



MEMORANDUM

FOR : **THE UNDERSECRETARIES**
Policy, Planning and International Affairs
Organizational Transformation

THE DIRECTORS
Ecosystem Research Development Bureau
Forest Management Bureau
Land Management Bureau
Biodiversity Management Bureau
Environmental Management Bureau
Mines and Geosciences Bureau
Foreign Assisted and Special Projects Service
Climate Change Service

FROM : **THE OIC, DIRECTOR**
Policy and Planning Service

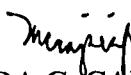
SUBJECT : **SYNTHESIS OF THE 2022 DENR MULTISTAKEHOLDER FORUM**

DATE : 09 DEC 2022

Respectfully providing you a copy of the draft synthesis for the 2022 DENR Multistakeholder Forum concluded last 5-7 October 2022. The report contains the following: (1) Concept note, (2) Objectives, (3) Expected Outputs, (4) Summary of proceedings, (5) Recommended Strategies, and (6) Stocktaking of ENR Programs, Projects, and Activities. These are based on inputs of participating representatives from the private sector, Civil Society Organizations (CSOs), Non-government Organizations (NGOs), and members of the academe.

In line with this, may we request your comments/recommendations for further refinement and improvement of the documentation output. Kindly submit it to the Planning and Programming Division through ppdppso@yahoo.com.

For your information and appropriate action.


MELINDA C. CAPISTRANO

MEMO NO. 2022 - 868

#SaveManilaBay

DRAFT

SYNTHESIS OF THE MULTISTAKEHOLDER FORUM

CONCEPT NOTE OF THE SUMMIT:

The discussions in this forum are essential contributions to the identification of strategies and priority actions of the DENR. Their outcomes, actionable recommendations and commitments from stakeholders will be reflected in the Department Summary. They will serve as critical inputs to the Policy Reform Agenda, Systems and Collaboration Mechanisms, and Shared Programs, Actions, and Plans. Consequently, the forum also aims to accelerate the DENR's mission of mobilizing the country's citizens in protecting, conserving, and managing the environment and natural resources.

Objectives

- Enable inclusive dialogue across all of the DENR's stakeholders to identify each sector's unique and shared challenges, accelerate cooperation, and gather information on priorities for possible inclusion in the DENR's policy agenda and multi-year Roadmap for Programs, Activities and Projects (PAP)
- Share knowledge and experiences on how different stakeholders can work together with the DENR and other national government agencies to craft and implement policies and programs towards climate and disaster resilience and sustainable development
- Foster and strengthen partnerships among stakeholders; Coordinate each sector's initiatives on matters involving the environment, natural resources protection, development, and conservation
- Identify multi-stakeholder initiatives and good practices that apply science, technology and innovation to achieve shared and unique values across different sector

Expected Outputs:

1. **Policy and Legislative Agenda for Environment and Natural Resources (ENR)**
 2. **Inventory of Shared ENR Programs, Activities, and Projects (PAPs) for co-implementation by multi-stakeholders**
 3. **Resiliency Framework for ENR: an integrated framework for multi-stakeholder strategic engagement in ENR**
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SUMMIT PROCEEDINGS

The severe environmental degradation on land coupled with unsustainable consumption, the country is reaching a point of no return due to escalating biodiversity loss, climate change and diminishing resources. Strategies to mitigate or adapt in the situation include transdisciplinary research capacity and a collegial approach to ethical research.

The recent concluded Multistakeholder Forum aims to engage all sectors towards the fulfilment of the Department's mission. Natural technological, and human-induced hazards due to climate change, challenges us to be resilient and require whole-of-society and transdisciplinary approaches toward evidence-informed policy and action for protection, preservation, conservation, enhancement, and regeneration of the country's ecosystems (Evident report)

IDENTIFIED STRATEGIES RECOMMENDED

A. Consultation and Dialogue with the Private Sector

- Enhance support from the industry and private sector
- Explore the use of renewable energy and conservation solutions
- Revisiting and assessing policies and regulations to adapt to new technologies and respond to the country's changing needs
- Private sector to participate in the formulation, implementation and monitoring of environmental programs
- Initiate dialogues with vulnerable communities
- Improving and streamlining the DENR databases
- Regular consultations with the private sector for timely and relevant interventions
- Align and apply national environmental policies with local government units

B. Consultation and Dialogue with CSOs and NGOs

- Promote programs on environmental advocacy
- Capacity building for sustainable progress and resilience
- Encourage green investments
- Participation and collaboration with communities including vulnerable groups in the implementation of DENR programs
- Provide opportunities for private and civil society partners to participate in the implementation of ENR programs
- DENR to strengthen its role as a convener for collaborative efforts and solutions on ENR protection and conservation

C. Consultation and Dialogue with Academe

- Institutionalized partnerships between the DENR and the academe for research and development to support science-based policy and decision making
 - The use of transdisciplinary approaches and include ecology to address key societal challenges
 - DENR to utilize academic research to inform and catalyze actions in improving the peoples quality of life
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- There is a need to identify ecological and political drivers of ENR challenges and opportunities.
- Resources and regulations need to be balanced between land and water
- Synergy and harmony between and among each agency is necessary to solve the pressing issues on environment

Uniting all efforts shared during the forum, the DENR hopes to stocktake in calibrating what has STILL to be done and to make the DENR felt its programs to the lowest cluster of society. Below are some of the key messages, unresolved issues and conclusion gathered from the different sectors. This is based on whole-of-society and transdisciplinary approaches that aim to craft grounded policies and programs in protecting, conserving, enhancing and regenerating ecosystems in the Philippines.

<p style="text-align: center;">KEY MESSAGES</p>	<p>Collaboration with partners Transparency Inclusive Participative Bottoms Up planning and budgeting Climate resilient programs Geo-spatial platform for planning Updated baseline data/information Policies in silos Use of science based on programs Revisiting past programs (learnings from the past) Modern technology (ie; incinerators, carbon sequestration technology) Nature based solutions Equal allocation of NR Exploring Public Private Partnerships (PPP) Localize implementation of ENR programs Protect, Manage and Restore Scientific method (research based) Traditional knowledge Revisiting and assessing policies and regulations to adapt to new technologies Strengthen dialogues with affected/vulnerable communities</p>
<p style="text-align: center;">UNRESOLVED ISSUES</p>	<p>Harmonized Policies NCIP issues Natural climate/based solutions Theory of change Enabling conditions for generating carbon credits Managing circular economy Existence of Illegal NR extraction Address coordination problem</p>

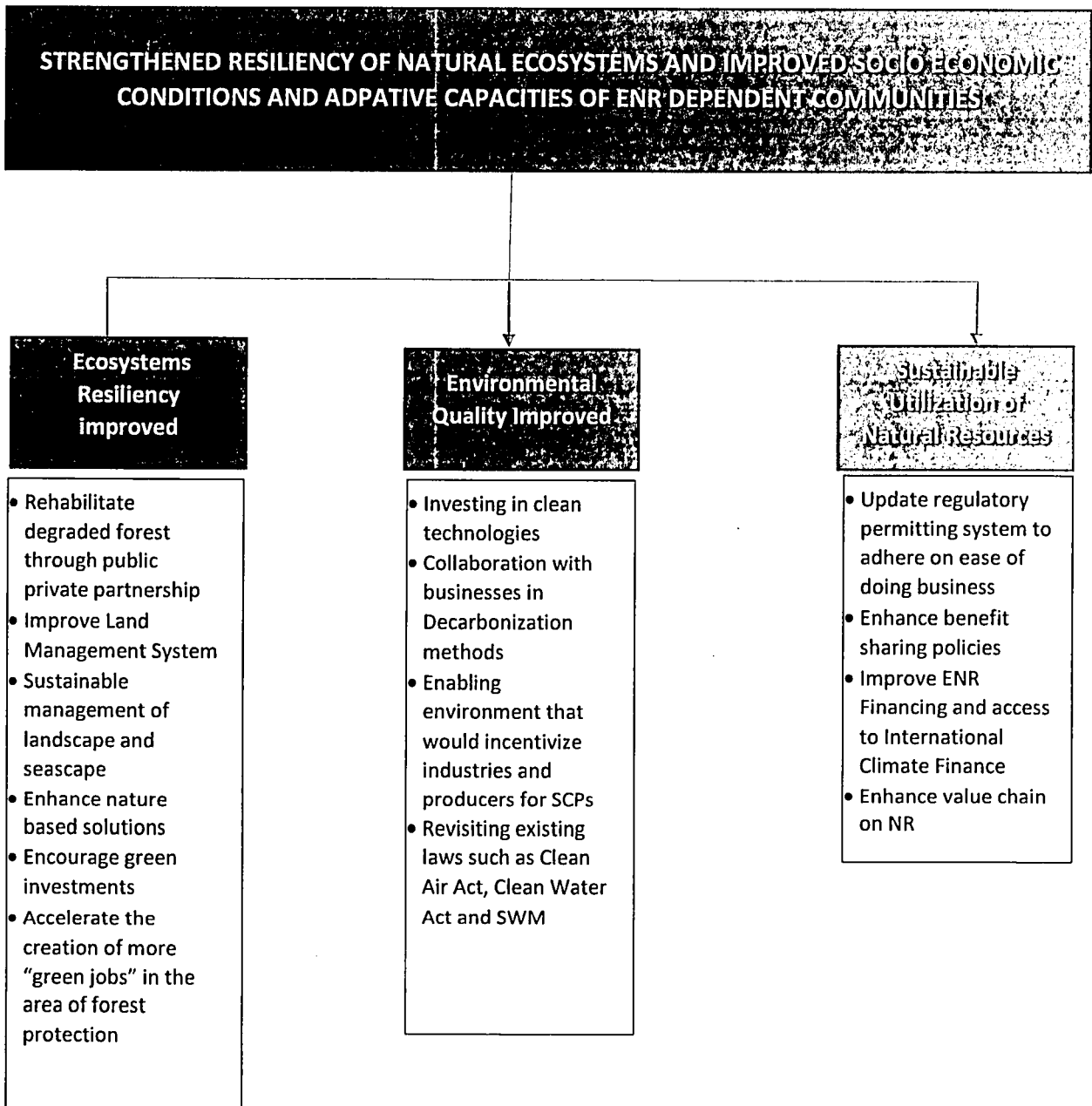
	<p>Streamlining the DENR databases Conducive markets for cleaner alternatives and for business to commit decarbonisation Incentives for clean energy entrepreneurs Adaption and resilience technologies Exploring new waste management strategies The use of Nature Climate Solutions (NCS) Synergy and harmony among agencies</p>
<p>CONCLUSION</p>	<p>Building the NEXUS on all actors Breaking the silos Change in mind set of implementers (not business as usual) Traditional Knowledge should be implemented CC should be reflected in policies and actions Intersectionality (untangle the web of inequalities) Strengthen collaboration with the private sector to formulate, implement and monitor environmental programs Facilitate the easy ways of working to promote regular consultations with the private sector for timely relevant interventions Invest in R and D Advocating enabling policies and incentives Transparency and Accountability from Producers Developers and Operators Tap Global Climate Fund and Global Environment Facility on circular economy, coral reef rescue and food loss and waste Use of geospatial data base Recognizing the essential role of people in landscapes and seascapes and building their capacity management and decision making Support to National Capital Accounting</p>

STOCKTAKING OF ENR PROGRAMS, PROJECTS AND ACTIVITIES ON SHORT, MEDIUM AND LONG TERM SCENARIO

SHORT TERM	MEDIUM TERM	LONG TERM
Geospatial sciences : Establish geo-spatial information system for ENR, geodata acquisition, processing, management and analysis of geographic data	Updated and Harmonization of ENR policies	Creation of position to implement fully the E-NIPAS law
Application of geo- spatial platform for planning, monitoring and assessment	Improve ENR financing and access to CC funds	Revisit Clean Air, Water, SWM Act and Mining Act Amendment of other Bills
Intensify enforcement of Environmental laws	Research and Development on ENR	Legislation of priority ENR Bills
Strengthen ICT infrastructure and use of modern technologies for monitoring and early warning systems	Codified laws on ENR	Carbon sequestration technology Consider Incinerators
Involvement of LGU on ENR programs	Public Private Partnership	Studies on rural and urban hydrology, storm water management, flood water forecasting, forest water accounting
Continuous partnership with stakeholders across all sectors	ENR Investment portfolio	Studies on wildlife ecology, climate change "refugia" (the remaining area where conditions have enabled a species to survive after extinction in surrounding areas
Localize implementation of programs	Fast rack Land titling program	Explore resource use modelling, industrial waste recycling and re-use
Identification of Climate Change indicators to mainstream on ENR programs	Support to Natural Resource Accounting	
Enhance Ecotourism	Establishment/enhance of CCMIS	
Enhance traditional knowledge	Value chain in Natural Resources	

In relation to the DENR's mandate, the crafting of one in the Chapters of 2023-2028 Philippine Development Plan concerning ENR and its relationship to Climate Action was spearheaded by the Climate Change Service. The Resiliency Framework can be anchored to the existing PDP plan and the ENR Framework Plan 2021-2040 so as not to re-invent the wheel.

For purposes of achieving one of the objectives Resiliency Framework for ENR: an integrated framework for multi-stakeholder strategic engagement in ENR, hereunder is the draft framework which captures and anchored on PDP 2023-2028 and the ENR Framework Plan 2021-2040 as well as the multi-stakeholders summit/forum conducted. Strategies identified were basically an output gathered on the Evident report.



- Implement Natural Resource Accounting
- Application of Geospatial platform for planning and policy making
- Expand Research and Development agenda and the use of science based information
- Strengthen ICT Infrastructure and explore modern technologies
- Strengthen collaboration with private, academe and other stakeholders in the implementation of programs
- The use of transdisciplinary approaches and include ecology to address key societal challenges
- Utilize academic research to inform and catalyse actions to improve the quality of programs
- Utilize existing platforms for climate actions such as the People's Survival Fund (PSF), GEF and other Foreign Assisted funding
- Align government policies with local government units
- Partner with communities in policymaking and give importance and emphasis on their role that can be transformed into environmental solutions
- Capacity building of LGUs to respond to local challenges through community engagement

Executive Summary

On October 5 - 7, 2022, the Department of Environment and Natural Resources (DENR) gathered stakeholder representatives from the private sector, civil society, non-government organizations, and the academe for a three-day forum to produce inclusive long-term policies that address multi-sectoral challenges in environmental resilience. This will ensure evidence-informed actions for protecting, conserving, enhancing, and regenerating the Philippines' ecosystems. The forum was attended by over 300 attendees on the first day, 234 on the second, and 148 on the third and last day.

Objectives

- Enable inclusive dialogue across all of the DENR's stakeholders to identify each sector's unique and shared challenges, accelerate cooperation, and gather information on priorities for possible inclusion in the DENR's policy agenda and multi-year Roadmap for Programs, Activities and Projects (PAP)
- Share knowledge and experiences on how different stakeholders can work together with the DENR and other national government agencies to craft and implement policies and programs towards climate and disaster resilience and sustainable development
- Foster and strengthen partnerships among stakeholders; Coordinate each sector's initiatives on matters involving the environment, natural resources protection, development, and conservation
- Identify multi-stakeholder initiatives and good practices that apply science, technology and innovation to achieve shared and unique values across different sectors

Outputs

- Policy and Legislative Agenda for Environment and Natural Resources (ENR)
- Inventory of Shared ENR Programs, Activities, and Projects (PAPs) for co-implementation by multi-stakeholders
- Resiliency Framework for ENR: an integrated framework for multi-stakeholder strategic engagement in ENR

Outcome

The Resiliency Framework for ENR to be produced out of the Multistakeholder Forum shall serve as the foundation for science-based, data-driven, and socially, politically and culturally-sensitive environment and natural resource policies as well as the corresponding PAPs that will be co-implemented by the government and non-government actors.

Consultation and Dialogue with the Private Sector

The first day of the multi-stakeholder forum featured captains of industry and private sector leaders who expressed their full commitment to support the DENR. They also shared their current efforts and identified areas of opportunities to mitigate climate change impacts through renewable energy and conservation solutions. Their actionable recommendations include revisiting

and assessing policies and regulations to adapt to new technologies and respond to the country's ever-changing needs.

These were echoed in the breakout sessions for setting the ENR policy agenda. There were two breakout groups. The participants of the first breakout group called for the revisiting and harmonizing of current policies and functions, and collaboration with the private sector to formulate, implement, and monitor environmental programs.

The second breakout group discussed natural resource management with an emphasis on initiating dialogues with affected communities, improving and streamlining the DENR databases, and easing ways of working to promote regular consultations with the private sector for timely and relevant interventions.

Consultation and Dialogue with CSOs and NGOs

For the second day, representatives from CSOs and NGOs spoke on panels about promoting and implementing programs on environmental advocacy, capacity-building for sustainable progress and resilience, and green investments. They highlighted the importance of multi-stakeholder collaboration that emphasizes participation and integration of communities, including the most vulnerable groups. They also discussed the need to provide private and civil society partners with opportunities to participate through funding and incentives and called for the DENR to strengthen its role as a convener and platform for collaborative solutions.

These were further enriched during the afternoon breakout sessions where inclusivity in policymaking and benchmarking was highlighted by the participants.

Consultation and Dialogue with Academe

Two panel discussions were held on the third day of the forum featuring subject matter experts from the academe and different research institutions who called for institutionalized partnerships between the DENR and the academe for research and advisory to support science-based policy creation and decision-making. They also emphasized the need to use transdisciplinary approaches and the Integral Ecology Framework to address key societal challenges. They also encouraged the DENR to utilize academic research to inform and catalyze actions to improve the quality of people's shared daily realities.

The afternoon plenary consultation for the Resiliency Framework reiterated the need for transdisciplinary approaches to address complex intersectional challenges and issues. The participants expressed their expectation of the ENR Resiliency Framework to be inclusive, resilient, and physically efficient.



Panel members from international non-government organizations on the second day of the multi-stakeholder forum



DENR Secretary Ma. Antonia Yulo Loyzaga listening to the panel presentations on the second day of the multi-stakeholder forum

Multistakeholder Forum Proceedings

Forum Program Design

The 2022 Multistakeholder Forum aims to inspire action and engagement from all sectors toward the fulfillment of the Department's mission. As the primary agency responsible for the conservation, management, development, and proper use of the Philippines' environment and natural resources, the DENR is mandated to promote equitable access, assure sustainability, and enhance the contribution of the country's natural resources for present and future generations.

Natural, technological, and human-induced hazards, including those due to climate change, present challenges to resilient and inclusive development which impact the complex systems that constitute people's shared environment. These challenges require whole-of-society and transdisciplinary approaches toward evidence-informed policy and action for the protection, preservation, conservation, enhancement, and regeneration of the country's ecosystems.

Scientific, technological, and traditional knowledge, expertise, and innovation must be dynamically integrated into the DENR's strategies, policies, and processes. It is in this context that the forum was organized; to facilitate strategic partnerships and collective action between national and local governments, academic and scientific institutions, civil society, the private sector, and communities. Their inputs are critical to the transformation towards adaptive, inclusive, and sustainable development. This nexus approach is needed to turn challenges into opportunities for building resilient environments and ecosystems.

Each day of the forum consisted of a morning plenary session with panel presentations by leaders from the private sector, civil society, and the academe respectively, as well as afternoon breakout sessions to discuss environmental and natural resource policies, plans, programs, and activities.

The results of the discussions will help the Department in the identification of its strategies and priority actions. The outcomes, actionable recommendations, and commitments from stakeholders are reflected in this Forum Report and will serve as critical inputs to the Policy Reform Agenda, Systems and Collaboration Mechanisms, and Shared Programs, Actions, and Plans. Consequently, the forum also aims to accelerate the DENR's mission of mobilizing the country's citizens in protecting, conserving, and managing the environment and natural resources.

National Government Commitments

Opening Remarks

Secretary Ma. Antonia Yulo Loyzaga delivered the event's opening remarks. She emphasized the Department's role of building the lifelines to the environment and natural resources on land, sea, and air and ensuring inclusive, resilient, and sustainable development.

Sec. Loyzaga also reiterated that the department needs to work with partners and stakeholders across sectors to develop integrated strategies for a

science-based, risk-informed, ethical, and equitable stewardship of environments. The forum itself serves as an avenue for stakeholder consultations across different sectors and the Secretary assured that the DENR will continue to listen through focused follow-up consultations with the different sectors and communities served by each bureau and its field operations.

"The Department's role is to build the lifelines to these resources on land, and in the sea and air, that will ensure inclusive, resilient and sustainable development. In order to do this, we will need to work with partners such as yourselves to develop integrated strategies for a science-based, risk-informed, ethical and equitable stewardship of our environments."

The Secretary also expressed hope that the interlinked efforts of stakeholder conversations and forums, the planned national natural resources geospatial database, a new experts advisory council, and an organizational review will ensure that DENR's people, processes, and products will result in synergies that will transform the department into one that is fit for its complex purpose.

The Secretary also shared the other initiatives in the Department's pipeline such as developing a roadmap for water security; the scaling up and networking of capabilities for environmental observation, monitoring, and analytics; the integrated development of mangrove forests in marine protected areas; and contributions to a climate-resilient and sustainable tourism plan.

Memorandum Signing

The forum also included the signing of a memorandum of agreement with the Department of Labor and Employment (DOLE) conceptualized by Sec. Bienvenido Laguesma. In her opening remarks, Sec. Loyzaga highlighted how the agreement between DOLE and DENR will accelerate the creation of more "green jobs" in the area of forest protection.

A brief ceremonial signing of the Memorandum of Agreement between DENR and DOLE was also held in the opening program. President Ferdinand Romualdez Marcos Jr. witnessed the ceremony where Environment and Natural Resource Secretary Maria Antonia Yulo Loyzaga and Labor Secretary Bienvenido Laguesma signed the document.

The memorandum covers the implementation of DOLE's *Tulong Panghanapbuhay sa Ating Disadvantaged/Displaced Workers Program (TUPAD)* in identified areas in DENR's improved national forest protection program.

Keynote Address

President Ferdinand Marcos Jr. delivered the forum's keynote address. He affirmed the importance of conducting stakeholder consultations to discuss measures to protect, conserve, and manage the environment.

President Marcos ensured that the environment and the country's resiliency and adaptation to the new norms of climate change are on top of the national agenda.

"As your President, I assure you that our environment and our country's resiliency and adaptation to the new normals of climate change are on top of the national agenda. We ensure that the initiatives we will take will enable us to become smarter, more responsible, and more sustainable in all that we do."

He underscored that environmental protection and natural resource is a difficult task that requires the help, assistance, understanding, and commitment of all sectors.

"[We will be triumphant] when we realize that our children will have clean air to breathe and safe water to drink, and lands and oceans not only to explore but also to responsibly harness for their sake and for the good of all Filipinos and for all of humanity."

The President remarked that the three-day forum should result in substantial outcomes focused on enriching not only the country's natural resources but also national wealth. He also mentioned that he is looking forward to seeing how the forum and other such activities can generate fruitful discussions that will harmonize the policy agenda of the DENR under the current administration together with private sector partners and all the agencies in government.

Along with the outcomes of this forum, the President expects the acceleration of the DENR's mission of mobilizing capacities and resources to preserve, conserve, and manage the environment. He also expects the forum to lay down a strategic direction to maximize the use of the country's natural wealth and to promote inclusive and sustainable economic growth.

The President ended his keynote address with the wish for the forum to be an opportunity for the government and private sector partners to actively collaborate on an integrated and multi-stakeholder resiliency framework toward actions that will sustain the growth of the environment and natural resource sector.

Stakeholder Challenges, Recommendations, & Commitments

Private Sector

The plenary session with captains of industry featured:

- Mr. Ramon S. Ang, President, and CEO of San Miguel Corporation
- Mr. Lance Gokongwei, President and CEO of JG Summit Holdings, Inc.
- Mr. Federico Lopez, Chairman, and CEO of First Philippine Holdings Corporation
- Mr. Hans T. Sy, Chairman of SM Prime Holdings, Inc.

- Mr. Manuel Paolo Villar, President & CEO of Vista Land & Lifescapes; and
- Ms. Mariana Zobel de Ayala, Associate Director of Ayala Corporation.

Mr. Ramon Ang, San Miguel Corporation

Mr. Ang reported on the success of their efforts in cleaning up the Tullahan River as part of the DENR's Adopt-a-River program back in 2020. SMC invested in heavy equipment, and they were able to remove 1.1 million cubic meters of silt and soil.

Following the success of the Tullahan River clean-up, SMC was requested by the DENR to help in the cleanup of the Pasig River. The company pledged to remove at least 3 million cubic meters of assorted waste. As of October 4, 2022, they have already removed at least 500,000 cubic meters of assorted materials. Mr. Ang emphasized that the company went beyond clean-ups and partnered with professionals to determine the width and depth of the Pasig River through a geotechnical study of the river as well.

On behalf of SMC, Mr. Ang expressed their commitment to continue supporting the DENR in the fulfillment of its mandate. The company has stopped the production of plastic water bottles and continuously ensures that the company is compliant with environmental policies. SMC is the first to install a monitoring machine linked to DENR to determine SOX (sulfur oxides) and NOX (nitrogen oxides) emissions to comply with air quality standards.

Mr. Lance Gokongwei, JG Summit Holdings

Mr. Gokongwei began his presentation by illustrating how the effects of natural disasters such as Typhoon Karding which affected the lives and livelihoods of over 90,000 farmers and fisherfolks with damage estimated at billions of pesos, impact people's lives and livelihoods. He emphasized how the Gokongwei Group aligns with the government's view of bringing about a more resilient Philippines as an existential must.

He talked about the company as a partner of the government in preparing for the future to bring about a more resilient country. He emphasized how crucial strategic opportunities are not just in innovation but also in finding solutions to achieving shared goals.

The Gokongwei Group is working on reducing its plastic footprint and working on ways for higher eco-efficiency in its business. Mr. Gokongwei shared how they view plastic's use in modernizing society while recognizing how plastic waste can negatively impact the environment when left unattended.

"To be clear, we are not demonizing plastic, as plastic has its use in facilitating the growth in a productive modernizing economy."

As such, Mr. Gokongwei says that they are working relentlessly and applying agile approaches to implement an end-to-end process that includes collection hubs within its vast business ecosystem including supermarkets, malls, and communities in which they operate.

Mr. Gokongwei underscored the need for risk intelligence to contribute and transition to a more resilient future. On disaster response, Cebu Pacific worked with the Department of Social Welfare and Development (DSWD) to arrange special humanitarian flights to deliver relief to disaster-stricken

areas, including the delivery of medical equipment following Typhoon Odette. During the pandemic, Cebu Pacific delivered over 10 million COVID vaccine doses.

Other sustainability efforts of the company include the energy transition of their malls to solar panels with 24 malls to date, replacing old refrigerants with more environmentally friendly ones which also reduced energy consumption; the conversion of Robina Farms organic waste to biogas; and URC Sugar and Renewables setting up the country's first biomass plant.

Mr. Gokongwei emphasized the importance of the private sector and government partnership with the government as the catalyst to bring sectors of society to work together. He recommended commitments for individuals to collectively create conducive markets for cleaner alternatives and for businesses to commit to decarbonization, investing in research and development, supporting clean energy entrepreneurs and startups, and advocating for enabling policies and incentives.

They also hope to work with the DENR, the Department of Energy (DOE), the Department of Science and Technology (DOST), and other relevant agencies to develop sustainable aviation fuel (SAF) and develop local capacity to supply feedstock to produce SAF.

Mr. Gokongwei also recommended for the government to become a major procurer and consumer of innovative energy products and systems as a means of driving down the cost of green technology and increasing its adaption. He also called on the government to act like a "traffic cop" to identify bottlenecks, reduce redundancies, and move towards concrete targets within a unified roadmap.

The Gokongwei group reiterated its partnership with the government for over 6 decades and they remain committed to growing their business to provide better choices for the Filipino people and help the government in its quest for economic resilience.

Mr. Federico Lopez, First Philippine Holdings Corporation

Mr. Lopez discussed the importance of mitigating climate change, current efforts being done across the globe to address this, and reasons why the Philippines must be involved.

He began his presentation by underscoring how the COVID-19 pandemic is said to be a "dress rehearsal" for the perils people will face in the future. The goal is to solve climate change which requires mitigating and adapting to its impacts. He emphasized how failure to address climate change would make it impossible to solve other problems such as poverty, food and water scarcity, social displacement, mass extinction of species, and biodiversity loss among others.

Mr. Lopez gave an overview of the initiatives and commitments being done worldwide, such as the Paris Agreement and the Intergovernmental Panel on Climate Change, including their recommendations to mitigate climate change which he outlines in three phases. Phase one is to reduce greenhouse gas emissions, phase two is to eliminate all greenhouse gasses and get to Net Zero in 2050 and phase 3 is to begin reducing greenhouse gasses in the atmosphere through net negative emissions.

Mr. Lopez outlined his vision on how phases one to three can be achieved and what commitments need to be made. He dubbed these as cornerstones outlined as follows:

- **Cornerstone one:** reducing the carbon intensity of electricity and balancing the need to keep the lights on and making prices affordable
- **Cornerstone two:** scaling up energy efficiency efforts
- **Cornerstone three:** electrify everything from transport to industrial processes where possible with a greener energy grid, achieved through cornerstones one and two
- **Cornerstone four:** using carbon-neutral fuels for hard-to-reach sectors—those that are difficult to electrify.
- **Cornerstone five:** deployment of carbon capture use & storage—a zero-emissions grid which is critical to arrest carbon emissions from hard-to-reach sectors

Mr. Lopez underlined the idea of decarbonization and greening the grid as the greatest energy transition in our history and this will need nothing short of collaborative players, and well-coordinated action of leaders and policymakers that will make for a successful and just energy transition.

He posed the question of why the Philippines needs to undertake this transition despite our limited resources. And to answer this he said that it's apparent that the world is changing, not as fast as it needs to yet, but it will and it must. The impact of the climate crisis is among the forces in history which will transpire gradually and suddenly. If we are not prepared, we will be overwhelmed and not recognize the world in thirty years.

He further illustrated how climate change leads to the melting of the polar ice caps and sea-level rise for which countries like Japan, Malaysia, and England, have already created the infrastructure. And how this calls for a comprehensive, coherent, and well-studied national decarbonization and adaptation plan. He added how the country's plans will be futile if the necessary infrastructure is not built for our resilience. Having a credible vision and a dynamically executed plan is needed to attract the investments and funding needed to build a resilient Philippines in a changed world.

Mr. Hans T. Sy, SM Prime Holdings, Inc.

Mr. Sy begins on the note that the country will always be facing challenges on all fronts but care for the environment must always be at the forefront. His presentation is outlined under the pillars of a triple planetary crisis of the United Nations Environment Programme: climate change, pollution, and biodiversity loss. And he says that the answers to these challenges lie in cooperation and collaboration toward promoting environmental development and promoting systemic change.

Mr. Sy assured that the government is not alone in nation-building and that the private sector is a partner in a whole-of-society approach towards an inclusive, prosperous, and sustainable Philippines.

He shared his vision for an environmentally-resilient Philippines as a clean, green, and disaster-resilient country. The priority is for all sectors to be in solidarity and to work together with the survival of the planet and people in mind.

He further explained how this vision includes a strong tripartite between, the government, organizations such as businesses, and the academe in research, policies, education, and budget among others. This partnership ensures that resources are secured for future generations. For the sector, he emphasized that *green is good business*. He stated how this vision includes

global partnership and cooperation to co-create solutions towards a shared goal on national and local levels.

He emphasized the need to put resilience and inclusivity at the center of planning and implementation. Preparedness must be built ahead of relief and response through capacity building and ensuring the involvement of communities, especially vulnerable groups. Mr. Sy remarked that the DENR can be a partner by way of open communication and involving the private sector in revisiting policies to comply with national objectives.

Mr. Sy expressed that for corporations, the challenges lie in compliance and implementation of some government policies. He commends the DENR for updating policies such as the Clean Water Act while some policies may be reconsidered to be industry-specific as compliance should not outweigh the economic benefit. The DENR can prioritize public-private partnerships to implement programs toward a circular economy. If there is more recognition and incentives, there will be more initiatives in innovation.

He called on businesses to invest in clean and renewable energy amid supportive legislation. He cited examples of the initiatives pursued by SM Prime on energy efficiency, water conservation, disaster risk, and resilience technologies, and risk-informed investments. Mr. Sy also outlines opportunities for a global partnership and cooperation in accordance with the United Nations Framework for Climate Change, UN Sustainable Development Goals, Sendai Framework for Disaster Risk Reduction, OECD's Green Growth Strategy, and the Coalition for Disaster Resilient Infrastructure.

Mr. Manuel Paolo Villar, Vista Land & Lifescapes

Mr. Villar talked about how the country is moving towards cautious optimism as COVID transitions into an endemic state rather than a pandemic that paralyzed the world for two years. However, despite the pandemic recovery, nations face many challenges, economically and politically. He further explains how the country is vulnerable to economic shocks which are all tied to the environment.

Mr. Villar talked about how these compounded challenges require revisiting the question of how to ensure environmental protection while also growing the country's economy and uplifting people from poverty. Unlike other countries, Mr. Villar noted that the Philippines needs scenario planning on supply dynamics and energy, given how fuel and food shortages have exposed the vulnerabilities of poorer nations to avoid economic crises. And this requires the involvement of the private sector.

Mr. Villar talked about how the Philippines is dependent on fossil fuels for energy and to transition, investments must be made in increasing clean energy production and improving distribution. In particular, he emphasized the need to electrify rural areas to improve the quality of people's lives. He remarked how knowledge from industries needs to be integrated into policy while also calling on the private sector to address environmental challenges on its own as a partner of the government in nation-building and development.

He shared that they also have projects to reduce carbon emissions and supply solar energy to their business in areas like Bataan and Palawan to do their part in the commitment to renewable energy. He is optimistic about the future as there are movements in the sector that point toward economic growth and technological innovations that make sustainability more accessible. He also placed optimism in the government opening up to more public-private

partnerships in areas where the government lacks resources. He echoed how the private sector is one with the government in preserving the environment while promoting economic development.

Ms. Mariana Zobel de Ayala, Ayala Corporation.

Ms. Zobel de Ayala expressed how happy she was to hear how the private sector is aligned in its pursuits of sustainable development. She also emphasized their company's belief that *sustainability is good business*.

Ms. Zobel de Ayala shared that the Ayala Corporation is committed to preserving the county's protected areas while continuously regenerating resources such as water and terrestrial systems. It is through this that the country can tap the economic potential of the Philippines' significant biodiversity. The company supports the vision of building environments planned under sustainably driven and nature-based frameworks. More specific to the Philippines is the need for infrastructure fit to adapt to and defend against the effects of climate change.

She noted that while they are committed to achieving sustainability goals, it is not without challenges, the first being how to minimize impact. While it is important to promote tourism and development, this must be balanced to protect against overdevelopment. She emphasized the need for transparency and accountability from developers and operators.

Another challenge is waste management which Ayala Corp hopes to address by exploring new waste management strategies to address rapid urbanization. These strategies include centralizing waste management processes and innovations that will allow converting waste to energy while minimizing effects on air quality.

She also talked about the need to manage costs, especially to consumers to ensure that they are included when the business scales up its sustainability efforts. The Ayala Corp serves a wide spectrum of consumers and they have noted the need for accessibility and affordability while ensuring compliance with environmental policies. To wit, she recommends for the DENR along with other relevant agencies and LGUs develop centralized and larger capacity facilities that can serve larger communities instead of individual subdivisions. On the same note, she also recommends for the department to streamline regulatory processes and bodies as the time spent complying with regulations has cost implications that also affect the economy.

Ms. Zobel de Ayala also spoke on the DENR's central role as an enabling and regulatory body. The DENR can continue building on its achievements such as the management of a central repository of geographical and biodiversity information. She expressed the company's excitement about the DENR leading the alignment and application of environmental policies with local government units. And for the department to continue leading regenerative activities that influence circular economies. She also pointed out how the forum is an example of how the DENR enables collaboration between the public and private sectors on a greater scale.

Ms. Zobel de Ayala also shared their experiences as a developer that implements sustainable planning through technical due diligence and prioritization of resource efficiency and water-sensitive urban design. She talked about the impact commitment that the corporation rallies behind such as their two-step circular economy model and carbon neutrality, avoiding and

reducing emissions, shifting to renewable energy, and offsetting emissions by establishing carbon sinks through forest protection enhancement. All these as part of the Ayala Corporation's commitment to partner for a sustainable Philippines.

Highlights and Recommendations

- Align business models on adaptation and mitigation initiatives
- Strengthen public-private partnerships as a way to support the government and for the private sector to augment in areas where the government lacks the necessary resources
- [Government to] become a major procurer and consumer of innovative energy products and systems as a means of driving down the cost of green technology and increasing adaption
- Invest in clean and renewable energy technologies, committing to decarbonization and greening the grid to achieve net zero in 2050
- Improve access and distribution of clean energy, especially in rural areas
- Align and apply national environmental policies with local government units
- Calls to revisit and update existing laws such as the Clean Air Act and Clean Water Act to consider new technologies, existing behaviors from people regarding the use of water and air
- Activate existing platforms for climate actions such as the People's Survival Fund (PSF) for National Adaptation Programs (NAP)
- Creation and roll out of a unified roadmap with concrete targets with which the private sector can align
- Enhance DENR's knowledge repository of geographical and biodiversity information and serve as a central knowledge source on ENR

CSOs and NGOs

The plenary presentations for the second day were divided into three panels. The first panel was moderated by **Atty. Gia Ibay**, Head, Climate Change and Energy Programme, WWF Philippines and featured:

- **Ms. Katherine Custodio**, Executive Director, WWF Philippines
- **Ms. Edwina Garchitorena**, Chairperson, Forest Foundation Philippines
- **Mr. Enrique Nuñez**, Executive Director, Conservation International Philippines
- **Mr. Yeb Saño**, Executive Director, Greenpeace Southeast Asia;
- and **Mr. Filomeno Sta. Ana III**, President, Bantay Kita.

They spoke about how CSOs and NGOs contribute to the fulfillment of DENR's mandate to preserve, protect, manage and regenerate ecosystems.

Ms. Katherine Custodio, WWF Philippines

Ms. Custodio began by likening the country's ENR problem to two missiles: climate crisis and biodiversity loss. Addressing only one would have dire consequences so there is a need to address both. WWF would like to work together with DENR and other stakeholders on what they see as the key drivers fueling the two "missiles". These drivers can be summed up as "CHEF" which stands for *Consumption, Habitats, Energy Transition, and Food Production*.

Ms. Custodio talked about the opportunities that the WWF would like to bring to the table when working with the DENR for a science-based, risk-informed, ethical, and equitable stewardship of the environment. Leveraging their experiences in drawing funding for the sector, WWF is looking to drive investments into CHEF (Consumption, Habitats, Energy Transition, and Food Production) specifically on the improvement of marine protected area management, sustainable fisheries, watershed management, renewable energy, and reduction of plastic pollution.

WWF also presents opportunities to tap the global climate fund and global environment facility on circular economy, coral reef rescue, and food loss and waste which requires DENR's support to access. They also commit to contributing their GIS data and know-how to the national geospatial database being developed by the DENR. WWF requests the DENR to grant them easier access to maps and data on which they can build on.

They also offer technical and policy support for the upcoming climate and biodiversity COPs (conference of parties) and continued dialogue for the National Action Plan on Species and consultations pre-COP. She emphasized how nature-based solutions address human challenges while regenerating biodiversity. She also forwarded the idea of managing healthy populations of species and not simply viewing and managing marine and wildlife as commodities.

WWF continues to create partnerships with the private sector and businesses to build value together. Ms. Custodio highlighted how development at the expense of the environment is not progress. Private sector commitments must be followed through with good environmental impact assessments for big and small businesses. They also need support in identifying entry points and goalposts and a shared language across all sectors based on measurable science-based indicators.

In particular, WWF hopes that the tourism sector can take part in the ENR agenda as the country's edge in this area is in nature, from beaches to the mountains which also translates to economic impact. The DENR has a key role in destinations that intersect with protected areas and those that need course correction.

Lastly, she emphasized the opportunity of soft power by engaging the youth in arts and entertainment to move people more broadly and deeply to build ENR advocacy.

Ms. Edwina Garchitorena, Forest Foundation Philippines.

Ms. Garchitorena shared how Forest Foundation reflected on the state of the environment and what we can expect from it in the future. And this led the Foundation to call for a nuanced governance framework which is captured under 4 points.

- **Point 1:** Institutionalize science, information, and language that emphasizes ecosystem services and the role of biodiversity in improving these services. Ms. Garchitorena explained how in their experience, there is often a gap between information and policy.
- **Point 2:** Pivot to managing the landscape and seascape at the right scale with the goal of resilience. The DENR and the LGUs can define what the "right" scale is.
- **Point 3:** Recognizing the essential role of people in landscapes and seascapes and building their capacity management and decision-making.

- **Point 4:** Support national capital accounting not only as a means of measuring and evaluating but also of communicating. Ms. Garchitorena expounded on how the impact on lives and livelihoods is how communities and LGUs understand the importance of protecting the environment. She also expressed Forest Foundation's commitment to supporting this initiative.

She reiterated these points when she talked about the enhanced participatory processes and mechanisms for forest management which requires partnerships with the private sector and involved communities with the goal of identifying their concerns and understanding "what brings them to the table."

She ended her presentation by discussing pathways for collaboration such as

- Building capacity among stakeholders at multiple levels
- Enabling participatory, integrative, and stakeholder-driven policy development
- Co-creating science and information for forest landscape restoration, and
- Demonstrating conservation sustained by PES or using forest conservation as nature-based solutions

Mr. Enrique Nuñez Conservation International Philippines (CI)

Mr. Nuñez' presentation focused on harnessing nature as a climate change solution. He began by prefacing his presentation on energy transition acceleration as only one part of the environmental conservation equation. He further explained how even if we zero out emissions, it will not be able to stabilize the Earth's climate. Plants and soil store more than 2100 metric gigatons of carbon. The assault on nature threatens to release this carbon. Last year the land sector of forestry, farming, grazing, and even parks and protected areas was responsible for an "astounding 12.5 gigatons or 25% of the total greenhouse gas emissions."

Despite the dire scenario, Mr. Nuñez shared that this can be halted through Nature Climate Solutions (NCS). Unfortunately, NCS is undervalued and received only 2% of the global climate finance. Nature can get us 30% of the way in solving the climate crisis. The use of natural climate solutions is cost-effective, immediately available, achieves both mitigation and adaptation goals; delivers environmental and social co-benefits.

The "exponential roadmap for NCS" by Johan Rockstrom published by Conservation International, reveals the approach we must take to roll out NCS at speed and scale which focus on how land meets the carbon law for nature. The roadmap is designed as an action plan for people living on the land, policymakers, the finance sector, supply chains, and social movements to enable and accelerate positive change. The report, which was published on September 22, 2022, was shared with the DENR by Mr. Nuñez.

He went on to talk about the funding opportunities to support NCS, aside from public funding and grants, such as the voluntary carbon market and compliance market. There is an increasing demand for NCS which creates opportunity, specifically on projects that meet climate, community, and biodiversity standards.

Furthermore, Mr. Nuñez expounded on the need for policy-enabling conditions for generating and transferring carbon credits in order to achieve global restoration targets.

- For **generating carbon credits**, there needs to be clarity on
 - carbon rights
 - national accounts
 - land tenure
 - installation of redress mechanisms, and
 - clear benefits-sharing agreements
- For **transferring credits**, there needs to be
 - a national authorization process
 - a national accounting process
 - and clarity on the treatment of voluntary carbon markets

CI offers to leverage its strong expertise in NCS policy, including carbon market facilitation, its strong track record on NCS project development, its strong network of country programs around the world with solid partnerships with governments to facilitate partnerships among government and private sector transactions, and ethical partners with strong NCS buyer principles for carbon market and social and environmental safeguards for project development.

He ended his presentation by sharing the work that they did in Palawan. He illustrated the decrease in forest cover in the province and its relationship with population growth. However, he emphasized that the solution to climate change is found in nature. NCS secures replaceable ecosystems, reduced agricultural drivers of deforestation, and enables restoration, blue carbon, climate finance, policy, and ecosystem-based adaptation.

Mr. Yeb Saño, Greenpeace Southeast Asia

Mr. Saño's presentation answered the question of how the DENR can enable and support the work done by their organization. He shared how Greenpeace's theory of change is closely intertwined with the kind of change desired by the youth, indigenous communities, women, farmers, fisherfolk, urban poor, the LGBTQIA+, and all the marginalized sectors of society.

They understand that their work involves shifting mindsets and building unity and solidarity. There is a need to confront power dynamics and name those that destroy nature. Ultimately, the goal is to create positive change to defend the environment and protect humanity's common future. Intersectionality cannot be ignored, and this includes power relations, political patronage, patriarchy, and corporate greed. Effectivity lies in the deepening consciousness of these power dynamics.

Mr. Saño emphasized the need to have campaigns and approaches that are sensitive to local communities whose livelihoods depend on a healthy environment. He says that he shares the dream of all environmentalists to one day become obsolete and live in a world where they will not be needed because the environment is thriving on its own. He expressed his optimism in taking part in the forum as it signals stronger cooperation within the sector, especially with the government.

He shared the unfortunate findings of the Global witness report that states that the Philippines is the deadliest country in Asia for environmental defenders. 270 defenders were killed in the last decade and 19 indigenous peoples were killed last year, their deaths were linked to mining, logging, land conversion, expansion, and other extractive industries.

Greenpeace's work involves holding those responsible for the climate crisis accountable, harnessing natural renewal energy resources, campaigning against single-use plastics, and resilient cities with inclusive mobility.

Mr. Saño posed several questions to the DENR.

- How can the department ensure that the biggest polluters such as fossil fuel companies are held accountable and how does it see its role in exacting justice?
- How can the department operationalize policies in environmental rights, climate justice, clean and safe energy, urban planning, allocations for "dirty" energy, nuclear energy, oil exploration, and other industries?

Greenpeace expressed interest in working with the DENR on redress mechanisms, especially for the most vulnerable, and in ensuring the natural resources are properly managed and allocated to all. They wish to see guidelines for holding fossil fuel companies accountable and those that infringe and abuse human rights. He reiterated the mandate of the DENR as the primary agency for the protection, conservation, management, and proper use of the country's environment and natural resources. But this mandate has a qualifier, and this should ensure equitable sharing of the benefits derived for the welfare of present and future Filipinos.

Mr. Filomeno Sta. Ana III, Bantay Kita

Bantay Kita is an organization that focuses on economic analysis and economic reform. His presentation gave an economic perspective to our shared concerns. He began by saying that climate change is an existential threat and that addressing this requires collective action. He acknowledged that the need for a whole-of-government and whole-of-society approach may be a cliché, but it is still relevant and practical.

He emphasized the need to have a climate change lens in all policies. It should be in the intervention and measures and action of all stakeholders including government agencies involved in economics, health, social protection, food security, agriculture, etc.

To illustrate the point of using climate change as a lens in all policies, he provided the example of Guian, Eastern Samar where the study they conducted identified impacts of COVID-19 on the members of the community and found that their main problems were hunger, lack of jobs, lack of health facilities and not about COVID-19 infections in particular. Hence COVID response was integrated into the broader disaster risk reduction and management framework.

In particular, the DENR plays a pivotal role in the government and should be part of the "core cabinet" which currently consists of economic managers. Given the new realities posed by climate change, Mr. Sta. Ana remarked that the DENR should also be part of the core cabinet.

His second point is summarized in the statement "one world, one country, one purpose, but a multiplicity of tools." Different stakeholders would have biases toward their preferred model. But the world is so complicated that this requires openness to different ideas. To confront climate change we need to have an arsenal of tools. He illustrates his point through the role of taxation. Taxation is not control but a form of regulation. He added that perhaps fuel taxation should be part of the agenda as it will be needed in the transition to renewable energy.

Mr. Sta. Ana noted that this energy transition will be bumpy, difficult, and will require trade-offs. The DENR's multistakeholder forum is relevant but it is not a win-win in the short run but will lead to the win-win that we want in the future.

The second panel was moderated by **Ms. Marilou Erni**, Undersecretary and Chief of Staff, DENR and was composed of

- **Ms. Agnes De Jesus**, Chief Sustainability Officer, First Philippine Holdings Corporation
- **Mr. Elvin Uy**, Executive Director, Philippine Business for Social Progress
- **Mr. Roberto Calingo**, Executive Director, Peace & Equity Foundation
- **Mr. Silvestre Barrameda, Jr.**, Executive Director, National Resilience Council
- **Mr. Ernesto Garilao**, Chairman and President, Zuellig Family Foundation.

Ms. Agnes De Jesus, First Philippine Holdings Corporation

Ms. De Jesus talked about how the business sector can be one of the vehicles toward green recovery. Green recovery means a healthy planet, safe people, and a robust economy.

She shared how extreme weather events have affected their business operations. This made the company realize that its response should be commensurate with the problem. Hence, they upgraded their mission from contributor to the economy to forging collaborative pathways for a decarbonized and regenerative future. She also talked about the transformation of their project sites near marine and mountain areas. They converted fishponds to mangrove areas, installed bantay dagat patrols against destructive fishing practices, and augment the livelihood of fisherfolks through mud crab farming. They have converted loggers and *kaingeros* to "green warriors".

Another way they have transformed their business is by embedding CSR in their operations. First Philippine Holdings combined the CSR programs of 13 foundations and companies into 7 advocacy clusters to maximize talent and resources and reorganized all CSR projects into a regenerative area development zone that involves community participation and buy-in. Ms. De Jesus shared that their holistic approach benefits all players. For the planet, they are renewing critical ecosystem functions. For the company, they offer business continuity and stability by avoiding natural and social risks. For the community, they provide a healthy environment and economic prosperity and for the government, help them advance green recovery and achieve global sustainable development goals.

Mr. Elvin Uy, Philippine Business for Social Progress (PBSP)

Mr. Uy discussed collective action toward water security and sustainability. He prefaced his presentation by talking about how the Philippines is among the most water-stressed countries in Southeast Asia. Water resources are under threat as population and demand continue to grow and these lays bare the inequities in our systems. 2.7 million Filipinos lack access to adequate water supply.

Climate change contributes to the depleting water supply. If trends continue, this will result in water shortages, degraded water quality, and increased flood and landslide risk. Coastal ecosystems include loss of coastal defense, marine habitat and biodiversity, and reduced fish populations which

contributes to food security problems. It is the marginalized and the poor that pay disproportionately higher costs for water access.

Recognizing these challenges, the PBSP worked with USAID on the Be Secure project and formed a water alliance consisting of businesses, academe, NGOs, and CSOs to address water security more holistically. The alliance works across sectors in four key areas: water for waterless communities, water footprint reduction specifically water demand management, water governance and policy reform, and water research and database.

What the PBSP hopes to push for the government and the DENR and the National Economic and Development Authority (NEDA) is to continue promoting the Integrated Water Resources Management (IWRM) Framework. The water supply and sanitation action plan include and embrace IWRM.

Mr. Roberto Calingo, Peace & Equity Foundation

Mr. Calingo discussed the role of income in securing our natural resources and their experience for the past 10 years in the area of economic development.

He first explained how the Philippines is largely upland and agricultural however year-on-year, the agricultural sector declines in growth with mining and quarrying growing at a rate of 2 to 6% since 2018. And there was only one time in the past 20 years that the growth rate in agriculture was 5%. The statistics further show how despite high labor productivity in the agricultural sector, the people in the sector remain poor.

Mr. Calingo emphasized the point that if we do not enable economic viability in the uplands, natural resources will be threatened. To illustrate his point, he presented a case study from Kabasalan, Zamboanga Sibugay that saw a fishpond boom between the 1950s to the 70s but transitioned to mangrove logging when fish stocks declined in the 1980s due to pollution. A coastal livelihoods program, along with mangrove rehabilitation and Bantay Dagat programs was started through the cooperation of DENR, the Local Government Unit, and the people who live in the area to help it recover. The success of the programs shows how the strengthening of livelihood was key to sustained environmental protection.

He further emphasized the point of sustaining critical and successful programs across political administrations to ensure long-term success. He ended his presentation by stating that there is a clear linkage between economic viability and ecological protection and a need for local policies programs and active engagement of LGUs CSOs and line agencies.

Mr. Silvestre Barrameda, Jr., National Resilience Council (NRC)

Mr. Barrameda talked about multistakeholder and multi-level governance approach to resilience. His presentation started with the finding that the Philippines ranks fourth in the list of countries most affected by disasters that surged in the past two decades. Given this reality, Mr. Barrameda underscores the need to apply a "Think Resilience" approach to all investments and decision-making. He then presented the NRC resilience framework and areas for convergence.

NRC is focused on leadership governance in resiliency which recognizes the critical roles played by local government units. The council recognizes the importance of multistakeholder and multilevel governance and shared the entry

points in the areas of capacity development; governance structures, policies, and systems; access to science and data; and access to finance.

Mr. Barrameda also presented the possible areas for collaboration outlined in four points:

- Evidence-informed convergence program to address transboundary/inter-LGU risks (e.g. ecosystems-based alliances for resilience)
- Utilization of complementary tools to measure resiliency at various levels (Resilience scorecard vis-a-vis environmental resilience index)
- Knowledge co-generation and management, technology transfer and innovation
- Contextualized and tailor-fit capacity development support for LGUs and expanding access and exploring out-of-the-box financing modalities for both climate and disaster risks

He emphasized how a multistakeholder and multilevel governance approach enables inclusive participation.

Mr. Ernesto Garilao, Zuellig Family Foundation (ZFF)

Mr. Garilao expressed his appreciation to the DENR for organizing the forum and hoped that other government agencies follow suit. With the forum, he also hoped that stakeholders become agenda co-owners with the DENR, especially against vested interests that harm the national good.

Mr. Garilao explained the work done by ZFF which is to enable local health systems to achieve better health outcomes for all Filipinos. They work with working with LGUs, primarily with local chief executives to improve health indicators in the communities especially those in the marginalized and vulnerable sectors.

However, ZFF has always known that direct and indirect health services account for only 20% of health improvements. Another 30% is accounted for by health behaviors and the rest are accounted for by social and economic factors at 40% and physical and environmental factors at 10%. The environmental challenge that affects ZFF the most concerning public health is environmental pollution.

He quoted former Department of Health Secretary Francisco Duque III saying "pollution disproportionately kills the poor and the vulnerable with children at high risk..." Exposure to pollution was responsible for a significant fraction of deaths from non-communicable diseases. Environmental and occupational risks are two of the top three risk factors of all annual deaths in the Philippines. All annual deaths from air, water, and chemical pollution account for a 20% estimate of all total deaths in 2014 data published in the IHME 2016 GBD study. The same report notes a loss in productivity estimated at 1 to 1.3 billion pesos with welfare damage estimates to be higher.

Given this context, Mr. Garilao answered the question: what can DENR do? And he stated ZFF's recommendations as follows:

- Continue the interagency committee on environmental health and strengthen the participation of the academic, private sector, and CSOs in the committee
- Strengthen the role and capacity of local government in the implementation of antipollution programs

- Conduct baseline reporting of relevant pollution indicators and set the improvement target over 6 years

The third panel was moderated by **Mr. Antonio Joselito Lambino II**, Strategic Communication and Advocacy Managing Director, Bangko Sentral ng Pilipinas and was composed of representatives from international non-governmental organizations.

- **Mr. Marco Toscano Rivalta**, Chief, United Nations Office for Disaster Risk Reduction (UNDRR) Regional Office for Asia and the Pacific
- **Mr. Ebisawa Yo**, Senior Representative, Japan International Cooperation Agency
- **Ms. Rebekah Eubanks**, Acting Mission Director, USAID Philippines; **Mr. Khalid Hassan**, Country Director, International Labor Organization and UN Resident Coordinator ad interim
- **Dr. Achim Fock**, Operations Manager for Brunei, Malaysia, Philippines and Thailand, World Bank and
- **Dr. Jiangfeng Zhang**, Director, Environment, Natural Resources & Agriculture Division, Southeast Asia Department, Asian Development Bank

They talked about the work they are doing in the Philippines in the area of environment and natural resources.

Mr. Marco Toscano Rivalta, United Nations Office for Disaster Risk Reduction (UNDRR) Regional Office for Asia and the Pacific

Mr. Rivalta thanked the DENR for the kind invitation and pointed out how there is no DRR that is done by governments and people alone. It requires partnerships at multi-levels and the forum itself embodies that principle. He expressed admiration for the strong political leadership demonstrated in the conduct of the forum. He remarked that things do not move without a political call for action echoed at ministerial levels down to the local government units and commended the commitment of the private sector.

Mr. Rivalta set up the context as he noted his contributions to the discussion are from the DRR lens. In 2015 countries adopted the SENDAI framework which aimed to reduce risks and losses. Trends are concerning as the estimates show that by 2030, disasters will increase by 40%. There is a strong correlation between sustainable development, environmental degradation, climate change, and disaster risk.

"Money is not going where it needs to go."

Mr. Rivalta shared that in the recently concluded Brisbane DRR conference, it was raised that the accessibility of climate funding is complicated and many countries are unable to get funding to create immediate actions.

He also mentioned that biodiversity and ecosystem services are fundamental in reducing disaster risk hence the need for the adoption of nature-based solutions.

Mr. Rivalta enumerated the obstacles in the area of climate funding such as a limited understanding of disaster risk which echoes the statement of Secretary Loyzaga on intersectionalities and the correlation between risk and how it is generated in current practices. There is also a need to raise awareness of how environmental degradation is a driver of disaster risk, especially beyond the forum.

He also said that better measurement, analytics, and metrics need to be set up and this is where the SENDAI Monitoring Framework can help. He called on more investments in climate change adaptation and disaster risk resilience. There are already existing enabling policies and institutional setups but most importantly, the money should be going into the right investments.

Mr. Ebisawa Yo, Japan International Cooperation Agency (JICA)

Over the years JICA has engaged in environmental work ranging from forestry, renewable energy, and solid waste management. Mr. Yo shared three past projects they implemented in the Philippines with the most impact.

1. Capacity management for water quality management with the DENR-EMB
2. Environmental development project with the Development Bank of the Philippines which amounted to 24.4 billion Japanese yen invested to reduce Emissions of environmental pollutants by providing LGUs, GOCCs, cooperatives or associations, private corporations, and water districts with mid and long-term funds thereby contributing to environmental protection and improvement of living conditions
3. Forestland Management Project implemented with DENR-FMB To strengthen forestland management through implementing community-based forest land management strategies in Upper Magat and Cagayan, Pampanga, and Jalaur river basins.

JICA also shared lessons learned in engaging with DENR.

- Effective communication between DENR central office and regional offices proved crucial in the success of nationwide dissemination of developed guidelines and manuals.
- DENR's participatory approach in consulting with regional offices to get their views and inputs contributed to the efficient finalization of developed guidelines. Its strong partnership with different stakeholders is crucial not only during the project implementation but also for future collaboration and ensuring sustainability.
- DENR's capacity to secure necessary resources during and after project implementation is a big factor in the further promotion of project impacts.

JICA expressed their hope to engage DENR in future projects on waste management to improve the Municipal SWM System in Davao City and conduct an SME partnership promotion survey on an integrated recycle business model for End-of-Life Vehicles (ELV).

They also have projects in water supply and sanitation such as a Masterplan Survey for Comprehensive Sewerage Development in the cities of Cebu and Davao and dispatching of an Integrated Water Resources Management Advisor to NEDA.

JICA commits to continuous capacity development through the JICA training and scholarship programs. Other possible areas of collaboration between the DENR and the Agency are climate change mitigation and adaptation, renewable energy, energy efficiency, and forestry.

Ms. Rebekah Eubanks, USAID Philippines

Ms. Eubanks talked about the partnership between the United States and the Philippines in enabling the country to become more prosperous and resilient. USAID shares the government's commitment to preserving its unique biodiversity and natural resources which are essential for economic

development. However, this is threatened by environmental degradation and aggravated by climate change.

One of USAID's key development priorities is enhancing Environmental and Community Resilience. The agency has worked with DENR on the most urgent development needs such as forest governance, conserving coastal and marine resources, reducing wildlife trafficking, driving innovation to respond to ocean plastics, and enabling partnerships in sustainable water management.

They are currently implementing 6 flagship activities in the Philippines with a total estimated cost of 8 billion pesos: SIBOL, INSPIRE, Safe Water, Climate Resilience Cities, Fish Right, and Energy Secure Philippines which help enhanced evidenced-based planning, improve policy frameworks, and implement nature-based solutions.

Ms. Eubanks also shared notable achievements with DENR partnerships such as in policy support, environmental conservation tools and systems, inter-agency convergence-partnerships with National Oceanic and Atmospheric Administration (NOAA), craft joint policies for harmonizing initiatives for coastal resource management and civil society engagement.

From these partnerships, USAID shared how evidence-based policy plays a vital role in environmental governance. In addition, environmental preservation is not just a responsibility of the government and requires a collaborative and inclusive approach, critical to building consensus and identifying issues and solutions. Scaling up and sustainability innovations need DENR's active involvement.

USAID said that it looks forward to continuing its partnership with the DENR through USAID's projects; collaborating with relevant bureaus to scale up initiatives on biodiversity conservation and natural resource management and conducting collaborative review and implementation of USAID's Country Development Cooperation Strategy.

Mr. Khalid Hassan, International Labor Organization and UN Resident Coordinator

Mr. Hassan focused his presentation on green jobs and mentioned the UN's working relationship with the DENR, particularly in 2008 and 2012 in building the country's institutional capacity to address climate change.

He reflected on three global trends and how it affects the future that we will all be facing soon. First is technological changes. Artificial Intelligence and Liberalization will affect jobs, people will lose, transition, or change jobs accordingly. Second is climate change, if its effects are not reversed, then it will widen regional and gender gaps and worsen living conditions.

When discussing mitigation and adaptation strategies, Mr. Hassan poses the question of whether these strategies are labor market neutral or do they create problems for the market. There will be job loss but also job creation but there is also a question of whether we are ready to access the new jobs which would require higher education and training.

Third is Demographics. The working-age population is declining. The DENR and other agencies have the responsibility to help younger populations to get jobs as well. On this, he commended the Philippines for launching the Green Jobs Act or Republic Act No. 10771 which answers one of the points raised in

the other panels of what the incentives are for small businesses to go green. Mr. Hassan remarked how the DENR and DOLE took a positive step in signing their joint memorandum of agreement as part of the larger green jobs human resource development plan.

The way forward is implementing integrated national strategies and policies, enhanced multilateral cooperation, integrated financing for both domestic and international mobilization, technical support facility, and capacity building.

Dr. Achim Fock, World Bank

Dr. Fock talked about the country's long history with the World Bank as one of its founding members. He highlighted some of their projects over the past two decades which have had a significant impact on ENR.

First is the Wealth Accounting and Valuation of ecosystem services which focused on the Laguna Lake Basin and Southern Palawan. This also led to the production of the national institutional roadmap for natural capital accounting.

Second is an investment project called the PH-GEF Manila Sewerage project. Some of the innovations fostered were the water pricing model and sewage treatment plans using state-of-the-art treatment processes.

Other World Bank projects are the Land Administration and Management (LAM) Project which facilitated the preparation and passage of land administration and management reforms such as the residential free patent act and valuation reform act. It also streamlined processes and methodologies and developed the LAM roadmap.

In the area of analytics and raising awareness is the Annual Environment Monitor Series which produces yearly reports on benchmarking environmental indicators, solid waste management, air quality, water resources, and biodiversity natural and coastal resources management.

The World Bank shared its lessons learned from working with DENR. First, the combined experience and knowledge of DENR bureaus and attached agencies is vast. Coordination for project mandates with multiple objectives can be challenging at times so a higher level of convergence across bureaus in agencies could facilitate transformative impact towards sustainable development. Second, the DENR has very strong environmental regulations. Aligning country systems with international standards on ESG through capacity building could leverage competitive advantage in development investment with environmental and social sustainability. DENR is uniquely positioned in terms of linkages with different development sectors, and this can be leveraged to lead the advocacy role for sustainability initiatives.

In terms of future engagements, the World Bank has the following projects in the pipeline:

- Country safeguards framework: capacity building for leveraging country systems for environmental and social sustainability and rest management
- Geospatial platforms for baseline thematic layers and management systems for decision support including coastal management
- Plastics EPR implementation support and solid waste management technologies

- Support for assessment framework for maximizing benefits of mining sector
- Ecosystem services/natural capital accounting
- Potential initiative on climate change and development: The World Bank will also publish a report on climate change and development.

Dr. Jiangfeng Zhang, Asian Development Bank (ADB)

Dr. Zhang talked about the intersecting priorities of ENR and other social issues. He outlines the ADB Strategy 2030 and its seven operational opportunities:

- Addressing remaining poverty and reducing inequalities
- Accelerating progress in gender equality
- Tracking climate changes, building climate and disaster resilience, and enhancing environmental sustainability
- Making cities more livable
- Promoting rural development and food security
- Strengthening governance and institutional capacities
- Fostering regional cooperation and integration

Dr. Zhang shared how the ADB also came-up with a more detailed operational plan for each of the priorities, specific to number 3 on *Tracking climate changes, building climate and disaster resilience, and enhancing environmental sustainability* are the strategic operational priorities: 1) Mitigation of climate change increased, 2) Climate and disaster resilience built, and 3) Environmental sustainability enhanced.

Dr. Zhang also talked about several projects that the ADB has accomplished with the DENR such as the Integrated natural resources and environmental management project which improved conditions of watersheds generating livelihood benefits in the upper river basins. He highlighted that one of the lessons learned from this project is how the strong ownership of communities and local governments must be nurtured.

The ADB also worked on climate resilience and green growth in critical waters and this technical assistance (TA) resulted in the enhanced capacity of LGUs in critical watersheds to integrate climate-resilient and green growth options into development plans, programs, policies and projects.

Then he talked about the Philippines Climate Change Action Program which aims to support the Philippines by increasing and intensifying actions to transform key sectors towards a climate-resilient and low-carbon economy. Its three reform areas are 1) strengthened planning, financing, and institutional linkages for climate action; 2) enhanced resilience to climate impact and 3) strengthened low-carbon pathways.

ADB is also preparing TAs to support DENR in achieving subprogram to policy actions and output indicators based on needs expressed by the climate change service and the biodiversity management bureau through a risk resilience program and climate-proofing selected protected area management plans. They also have 6 ongoing TAs in the Philippines with 5 regional TAs with components for the Philippines.

The ADB wishes to deepen its collaboration with the DENR and other relevant stakeholders through TAs and loans/grants support.

Highlights and Recommendations

- Holistically address the climate crisis with interventions considering the economy, public health, and the society
- Partners highlight numerous examples of positive partnership between CSOs and the government and calls to sustain these partnerships and collaboration
- Adopt nature-based solutions to solve climate-related problems
- Calls for support in identifying entry points and goalposts and a shared language across all sectors based on measurable science-based indicators
- Provide avenues for communities to contribute in responsive policymaking and emphasize their role as producers of knowledge that can be transformed into environmental solutions
- Create an enabling environment that incentivizes stakeholders to participate, maintain, and sustain environmental conservation and preservation efforts
- Ensure protection of people and communities that protect the environment
- Build capacity of LGUs to respond to local challenges identified through stakeholder and community engagement
- Innovative funding opportunities that go beyond regular public and private financing
- Craft science-based indicators to measure ENR impacts and monitor accountabilities from the private sector
- DENR was called on to ...
 - Act as lead convenor of multi-stakeholder consultations and providing avenues for direct engagement in aid of legislation
 - Share available data to environmental stakeholders to quantify risks of the climate crisis and measure the value of proposed solutions
 - Advance ENR national development agenda and integrating solutions sourced from local communities
 - Create an enabling environment where businesses act as collaborators in a decarbonized and regenerative future and not contributors of greenhouse gas emissions

Academe

The third day of the forum featured two panels composed of professors, scientists, and experts from the academe and different research institutions. Both panels were moderated by **Dr. Carlos Primo David**, Professor, University of the Philippines

Panel one consisted of

- **Dr. Maria Obiminda Cambaliza**, Professor, Ateneo de Manila University
- **Dr. Juan Pulhin**, Professor, University of the Philippines Los Baños
- **Dr. Jurgenne H. Primavera**, Chief Mangrove Scientific Advisor, Zoological Society of London and
- **Dr. Raymond Tan**, Vice-Chancellor for Research and Innovation, De La Salle University.

Dr. Maria Obiminda Cambaliza, Ateneo de Manila University (ADMU) who talked about its collaboration with the DENR on Air Quality Research. She began by

explaining one of the Ateneo's priority areas is "integral ecology", a call to recognize the connectedness of ecological and social systems. ADMU's aspiration is to become one of the *Laudato Si* University based on an encyclical of Pope Francis published in May 2015. This calls on schools and to model best practices towards integrating sustainability, a call to care for the common home.

"It's important for us to care for our common home, because if we don't then we are really marginalizing the poor. It is an issue of social justice; if you're able to care for a common home, everyone will be on equal footing."

ADMU has been working with the DENR on the Air Quality Van and Acid Deposition Monitoring Network in East Asia (EANET) Projects. She illustrated the state of our daily shared reality of air quality. Using images of the Metro Manila morning skyline that visibly shows outdoor air pollution and readings using high-spectral resolution lidar (HSRL) of the University of Wisconsin housed at the Manila Observatory Dr. Cambaliza showed the concentration of air pollution which has become a hidden disaster, yet it has not been given enough attention.

She further emphasized how air pollution is a silent killer and that according to the World Health Organization (WHO) indoor and outdoor pollution kills 7 million people every year with outdoor air pollution at 4 million every year. However, this does not affect everyone equally. There are those in high-risk occupation groups who are the most exposed to pollution.

Dr. Cambaliza explained how long-term, continuous, high-temporal, and high-spatial measurement of criteria air pollutants and continuous emissions inventory is needed before research on air quality and health or climate is done.

Based on their observed historical levels of PM 2.5, it shows that the country is not compliant with the WHO's annual guideline value for PM2.5. Despite this, there is hope as the data shows a decline in PM2.5 levels correlated with the issuance of the DENR Department Administrative Order in 2010 ordering the switch to Euro 2 and in 2016 to switch to Euro 4.

This illustrates the importance of continuing long-term measurement of air pollutants to determine the effectiveness of measures and policies being carried out by the Government. She further emphasized the need for high-temporal, high-spatial resolution measurements of criteria pollutants which allows for analysis of diurnal patterns of abundance of air pollutants on an hourly basis. The monitoring and analysis of pollution episodes can be more precise and the solutions, advisory, and policies developed are more accurate.

She concluded by emphasizing that the cornerstone of a science-based approach to policymaking is not only in crafting relevant policies but also in measuring whether these policies are effective so amendments and adjustment can be done.

Dr. Juan Pulhin, University of the Philippines Los Baños (UPLB)

UPLB and the DENR have a long history of partnership that spans more than a century since the creation of the Forestry School which was the only provider of formal and professional training in Forestry Science until the 1950s. On behalf of UPLB, Dr. Pulhin expressed that they will be happy to explore other areas and modes of engagement that can strengthen and broaden partnership in pursuit of DENR priority programs particularly the management of natural resources from ridge to reef.

He enumerated the potential pathways of collaboration.

- Formation of TWGs for each major program or project of DENR e.g. national greening program where concerned UPLB units/experts are engaged as members
- Formation of a science and policy advisory board where UPLB units/experts are tapped as members
- Design new professional masters' programs in integrated natural resource and environmental governance expanding this to master's degrees and PhDs to hasten the education and professional advancement of DENR personnel; currently, DENR provides scholarship support under the MS Natural Resource Conservation for personnel involved in PA management
- Revitalize the engagement of academic policy studies centers and academic science centers such as the Forestry Development Center in partnership with the School of Governance of Ateneo de Manila University.

Sec. 11 of PD 1559, issued in 1978 provides that "there should be established within the College of Forestry, UPLB, in coordination with the Department of Natural Resources and the wood industry, a Forestry Development Center which shall conduct basic policy research in forestry policy formulation and implementation".

DENR should take advantage of this provision in the law to tap the expertise of the College of Forestry and Natural Resources particularly FDC in policy research to support its programs.

- Formation of the DENR National Panel of Technical Experts similar to that of the Climate Change Commission with priority member experts coming from the academe
- Invite professionals and experts from the academe and research fellows in different research stations of DENR and develop a continuing research program jointly with the academe. Tap academe first on an institutional arrangement before private firms in implementing DENR programs to strengthen collaboration.

The second part of his presentation was focused on Forestry Research. Dr. Pulhin emphasized that it is now time to move Science into Action for Development. This research area focuses on revitalizing the Philippine Forestry Sector towards inclusive, resilient, and sustainable countryside development. This research needs to respond to the following social challenges: poverty, climate change, wood production, economic development, and forest governance. With enabling policy and an effective institutional support system, the forestry sector can be a powerful engine for addressing poverty, environmental degradation, and uneven growth in the countryside through a revitalized forestry sector.

Dr. Pulhin also talked about a potential research area: a long-term socio-ecological monitoring system. Historical data and information are crucial to assess socio-ecological challenges and their impacts. DENR can work with existing global networks such as International Forestry Resources and Institutions (IFRI) and Long-term Ecological Research Network (LTER) for long-term socio-ecological monitoring to enhance science-based decision-making. This research should also build on earlier DENR/FMB-UPLB/CFNR partnerships such as the establishment of Science-Based Watershed Monitoring Systems in 18 selected priority watersheds across the country. It can also serve as the basis for the release of a regular environmental report.

Another research area could be Forest Fragmentation and One Health Studies. While forest covers have increased over the last decade, it has increased in a fragmented way.

He emphasized how Natural Resource and Environmental Governance Studies are at the heart of resiliency. Landscape governance, Governance of Ancestral Domains, and Water governance remain to be fragmented and this approach has been proven to be ineffective and unsustainable.

Dr. Jurgenne H. Primavera, Zoological Society of London and the National Academy of Science and Technology

Dr. Primavera talked about mangrove reforestation and other related programs. She explained the uses of mangroves as a habitat for wildlife, fisheries products, and forestry products, and highlighted its use for coastal protection. There is a need to rehabilitate mangroves to comply with the 4:1 ratio for sustainability and she highlighted the areas in which rehabilitation can be practiced.

Dr. Primavera presented a number of recommendations for mangrove rehabilitation and coastal protection. First is choosing the right species and the right sites. The second is to stop seagrass planting. Then the creation of coastal greenbelts as energy from waves can be reduced or absorbed by biological factors such as vegetation. Trees with higher density and size can be used to reduce wave energy. Another approach in mangrove rehabilitation is to combine green and gray engineering as part of integrated coastal management.

Dr. Raymond Tan, De La Salle University

Dr. Tan noted how climate discourse in the Philippines has been dominated by climate adaptation, but climate change mitigation is a burden that the Philippines cannot neglect.

"Don't start doing research once the problem arises. What is essential is that the expert panel is detached from frontline issues ... [so that] they can think about problems that could be issues five years from now."

Carbon market technologies are being developed worldwide to help cut greenhouse gas emissions. Eventually, those technologies will make their way to the Philippines. Policies and regulations, including those overseen by the DENR, do not hinder our responsibility to reduce greenhouse gas emissions by 70% as bound by the Paris Agreement. Committing to achieving net zero should also be in our consciousness.

In terms of governance, Dr. Tan echoed Dr. Pulhin's suggestions of having a scientific panel that provides advice and contributes to the discussion on ENR issues similar to the IPCC but local to the Philippines. They can be consulted on known issues and emerging issues such as plastic pollution. The value offered by the academe is the fact that they are not on the frontline but rather are able to advise and provide issues in future threats that require action in the present.

The second panel was composed of:

- Fr. Jose Ramon Villarin, SJ, Executive Director, Manila Observatory
- Dr. Ben Malayang III, Professor, Silliman University
- Dr. Rodel Lasco, Executive Director, Oscar M. Lopez Center
- Dr. Rex Victor Cruz, Professor, University of the Philippines Los Baños and
- Dr. Laura T. David, Director, University of the Philippines Marine Science Institute.

Fr. Jose Ramon Villarin of Manila Observatory prepared his presentation by answering the question of how the DENR can engage the academe beyond consultations. Our mandate, as people, is to be *Stewards of the Commons*. Avoiding the tragedy of the unregulated commons requires strict regulation and monitoring of access to the commons be it air, water, or land.

The DENR and the academe can strengthen their partnership through mutual stocktaking of competencies. They can develop and enhance operational skills, execution, and administration skills. Fr. Villarin recommends discipline-based training and nano courses recognizing the urgency of the challenges we face. These courses are very short diploma-type programs on specialized topics on air, atmosphere, climate, and disaster risk reduction.

Second, on data gathering, sharing, and analysis, he said that the academe can become a supplementary source or repository of these data and help with the quality control of the information. People can trust the academe to be objective. While they are not immune to political or economic persuasions, they often maintain their integrity and that of the information they produce. The academe can also help make sense of the numbers.

The third is a mutual sharing of science and policy questions. Our concerns are diverse and the academe would really appreciate knowing what the policy questions of DENR are. The academe can help set standards that address local issues and develop contextual responses.

Fourth, Fr. Villarin said that the academe can help in crafting strategic decisions and planning and providing inputs to balance environmental protection and resource mobilization.

Dr. Ben Malayang III, Silliman University

Dr. Malayang presented a framework on how the academe, the DENR, and society can work together toward the nation's common good. Partnerships between the Academe and DENR can build *capacity*, partnerships between the Academe and society build *concepts*, and partnerships between the DENR and society build *capability*.

Dr. Malayang identified three areas for collaboration between the DENR and the academe.

- **Co-nurturing strategic mindsets (conceptual lenses) and mindscapes (conceptual maps)**

He provided an example of how the discussions in the first two days of the forum hovered between structural and behavioral issues. Disharmony in both regulations and how we are organized were raised.

There is also a need to identify ecological and political drivers of ENR challenges and opportunities. Our investments have also been more continental rather than archipelagic, putting more investments in the land despite having more water resources that need to be managed. Hence assets, resources, and regulations need to be balanced between land and water. He also raised the point of the need to solve both acute and chronic issues and challenges. Mindsets and mindscapes also need to account for the distribution of externalities. And lastly, solutions must be weighed between what is programmatic versus what is strategic. Often the responses to issues such as climate change are about what each agency can do on its own. There needs to be synergy and harmony.

- **Co-developing strategic pedagogies**

The DENR and the academe can work together to create pedagogies or teaching methods and practices that will not negate each other so as to harmonize cooperation and collaboration. There have always been questions about whether ENR solutions should be state-led versus community-led.

Dr. Malayang pointed out that the DENR assumes that it is the lead agency to address ENR issues but perhaps it can consider changing mindsets and let communities lead the solutions for ENR issues. Then there is also a question of all-of-government and the extent to which it will involve all of society. The academe should not be in the business of providing answers but should be in the business of making sure that the right questions are being asked.

- **Co-designing environmental security risks and vulnerability surveillance systems**

In terms of instrumentation and mobilization, many things can be done such as environmental impact assessment, biodiversity impact assessment, climate emergency, loss & damage. With regards to the metrics used, how much of it will be socio-cultural, and how much would be ecological? And the objects of the programs should look into whether it addresses threats or expand opportunities.

Dr. Malayang closed his presentation by saying that these are necessary questions to ask to ensure that the academe and the DENR can work together.

Dr. Laura T. David, University of the Philippines Marine Science Institute

Dr. David began by echoing the point of Dr. Malayang of how the country is archipelagic and connected by marine ecosystems. "We have to look at the fact that we are all connected. It's no longer a tree-hugging society. The oceans are connecting us," she expressed.

Dr. David also emphasized the need to revisit policies as some do not necessarily fit the Philippine context. Because of the country's archipelagic nature, she underlined the need for a holistic and integrated approach as what happens in a certain region also affects another region. With this, she

referred to the necessity of a mind-change and suggested benchmarking against other archipelagic countries such as Japan and Indonesia.

In this light, Dr. David also discussed the need to invest in technological innovations to measure and collect data from our environment. She strengthened this point by sharing current instrumentation tools developed by DOST such as the High-Frequency Doppler Radio Scatterometer (HFDRS), Land-based remote sensing system, Planktoscope, Informatics System, and Fish-i. These innovations are utilized to gather baseline data about our ecosystems that can aid in developing sustainable solutions for environmental problems.

To end her presentation, Dr. David reiterated how the DENR can be a partner of the academe through four actionable points.

- Co-location of technologies across multiple areas for real-time data
- Capacity building among department members to develop their data processing and collection skills so that responsibility is shared among them and not only in the academic community
- Review and co-design laws and policies

She also mentioned the importance of looking at our small island systems and how this will help policies as well as the value of identifying potentials, not just threats. Finally, she expressed the need for joint research and policies with DENR and the academic community. "People at DENR need to do research, and we can do this hand in hand so that we can identify the problems and seek solutions together," Dr. David said.

Dr. Rodel Lasco, Oscar M. Lopez Center

Dr. Lasco mentioned that the DENR could explore research and development (R&D) projects with the academe. He mentioned that R&D co-production through participatory action research should be the norm in all government initiatives, particularly for the country's ecosystems.

Other points of collaboration between the academe and the DENR include advisory boards and technical working groups, which can be activated regularly or during urgent and emergency situations.

Dr. Lasco also said that both academic institutions and the DENR already have existing capacities and resources that they could tap into in conducting research. For example, the government nationwide data and offices, on-the-groundwork, and more resources than any other concerned stakeholders. Meanwhile, the academe has the technical expertise and credibility to provide theoretical and practical guidance for the DENR.

The capacities of the DENR, specifically, can further be enhanced, according to Dr. Lasco. First, the DENR should improve its capacities in R&D, technical and impact assessments, and internal monitoring and evaluation. It should also invest in employee education programs, professional development, and scholarships to improve the expertise of its staff. The DENR can also support the academe in conducting its R&D activities and help researchers publish their findings to reputable institutions, adding credibility and exposure to their work.

He added that research should not be limited to academics, researchers, and government workers. Students can join research activities to act as additional human resources and provide their unique perspectives in

interpreting data. This also gives them an opportunity to conduct research in a real-world setting instead of a controlled environment.

Highlights and Recommendations

- Institutionalize partnerships with academe for research and advisory to support science-based policy creation and decision-making
- Use transdisciplinary approaches and the integral ecology framework to address key societal challenges
- Strategically integrate research about potential and emerging challenges and issues to mitigate and manage disasters and crises before they arise
- Work together with academe as a supplementary source or repository of information through data gathering, sharing, and analysis and help with information vetting quality control
- Utilize academic research to inform and catalyze actions to improve the quality of our shared daily realities
- Explore research on key areas such as
 - Policy research and environmental governance
 - Various environment and natural resources subject areas
 - Development and use of tools and technologies
- Collaborate in reshaping mindsets and mindscapes to develop ways of thinking that harmonize solutions that address societal and environmental challenges
- DENR was called on to improve the capacities and expertise of its staff by partnering with academic institutions and to support researchers in publishing their work to give exposure to successful case studies and lessons learned

Consultation sessions with stakeholder representatives

The forum includes several breakout sessions where the participants had the opportunity to recommend how the DENR could improve on engaging stakeholders in the sector. Participants were encouraged to join the breakout sessions that focused on protecting and managing the environment and natural resources, as well as setting an appropriate policy agenda.

From the breakout sessions, two major recommendation points emerged for the DENR: (1) calls to create enabling policies and an effective regulatory environment and (2) multi-stakeholder collaboration that emphasizes participation and integration of communities.

A separate discussion within the plenary hall was conducted on the third day of the forum to discuss a potential ENR resiliency framework for the DENR. This discussion was guided by a logical framework, which starts with impact in mind and then moves backward to determine the outcome, activities, outputs, and inputs.

Enabling Policy and Regulatory Environment

One of the major themes during the breakout sessions was the need for an enabling policy and regulatory environment. The participants said that they were willing to follow all regulations and adhere to the policies enforced by the DENR but are discouraged to do so because these are not harmonized and

are hard to follow. They raised instances when they are told to follow a specific policy, only to learn that it has become a non-priority.

They also pointed out that priority policies change depending on the administration. This concerns stakeholders who wonder if they will still be accommodated if their policy recommendations, for example, are not part of the current administration's priority agenda.

DENR was called to revisit and reassess policies and regulations that may be hampering instead of encouraging stakeholder participation.

Harmonizing Rules and Regulations

Along with this, the participants strongly echoed the need to harmonize rules and regulations for natural resource management. Participants pointed out that the harmonization of policies, rules, and regulations of both national and local governments in relation to the management of resources is essential for the participation and collaboration of the public and private sectors. However, it was also mentioned that it is equally important to ensure the continuity of the implementation and enforcement of these policies.

Participants also noted the shift of priorities depending on the administration. As such, there is a need to streamline processes to regulate environmental practices and efficiently implement laws and regulations to aid private sector initiatives.

Participants also called for DENR to have a dialogue with other executive departments to establish legal definitions on topics surrounding natural resources (ie. responsible mining) in order to create consistency and continuity in environmental laws and their practice.

Strengthening DENR'S Role as A Convenor and Platform for Collaborative Solutions

Participants in the breakout sessions also discussed the critical role of DENR to facilitate collaborative solutions. With this, they called on the department to uphold its mandate and champion adaptive solutions to respond to new realities.

They mentioned that, with such responsibility, it is imperative for the department to have consistent engagement and consultation with stakeholders, especially local communities, to help inform the government's legislative agenda. Because of the intersectional nature of the environment and natural resources protection, conservation, and management, ENR should also be advanced in the national development agenda with integrated solutions sourced from local communities.

Facilitation of knowledge and information sharing is likewise crucial in order to advance technologies and innovations such as the National Geospatial Database which quantifies risks.

Discussions in the breakout rooms highlighted how DENR must create an enabling environment where all stakeholders collaborate for solutions in which the private sector can be collaborators in a decarbonized and regenerative future, CSOs and NGOs are emphasized as partners of communities to co-create solutions that address local realities, and the academe can fill knowledge gaps that influence policy and innovation.

Grassroots-Level Stakeholder Representation in Policy-Making and Benchmarking

Another theme that emerged from the breakout discussions is the need for grassroots-level stakeholder representation in policymaking and benchmarking. Participants emphasized the importance of representation from communities and local governments to ensure national-level policies and programs are effectively cascaded along with necessary social and behavioral communication change strategies. They also urged legislative action on long-standing bills on sustainable forest management and the national land use act.

Participants discussed the opportunity of scaling up existing CSO innovations and solutions that include baselines and target benchmarks, benchmarking against global standards, and integrating geospatial planning and approaches for science-informed decision-making to support efforts on baselining and benchmarking.

At the local level, there is also a need to streamline local planning processes and strengthen the capacity of LGUs to operationalize their plans. With this, improvement of data management, data quality, and auditing systems towards impact-based reporting is necessary.

Multi-Stakeholder Collaboration that Emphasizes Participation and Integration of Communities

For the DENR to address environmental challenges and build the resilience of communities, the participants underscored how the Department needs to collaborate with stakeholders outside its domain. This means finding ways to effectively involve the private sector, civil society, and media among others.

The participants further emphasized that collaborations should be extended to the communities that are affected by any changes in their environment. This makes them primary resources for information to develop evidence-based and grounded actions. The participants also recognized that communities are in reality active producers of knowledge and not passive recipients of research. They would know their environments best since they are the ones living and experiencing them.

Engagement with the Private Sector

Representatives from the private sector have mentioned bureaucratic processes and structures as a major roadblock to government collaboration. Even if they are willing to collaborate with the DENR on environmental advocacies, they deemed working within a bureaucracy as counterproductive.

To turn private sector collaboration into a productive endeavor, the government should implement mechanisms to include them in the development and conceptualization of projects. This will ensure ownership and accountability among the private sector as they will need to dedicate their own resources for their project involvement. Moreover, private sector representatives called for more regular consultations with the government to ensure that public and private interests remain aligned.

Initiating Dialogues with Affected Communities

In order to initiate true multi-stakeholder collaboration, participants identified the necessity of grassroots-level engagement for the environmental management of communities gravely affected by environmental changes and challenges. With this, participants urged DENR to make more space and amplify the voice of affected communities.

Jaybee Garganera from Alyansa Tigil Mina suggests re-exploring the implementation of People's Day, an innovation previously done by DENR where community members and stakeholders communicate their concerns and receive immediate feedback. "There has to be space allotted for the concerned organizations and affected communities for DENR to genuinely listen to their concerns," he expressed.

Discussions on how DENR should be ready to answer the issues of the local government were also opened. In line with this, participants mentioned that DENR officials and regional offices must have regular dialogue with local government units on pressing issues and conflicts.

Inclusion of the Most Vulnerable Groups in Multi-Stakeholder Collaborations

"The economy belongs to the environment and not the other way around." This was a key message of Secretary Maria Antonia Yulo Loyzaga as she highlighted that all stakeholders, regardless of the sector they belong to, should collaborate for the benefit of the environment. Many communities are highly reliant on the environment for their food and livelihood, which makes them vulnerable to the effects of the climate crisis.

Since they are dependent on their immediate environment, these communities also serve as its protectors. From the breakout discussions, the participants agreed that the "protectors of the environment" should also be protected, not only from the climate crisis but also from environmental violators.

Considering these human and natural threats in mind, the government should include vulnerable communities in multi-stakeholder collaborations. The DENR can lead in providing avenues for these communities to contribute to responsive policymaking and emphasize their role as producers of knowledge that can be transformed into environmental solutions. The DENR should also ensure that local government units are equipped with the right knowledge and skills to respond to the challenges that their communities will identify.

Provide Private and Civil Society Partners With Opportunities To Participate Through Funding And Incentives

Protecting or restoring ecosystems comes with a cost. This cost, however, is a prerequisite not only to protect or restore ecosystems but also to manage them sustainably. During the breakout discussions, it was emphasized that project developers should explore innovative funding opportunities outside the regular public and private financing.

Such opportunities are present, for instance, in the carbon markets, wherein businesses will be incentivized for reducing their greenhouse gas emissions. The incentives they will receive can then be used to fund their other environmental advocacies. The Green Climate Fund is a billion-dollar facility that qualified countries can tap to fund their projects.

Still, the participants agreed that regardless if the funding is from a traditional or an innovative platform, the government should invest resources and if needed re-allocate budgets for environmental solutions.

Initial Inputs on the ENR Resiliency Framework

Based on the inputs of the participants, the ENR Resiliency Framework should be inclusive, climate-resilient, and physically efficient. Inclusivity has been emphasized in all discussions, from plenary to the breakout sessions, calling DENR to involve local communities better and getting to know their true needs.

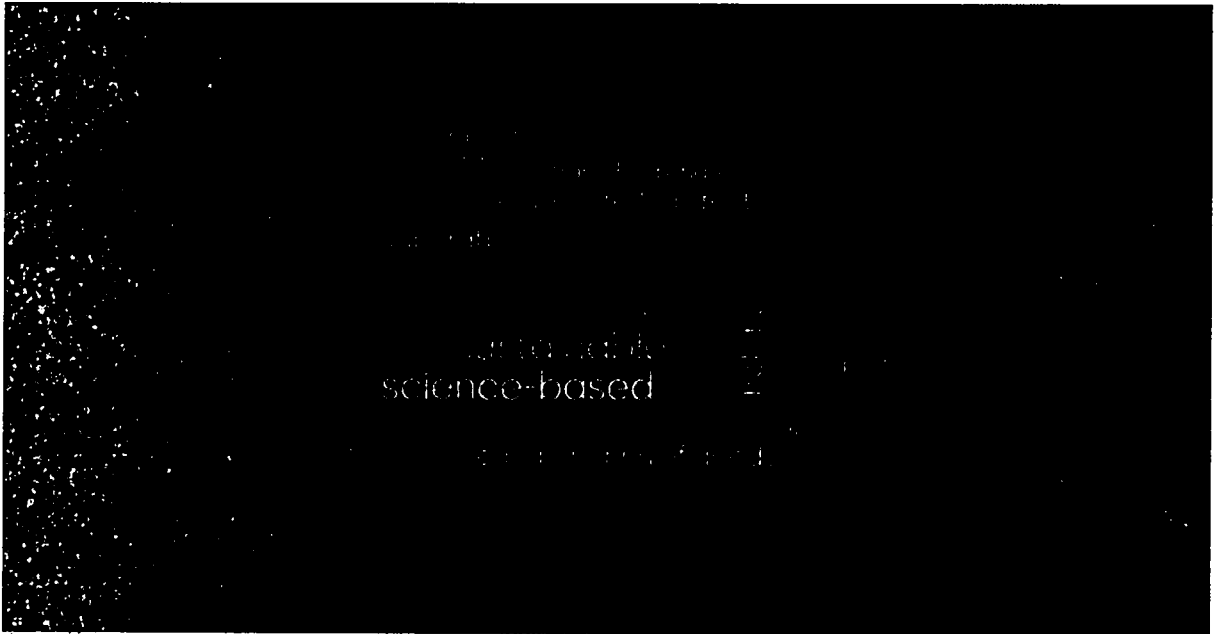
Economic benefits have been identified from protecting and managing ecosystems, indicating that the environment directly affects the economy. To support this, participants shared how well-protected and managed ecosystems can support sustainable livelihood for communities. For instance, a protected marine environment can cultivate high-value fisheries which improves the livelihood of localities. For forest ecosystems, prioritizing non-extractive activities to yield easily renewable non-timber forest products (i.e. fruits made into jams, production of rattan, etc) can also open more job and livelihood opportunities.

Participants also raised pressing and persistent challenges on land use and security for IP communities. As such, the DENR was called to continue to create opportunities for continuous dialogue with indigenous communities in order to gain more knowledge and exposure to their culture and context.

The participants also raised public consultation platforms such as convening *People's Councils* to discuss and produce community-based environmental agendas and programs. Other than the councils, the participants said that they could be gathered in an event like this forum. The forum design can be replicated at the regional and sectoral levels and be institutionalized through a regional DENR multistakeholder advisory board.

Sec. Loyzaga echoed the need for dialogue and strategic communication as she expressed, "There needs to be a real strategy for communicating important and strategic messages. We need to understand these sectors and how they make decisions in order to mobilize collective action."

The participants also had a discussion on their desired characteristics of the ENR Resiliency Framework.



The participants were asked about what the characteristics of the ENR should be. The results of the word cloud showed that the "presence of the poor" is integral to creating the ENR Framework. This aligns with the earlier discussions that communities, who are often affected economically by the impacts of environmental threats, should be included in multi-stakeholder collaborations. The participants also stated that the framework should be science-based, which means that it should objectively benefit the people and resolve their real-life problems.

The most critical ENR problem identified was the ongoing climate crisis. This prompted the participants to suggest that the proposed activities in the ENR Framework should be climate-resilient or able to withstand the negative changes in the overall climate. The participants also recognized that implementing all their proposed activities would be ideal, but they were limited by finite resources.

This was why the framework should be physically efficient. Specifically, human and financial resources should be allocated strategically to yield the best possible results while not depleting them at the same time.

Closing Remarks

"We recognize that the DENR does not have a monopoly at all on knowledge and we need to continuously learn and adapt in this volatile, uncertain, and complex environment."

In her closing address, Sec. Loyzaga said that the forum is just the first step and called on the stakeholders to construct a big picture that will unite all efforts under an umbrella of shared values. The department hopes that the forum will lead to the establishment of key programs and projects national natural resources geospatial database, calibration and streamlining

of our organizational processes, people, and product, and strengthened collaboration with stakeholders.

She also remarked how the forum has underscored that inclusive, science-based, risk-informed, and equitable policies or programs are integral to the kind of nexus governance the country needs. She thanked the speakers and participants for sharing their knowledge and expertise which will help identify where the DENR should go, its priority areas, and action areas moving forward. The three-day forum has been critical to the responsible stewardship the department is pursuing over the next six years.

Summary

DENR's 2022 Multistakeholder Forum gathered different sectors to consolidate knowledge, expertise, and innovations into its ways of working, regulations, and strategies towards the development and implementation of its programs, projects, and activities. This is based on whole-of-society and transdisciplinary approaches that aim to craft grounded policies and actions for protecting, preserving, conserving, enhancing, and regenerating ecosystems in the Philippines.

The national government through the DENR and DOLE committed to providing livelihood opportunities to communities while improving the capacity of ecosystems to withstand the climate crisis. The prioritization of the environment and the economy was formalized through a Memorandum of Agreement signed by DENR and DOLE.

In the discussion with the private sector, the key theme was that businesses should be able to balance how they make money and how they align with the adaptation and mitigation initiatives of the country. One entry point identified is how businesses can act as collaborators in decarbonized and regenerative activities and not contributors to greenhouse gas emissions.

Local communities bear the brunt of the negative effects of excessive emissions into the atmosphere, which contributes to the climate crisis. And this was a major point of discussions with CSOs and NGOs. Since communities are vulnerable to the impacts of the climate crisis, they should be considered, included, and given a platform where they can voice their concerns. They should not be treated as passive receivers of environmental benefits, but as active participants in localized development and knowledge creation and management.

The academe recognized this perspective on local communities. Academic representatives also added that DENR should act as a central hub for data to quantify the risks of the climate crisis and the value of recommended actions. The academe has been a valuable partner of the DENR in co-generating knowledge that translates into concrete initiatives in the communities. The DENR can also make successful case studies available to facilitate knowledge sharing and cross-learning among stakeholders.

For these stakeholders to bring their intended contributions to the country's ecosystems, there should be an enabling policy and regulatory environment created by the DENR. The stakeholders pointed out that some policies remain restrictive and are not adaptable to accommodate their needs and current realities, which affects the depth of their participation in the government's

environmental advocacy. They called on the DENR to exercise its function as a facilitator of collaborations with stakeholders.

Through these insights, the DENR can build an ENR Resiliency Framework that covers a wide range of topics with contributions from various stakeholders. The next steps after this forum would be coming up with strategies and activities that the stakeholders could validate. Afterward, the Framework can also serve as a guiding document not only for the DENR but also for the private sector, CSOs, NGOs, academe, and other stakeholders in protecting and managing the country's ecosystems.

Highlights and Recommendations per sector

Private sector

- Align business models on adaptation and mitigation initiatives
- Strengthen public-private partnerships as a way to support the government and for the private sector to augment in areas where the government lacks the necessary resources
- [Government to] become a major procurer and consumer of innovative energy products and systems as a means of driving down the cost of green technology and increasing adaption
- Invest in clean and renewable energy technologies, committing to decarbonization and greening the grid to achieve net zero in 2050
- Improve access and distribution of clean energy, especially in rural areas
- Align and apply national environmental policies with local government units
- Calls to revisit and update existing laws such as the Clean Air Act and Clean Water Act to consider new technologies, existing behaviors from people regarding the use of water and air
- Activate existing platforms for climate actions such as the People's Survival Fund (PSF) for National Adaptation Programs (NAP)
- Creation and roll out of a unified roadmap with concrete targets with which the private sector can align
- Enhance DENR's knowledge repository of geographical and biodiversity information and serve as a central knowledge source on ENR

CSOs and NGOs

- Holistically address the climate crisis with interventions considering the economy, public health, and the society
- Partners highlight numerous examples of positive partnership between CSOs and the government and calls to sustain these partnerships and collaboration
- Adopt nature-based solutions to solve climate-related problems
- Calls for support in identifying entry points and goalposts and a shared language across all sectors based on measurable science-based indicators
- Provide avenues for communities to contribute to responsive policymaking and emphasize their role as producers of knowledge that can be transformed into environmental solutions
- Create an enabling environment that incentivizes stakeholders to participate, maintain, and sustain environmental conservation and preservation efforts
- Ensure protection of people and communities that protect the environment

- Build capacity of LGUs to respond to local challenges identified through stakeholder and community engagement
- Innovative funding opportunities that go beyond regular public and private financing
- Craft science-based indicators to measure ENR impacts and monitor accountabilities from the private sector
- DENR was called on to ...
 - Act as lead convenor of multi-stakeholder consultations and providing avenues for direct engagement in aid of legislation
 - Share available data to environmental stakeholders to quantify risks of the climate crisis and measure the value of proposed solutions
 - Advance ENR national development agenda and integrating solutions sourced from local communities
 - Create an enabling environment where businesses act as collaborators in a decarbonized and regenerative future and not contributors of greenhouse gas emissions

Academe

- Institutionalize partnerships with academe for research and advisory to support science-based policy creation and decision-making
- Use transdisciplinary approaches and the integral ecology framework to address key societal challenges
- Strategically integrate research about potential and emerging challenges and issues to mitigate and manage disasters and crises before they arise
- Work together with academe as a supplementary source or repository of information through data gathering, sharing, and analysis and help with information vetting quality control
- Utilize academic research to inform and catalyze actions to improve the quality of our shared daily realities
- Explore research on key areas such as
 - Policy research and environmental governance
 - Various environment and natural resources subject areas
 - Development and use of tools and technologies
- Collaborate in reshaping mindsets and mindscapes to develop ways of thinking that harmonize solutions that address societal and environmental challenges
- DENR was called on to improve the capacities and expertise of its staff by partnering with academic institutions and to support researchers in publishing their work to give exposure to successful case studies and lessons learned