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Planetary Health and Triple Planetary Crisis: Relevance for Multilateral Cooperation on Biodiversity Protection and Conservation in Southeast Asia

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The ongoing COVID-19 pandemic has prompted a search of its causes. Among the various theories available, nature decline offers a compelling explanation for the outbreak and the spread of the disease. This coincides with the formulation of the term ‘triple planetary crisis’ which refers to simultaneous issues of pollution, climate change and biodiversity loss confronting the world today. These propositions give biodiversity protection a stronger focus and gain planetary health concept greater traction. In this regard, biodiversity protection and conservation measures at the regional level are particularly important given their transboundary coverage. Despite existing initiatives, they have yet to yield to outcomes sufficient to address triple planetary crisis. The rise of planetary health concept amidst this pandemic time could potentially offer a useful entry point to strengthen biodiversity values in sectors driving environmental pressures.



Photo credit: Asian Development Bank via Flickr

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Introduction

The current COVID-19 pandemic has been wrecking the world for almost two years. It compels a serious reflection on and a search of its causes. Among the various theories that attempt to offer explanations, environmental degradation has emerged as a plausible answer. This view is founded on studies that suggest a causal relationship between ecosystems and capability to regulate diseases. It posits that degenerating nature increases the risks of zoonotic disease outbreak and spread.¹

The ever-worsening environmental malaise renders this proposition hard to dismiss. In its 2019 publication, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) reports that around 1 million animal and plant species are now facing extinction, many of them within the coming decades.² Likewise, the latest Global Biodiversity Outlook 5 details that biodiversity loss is happening at an unprecedented rate and projects that the world would not fully meet any of the twenty Aichi Biodiversity Targets due in 2020.³ The Aichi Biodiversity Targets, which were agreed a decade prior, were built on five ambitious goals that included, among others, addressing underlying drivers of nature decline, mainstreaming biodiversity across government and society, and reducing direct pressures on nature.⁴

Countries have missed these goals. This suggests that the world is on track to runaway environmental deterioration unless drastic actions are taken to bend the curve. Against this backdrop, the linkage between nature decline and the global pandemic presents a logical proposition. This in turn provides an opportunity for environmental causes to get prioritised and gain the long overdue attention they deserve.

The United Nations Environment Programme (UNEP) seized the moment and coined the term 'triple planetary crisis' midway through the pandemic last year.⁵ Triple planetary crisis refers to simultaneous problems of climate change, biodiversity loss, and pollution facing humanity today. The term is noticeably an enlargement from the usual and rather singular emphasis on greenhouse gas emissions and climate change that the world has been focusing

¹ Jonathan A. Patz and Ulisses E.C. Confalonieri, "Human Health: Ecosystem Regulation of Infectious Diseases," in *The Ecosystems and Human Well-being: Current Status and Trends: Findings of the Condition and Trends Working Group*, eds. Rashid Hassan, Robert Scholes., and Neville Ash (Washington, DC: Island Press, 2005), 391-415.

² IPBES, *Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*, eds. Eduardo S. Brondizio, Josef Settele, Sandra Díaz, and Hien T. Ngo (Bonn: IPBES Secretariat, 2019), <https://doi.org/10.5281/zenodo.3831673>

³ Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5* (Montreal: Secretariat of the Convention on Biological Diversity, 2020), <https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf>

⁴ "Aichi Biodiversity Targets," Convention on Biological Diversity, last modified September 18, 2020, <https://www.cbd.int/sp/targets/>.

⁵ "The Triple Planetary Crisis: Forging a New Relationship between People and the Earth," UN Environment Programme (UNEP), last modified July 14, 2020, <https://www.unep.org/news-and-stories/speech/triple-planetary-crisis-forging-new-relationship-between-people-and-earth>.

much on. Such framing can potentially generate stronger support and afford more holistic action on the care of the environment.

Concurrently, planetary health concept is gaining traction. The concept, which was formally introduced in 2015, establishes that “human health and human civilisation depend on flourishing natural systems and the wise stewardship of those natural systems.”⁶ The basic idea is not new since the need to safeguard nature to ensure sustained well-being of mankind has long been acknowledged. It is in fact enshrined in the 1972 Report of the United Nations Conference on the Human Environment, the first global document on the environment. What is rather extraordinary about planetary health concept is that the environmental focus came from public health discipline. It signals that the care for nature is no longer an exclusive concern of environment-related domains. It further suggests that environmental protection is increasingly becoming a pre-condition for other sectors to perform well.

The increasing emphasis on the environment does not mean nature has been neglected. On the contrary, various environmental measures at national and regional levels are already in place. The problem lies in their impact, which has been fairly limited as evidenced in the overall state of nature decline. Reasons for such limited outcomes abound, but a lack of mainstreaming of biodiversity concerns in sectors other than environment-related ones arguably plays an important role. Against this backdrop, concepts such as planetary health may serve as a useful entry point to boost stronger environmental thrust across different sectors especially in sectors that drive environmental degradation. This will in turn strengthen existing environmental initiatives and bring them into meaningful effects.

In this context, this study aims to assess the potential application of planetary health concept in enhancing the impact of multilateral arrangements for biodiversity protection and protection in Southeast Asia. Multilateral initiatives are chosen as the subject of the study because they are often transboundary in nature. Consequently, multilateral efforts have a strong leverage to address triple planetary crisis effectively.

This NTS Insight begins with a brief description of planetary health concept. It then discusses select collaborative arrangements on biodiversity protection and conservation in Southeast Asia. It looks at the scope of mandates and activities, analyses challenges, and assesses how planetary health concept may be useful in enhancing such efforts in the region.

Planetary Health Concept: A Brief Review

Planetary health concept categorically positions economic and development achievements as the cause of environmental changes posing threats to human health. The concept sees growing absolute wealth, deep-seated inequities and the world’s resource-intensive economic model as the drivers behind environmental degradation. It underscores the correlation between increasing wealth and international trades, and their effects on environmental pressure and resource depletion beyond national borders.

⁶ Sarah Whitmee, et al., “Safeguarding Human Health in the Anthropocene Epoch: Report of The Rockefeller Foundation–Lancet Commission on Planetary Health,” *The Lancet Commission* 1386(10007): 1973-2028, [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)60901-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60901-1/fulltext).

Although the concept acknowledges that economic and developmental progress have contributed significantly to the improvement of human health in the last century, it warns that continuing environmental repercussions brought about by such development are likely to undo the health benefits seen to date.

Planetary health refers to planetary boundaries concept to advocate for better stewardship of the Earth system. Planetary boundaries concept proposes limits to nine planetary boundaries namely land-system change, biosphere integrity, climate change, stratospheric ozone depletion, atmospheric aerosol loading, ocean acidification, biogeochemical flows, freshwater use, and novel entities, within which it is safe for humanity to live and thrive well into the future.⁷Significantly, biodiversity is identified as a core factor of ecosystem integrity, which human health is dependent upon.

The concept calls for reforms in global and national taxes and subsidies in energy, agriculture, water, fisheries and health sectors for stronger environmental protection. Knowledge, policies, action, and leadership are key enablers.

It further argues that although slowing down population growth is necessary, reducing the consumption of material resources and greenhouse gas emissions must be done simultaneously.

As a proposed solution, it presents the doughnut economics concept. Doughnut economic concept defines the safe and just space within which humanity can live well generations to come.⁸ It considers the levels of social foundation including energy, water, food, health, education, income and work, peace and justice, political voice, social equity, gender equality, housing, and networks, in addition to planetary boundaries mentioned previously.

Fundamentally, planetary health's emphasis on the well-being of the Earth's system points to the need to protect and conserve nature.

Biodiversity Protection and Conservation in Southeast Asia

In Southeast Asia, biodiversity protection and conservation efforts are carried out by several regional arrangements. ASEAN-led initiatives include the ASEAN Centre for Biodiversity (ACB), the ASEAN Working Group on Coastal and Marine Environment (AWGCME), and the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB).

Outside of ASEAN, there is a wide range of sub-regional biodiversity protection and conservation measures that cover marine and coastal environment. These include the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) between Indonesia, Malaysia, the Philippines, Timor Leste, Solomon Islands, and Papua New Guinea; the Turtle Islands Heritage Protected Area between the Philippines and Malaysia; Sulu Sulawesi Marine

⁷ "Planetary Boundaries," Stockholm Resilience Centre, accessed July 29, 2021, <https://www.stockholmresilience.org/research/planetary-boundaries.html>.

⁸ Kate Raworth, *Doughnut Economics: Seven Ways to Think Like a 21st Century Economist* (White River Junction, Vermont: Chelsea Green Publishing, 2017).

Ecoregion between Indonesia, Malaysia, and the Philippines; and Mangroves for the Future between Bangladesh, Cambodia, India, Indonesia, Maldives, Myanmar, Pakistan, Seychelles, Sri Lanka, Thailand, and Viet Nam.

Additionally, there are measures to conserve river ecosystems such as the Greater Mekong Subregion between Cambodia, Lao PDR, Myanmar, People's Republic of China, Thailand and Vietnam; as well as forest ecosystems such as the Heart of Borneo between Brunei Darussalam, Indonesia and Malaysia.

The following sub-sections describe the scope of their mandates and activities, discuss common challenges, and assess how the application of planetary health concept may help close the gaps and strengthen regional efforts for biodiversity protection and conservation.

ASEAN-led Biodiversity Protection and Conservation Measures

The ASEAN mechanism for environmental cooperation constitutes six working groups that report to the ASEAN Senior Officials on the Environment. The AWGNCB and the AWGCME are working groups that deal most directly with biodiversity protection and conservation issues.

The AWGNCB was established in 1991⁹ as a consultative forum to intensify regional efforts for biodiversity protection and conservation and its sustainable use and management.¹⁰ The AWGNCB focuses on various biodiversity-related issues such as protected areas, species conservation, invasive alien species, ecosystem restoration, urban and agricultural biodiversity, data and communication, climate change impact on biodiversity, and access and benefit sharing.¹¹

The AWGCME works specifically on coastal and marine ecosystems. It had its first meeting in 1999.¹² It aims at ensuring the sustainable management of coastal and marine environment, protecting pristine areas and species, managing economic activities sustainably, and raising public awareness of coastal and marine environment.¹³ Its areas of work include the conservation of key coastal and marine area, endangered coastal and marine species, the reduction of tanker-based pollution, mitigating coastal and marine pollution, invasive alien species, climate change impacts on marine diversity, integrated coastal management and marine spatial planning.¹⁴ It is especially tasked to address marine debris issue in the region. The AWGCME cooperates closely with the AWGNCB and the ACB to sort out overlapping matters.

⁹ "ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB)," Department of Environment and Natural Resources International Agreements on Environment and Natural Resources, last modified December 17, 2019, <https://intl.denr.gov.ph/asean-environmental-groups/asean-working-groups/article/1#next-steps>

¹⁰ "ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB)," ASEAN Cooperation on Nature Conservation and Biodiversity, accessed July 29, 2021, <https://intl.denr.gov.ph/asean-environmental-groups/asean-working-groups/article/1#next-steps>

¹¹ "ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB)," Department of Environment and Natural Resources International Agreements on Environment and Natural Resources, last modified December 17, 2019, <https://intl.denr.gov.ph/asean-environmental-groups/asean-working-groups/article/1#next-steps>

¹² "ASEAN Working Group on Coastal and Marine Environment (AWGCME)," Department of Environment and Natural Resources International Agreements on Environment and Natural Resources, last modified December 17, 2019, <http://intl.denr.gov.ph/asean-menu/asean-groups/asean-working-groups/article/6-asean-working-group-on-coastal-and-marine-environment-awgcme#next-steps>

¹³ "ASEAN Cooperation on Coastal and Marine Environment," ASEAN Cooperation on Environment, accessed July 29, 2021, <https://environment.asean.org/awgcme/>

¹⁴ "ASEAN Cooperation on Coastal and Marine Environment," ASEAN Cooperation on Environment, accessed July 29, 2021, <https://environment.asean.org/awgcme/>

The ACB is the implementing agency of the AWGNCB. Setup in 2005, its mandates include programme development and implementation, capacity building, biodiversity information management, communication and public affairs, and organisational management and resource mobilisation.¹⁵ The work of the ACB encompasses all areas including forest, coastal and marine environments, wetlands and peatlands, transboundary protected areas, agricultural biodiversity, and urban biodiversity.¹⁶

The ACB's mandate covers a wide range of biodiversity-related matters including access and benefit-sharing; biodiversity information management; ecotourism, business, and biodiversity; climate change and biodiversity; taxonomy and invasive alien species; species conservation and wildlife law enforcement; the economics of ecosystems and biodiversity; and public awareness.¹⁷

Access and benefit-sharing is an international regime known as the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) which legal framework entered into force in 2014. The ACB supports ASEAN member states in building their capacity for ABS through regional cooperation.¹⁸

Additionally, the ACB maintains the ASEAN Clearing-House Mechanism (ASEAN CHM) that manages biodiversity information in Southeast Asia. The ASEAN CHM provides references for ASEAN member states in drawing up their policies and assists them in their reporting to multilateral environmental agreements.¹⁹ The ACB also analyses data and produces documents relating to conservation planning and management, policy development and decision-making processes.

The ACB understands the impacts of tourism and businesses on biodiversity. It thus engages the business sector in the region with the aim of getting businesses go beyond the usual short-term corporate social responsibility initiatives towards mainstreaming biodiversity in business policies, operations, products and services.²⁰

The Centre looks at the impact of climate change on biodiversity loss²¹ and organises workshops and conferences to address the issue of invasive alien species. Invasive alien species are animals, plants, fungi, and microorganism that live and spread outside of their natural habitats and inflict economic and environmental damages.²²

The ACB monitors law enforcement against illegal wildlife trade that is carried out by the ASEAN Wildlife Enforcement Network (ASEAN-WEN). The ASEAN-WEN comprises enforcement agencies from the ten ASEAN Member States and is the world's largest wildlife enforcement network.²³ In addition to conducting activities such as

¹⁵ "About ACB," ASEAN Centre for Biodiversity, accessed July 29, 2021, <https://www.aseanbiodiversity.org/about-acb/>

¹⁶ "Our Concerns," ASEAN Centre for Biodiversity, accessed July 29, 2021, <https://www.aseanbiodiversity.org/our-concerns/>

¹⁷ "Thematic Concerns," ASEAN Centre for Biodiversity, accessed July 29, 2021, <https://www.aseanbiodiversity.org/our-concerns/>

¹⁸ "Thematic Concerns," ASEAN Centre for Biodiversity, accessed July 29, 2021, <https://www.aseanbiodiversity.org/our-concerns/>

¹⁹ "The ASEAN Clearing House Mechanism," ASEAN Centre for Biodiversity, accessed July 29, 2021, <https://www.aseanbiodiversity.org/the-asean-clearing-house-mechanism/>

²⁰ "Ecotourism, Business and Biodiversity," ASEAN Centre for Biodiversity, accessed July 29, 2021, <https://www.aseanbiodiversity.org/concern/ecotourism-business-and-biodiversity/>

²¹ "Climate Change and Biodiversity," ASEAN Centre for Biodiversity, accessed July 29, 2021, <https://www.aseanbiodiversity.org/concern/climate-change-and-biodiversity/>

²² "Taxonomy and Invasive Alien Species," ASEAN Centre for Biodiversity, accessed July 29, 2021, <https://www.aseanbiodiversity.org/concern/taxonomy-and-invasive-alien-species/>

²³ "Species Conservation and Wildlife Law Enforcement," ASEAN Centre for Biodiversity, July 29, 2021, <https://www.aseanbiodiversity.org/concern/species-conservation-and-wildlife-law-enforcement/>

marine patrols, aerial surveys, fire suppression, and community outreach, the agencies meet regularly to improve regional coordination and collaboration through workshops and trainings.

The ACB instills public awareness on biodiversity issues especially in countries that lack resources to launch meaningful public awareness campaign. This is part of the Centre's capacity development function which encompasses training, a network of Centres or Institutions of Excellence on Biodiversity and sharing of experiences.²⁴ The ACB serves as the Secretariat of the ASEAN Heritage Park Programme (AHP) and the AHP Committee.²⁵ The AHP is an old initiative dated back in the 1980s. Heritage parks are protected for their high conservation values. The number of AHPs has grown from 11 in 1984 to 50 in 2021.²⁶ The AWGNCB supports the management of the AHP by giving advice and pushing for the implementation of biodiversity conservation conventions and programs in the region.

The comprehensive scopes of work of the AWGCME, the AWGNCB, the ACB suggest that biodiversity protection and conservation efforts in the region are well covered and should have resulted in well-protected ecosystems. Critiques pointed out, however, that the work of the ASEAN-led mechanisms was rather fragmented and in need of stronger coordination, cooperation and collaboration between agencies,²⁷ and working groups were focusing more on policy discussions and review instead of action.²⁸

Additionally, the latest ASEAN Biodiversity Outlook 2 report published in 2017 shows that ASEAN member states were not on track to meet the Aichi Biodiversity targets due in 2020.²⁹ Of the twenty Aichi Biodiversity targets, good progress was made only in one target area namely in designating certain percentages of terrestrial, inland water, coastal and marine areas as protected areas.

The report elaborates on reasons behind such a lack of progress, among which is insufficient action taken to address the drivers and pressures of biodiversity loss that often originate from other sectors. Examples include poaching, pollution of various forms and sources, conflicting resource use between economic activities (such as mining) and environmental initiatives (such as protected areas), increasing conversion of forest areas to agricultural and industrial estates, unsustainable fishing, growing population and attendant urbanisation and conversion of agricultural land to residential and commercial areas, waste import from other regions, among others.

The report further notes a lack of biodiversity values buy-in among stakeholders; conflicting policy objectives between those of biodiversity conservation and those of other sectors; and a lack of mainstreaming of biodiversity across sectors.

²⁴ "Public Awareness," ASEAN Centre for Biodiversity, July 29, 2021, <https://www.aseanbiodiversity.org/concern/public-awareness/>

²⁵ "ASEAN Heritage Parks and Protected Area Management," ASEAN Centre for Biodiversity, accessed July 29, 2021, <https://www.aseanbiodiversity.org/concern/asean-heritage-parks-and-protected-area-management/>

²⁶ "ASEAN Heritage Parks," ASEAN Clearing House Mechanism, accessed July 29, 2021, http://chm.aseanbiodiversity.org/index.php?option=com_wrapper&view=wrapper&Itemid=110¤t=110

²⁷ Soparatana Jarusombat, "ASEAN and ASEAN+ Marine Environment Protection: Institutional Background," (presented at the International Conference on Regional Cooperation for the Protection of Marine Environment, Singapore, 15-16 January 2019) https://cil.nus.edu.sg/wp-content/uploads/2019/01/Session-1-Soparatana_NUS2019.pdf

²⁸ Mark Elder and Ikuho Miyazawa, *A Survey of ASEAN's Organizational Structure and Decision Making Process for Regional Environmental Cooperation and Recommendations for Potential External Assistance* (Kamagawa: Institute for Global Environmental Strategies, 2015).

²⁹ ASEAN Centre for Biodiversity, *ASEAN Biodiversity Outlook 2* (Philippines: ACB, 2017).

All of these suggest that the design of biodiversity protection and conservation efforts has largely been confined within their own domain and is not purposefully intended to affect other sectors where the sources of biodiversity threats lie. Thus, while ongoing efforts have led to some progress, the overall impacts are rather limited.

The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF)

The CTI-CFF is a marine and coastal environment protection and conservation initiative established in 2009.³⁰ It is a six-country arrangement that looks specifically at the Coral Triangle, a marine area in the western Pacific Ocean that falls within the territories of Indonesia, Malaysia, the Philippines, Papua New Guinea, Timor Leste and Solomon Islands. Five working groups perform the CTI-CFF's core functions. These are Seascapes, Ecosystem Approach to Fisheries Management (EAFM), Marine Protected Areas (MPA), and Climate Change Adaptation (CCA), and Threatened Species (TS) working groups.

Like the ACB, the CTI-CFF focuses primarily on protection and conservation and has little leverage to influence the drivers and pressures of biodiversity loss. This is despite poor governance and socio-economic pressures being identified as the root causes of transboundary marine and coastal environment problems.³¹

The Seascape working group concerns itself with increasing the number of areas that will be designated as 'priority seascapes,' which constitute large marine areas defined by ecological considerations and securing enough funding for them to be managed sustainably.³² To date, three priority seascapes were already identified. They are the Sulu Sulawesi Priority Seascape (Indonesia, Malaysia, and the Philippines), the Bismarck Solomon Sea Priority Seascape (Indonesia, Papua New Guinea and Solomon Islands) and the Lesser Sunda Priority Seascape (Indonesia and Timor-Leste). In addition, the seascape working group also develops action plans such as the Strategic Action Program for the Sustainable Fisheries Management of the Celebes (Sulawesi) Large Marine Ecosystems.

The EAFM working group focuses on increasing the number of relevant policies, regulations and projects that are relevant to the Ecosystem Approach to Fishery Management; assisting coastal communities in improving their economic conditions; increasing the number of policies and agreements on sustainable exploitation of tuna, live reef fish and ornamental fish.³³ On this specific issue, the EAFM works on capacity building through the formulation of guide briefs, manuals, implementation plans, frameworks, indicators, references, and trainings. Examples include Sulu-Sulawesi Sub-Regional EAFM Implementation Plan, Towards Ecosystem based Coastal Area and Fisheries Management in the Coral Triangle: Integrated Strategies and Guidance, Incorporating Climate and Ocean Change into an Ecosystem Approach to Fisheries Management (EAFM) Plan, Integration Guide Brief – Toward Ecosystem-based Coastal Area and Fisheries Management in the Coral Triangle, Integrated Strategies and Guidelines. The EAFM

³⁰ "History of CTI-CFF," Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, accessed July 29, 2021, <https://www.coraltriangleinitiative.org/about>

³¹ Sulu Sulawesi Marine Ecoregion Tri-National Committee, *Strategic Action Program for the Sulu-Celebes Sea Large Marine Ecosystem* (Prepared for the Sulu-Celebes Sea Sustainable Fisheries Management Project under GEF/UNDP/UNOPS, 2013) <https://iwlearn.net/resolveuid/5d469ae9-8c8f-457a-a511-7c28f7dc91c5>

³² "Seascapes," Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, accessed July 29, 2021, <https://www.coraltriangleinitiative.org/index.php?q=seascapes>

³³ "Ecosystems Approach to Fisheries Management (EAFM)," Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, accessed July 29, 2021, <https://www.coraltriangleinitiative.org/index.php?q=eafm>

working group also facilitates information sharing through the organising of forums and workshops.

The MPA working group endeavours to ensuring the effective implementation of region-wide Coral Triangle Marine Protected Area System, increasing percentages of area designated as protected, managed areas, no-take replenishment zones, and under “effective” management.³⁴ As of 2019, the six countries registered 2,532 locally and nationally managed MPAs. Like the EAFM working group, the MPA working group performs capacity building through the development of assessment tools, guides, action plans, frameworks, good practices, as well as information sharing through events and forums.

The CCA working group strives to increase the number of regional arrangements and national policies relating to climate change adaptation in the near-shore marine and coastal environment and small island ecosystems and establish a network of national centres of excellence on CCA.³⁵ Like the other working groups, the CCA working group works on capacity building through the creation of assessment tools, guides, action plans, and courses, and experience exchange through events. Some documents that the CCA has published include the Region-wide Early Action Plan (REAP) for CCA in the Coral Triangle Region and the Local Early Action Plan (LEAP) for CCA.

The TS working group works to increase the number of regional, national, and local policies that are in line with international agreements on threatened species, protect the marine habitat that contributes to conservation of threatened and endangered species, and increase the number of threatened species with improved status from endangered to threatened or less.³⁶

While the different working groups have made encouraging progress, challenges that resemble those identified in ASEAN-led mechanisms were documented. These include a lack of ocean literacy among policymakers and ministers of other sectors which rendered them not fully onboard of the CTI-CFF’s initiatives,³⁷ conflicting policy objectives among sectors and government levels, and fragmented programs activities between ministry in charge of marine biodiversity protection and other institutions.³⁸ Other external drivers relating to socio-economic factors were also identified such as increasing resource demand for income and food, growing population in coastal area, marine debris and pollution, excessive and direct fish take, and habitat destruction.³⁹

³⁴ “Marine Protected Areas (MPA),” Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, accessed July 29, 2021, <https://www.coraltriangleinitiative.org/index.php?q=mpa>

³⁵ “Climate Change Adaptation (CCA),” Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, accessed July 29, 2021, <https://www.coraltriangleinitiative.org/index.php?q=cca>

³⁶ “Threatened Species (TS),” Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, accessed July 29, 2021, <https://www.coraltriangleinitiative.org/index.php?q=ts>

³⁷ Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, *6th CTI-CFF Seascape Technical Working Group Meeting*, Manila, Philippines, September 3-4, 2019, <https://coraltriangleinitiative.org/sites/default/files/resources/Final%20ACTIVITY%20REPORT%206th%20CTI%20CFF%20Seascape%20Working%20Group%20Meeting.pdf>

³⁸ USAID Oceans, *Implementation Workshop for the Sulu-Sulawesi Seascape Ecosystem Approach to Fisheries Management Plan*, Manila, Philippines, March, 2020, https://www.coraltriangleinitiative.org/sites/default/files/resources/USAID_Oceans_CI_Sulu_Sulawesi_EAFM_Plan_Implementation_Workshop_APPROVED.pdf

³⁹ Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security, *7th Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) MPA Regional Exchange*, Sorong and Raja Ampat Marine Park, Indonesia, September 30 – October 5, 2018, <https://www.coraltriangleinitiative.org/sites/default/files/resources/Report%20on%20the%207th%20CTI-CFF%20MPA%20REX.pdf>

The Relevance of Planetary Health Concept

The two case studies of regional arrangements on biodiversity protection and conservation show some common features. First is their inadequacy to slow down threats to biodiversity due to their exclusive focus on protection and conservation. The ACB has attempted to reach out to the business sector to address potential drivers, but considering the scale of continuing environmental destruction, similar efforts need to be expanded significantly to make them sufficient in addressing triple planetary crisis.

Second and rather relatedly is a lack of buy-in from other sectors. Mainstreaming biodiversity values into national and local development strategies, and getting governments, business, and stakeholders at all levels to adhere to safe ecological limits in conducting their affairs were part of the Aichi Biodiversity Targets. It has become evident, however, that such efforts have not led to satisfactory outcomes because countries had missed the targets.

In this regard, the promotion of planetary health concept has the potential to increase the relevance of biodiversity protection and conservation in sectors other than environment. This is because planetary health concept encourages systems thinking and systems change. It offers an integrative approach that enables the breaking of silos of the different mandates and priorities there are across sectors and bring synergies to multiple fragmented agendas relating to, for example, human health, environment, and the economy. It potentially enables more coordinated policy action in otherwise conflicting sectors such as land-use planning and biodiversity protection; more consistent policies in other sectors to achieve environmental targets related to oceans and forestry; and more coherent interventions that will minimise trade-offs among different targets to achieve environmental targets simultaneously. In practical terms, planetary health's systems thinking offers a holistic approach to the allocation of resources and budgets in different sectors by making the protection of the health of the Earth's system their common aspiration. It may therefore enable the achievement of various Sustainable Development Goals simultaneously.⁴⁰

By positioning the health of the planet as a pre-condition to human health and survivability, the concept may facilitate stronger environmental focus. Giving nature greater weight in other sectors will strengthen environmental regulations, boost their enforcements, and enhance their monitoring capacity.

Additionally, the concept's emphasis on equity and social justice⁴¹ may also result in a structural economic transformation that features nature in the economic paradigm.

Planetary health is not the first concept that looks at environmental problems at systems level. Integral ecology⁴² likewise connects environmental degradation to the prevailing practices in the current economic system that are underpinned by short-term financial gain, profit maximisation, and unlimited material progress. Integral ecology thus proposes the application of moral principles in governing the use of the Earth's resources and a change in global development model. Other concepts such as green growth and circular economy similarly push for systems-level transformations to bring about lower carbon emissions and reduced material use.

⁴⁰ United Nations Environment Programme, *Healthy Environment, Healthy People*, Nairobi, Kenya, May 23-27, 2016, <https://wedocs.unep.org/bitstream/handle/20.500.11822/17602/K1602727%20INF%205%20Eng.pdf?sequence=1&isAllowed=y>

⁴¹ "The Planetary Health Education Framework," Planetary Health Alliance, accessed September 1, 2021, <https://www.planetaryhealthalliance.org/education-framework>

⁴² Marcelo Sánchez Sorondo and Veerabhadran Ramanathan, Pursuit of Integral Ecology, *Science*, Vol. 352, Issue 6287, p. 747, <https://science.sciencemag.org/content/352/6287/747>

Planetary health can complement these other concepts. It can make a stronger case for the environment through its issue linkage with human health which has evidently become a global priority in this time of pandemic. For example, its adoption across sectors may lead to significant improvement in resource efficiency, sustainable agricultural intensification, cleaner production processes, reduction in food loss and waste, improved access to food and good nutrition, and changes in lifestyle, consumption preferences and consumer behaviours.

Consequently, the integration of planetary health will enable agencies to pay greater attention to the notion of biocapacity limit that spells out the Earth's capacity to produce resources and absorb waste material.⁴³ Exceeding this limit results in ecological deficit, which is a precursor to environmental destruction. Respecting this limit may bring about systemic changes across sectors and lead to sufficient protection and conservation of the natural environment.

Conclusion

After its formal launch in 2015, the World Health Organization (WHO) and the UNEP were among international regimes supporting a discussion session on planetary health concept during the Conference of the Parties (COP) 13 of the Convention on Biological Diversity (CBD) in 2016.⁴⁴ While it has been promoted at the global level, the ongoing COVID-19 pandemic provides an opportunity for the concept to gain stronger traction across different sectors at the regional and national levels.

The adoption of the concept may enable better communication and coordination among stakeholders, create stronger synergy across different policies and activities, and forge greater regulatory harmony among sectors and government levels. This will in turn result in reduced pollutions and stronger sustainable production and consumption practices, which then will lead to meaningful biodiversity protection, conservation, and restoration sufficient to address the triple planetary crisis.

⁴³ "Ecological Footprint," Global Footprint Network, accessed September 1, 2021, <https://www.footprintnetwork.org/our-work/ecological-footprint/>

⁴⁴ *Planetary Health: Strengthening the Science-Policy Interface for Sustainable Development Rio Conventions' Pavilion*, CBD COP 13, Cancun, Mexico Moon Palace Convention Center, December 14, 2016, https://www.cbd.int/health/cop13-rcp-planetaryhealth_14dec17.pdf

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