing of applications for mining permits. Complaints by local officials regarding the very low collection in terms of extractions fees, etc. though implementation of various infrastructure projects in the locale is at all time high had to be addressed, they emphasized. They also encouraged the participants to be more vigilant and focused in their monitoring activities.
In his message, RD Tayag also re-echoed the call of Secretary Ciamtu of the DENR for all stakeholders to be conscious on the primordial concern of protecting the environment, being non-negotiable.

Among the more notable accomplishments of the ENROs are:

1. A good working relations with the Department of Public Works and Highways leading to an increase in collection (ENRO - Ilocos Sur).

2. An efficient monitoring protocol resulting in the decrease of illegal mining activities (ENRO/NRRG Pangasinan).

3. A better coordination with law enforcement agencies resulting in the apprehension and seizure of illegally - sourced mineral and minerals products (ENRO – La Union).

4. The River Training Program is an innovative way of de-silting/de-clogging river systems of their alluvial deposits without any costs from the government (PQC – Ilocos Norte).

The MGB, Regional Office No. 1, assured the participants of its commitment to implement programs that are both beneficial to all concerned stakeholders, such as:

1. Regular posting of approved and issued Area Status and Clearance at the MGB Website.

2. Fast track the processing, approval and issuance of Area Status Clearance (within 3 working days).

3. Giving greater autonomy to the Provincial ENR Offices to proceed with the conduct verifications of areas applied for mining permits with certain minimal conditions/restrictions.
The Provincial Government of Ilocos Norte shall host the 2018 Annual PMRB Consultation.

For. Nathaniel Pulido, Chief, ENRO/NRRG of the Province of Pangasinan discussing their best practices.
The participants to the 2017 Annual PMRB Consultation were welcomed by Mr. Edgar Yabes, ENRM Officer of Ilocos Sur.

**Minahang Bayan Sites Identified**

In connection with the petition for the declaration of an area as Minahang Bayan by Mr. Rogelio S. Garaño, personnel from the office conducted a field assessment on June 20-23, 2017 within the territorial jurisdiction of Barangay Dilavo, Pasuquin, Ilocos Norte.
The petitioned area is situated at Brgy. Dilavo, Municipality of Pasuquin, Province of Ilocos Norte. It is within the intersections of geographic coordinates 18°26"15'N to 18°26"45'N latitudes and 120°37"00'E to 120°37"30'E longitudes.

The exposed silica deposit found within the petitioned area. (18°26′21.1″N and 120°37′14.5″E)
The Monitoring and Technical Services Section’s principal function is to undertake monitoring of disposition and utilization of mineral lands and resources. Compliance monitoring of existing Contracts and Permits are primarily based on the terms and conditions with emphasis on the implementation of the approved work program, submission of mandated reports, and payment of all appropriate taxes and fees. For the period in review, the Section has audited a total of twenty five (25) contracts and permits. These include 11 MPSA Contracts, 1 Exploration Permit, 4 Mineral Processing Permits, and 9 Industrial Sand and Gravel Permits (Please see Performance Information Report for the list).

Of the 14 MPSA Contracts, 3 are under commercial operation and producing, 4 under development and confirmatory drilling, 2 under exploration, 1 under care and maintenance, and 4 with pending renewal of exploration period. The lone FTAA is also with pending renewal of exploration period.

Of the 4 MPPs, 2 are under commercial operation and producing while the other 2 remain suspended in connection with the implementation of
Mining Industry Coordinating Council (MICC) Resolution No. 4 of May 30, 2014 (Adoption of Immediate Measures to Address Black Sand Mining Operation in the Country).

Of the 19 Industrial Sand and Gravel Permits only 2 permits registered no production for CY 2016.

MONITORING AND TECHNICAL SERVICES SECTION

IN ACTION

The 100 cubic meters per hour capacity mineral processing plant of North West Luzon Mining Corporation covered by MPP No. 12-001 situated at Barangay Portic, Bugallon, Pangasinan. River aggregates are processed thru a wet crushing and screening plant equipped with two-stage crushing and three-decked screening and classifying. At the end of the line are four stockpiles for the finished products of G-1, ¾-inch gravel, ½-inch gravel and S-1 processed sand.
Validation of records and reports by the joint MTSS-ISHES monitoring team with Engr. Joseph Babate, Plant Manager of North West Luzon Mining Corporation.


Production is concentrated within the northeastern part of the active quarry sustaining a production level of 800 MT per month.
Milling is done by crushing and pulverizing. The broken materials (plus 4-inch materials) are fed to a hammer mill to produce plus 1-inch materials. These are then subjected to solar or kiln drying before stockpiled. The dried materials are further pulverized to minus 40-mesh and minus 325-mesh products, then packed into 25-kg and 50-kg plastic bags, depending on the buyers specifications.

The panoramic view of R. J. Flores Construction’s Permit Area located within riverbed of the Amburayan River in Barangays Ipet and Ilocano, Sudipen, La Union. The present extraction site of river aggregates is within the upstream portion of the permit area.
The crushing-screening plant of R. J. Flores Construction situated at Barangay Ipet, Sudipen, La Union.
Interview with Engr. Roel Cunan (Plant Maintenance Head) and Engr. Pauly Castillano (Plant Supervisor) of R. D. Policarpio and Company, Inc. concerning their operations and agreement with R.J. Flores Construction (permit holder).
Integrated Social, Health, Environment and Safety (SHES) Monitoring

A total of forty (40) contracts/mining permits were monitored for CY 2017. The monitoring activity centered on the compliance of the Permittees/Contractors/Permit Holders to the physical and financial targets contained in their approved 5-Year Environmental Enhancement and Protection Programs (EPEP) /Annual Environmental Enhancement and Protection Programs (AEPEP), Annual Safety and Health Program (ASHP), 5-Year Social Development and Management Program (SDMP) /Annual Social Development and Management Program (ASDMP).

The semi-annual ISHES monitoring activity covered two (2) Exploration Permits (EP), one (1) Financial and/or Technical Assistance Agreement (FTAA), twelve (12) Mineral Production Sharing Agreements (MPSA), four (4) Mineral Processing Permits (MPP) and twenty one (21) Industrial Sand and Gravel (ISAG) permits for a total eighty (80) monitoring accomplishments. (Please see Performance Information Rating for the list).
The three (3) compartment settling pond of Sable Le Varge, Inc. located in Urdaneta City. Clear water is recycled back to the processing operations.

Systematic quarrying of sand and gravel exhibited by an even quarry floor at the SAG permit area of Oriol Aggregates and Dev’t Corporation in Umangan, Pangasinan.

Provision of Personal Protective Equipment

Provision of Safety Signage
Monitoring on Mining Forest Program and/or National Greening Program:

For the period in review, a total of two (2) Consolidated Semi-Annual Mining Forest Program (MFP) Report and four (4) Consolidated Quarterly National Greening Program (NGP) Reports were submitted. The MFP and NGP reports concerns the MPSAs of Holcim Mining and Development Corporation (HMDC) situated in Bacnotan, La Union and Agno, Pangasinan; Northern Cement Corporation (NCC) in Sison, Pangasinan and the Heirs of Elias E. Olegario located in Mangatarem, Pangasinan.

SDMP assisted project of Holcim Mining and Development Corporation in cooperation with the LGU of Brgy. Pitpitac, Balaoan, La Union (Construction of Barangay Hall).

SDMP of Northern Cement Corporation - construction of covered court in Brgy Inmalog, Sison, Pangasinan. The structure provides convenience for the residents mainly during community gatherings and celebrations.
Nursery No. 1 of the Heirs of Elias Olegario located within the Plant Site in Mangatarem, Pangasinan. Settling are used in the reforestation of said Company both for its Mining Forest and National Greening Programs.
Strengthen Multi-Partite Monitoring System

To check the performance and compliance of Contractors/Permit Holders with the approved EPEP/AEPEP for mining/quarry projects, ten (10) Mine Rehabilitation Fund Committees (MRFC) are continuously operationalized with active Multi-Partite Monitoring Teams (MMTs). Regular quarterly MMT monitoring on their areas of operation were conducted.
MMT Monitoring at ISAG area of San Hai Aggregates and Construction Corporation. Systematic mode of quarrying was noted.

The MMT-HEEO conducting noise level measurement at Sampling Location No. 2 located at the nearest residential area, northwest of the Plant Site.

Line No. 2 of the processing plant of Destiny Mighty Rock Corporation located in Rosario, La Union.
Photos showing the active areas at the main limestone, shale quarry and MMT
Observing the on-going operations of DEI.
MRFC MEETINGS CONDUCTED

The MRF Committee conducts regularly quarterly meetings to act on operational issues concerning contractors and permit holders and to ensure implementation of the approved environmental programs of all mining contractors, screening and crushing plants in Region 1.

OCCUPATIONAL SAFETY AND HEALTH INSPECTION

Occupational Safety and Health Inspections were conducted by the technical personnel from the Safety and Health Section at various Crushing Plants and Cement Plants in Region I with a total of forty (40) contracts/mining permits were monitored for CY 2017.

The goals of occupational safety and health include fostering a safe and healthy work environment in the mining industry with the promotion of health and safety at work, which is concerned and focused strong on primary prevention of hazards, arising in the workplace.
A. Inspect operators and heavy equipment on site on the accomplishment and records of checklist, provision of seatbelts and firefighting equipment, wearing of PPE, operator’s licenses/TESDA accreditation.

Northern Cement Corporation (NCC) Holcim Mining and Development Corporation (HMDC)

B. Inspection for the availability, inventory and records of first aid kit and medicine supplies.
C. Inspect firefighting equipment and welding and cutting equipment.

D. Employees are checked in wearing required Personal Protective Equipment (PPE) and uniform.
E. Check proper locations of Installation of safety signs, labels, tags and markings that remind people of potential hazards and how to avoid them, direct people’s path to safety in an emergency situation and reinforce safety training programs.

MECHANICAL/ELECTRICAL INSPECTION

A total of nineteen (19) mining companies were inspected for CY 2017.

Mechanical and electrical inspectors ensure that all mechanical and electrical equipment installed and used by mining companies complies with the Mine Safety and Health Standards DAO 2000-98, that all equipment installed is safely and properly operated and maintained.
Six (6) Semi-annual Mine Waste and/or Mill Tailings (MW/MT) Reports were validated. Said reports were from the MPSA contractors HMDC, NCC and HEEO.

Results of validation revealed that the mine waste produced were used in the backfilling of access road and progressive rehabilitation of mined-out areas so the three (3) MPSA contractors were recommended to be exempted from the payment of MW/MT Fee.

Partially rehabilitated Northwestern Quarry of HEEO where the overburden mine waste were backfilled.

Photo of Quarry C within MPSA 2038-2007-I (HMDC) where the mine waste were generated and the reforestation area (red lines) where said mine wastes were backfilled.
ENFORCEMENT

Investigation of Complaints/Cases/Conflicts

Complaints for alleged illegal and indiscriminate quarrying were promptly investigated by the office.

1. Allegedly Operating without Mining Permit and Destroying the Adjacent Agricultural Lands and Fishponds with the Spilling and Dumping of Tailings and Hazardous Wastes, thus, Affecting the Marine Life and Aquatic Resources;
2. Alleged extensive quarrying along a River located between Brgy. Guisguis, Sta Cruz Zambales and Brgy. Potol, Pangasinan;
3. Alleged Illegal Mining in Brgy. Pao Norte, City of San Fernando, La Union;
4. Alleged Illegal Excavation in Brgy. Bacani, Rosario, La Union;
5. Complaint against Multicon Mines and Metal Corp;
6. Request guidance on permission to Haul Remaining Feldspar Mineral of NMII;
7. Alleged excavation activity inside a private property in Sitio Sisi, Daking, San Gabriel La Union
8. Alleged Gold Mining / digging activity in Banuar, Laoac, Pangasinan causing damage to property

Conduct of investigation on June 15, 2017 on the complaint of illegal excavation activity inside the private property of Mr. Manuel Balanon located in Sitio Sisi, Brgy. Daking, San Gabriel, La Union.

Photo showing the conduct of investigation on June 22, 2017 on the reported alleged gold diggings by Mr. Carlo Natividad located in Brgy. Bunauar, Laoac, Pangasinan beside their house.
9. Reported Black Sand Mining Operation within the vicinity of Damortis, Sto. Tomas, La Union

10. Alleged illegal mineral exploration or gold mining activity in Brgy Amallapay, Tubao, La Union

11. Alleged illegal quarrying operations in Brgy, Malabobo, Mangatarem, Pangasinan
12. Alleged extraction of Sand and Gravel within the periphery of the Narciso Ramos Bridge in the Municipality of Sta. Maria, Pangasinan

13. Alleged Sand and Gravel Quarrying over the private property of a certain Mr. Pantaleon Rodico located in Sitio Caipilan, Brgy. Agno, Tayug, Pangasinan

14. Complaint regarding the sand and gravel quarrying of a certain Ms. Wilma Shin in Sta. Maria, Pangasinan
15. Illegal Quarrying

16. Transport of Illegally Sourced Minerals (White Sand) in Bacnotan, La Union

17. Transport of Pebbles (minus 5mm sizes) in Luna LA uNION

18. Alleged Illegal Sand and Gravel Quarrying along the Caruan Creek, Pasuquin, Ilocos Norte

Under the **Panel of Arbitrators**, two (2) cases/complaints were investigated.

1. Petition for Cancellation of the issuance of CSAG Permit to Rachelle Marie Martin

2. Dispute over areas subject of Mining Rights
Anti-Ilegal Mining

Based on the investigation of MGB-I technical personnel, three (3) Cease and Desist Order (CDO) were issued to Multicon Mines and Metals Corporation/ Golden Peak Mining Corporation located in Brgy. Barlo, Mabini, Pangasinan on April 17, 2017 having found engaging in the processing of minerals without the necessary permit, CDO Issued to Northern Mining Integrated, Inc. located in Poblacion, Currimao, Ilocos Norte on 7/6/2017 and Ms. Wilma Shin for Extracting sand and gravel materials outside of the area covered by ISAG Permit
Gender and Development

WOMEN’S MONTH

In observance of the 2017 Women’s Month Celebration with the theme “We Make Change Work for Women”, the Mines and Geosciences Bureau Regional Office No. I, in coordination with the Department of Environment and Natural Resources and Environmental Management Bureau Regional Office No. I conducted activities for the whole month of March 2017.
On March 6, 2017, there was a live streaming of Zumba in front of the DENR building followed by the singing of “One Billion Rising” during the Monday program.

An inter-agency parade organized by RAGE was participated by the employees wearing their pink uniforms from the City Plaza to DMMMSU-MLUC, followed by a Zumba and a short program on March 10, 2017.
On March 13, 2017 was the opening of Exhibit with Hon. Mary Jane Ortega as the guest of honor and speaker. MGB has two (2) booths where women entrepreneurs sold ice candies, rhinestone arts, peanuts and plants.

On March 14, 2017, there was a Forum on Livelihood Development for Women which was held at the DENR Conference Room. MGB invited the Northern Cement Corporation (NCC) represented by Mr. Artven Corpuz to present their Social Development and Management Program (SDMP). Other NGAs and GOCC were invited as speakers like the Department of Agriculture, Department of Trade and Industry and Department of Science and Technology to present their livelihood programs and Land Bank of the Philippines for business loan offers.

In line with the culmination program of the Women’s Month celebration, a gift giving was conducted at Barangay Barlo, Mabini, Pangasinan on March 31, 2017. This activity is a product of a collaborated effort of the PENR Office, and
CENRO Alaminos City, in partnership with DENR Region I, Philippine Red Cross, Technical Education and Skills Development Authority (TESDA), Rotary Club of Dagupan, and the Local Government Unit of Mabini, Pangasinan.

Ms. Febe Carino, Administrative Officer V represented MGB-I by giving clothes and soaps to the affected families for the closure of Barlo Mines Corporation.

IEC

To increase geohazard awareness and disaster preparedness among women in barangays, it was highlighted in the letter of invitation the presence of at least two (2) women representatives from each barangay to participate in the Workshop for Geohazard Assessment held at Pangil Beach Resort, Currimao, Ilocos Norte on June 29, 2017. A total of two hundred GAD brochures were distributed during workshop.
In line with the latest poverty alleviation program of the government to take additional measures and improve the lives of the Filipinos, the Mines and Geosciences Bureau Region I joins the Kilos Sambayanan anti-poverty campaign on October 20, 2017 at the Vigan Convention Center wherein IEC materials for Violence Against Women and Children (VAWC) were distributed.
To highlight contributions of both men and women in contemporary society, the Mines and Geosciences Bureau (MGB) Region 1 conducted a Gender Development and Sensitivity Training on July 13-14 at Villa d’El-Lita in Sudipen, La Union. This aims to properly inform MGB personnel on different gender roles in the society especially in the workforce. It is an initial effort to show how gender shapes the roles of men and women in MGB Region 1 including their role on development and how it affects relationships. The said training was facilitated by the Philippine Commission on Women certified
Gender and Development Resource Speaker and Regional Director of the Commission on Higher Education Region 1 Cherrie Melanie A. Diego.

Topics discussed were Gender as a Social Construct, Gender and the Role of Social Institutions, Gender and Development, Concepts and Tools for Gender Analysis and Gender Alignment. Each topic included interactive activities, discussions and fora with the participants. The activity is also in line with the protection of the environment which shall help societies develop the sense of responsibility within the employees which is needed to maintain a good balance between people and the earth’s natural resources.

Gender biases and stereotypes were deconstructed while gender equality among different individuals was promoted. During the training, participants were encouraged to be honest, open and true regardless of their gender. Along with the training, MGB-1 also conducted a team building which aims to improve teamwork, better understand each other's strengths and weaknesses and achieve together.

OIC Regional Director Carlos A. Tayag thanked the cooperation and participation of everyone as the said activity shall enhance their abilities and capabilities thus they may be able to serve the public better.
Massage and Facial Make-up Training

Personnel of this Office have organized a one (1) day training on “Basic Stone Massage-using the pebbles of Luna and Basic Facial Make-up” for the Pebble Pickers of Luna, La Union, with the theme “Women Empowerment and Environmental Sustainability.

The said training was held at Noble Tower Resort, Darigayos, on December 23, 2017 Luna, La Union. Participants were mainly the pebbles pickers (trainees), trainers/ instructors of stone massage and facial make-up, Local Government Unit representative, traders of pebbles, cooperative representatives and MGB-I personnel.

The objective of the training/ seminar:

- To teach/ train the pebble pickers with an alternative livelihood;
- To let the trainees understand the importance of the pebbles by using it as a tool in the stone massage training (value adding to the pebbles);
- To empower the women by harnessing their skills and ability;
- To promote environmental sustainability;
- To help war against poverty by helping them acquire/ harness the skills they can use for their own employment
TRAINING PROPER

First Part: "Basic Stone Massage using the pebbles of Luna"

The lava stone massage was introduced as a special kind of massage where the therapist uses smooth, heated stones as an extension of their own hands, or by placing them on the body. The steps and etiquettes on performing this activity were discussed well.

The health benefits were enumerated as follows:

- Helps relieve muscle tension and pain;
- Reduces stress and anxiety;
- Promotes sleep;
- May help decrease cancer symptoms; and
- May boost immunity

The opportunities of learning this skill were greatly highlighted, especially the demand, locally and abroad. A therapist with this skill may earn P500 to P700 per hour depending upon the standard rate.
Second Part: “Basic Facial Make-up”

The step-by-step basic facial make-up tutorial was taught to the trainees. The etiquettes and opportunities of this skill were also tackled specially for those who have passion for beauty care and fashion.

A person with this skill may become a make-up artist as his/ her profession. Now days this kind of skill is booming due to the demand of fashion around the world.
The trainer & model  Sample make-up  hairdressing
The participants together with the MGB-I Personnel

At the end of the training the participants were given certificates as proof of their involvement. The acquired skill and certificate may qualify them to have employment locally or abroad.
TABLE (PHYSICAL AND FINANCIAL ACCOMPLISHMENT REPORT)
OFFICE OF THE REGIONAL DIRECTOR

The Office of Regional Director shall implement the pertinent laws, policies, rules and regulations and programs; exercise the management functions of planning, organizing, directing and controlling; undertake Information, Education and Communication campaign; and perform such other duties and functions as may be provided by law or delegated by the Director.

FINANCE AND ADMINISTRATIVE DIVISION

The Finance and Administrative Division (FAD) shall provide general administrative services pertaining to human and financial resources and property and records management.

GEOSCIENCES DIVISION

The Geosciences Division (GD) shall undertake land and marine geoscientific surveys (including mineral exploration, geological mapping, geohazard assessment, groundwater resource exploration and vulnerability assessment, and engineering geological and geo-environmental studies) and provide geological laboratory and information services.

MINE MANAGEMENT DIVISION

The Mine Management Division (MMD) shall undertake initial evaluation of mining and mining-related applications, monitoring of the disposition and utilization of mineral lands and resources, and survey of mineral lands.

MINE SAFETY, ENVIRONMENT AND SOCIAL DEVELOPMENT DIVISION

The Mine Safety, Environment and Social Development Division (MSESDD) shall conduct the evaluation and monitoring of implementation of programs and investigate incidents/complaints on mine safety and health, environmental management and social development.