



**misereor**  
ALLY FOR A JUST WORLD



## **Philippine Misereor Partnership, Inc.**

# FRAMEWORK DEVELOPMENT ON THE INTERFACE OF GOVERNANCE OF THE COMMONS WITH THE RIGHTS OF NATURE

Atty. Mario E. Maderazo

# CONTENTS

I	<b>Background, Objectives, Methodology</b>	1
II	<b>Scope and Limitation, Review of Related Literature, Managing the Commons</b>	2
III	<b>State of the Commons in the Philippines, Extractivism in the Philippines</b>	4
IV	<b>Institutional Arrangement of Government Regimes</b>	5
V	<b>Community Collective Action</b>	7
VI	<b>Conflict Resolution Mechanism</b>	8
VII	<b>Issues and Challenges and Economic Pressures</b>	9
VIII	<b>Social Inequities and Insufficient Capacity-Building, The Rights of Nature</b>	11
IX	<b>Arguments against and for the Rights of Nature, Existing Implementations and Iterations</b>	12
X	<b>Analysis and Framework Development</b>	13
	<i>Concept of RON and Commons</i>	
	<i>Legal Framework</i>	14
	<i>Comparative Matrix of Governance</i>	15
	<i>Point of Convergence</i>	
	<i>Key considerations in framework development</i>	16
	<i>Guiding principles for the integration of RON and Governance of the Commons</i>	17
	<i>Key Elements</i>	
XI	<b>Sources</b>	19

## **Framework Development on the Interface of Governance of the Commons with the Rights of Nature**

**By: Mario E. Maderazo Introduction**

The interface of the governance of the commons and the recognition of rights of nature is not hard to find. The common pool resources such as fisheries, forests, air, and water among others are part of nature to which we are all a part of and to which we are highly dependent for our well-being and existence. Viewing such interface from specific country context can provide a better understanding of viable management strategies and development programming in terms of how we have to relate with Mother Nature and protect the very right that we want to be recognized. Ultimately for the protection of our right to environment and nature itself. Any effort to manage the commons and protect the rights of nature require collective action and collaboration by all stakeholders, whether state or non-state actors.

In the Philippines there are numerous experiences from the ground where communities alone or in collaboration with the State or other non-state actors were to manage the commons such as forest and fisheries, among others. There are legal frameworks provided by existing laws in the Philippines that promote or enhance the management of the commons such as Fisheries Code, Forestry Code and the Indigenous Peoples Rights Act (IPRA). However, all these are founded on the recognition of State ownership of all natural resources under the Regalian Doctrine.

In pushing for the advocacy for the Rights of Nature, there is a need to look into existing legal framework that draws from the management of the commons by communities and other formal and informal institutions, including the practices and governance structures of the indigenous communities.

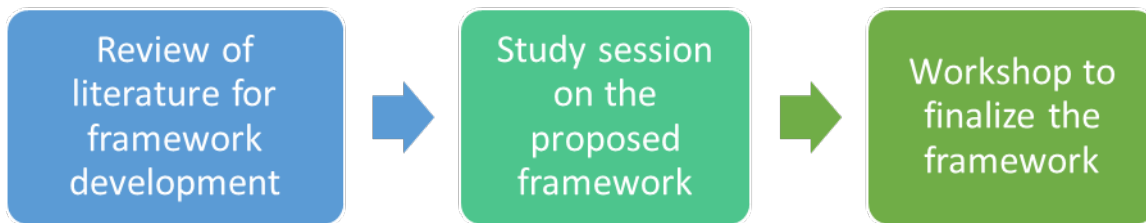
### **Objectives**

1. Develop a framework in analysing the interface of governance of the commons and recognition of the rights of nature;
2. Identify potential sustainable governance model drawn from managing of the commons and recognition of the rights of nature;
3. Develop a roadmap for advocacy on RON

### **Methodology**

1. Review of literature through desk review of relevant research and publication available online and from other sources. The theoretical framework of the framework for the interface of RON and governance of the commons will be drawn from the analysis of the following:
  - a. State of the commons in the Philippines
  - b. Institutional arrangement of various governance regime at the local, national, including international that has formed part of the governance regime
  - c. Community collective action
  - d. Conflict resolution mechanisms

- e. Issues and challenges
2. Key informant interview will be conducted to interrogate the proposed framework drawn from the review of literature and analysis.
3. Workshop to finalize the framework shall be conducted with the end in view of developing a roadmap for the global advocacy for RON.



### Scope and Limitation

The development of the framework will rely on review of literature from secondary sources and this will be informed by the key informant interview with IP leaders in order to sharpen the proposed framework. IP leaders to be interview would be those coming miningaffected communities that PMPI has worked within its Anti-mining campaign project.

### Review of Related Literature

This chapter presents the state of common pool resources (CPRs) in the Philippines. It examines the current state of the commons, the institutional arrangements that shape government regimes, the role of community collective action, and the mechanisms for conflict resolution. It discusses key issues and challenges that hinder sustainable and equitable management of shared natural resources. The related literature in this chapter aims to provide a comprehensive understanding of the complexities involving governing the commons and legislations associated with land and resource management, particularly about the Rights of Nature.

### Managing the Commons

A commons refers to the resources to which no single decision-making unit holds exclusive title or authority. It can be owned by no one (*res nullius*) or by everyone (*res communis*) (Wijkman, 1982). The usual examples of commons include forests, fisheries, or groundwater resources. It has traditionally included terrestrial and marine ecosystems as both depletable and renewable resources (Ostrom, 1999). It gradually included other domains such as knowledge commons, urban commons, cultural commons, and cultural commons (IASC, 2023). The commons are accessible to all as any individual could independently exploit the resource. As long as the resource is plenty, users are unlikely to interfere with each other. However, scarcity of resources can result in congestion and eventual overuse. Access needs to be limited in some form to prevent inflicting consequences or cost to one by the use of another (Wijkman, 1982).

The term common-pool resources (CPRs) is used to describe resource systems that are not attached to property rights. Under CPRs are natural and human-made resources in which (a) non-inclusion of beneficiaries through physical means and institutions is particularly costly, and (b) exploitation of resources by one user reduces the availability of resources for others. The difficulties in excluding and subtracting these two characteristics create potential CPR problems in which people follow their short-term interests that do not make fruitful outcomes for people's long-term benefit or interest. Free-riding can occur when there is a lack of regulations limiting user access. It is observed in two forms: (1) overuse without concern for adverse consequences (2) lack of mitigating actions to maintain and improve CPRs. These CPR characteristics also impact the problems of creating governance regimes. Attributes encompass the carrying capacities and size of a resource system, temporal and spatial availability of the resource flows, movement of resources, its measurability, regeneration rates, and how harvesting technologies impact each resource (Ostrom, 1999).

Ostrom (1990) emphasized in her book "Governing the Commons" that the main challenge policy makers are facing when it comes to CPR is developing theories of human organization based on realistic evaluation of actor capabilities. Policy makers need to consider the limitations in dealing with different situations that have some or all aspects of the tragedy of commons. Ostrom implored adopting empirically validated theories of human organization in developing policies about the likely consequences of a multitude of anthropogenic activities. She believed that people are likely to engage in conserving the commons when they have reliable and credible sources on the cost and benefits of CPR decisions. Ostrom outlined the eight design principles from the empirical cases she identified, which sought to improve the effectiveness and sustainability of the common property regimes (Forsyth et al., 2014).

The eight principles of Ostrom (1990) are: (1) well-defined boundaries of the commons or identifying who is entitled to access the commons; (2) appropriation and provision rules should be congruent with local conditions as policies should be dictated by the specific ecological needs of the community; (3) participatory decision-making because people affected by operational rules are likely to participate in making and modifying them; (4) monitoring the commons because communities need a way to check how policies are kept and implemented once set; (5) graduated sanctions (e.g., sanction system that would deter people from excessive violations); (6) conflict-resolution mechanisms need to be accessible and in place; (7) government authorities need to recognize the rights of local users to create institutions to fully integrate commons rules; (8) commons need to be nested within larger networks for it to be a successful system (Cox et al., 2010; Williams, 2018). The design principles of Ostrom highlights the importance of users in co-delivering public services and outcomes, as well as the vital role of users in designing such services and policies (Robert et al., 2021).

CPR is also correlated with environmental services, and these are the benefits derived by people from the use of access to ecosystems (Tucker et al., 2023). Based on the Common International Classification of Ecosystem Services (CICES) V5.1 (Haines-Young and Potshin, 2018; Tucker et al., 2023), ES may be classified into: **Provisioning ES** (renewable resources that provide food, clothing, fuel, construction, and sustenance), **Regulating and Maintenance ES** (which support social-ecological systems through filtration, storage, pollination and other environmental and geochemical processes) and **Cultural ES** (including recreation, forms of

*knowledge, heritage, and much more*) (Englund et al., 2017, Tucker et al., 2023). The sustainability of ES and CPR also depends on the kind of governance system that prevails. Governance involves how norms, rules, and practices are crafted, implemented, maintained and modified are exercised over a given domain e.g., territory, population, formal or informal organization and may be carried out by one or multiple entities, such as governments, networks, organizations, or various types of groups (Tucker et al., 2023). Thus, management of resources in the main is also reflected by the prevailing governance system. The study also highlights the “importance of clear property rights for effective resource management” and a “poorly define property and use rights” is correlated to governance failure.(Tucker, et al. 2023)

A large body of literature points to the importance of clear property rights for effective resource management, thus poorly defined property and use rights, or struggles among overlapping or competing owners, are likely to be the cause of governance failure. (Tucker et al.,2023)

### **State of the Commons in the Philippines**

The Philippines is a country abundant with natural resources such as minerals, fisheries, and agricultural land. These resources are continually threatened by rapid urbanization and expansion, economic growth, and climate change (Onder, 2018). Despite such threats, the country’s economic growth relies on its rich endowment of natural resources. Its waters have been a major source of livelihood and sustenance for its inhabitants and has opened opportunities for trade and production. The nation’s tropical climate and fertile land has been conducive to rich biodiversity, benefiting both its agriculture and tourism (Arcenas et al., 2017). Therefore, much of the country’s economic growth relies on the long-term availability of its natural resources. The dilemma lies in the threats to the supply and quality of these resources, most of which are attributed to poor implementation of regulations and policies regarding use. It has become a pressing issue, especially with the rising population resulting in a growing demand for more goods and services and an increasingly complex taste for goods that require extensive use of natural resources (Arcenas et al., 2017).

The forest ecosystem has arguably been one of the most high profile issues in the country with regards to the environment. There is a steady decline in efforts to mitigate forest degradation. Forest land has decreased over the past decades. Similarly, water is also under threat because of its declining (e.g., due to pollution, aquaculture, and unsustainable agricultural practices).

According to Arcenas et al. (2017), no clear formula for effective resource management exists. Those managing natural resources often need to consider the delicate balancing act of helping different sectors of society with the resources while conserving the resources.

### ***Extractivism in the Philippines***

The Philippine economy is mostly based on extractivist or an economy based on the extraction of natural materials for export (Martinez-Alier, 2013). The Philippines has a poor record in mining due to the social and environmental impact it amassed over the years. The UN Environmental Programme cited the Philippines as among the worst countries in terms of tailing dam failures. Its government has aggressively pursued policies to revitalize the mining industry since the 1990s, which opened the possibility of allotting 30% of the country’s land

area to the industry. The practice of responsible mining according to international standards is not observed and implemented well in the country. Legal frameworks and guidelines are overlooked, particularly in practicing mining applications in watershed areas (Doyle et al., 2007).

Mining has contributed to widespread contamination, habitat destruction, and contamination of key water sources. The lack of protection measures and natural hazards have produced catastrophic effects on various areas of the country. The majority of the mineral resources are located inside the ancestral domains of indigenous peoples (IPs). According to law, IPs should provide “free, prior, informed consent” (FPIC) before any projects commenced within their territories. A study by Doyle et al. (2007) discovered that many companies violated such legal guidelines and engineered ways to gain the consent of the IPs to conduct mining activities in ancestral domains. Mining affects the livelihood, health, and rights of IPs and neighboring communities. The study also noted environmental damage observed in major water catchment areas, marine environments, and agricultural land. Combined with the growing population within those areas, the destruction of critical ecosystems can lead to problems in food security and sustainability in the future (Doyle et al., 2007).

Extractivism in the Philippines has resulted in severe environmental degradation and human rights violations, particularly among IPs and rural populations. Martinez-Alier (2013) compiled and looked into several cases of human and environmental violations involving extractivist practices. One is the Didipio Gold and Copper Mine, owned by the Australian company Oceana Gold Corporation, in Didipio, North of Luzon. In 2009, it was reported that the company forcibly displaced villagers and destroyed over 180 homes. The company’s mining operations had also led to the deaths of two anti-mining advocates in 2012.

In Southern Mindanao, the Tampakan Copper-Gold Project, one of Southeast Asia’s largest mining projects, was met with significant opposition from the Bla’an people. The tribe viewed mining operations as a direct to their ancestral domain, resources, and heritage. The company that owned the project intended to displace 5,000 IPs and risk polluting key watersheds in the area. Resistance against the project was met with violence, including the death of Juvy Capion (an Indigenous leader) and her children in 2012 (Martinez-Alier, 2013). Despite international efforts to raise awareness on these conflicts, violations against IP and environmental rights persist, which shows the systematic nature of extractivist-driven conflicts.

## **Institutional Arrangement of Government Regimes**

### *International*

The United Nations has outlined in Goal 15 of their 2030 Agenda for Sustainable Development “the protection, restoration, and promotion of sustainable use of terrestrial ecosystems, and the sustainable management of forests, combating desertification, stop and reverse land degradation and combat biodiversity loss” (UN, 2024). In Goal 12 of their agenda, the UN has also emphasized the impending crisis of unsustainable consumption, how production patterns worldwide tripled the progression of climate change, pollution, and nature loss. The goal aims to ensure that countries adhere to sustainable consumption and production practices or have at

least established their own goals and policies concerning the growing challenges of waste streams (UN, 2024).

Based on the UN Environment Programme (2021), the current mode of global development heightens the degradation of the planet's capacity to sustain its inhabitants. People rely on nature for their livelihood, health, and well-being. The provisions of resources, material cycle, regulation of environmental conditions, and non-material contributions of nature have played a role in sustaining life. The programme highlighted how the current financial and economic systems failed to consider the society's extreme dependence on the environment. People value nature and its contributions to their quality of life and culture in different ways, making it difficult to quantify the aggregate value of nature. Natural capitals provide contributions to human life that may have no substitutes. Current market trends do not provide sufficient incentives to businesses when it comes to conserving and restoring natural capital. Additionally, market prices do not consider environmental costs, which exacerbates environmental costs (UN, 2021).

### *National*

In terms of national policies in the Philippines, the Department of Environment and Natural Resources established the Philippines Environmental Impact Statement System (PD 1586). This system offers both legal and procedural frameworks for conducting Environmental Impact Assessments (EIAs), designed to safeguard natural resources and the environment amidst rapid urbanization, for projects that have significant environmental impact (Gleason et al., 2001). The DENR maintains its objectives of implementing a systems-oriented and integrated approach to the EIS system to ensure the balance between economic development and environmental protection for the benefit of future generations (DENR, 2022).

Besides DENR policies and impact assessments, Republic Act No. 11995 or the Philippine Ecosystem and Natural Accounting System (PENCAS) Act served as a landmark legislative in the country's steps in integrating natural capital and ecosystems into economy and policy. The Act recognizes the value of natural assets in the prospects of sustainable development. Its framework is aligned with the internationally benchmarked environmental economic accounting standards. Moreover, PENCAS has a wide range of statistical monitors on natural capital depletion, degradation, restoration, assessing various levels of pollution, environmental damages, and net savings. Its goals underscores informed decision making through a systematic way of data collection and analysis of natural capital, integrating such data into macroeconomic indicators (FAO UN, 2024).

Mandates enclosed in PENCAS pushes for the development of tools and measures for the conservation and restoration of the environment, and requires the valuation of various ecosystem services. Access to PENCAS data is open for all, allowing citizens to demand accountability from government agencies and become informed about the economic contributions of natural resources and ecosystems (FAO UN, 2024).

In 1995, the Community-Based Forestry Management (CBFM) Program was institutionalized as the government's national strategy for the protection of forests and natural resources. The Executive Order 263 "allowed land tenure instruments to be granted to organized upland communities, individual families, and people's organizations (POs)"

(Mendoza et al., 2020). The grant included the instruction of the CBFM agreement and the Certificate of Ancestral Domains. The Forest Management Bureau (FMB) under the DENR was primarily responsible for overseeing the implementation of CBFM. The DENR has field offices in regional, provincial, and community levels, allowing the systemic execution and monitoring of CBFM within regions and localities (Mendoza et al., 2020).

### *Local*

The Department of the Interior and Local Government (DILG) implements summits and campaigns for barangays to showcase their deep understanding of environmental protection, climate change, and disaster resilience. Programs aim to forge stronger collaboration in advancing the resilience agenda and showcase each barangay's effort in environmental conservation. These shared practices are deemed to facilitate barangay-level initiatives on attaining SDGs and the Sendai Framework for Risk Reduction (DILG, 2023). The department adheres to the critical role of barangay leaders in risk management and in the implementation of sustainable and transformative pathways towards ecosystem resilience.

In various parts of the Philippines, conserving ecosystems rely on the knowledge and practices of Indigenous and local communities who directly interact with nature. A significant portion of the country's key biodiversity areas are inside ancestral domains, which suggest that indigenous communities are vital in the conservation and protection of remaining natural forests (UNDP, 2019). These highly conserved forests are under the Indigenous Peoples and Local Communities Conserved Areas and Territories (ICCAs). ICCAs are ritual grounds or sacred spaces essential to the culture and traditions of IPs. The DENR, through the Biodiversity Management Bureau (BMB), has been implementing projects that support the management of ICCAs in partnership with the United Nations Development Programme-Global Environment Facility (UNDP-GEF). The ICCA project builds on the existing foundations of the GEF backed "New Conservation Areas in the Philippines Project" or NewCAPP, which has already worked with six IP communities in Luzon. The NewCAPP has prompted ICCA projects to be adopted by NGOs and projects funded by the USAID (UNDP, 2019).

The CBFM Program takes into account ancestral domains recognized through the Indigenous People's Rights Act. The state is mandated to protect the rights of indigenous cultural communities and their ancestral domains, recognizing the applicability of customary laws that govern property rights in identifying the ownership and extent of ancestral domains (Mendoza et al., 2020).

At a local level, the main participants of the CBFM Program are the POs, organizations that are created by the community to address their concerns and form collective action. POs are often given access to forestland resources that are within long-term tenurial agreements only if they use ecologically-sustainable and eco-friendly harvesting methods. NGOs also have an important role in providing assistance to CBFM actors, particularly in terms of training and technical support for forestry activities (Mendoza et al., 2020).

### **Community Collective Action**

Grassroots movements and PO collective actions have vital roles in advancing ecoprograms and sustainable development goals at a subnational level. Social accountability, a term used to describe new forms of civic engagement aimed at reform, allows citizens to demand democratic

change while enabling the government to respond to those demands (Flores & Samuel, 2019; Gaventa & McGee, 2013). Social accountability is a product of alliances among people's organizations and other intermediaries such as NGOs, professionals, and NGOs. The intermediaries provide structure, funding, and resources that can help maintain and create initiatives. In the case of protecting the commons, grassroots members have a unique position of communicating directly with both the local and regional governments (Flores & Samuel, 2019). They are at the forefront of representing the security and wellbeing of the communities.

IPs make use of a well-developed land allocation and management system, built on their communal beliefs and decision-making process. Communal forms of land tenure enables the rotation of upland agriculture and the equitable distribution of land among its members. Though, the ability of IPs to exercise control over their natural structures depend on the extent of their control over such resources. Hence, the application of sustainable resource management is directly associated with recognizing IP rights over their lands and natural resources.

De Vera (2007) cited two notable case studies in illustrating the role of recognizing IP land rights in the conservation of vital natural resources. One of them is the Ikalahan community in Nueva Vizcaya. The community was given exclusive rights to manage 15,000 hectares of forestland in 1874 through the Communal Forest Stewardship Agreement (CFSA). The landmark agreement, known as MOA No. 1, followed years of advocacy by the Ikalahan to gain tenure over their ancestral lands amidst government policies that asserted state ownership of forestlands. Despite initial resistance citing their lack of technical expertise and legal personality, the community was able to demonstrate their capacity to steward the forest, showing that their active role can benefit both the community and the government by protecting critical watersheds without additional costs. The community was backed by LGUs, NGOs, and their leaders in creating the Kalahan Educational Foundation, which aimed to develop sustainable forest management policies by balancing conservation and livelihood. This approach not only preserved forests and supported reforestation but also inspired broader land tenure frameworks such as the Certificate of Ancestral Domain Title (CADT).

Another case study identified by De Vera (2007) is the conservation efforts of the Tagbanwa group in Coron, Palawan. In response to the ecological degradation due to overfishing and destructive practices, the Tagbanwa organized the "Tagbanwa Foundation of Coron Island" to secure their tenure through the DENR Community Forest Stewardship Agreement (CFSA). The Tagbanwa obtained the Certificate of Ancestral Domain Claim (CADC), which included both land and marine waters. They were able to successfully develop and implement the Ancestral Domain Management Plan (ADMP), which integrated conservation with sustainable resource use and established the Tagbanwa as key stakeholders in local tourism and environmental governance. Despite challenges in enforcing marine resource rules, the efforts of the Tagbanwa in Coron inspired other Tagbanwa communities to pursue similar claims.

### **Conflict Resolution Mechanisms**

According to Gatmaytan (2002), Philippine forestry policies are distinct compared to other countries in the ASEAN region. The circumstances of the country are responsible for both increasing the laws on environmental protection as well as the nature of policies. Oftentimes, the protection of the environment and the right to access it are intertwined. Nonetheless,

environmental legislation in the country is still in its early stages and the majority of the new laws fail to have a comprehensive approach with regards to Alternative Dispute Resolution (ADR).

The cases described below are from “Environmental Disputes and Resolution Technique in the Philippines” by Dante B. Gatmaytan (2002):

ADR disputes in the country rarely involve issues on air, noise pollution and water. Instead, conflicts are often about natural resources. The EIA System in the Philippines was patterned after the US Environmental Policy Act; however, the Supreme Court failed to interpret it in the same manner. The implementation of EIA System highlights social acceptability stemming from a mutual agreement between project proponents, DENR, and key stakeholders. It aims to ensure that relevant stakeholders, particularly affected communities, are considered in the decision-making process of granting ECC.

A notable example of an excellent use of ADR is the case of a proposed cement plant in a coastal area in Bolinao, Pangasinan. The DENR did not issue the company a ECC certificate citing unacceptable environment risks, problems of social acceptability, and extreme conflicts in land and resource use. After the initial denial, however, the proponent submitted another application with new information that addressed previous issues on the project. The DENR had a series of consultations between the proponents and oppositors and even expanded their committee to include experts on marine pollution and land use. The review committee gave both sides the opportunity to present their arguments which avoided further confrontations that normally result in court hearings. Despite the success of the Bolinao case, many still deem the EIA system as heavily problematic. Factors such as distrust towards the DENR and lack of understandable information about the project are often the cause of disputes. There is an increasing demand for the EIS to be prepared in a language and dialect understood by the concerned community and with less technical data and jargon.

Gatmaytan emphasized that most environmental disputes in the country center around resource use and often, the law seldom factors into its resolution. At least, such is the case for coastal resources. The case of Bolinao is the only instance wherein the DENR denied an application for ECC. For mining cases, recourse mechanisms within the mining act are deemed futile and decision makers have the tendency to present bias. Moreover, the use of dispute systems outside the legal system gives leeway for stakeholders to choose a forum for their case. This is the case for dispute settlements among IPs.

### **Issues and Challenges**

The management of the commons in the Philippines face numerous interconnected issues and challenges that stem from economic pressures, environmental degradation, social inequities, policy gaps, and limited institutional capacities.

### ***Economic Pressures***

The weak Philippine economy has adversely affected environmental indicators throughout the years. The country continues to face narrow economic growth exacerbated by poverty and the degradation of its natural resources. The World Bank Philippine Environmental Monitor (2004) stated that the Philippine economy is reliant on its natural resources. However, the economy shifted from being primarily dominated by resource-based production activities to an economy

propelled by services. The rural sector's primary industries continue to employ a disproportionate portion of the working population. Moreover, rapid population growth and short-sighted human economic activities have severely depleted natural resources, posing a serious threat to livelihood and food security. Industrialization and urban expansion has impaired the country's water, air, and soil quality. Economic activities contribute to the climate crisis, which further degrades natural ecosystems and resources (Habito, 2009).

### ***Policy Gaps***

According to Prill-Brett (2003), State policies that control the access and management of natural resources in the country have prompted unintended consequences, in turn, contributing to non-sustainable resource management and the loss of biodiversity. This has also resulted in the demise of common property regimes. Nationalization has prompted common property resources claimed by the IPs to be converted into open access properties. Inconsistencies are observed in the implementation of the Indigenous Peoples Rights Act. Issues on boundary conflicts between adjacent community-stakeholders continued to persist within the communities. These consequences were often attributed to the introduction of new technologies and commercial crops by both the national and international conservation

agencies. Furthermore, the overlap between national policies on population growth and commercialization of agriculture and forest resources contribute to the collapse of traditional institutional management. Prill-Brett (2003) emphasized that depriving communities the right to manage CPRs, many tend to perceive properties as open access. This results in a competition for resources between the local community and government-favored individuals and corporations. In the end, natural resources may fail to regenerate because incentives are not offered to prevent its further degradation. In some cases, the local communities, along with private entities, participate in the depletion of resources, taking advantage of the open access to convert CPRs into capital.

### ***Social Inequities and Insufficient Capacity-Building***

Among the key issues of CBFM implementation is its failure to supply sustainable livelihoods to the communities. CBFMA holders find it difficult to maintain income-generating permits in their areas because of the complicated, lengthy, and costly process of obtaining permits. Additionally, the government offers no benefit-sharing arrangements that can provide financial support to the communities (Mendoza et al., 2020). The lack of sufficient capacity building of people's organizations can hinder their rights to manage resources. As forest managers, communities need to have a comprehensive and evolving capacity building that covers various aspects (e.g., technical, financial, and managerial) of forest management. According to Mendoza et al. (2020), most POs are not equipped with such aspects, prompting them to outsource necessary requirements, which then incurs additional costs.

The study of De Vera (2007) explored land tenure as a vital element of conservation management. Managing a territory cannot happen without securing a tenure. The practice of traditional resource management is heavily dependent on the extent of territorial control IPs or local communities possess. Securing tenure in the country is often a complicated and arduous process. The idea of securing tenure for marginalized sectors such as the IPs remains an uncomfortable concept for institutions in power. The issue with regards to equity among stakeholders has been a great challenge among communities and proponents of the tenurial rights. De Vera (2007) argued that tenurial security is often demanded in areas that have impact on both local communities and numerous stakeholders. For instance, securing a tenure for an IP community would recognize their rights over a domain, but concerns of adjacent communities must also be addressed. Besides these, the local government themselves feel threatened when local communities secure tenure because traditional structures are sometimes seen as rivals for power in the community. Thus, the need to explore more collaborative management models that are appropriate for each community. Concerns about the extent of traditional territories are often the root of disputes as well. Every group or community would present a basis of traditionally owned property, problems tend to arise from such situations, particularly when multiple stakeholders are within the region. These factors highlight the invariability of securing tenure and the growing problem of land commodification in the country, which then skews the traditional structures and natural resource management.

### **The Rights of Nature**

An SDG action network involving a number of civil society organizations, the scientific community, Indigenous Peoples, and various delegations represent the growing Rights of Nature movement, which is committed to advocating and advancing the global implementation of legal systems of the Rights of Water Ecosystems and the Rights of Nature as a whole. The Rights of Nature Coalition aims to align current laws with the laws of nature, pledging support

towards initiatives that promote the restoration of a balanced and healthy aquatic environment. The Rights of Nature is a crucial legal tool to ensure not only the restoration and protection of water systems, but in addressing the environment, biodiversity loss, and climate change. The movement is tied with several SGDs, namely: SGD 6 (access to clean water), SGD 12 (sustainable practices), SGD 13 (climate action), and SGD 15 (protection and restoration of ecosystems (UN, 2024).

The Rights of Nature (RoN) was established with the recognition that the ecosystem has rights similar to that of human rights. It looks into balancing what is beneficial for human beings and what is good for other species on the planet and what is good for the Earth as a whole. It recognizes the interdependence and interconnectedness of all ecosystems; hence, the need to recognize the right of all life forms to exist, persist, and regenerate (Global Alliance for the Rights of Nature, 2024). Stone (1974) stressed that granting rights to the environment does not mean giving it every right imaginable or even the same body of rights as human beings. Granting nature rights involves two faces” legal-operational and the psychic and sociopsychic aspects. From a legal standpoint, the RoN seeks to recognize nature as a “holder of rights”. For this to happen, there are three requisites: a legal standing that nature can institute action on its behalf; an injury towards it that requires legal relief; and the relief should accord to the benefit of nature (Stone, 1974).

### ***Arguments against and for the Rights of Nature***

Pecharroman (2018) said that the recognition and acceptance of nature’s rights as part of the legal system requires not only the creation of new laws but a shift in the legal framework for such rights to fit. Current environmental laws are anthropocentric, in contrast to the more earth-centric approach of the RoN.

Pecharroman (2018) provided several counterarguments against RoN and scholarly propositions that debunk such claims. Firstly, companies, governments, and other entities have rights and represent themselves in court, similarly, nature could also be recognized as a right bearing entity and be given representation in court. Those who argue against the proposition reason that companies and governing bodies can bear duties when asked in court. Leimbacher (1997) disagrees with the idea that an association between legal subjectivity and ability to bear duties need to exist to gain legal representation. Other arguments state that there are no sufficient grounds to justify the rights of nature and that the current legal system was not meant to accommodate the rights of nature. Furthermore, scholars such as Nedelsky (1993) proposed a new understanding and system of defining rights, particularly in terms of relationship and constitutionalism as a dialogue of democratic accountability. All rights and concepts pertaining to them should be looked upon in terms of relationship as such a view presents a better way of forming apt resolutions. The evolution of such relationships allows lawmakers to recognize new rights. These relationships do not only exist among humans but are also established when humans interact with nature (Pecharroman, 2018).

### ***Existing Implementations and Iterations***

According to Yanquiling et al. (2024), the concept of RoN presents intersectionalities with the Earth Systems Governance and Earth Jurisprudence, an emerging field of law centered on recognizing the inherent rights of nature. RoN prompts a paradigm shift that gradually reshapes environmental law, urging governments to adopt an ethical and sustainable approach to environmental laws. The first RoN ordinance came from Tamaqua, a borough in Pennsylvania,

USA in 2006. The community invoked RoN to ban the disposal of toxic sewage sludge in their community. In 2008, Ecuador became the first country to integrate RoN into its constitution, and Bolivia followed in 2010 (Bittner et al., 2023).

In each level of governance, there is a wide variety of legal forms and definitions of nature and the rights granted to it. The manner in which the rights of nature are protected and the form of legal rights assigned to it differ according to the stipulations of each governance regime. For instance, the US had adopted RoN through a local level ordinance; New Zealand and Uganda had integrated it through their national legislation; and Bolivia and Ecuador upheld the constitutional rights of nature. Moreover, the scope of the rights also differed per country. While Ecuador and Bolivia recognize the rights of Colombia through RoN, New Zealand acknowledges the rights of its individual forests and rivers, and Bangladesh grants rights to all of its rivers. As of 2023, over 200 legal provisions and directives on RoN exist in 30 countries across numerous continents (Bittner et al., 2023). Campaigns and initiatives for RoN in Europe continue to grow and in 2022, the Mar Menor Lagoon in Spain was the first ecosystem to have legal rights in Europe (Krämer, 2023).

An article by Putzer et al. (2025) detailed the ever-evolving progression of the rights of nature movement across the globe. The authors presented an updated version of the earlier mapping of global RoN initiatives, which revealed that even though new organizations and initiatives were being created. According to the data they collected as of May 2024, 94 initiatives were added to the movement, amounting to a 495 total across 40 countries and territories. The Americas serve as world leaders accounting for over 67% of all the initiatives (with 33.7% in North America and 33.4% in South America). Around 12.1% are international initiatives. The remaining continents were less than 10% of the total initiatives with Europe comprising 9.9%, Oceania 6.3%, Asia 3.4% and Africa 1.2% (Putzer et al., 2025). Low initiative percentages in Asia and Africa signals the lack of sufficient documentation of non-Western approaches to the RoN. Significant recent developments include Europe passed its first legal initiative on RoN (e.g., the Rights of the Spanish Mar Menor), Chile incorporating RoN in the first two drafts of its proposed constitution (though, it was ultimately rejected), and the 2023 draft of the Declaration of the Rights of Antarctica.

Beyond mapping, the authors updated and refined existing charts, which involved introducing new categorizations and classifying successful from unsuccessful legal implementations. A key reassessment involved the reclassification of policy initiatives based on their primary function, leading to a reduction of items included in the category. Judicial initiatives take a quarter of the total while local initiatives comprise nearly a third, reflecting the grassroots-driven nature of the movement, particularly in North and South America (Putzer et al., 2025). Despite the increase in number of movements, the updated maps and documents show the continuous threats of bureaucratization and coalescence against RoN initiatives. Additionally, the nuances between the concepts increasingly becomes subtle because while more initiatives use both anthropocentric and non-anthropocentric legal language, the difference between RoN and other environmental movements becomes at risk of being ambiguous or too generalized.

## Analysis and Framework Development

## Theoretical Framework

### a. Concept of RON and Commons

RON is a legal and philosophical concept which maintain that nature has inherent rights that should be protected and respected. It requires a paradigm shift from human-centered or anthropocentrism to eco-centrism- a worldview that recognizes the interdependence and interconnectedness of all ecosystems; hence, the need to recognize the right of all life forms to exist, persist, and regenerate (Global Alliance for the Rights of Nature, 2024). Stone (1974).

Commons refers to the resources to which no single decision-making unit holds exclusive title or authority. It can be owned by no one (res nullius) or by everyone (res communis) (Wijkman, 1982). Usual examples of commons include forests, fisheries, or groundwater resources. It has traditionally included terrestrial and marine ecosystems as both depletable and renewable resources (Ostrom, 1999).

### b. Legal Framework

The Convention on Biological Biodiversity (CBD) Kunming-Montreal Global Biodiversity Framework (GBF), adopted at the 15th Conference of the Parties (COP 15) in December 2022 provides a global framework on ecosystem restoration, equitable resource sharing, and the involvement of indigenous peoples and local communities (IPLCs). It provides for 24 action oriented targets for 2030

This legal framework is significant to the global advocacy for the recognition of RON considering that among others, it aims to ensure that indigenous peoples and local communities have their rights recognized and are empowered to contribute to biodiversity conservation (CBD/COP/DEC/15/4) Likewise, it acknowledges the IPLCs as custodians of biodiversity and crucial partner in biodiversity conservation and restoration. The significance of GBF in relation to the global RON advocacy is the recognition of the contribution of Mother Earth centric actions as a value system, including the countries that recognize them as integral to the successful implementation of the GBF. It underscores the contribution of nature to human existence and well-being of people and the ecosystem itself. One of global target for instance is the promotion of sustainable consumption choices to reduce waste generation so that people can live in harmony with Mother Earth. (CBD/COP/DEC/15/4).

At the country level, there are laws that are aligned with the recognition RON. PENCAS for instance provides for the incorporation of national accounting of the value of natural resources in economic and development planning. Significantly, Section 12 of the law, recognizes the rights of nature in terms of its intrinsic and inherent value, separate and distinct from its economic value. It recognizes the limits of natural ecosystems to regenerate, hence it implores that any human development that affects or alters such capacity should be done sustainably and allow for its renewal and restoration.

Another important law is the IPRA which recognizes the rights of ownership of indigenous cultural communities (ICCs) to their ancestral domains. Other rights provided under the law are: the right to develop and manage natural resources within their ancestral domains, the right to self-governance and participate in decision-making processes affecting

their communities, and the right to preserve their culture, traditions, and languages. More importantly their right to free, prior and informed consent (FPIC) provides a legal protection in their decision-making process in relation to any development projects or activities that would adversely affect their ancestral domain, such as mining and other extractive activities.

#### a. Comparative Matrix of RON and Governance of CPRs

Parameter	Rights of Nature (RON)	Governance of Common Pool Resources (CPRs)
<b>Subject</b>	Nature or ecosystems of the earth community	Governance and management of CPRs e.g. forest, fisheries, water resource
<b>View of nature</b>	Recognizes that nature or ecosystems are rights-bearing entities.	Nature as a shared resource to be managed by humans
<b>State ownership of natural resources</b>	Exists regardless of state ownership and other property right system	Recognizes state ownership but proposes comanagement with communities/resource users
<b>Operational mechanism</b>	Based on, or inherent in IP practices; requires legislation for its formal recognition human agency is necessary;	Application of 8 design principles by Ostrom as basis; community practice by IPLCs; Tenure instruments granted to communities such as stewardship agreement e.g CBFM; community-based coastal resource management; forest management

**c. Point of Convergence.** The following concepts and/or domains provide the intersection of RON and CPRs:

**a. IPLCs protection and participation.** The IPLCs are inherently linked to nature by their identify, belief systems, customary laws and governance system among others. In various parts of the Philippines, conserving ecosystems rely on the knowledge and practices of Indigenous and local communities who directly

interact with nature. A significant portion of the country's key biodiversity areas are inside ancestral domains, which suggest that indigenous communities are vital in the conservation and protection of remaining natural forests (UNDP, 2019). These highly conserved forests are under the Indigenous Peoples and Local Communities Conserved Areas and Territories (ICCAs). ICCAs are ritual grounds or sacred spaces essential to the culture and traditions of IPs. Protection and participation of IPs In the context of extractive activities, notably mining, where IPs and rural populations are impacted by severe environmental degradation and human rights violations. The right to FPIC provided by IPRA for instance is a crucial process for ensuring the protection and participation of IP communities whether to allow mining or deny consent to the proponents of a mining project.

A study on the typology of roles that IPLCs should assume in relation to conservation initiatives, indicated that equitable governance, based on equal partnership or control for IPLCs can bring about positive ecological outcomes. This means giving them leadership role aside from resecting their rights and customary institutions (Dawson et al.,2024).

- b. **Sustainability of Development processes.** Both RON and CPRs requires sustainability of any intervention project for the management, use and conservation of natural resources. This requires that the same should be able to meet the needs of the present and future generations without compromising the natural ability of ecosystems to regenerate and ensures social equity and economic growth.
- c. **Governance and accountability mechanisms.** Governance refers to imposition of specific norms or rules over a given domain through an entity formal or informal, done by a group or individual. Whether public or private, governance and accountability mechanisms involves transparency, processes of checks and balance, answerability for decisions made and responsibility for performance of duty among others. Governance mechanism reflects the management and protection of CPRs.
- d. **Engagement of State and non-state actors.** Promotion of the rights of nature or the management of CPRs relates to environmental governance that requires engagement of regulatory state agencies and even non-state actors notably private corporation and business enterprises. This includes big international conservation NGOs

#### **d. Key considerations in framework development**

- a. Facilitate the progressive shift to ecocentrism
- b. Promote Ecological justice and Intergenerational equity
- c. Promote ecocentric and rights-based approach in the restoration and prevention of biodiversity loss and recognition of the intrinsic value of the environmental functions of Mother Nature/Earth
- d. Protect the rights of Indigenous and local communities vis-à-vis market driven development processes

#### **e. Guiding principles for the integration of RON and Governance of the Commons**

- a. Any development intervention should take into account the involvement of nature/recognition of its intrinsic value and its processes as a key stakeholder together with the local communities
- b. Appropriate legal and redress mechanism for effective protection of the RON and the Right to environment of peoples and communities against impacts of extractive activities
- c. The governance structure should ensure community participation, equitable access to benefits, sustainability, and social and ecological justice
- d. An effective and accountable system of monitoring actions of the state and its agents, including the dominant non-state actors to ensure that it is aligned with RON and the RTE
- e. Co-management structures/processes between the State (national and local) and communities (IPs and local communities) are institutionalized with appropriate levels of conflict-resolution mechanisms
- f. Promotion and enhancement of traditional knowledge and practices and other cultural heritage for the management of commons and protection of RON.
- g. Networking and solidarity building for common action at a global scale to ensure cross-border responsibility and collaboration for the protection of shared ecosystems and the RON.

#### **f. Key Elements**

- a. Institutionalization of the legal recognition of the RON and community participation in governance
  - i. Constitutional amendment
  - ii. National legislation
  - iii. Ordinance
  - iv. Court decisions
- b. Community led governance and development processes built on inclusive decision-making, transparency and accountability
  - i. Strengthening local autonomy of local government units
  - ii. Stakeholder participation and collective action
  - iii. Effective resource-use conflict resolution using formal and informal mechanisms
- c. Rights monitoring and development of sustainability indicators to determine the health of the ecosystems and governance practices
  - i. Monitor compliance to state regulations
  - ii. Engaging communities to monitor, document and report the status of ecosystems/commons through evidenced-based approach and participatory methods
- d. Mapping and up-scaling of existing co-management structures over commons and shared ecosystems by IPS and local communities
  - i. Strengthen tenure systems of IPs and local communities
  - ii. Government should address and resolve over-lapping claims over CPRs
  - iii. Adoption of integrated ecosystem management
- e. Protection and enhancement of the knowledge, skills and practices of IPs and local communities

- i. Implement the provisions of the CBD and IPRA
  - ii. Advocate for the recognition fo community science
- f. Networking for global collective action and shared responsibility for Motherearth centric actions.
  - i. Engage global institutions for the recognition of the intrinsic value/contribution to protection and restoration of biodiversity
  - ii. Strengthen and broaden the global network of IPS and local communities in terms of reach and influence
  - iii. Engage transnational corporations and other non-state actors with significant impacts on RON and right to environment of IPLCs.

## References

- Arcenas , A., Magno, C., & Bustamante IV, R. (2017). *Natural Resource Management and Federalism in the Philippines: Much Ado About Nothing?* 16-17.
- Bittner, C., Boston, D., Scholtes, F., & Ulrich, S. (2023). Rights of Nature Challenging the “human-nature” relationship?. In *misereor.org*. German Catholic Bishops’ Organisation for Development Cooperation.
- [https://www.misereor.org/fileadmin/user\\_upload\\_misereororg/publication/en/climatechange\\_energy/Discussion\\_paper\\_Rights\\_of\\_Nature.pdf](https://www.misereor.org/fileadmin/user_upload_misereororg/publication/en/climatechange_energy/Discussion_paper_Rights_of_Nature.pdf)
- Cox, M., Arnold, G., & Villamayor Tomás, S. (2010). A Review of Design Principles for Community-based Natural Resource Management. *Ecology and Society*, 15(4).
- <https://doi.org/10.5751/es-03704-150438>
- Department of Environment and Natural Resources. (2022). *Establishing An Environmental Impact Statement System Including Other Environmental Management Related Measures And For Other Purposes*.
- [https://r9.emb.gov.ph/wpcontent/uploads/2022/07/EIA\\_Basic\\_Concepts\\_Process\\_2016April.pdf](https://r9.emb.gov.ph/wpcontent/uploads/2022/07/EIA_Basic_Concepts_Process_2016April.pdf)
- Department of Interior and Local Government . (2023, October 6). *Memorandum on Barangay Resilience Summit* . Department of Interior and Local Government .
- De Vera, E. (2007) Indigenous Peoples in the Philippines: A Country Case Study. PAFID Presented at the RNIP Regional Assembly, Hanoi, 20-26 August 2007.
- [http://www.iapad.org/wp-content/uploads/2015/07/devera\\_ip\\_phl.pdf](http://www.iapad.org/wp-content/uploads/2015/07/devera_ip_phl.pdf)
- Doyle, C., Clive Wicks, Nally, F., & Missionary Society Of St. Columban. (2007). *Mining in the Philippines : concerns and conflicts : report of a fact-finding trip to the Philippines, July-August 2006*. Society Of St. Columban.
- Flores, W., & Samuel, J. (2019). Grassroots organisations and the sustainable development goals: no one left behind? *BMJ*, 365, l2269.

<https://doi.org/10.1136/bmj.l2269>

Food and Agriculture Organization of the United Nations. (2024). *Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act (Republic Act No. 11995)*. Fao.org. <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC228431/>

Forsyth, T., & Johnson, C. (2014). Elinor Ostrom's Legacy: Governing the Commons and the Rational Choice Controversy. *Development and Change*, 45(5), 1093–1110.

<https://doi.org/10.1111/dech.12110>

Gatmaytan, D. (2002). *Part III: Environmental Disputes and Resolution Techniques in the Philippines*.

Gleason, M., Maragos, J., & de Jesus, L. (2001). *Philippine Coastal Management Guidebook Series No. 7: Managing Impacts Of Development In The Coastal Zone*.

[https://oneocean.org/download/db\\_files/crmguidebook7.pdf](https://oneocean.org/download/db_files/crmguidebook7.pdf)

Global Alliance for the Rights of Nature. (2024). *What are the Rights of Nature?*

Global Alliance for the Rights of Nature. <https://www.garn.org/rights-of-nature/>

Habito, C. F. (2009), 'Economy and Environment in the Philippines: Issues and Imperatives', in Habito, C. F. and S. Kojima (eds.), *Mainstreaming Sustainable Development Policies in East Asia*. ERIA Research Project Report 2008-6-2, Jakarta: ERIA.

International Association for the Study of the Commons. (2023). *Types of Commons*.

The International Association for the Study of the Commons.

<https://iasccommons.org/commons-types/>

Krämer, L. (2023). Rights of Nature in Europe: The Spanish Lagoon Mar Menor Becomes a Legal Person. *Journal for European Environmental & Planning Law*, 20(1), 5-23. <https://doi.org/10.1163/18760104-20010003>

Leimbacher, H. (1997). *Comparing Legal Cultures* (D. Nelken, Ed.). Routledge.

- Martínez-Alier, J. (2023). The Philippines: extractivism and violence. *Edward Elgar Publishing EBooks*, 49–67. <https://doi.org/10.4337/9781035312771.00010>
- Mendoza, H., Musngi, X., Placido, R., & Sy, K. (2020). Review Of Community Forest Rights: Outcomes, Impacts, And Constraints Of The Philippines' Community Based Forest Management (Cbfm) Strategy And The Role Of Civil Service Organizations (Csos) . *Tropenbos International Forest Foundation Philippines* .
- Nedelsky, J. (1993). Reconceiving Rights as Relationship. *SSRN Electronic Journal*, 1(1).
- Onder, S. (2018). Managing the use of natural resources: how ecosystem accounts helped in the Philippines. *Handbook of the International Political Economy of Energy and Natural Resources*, 214–226. <https://doi.org/10.4337/9781783475636.00024>
- Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press.
- Ostrom, E., Burger, J., Field, C. B., Norgaard, R. B., & Policansky, D. (1999). Revisiting the Commons: Local Lessons, Global Challenges. *Science*, 284(5412), 278–282. <https://doi.org/10.1126/science.284.5412.278>
- Pecharroman, L. C. (2018). Rights of Nature: Rivers That Can Stand in Court. *Resources*, 7(1), 13. <https://doi.org/10.3390/resources7010013>
- Prill-Brett, J. 2003. “Changes in Indigenous Common Property Regimes and Development Policies in the Northern Philippines.” *National Digital Library of India*. <http://ndl.iitkgp.ac.in/document/S0FuWDdxbjFPQ25aY2RWS1ZSVncwV2pONXhJS HJCZlIdkRHN293ZTduQT0>
- Putzer, A., Cook, J., & Pollock, B. (2025). Putting the rights of nature on the map. A quantitative analysis of rights of nature initiatives across the world – Second Edition. *Journal of Maps*, 21(1). <https://doi.org/10.1080/17445647.2024.2440376>
- Robert, G., Williams, O., Lindenfalk, B., Mendel, P., Davis, L. M., Turner, S.,

Farmer, C., & Branch, C. (2021). Applying Elinor Ostrom's Design Principles to Guide Co-Design in Health(care) Improvement: A Case Study with Citizens Returning to the Community from Jail in Los Angeles County. *International Journal of Integrated Care*, 21(1). <https://doi.org/10.5334/ijic.5569>

Stone, C. D. (1974). *Should trees have standing? : toward legal rights for natural objects*. W. Kaufmann.

United Nations Department of Economic and Social Affairs. (2024a). *Biodiversity and ecosystems* | *Department of Economic and Social Affairs*. Sdgs.un.org.

<https://sdgs.un.org/topics/biodiversity-and-ecosystems#description>

United Nations Department of Economic and Social Affairs. (2024b). *Rights of Nature: A Catalyst for the implementation of the Sustainable Development Agenda on Water* | *Department of Economic and Social Affairs*. Un.org.

<https://sdgs.un.org/partnerships/rights-nature-catalyst-implementation-sustainabledevelopment-agenda-water#description>

United Nations Development Programme Ecosystems & Biodiversity. (2019, August 9). *Indigenous peoples in the Philippines leading conservation efforts*. Global

Environment Facility. <https://www.thegef.org/newsroom/feature-stories/indigenouspeoples-philippines-leading-conservation-efforts>

United Nations Environment Programme. (2021). *Making Peace with Nature*.

<https://sdgs.un.org/sites/default/files/2021-04/Publication%20-%20Making%20Peace%20with%20Nature%20A%20scientific%20blueprint%20to%20tackle%20the%20climate%2C%20biodiversity%20and%20pollution%20emergencies.pdf>

Wijkman, M. (1982). Managing the Global Commons. *International Organization*,

36(3), 511–536. <http://www.jstor.org/stable/2706543>

Williams, J. (2018, January 15). *Elinor Ostrom's 8 rules for managing the commons*.

The Earthbound Report. <https://earthbound.report/2018/01/15/elinor-ostroms-8-rulesfor-managing-the-commons/>

Yanquiling, R. S., Cuadrado-Quesada, G., & Schmeier, S. (2024). Exploring the rights of nature in freshwater and marine ecosystems. *Earth System Governance*, 22, 100224. <https://doi.org/10.1016/j.esg.2024.100224>

Catherine M. Tucker, Mateja Šmid Hribar, Mimi Urbanc, Nevenka Bogataj, Alexey Gunya, Romina Rodela, Maurizia Sigura, Lucia Piani, Governance of interdependent ecosystem services and common-pool resources, *Land Use Policy*, Volume 127, 2023, 106575, ISSN 0264-8377, <https://doi.org/10.1016/j.landusepol.2023.106575>.



**Philippine Misereor Partnership, Inc.**

Unit 204 Pacific Century Tower 1472-1476, Quezon Avenue,  
Brgy. South Triangle, Quezon City, 1103 Philippines  
(63) 2 8961 5956

Email us: [secretariat@pmphi.com,ph](mailto:secretariat@pmphi.com,ph)