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Briefing Note

Overview of the Environmental Impacts of Ecotourism in the Philippines

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List of Abbreviations and Acronyms

BOI	-	Board of Investments
CAAP	-	Civil Aviation Authority of the Philippines
CAB	-	Civil Aeronautics Board
CD	-	Cluster destination
DA	-	Department of Agriculture
DBM	-	Department of Budget and Management
DENR	-	Department of Environment and Natural Resources
DFA	-	Department of Foreign Affairs
DILG	-	Department of Interior and Local Government
DOF	-	Department of Finance
DOH	-	Department of Health
DOJ	-	Department of Justice
DOT	-	Department of Tourism
DOTr	-	Department of Transportation
DPWH	-	Department of Public Works and Highways
DSWD	-	Department of Social Welfare and Development
DTI	-	Department of Trade and Industry
ETT	-	Ecotourism Tracking Tool
GDP	-	Gross domestic product
LGC	-	Local Government Code
LGU	-	Local government unit
LTFRB	-	Land Transportation Franchising and Regulatory Board
M&E	-	Monitoring and evaluation
MARINA	-	Maritime Industry Authority
NES	-	National Ecotourism Strategy
NGA	-	National government agencies
NIPAS	-	National Integrated Protected Areas System
NTDP	-	National Tourism Development Plan
PNP	-	Philippine National Police
PSA	-	Philippines Statistics Authority
RO	-	Regional office
SMEs	-	Small and medium enterprises
TESDA	-	Technical Education and Skills Development Authority
TIEZA	-	Tourism Infrastructure and Enterprise Zone Authority
TIES	-	The International Ecotourism Society
TPB	-	Tourism Promotions Board
UNWTO	-	United Nations World Tourism Organization

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I. Introduction

Ecotourism, as defined by the International Ecotourism Society (TIES), refers to responsible travel to natural tourist areas while conserving the environment and valuing the well-being of local residents [1]. Although there is no exact or universal definition for this concept, this briefing note will use the definition from the United Nations World Tourism Organization (UNWTO), which suggests that, for an activity to be considered as an ecotourism initiative, then the following characteristics must be present:

- a) the main attraction should be the natural environment itself or its components;
- b) the activity should be environment-friendly and sustainable; and
- c) the activity should be beneficial and educational for locals and visitors [2].

The Philippines, which is composed of three main island groups – Luzon, Visayas and Mindanao - is an emerging ecotourism hotspot in Southeast Asia [3]. As one of the world's largest archipelagos, it has an abundance of natural sites and cultural environments which makes it a viable ecotourism destination. According to statistics, tourism activities have contributed significantly to the country's economic growth over the past five years [4]. The Philippines Statistics Authority (PSA) reported that, in terms of economic performance, the tourism sector has shown no signs of slowdown since 2014-2018, during which it contributed an average of 11.43 percent, annually, to the national output (GDP) and generated at least 4.82 million tourism-related jobs each year [5]. In fact, international tourist arrivals grew at an average annual rate of 9.11 percent for the same period, with 2018 posting the highest record of 7.13 million arrivals [5]. However, despite the economic benefits that tourism has brought to the country, tourism-related activities still pose threats to local tourism destinations and host communities, especially relating to ecological and biophysical issues [6, 7].

In 2018, the Philippine government ordered the closure of Boracay Island and threatened to shut down other famous tourist spots due to water pollution and waste management problems [8, 9]. Although the government, through its pronouncements, has been recognizing the impacts of tourism on the environment [10, 11], the issuance of warnings against those who violate the law may not be sufficient to guarantee adherence to the principles of sustainable tourism. The recurrence of tourism-related problems, such as

overcrowding, resource destruction and pollution, serves as a reminder to policymakers to evaluate policies in order to ensure the sustainability of ecotourism destinations for future generations [12].

II. Tourism Policy and Legal Framework in the Philippines

Over the years, the tourism policy of the Philippines has always reflected trends and developments in the travel industry, and ecotourism has been a particular focus due to its significant role in minimizing the impacts of tourism and the over-development of the country's environment and natural resources. This is one of the reasons why the government has enacted tourism and environmental laws and has adopted a national strategy for ecotourism. These policies and plans provide a governance structure relating to tourism and serve as the roadmap for its development.

2.1 National Tourism Policy

The Republic Act No. 9593, also known as the Philippine Tourism Act of 2009, is the country's primary tourism law which states that tourism is an "indispensable element of the national economy and an industry of national interest and importance". The law, which recognizes the role of sustainable tourism and its socio-economic impact in enhancing the lives of Filipinos, views tourism as a major economic contributor and driver of growth [13]. The Tourism Act also reorganized the Department of Tourism (DOT), which is the lead government agency steering tourism development and promotion in both the local and international arena.

Under the law, the national tourism plan has to be crafted and updated regularly to identify areas that have potential value for tourism, and to set the direction of the tourism industry in the Philippines. The current National Tourism Development Plan (NTDP) adopted the Tourism Cluster Approach¹ and Convergence Principle² as its main strategies for the period 2016-2022 (see *Appendix A*). Under the NTDP, the government named 20 cluster destinations (CDs) which are enjoined to prioritize ecotourism over other tourism development initiatives (see *Appendix B*) [14, 15]. In addition, there are also prospective tourist sites located in different

¹Tourism Cluster Approach is a strategy involving clustering transport networks, infrastructure projects, accommodation and recreational facilities, human resource development, and marketing plans in support of the development of tourism destinations.

²The Convergence Principle of the NTDP highlights a tourism governance and management framework that allows "convergence of approach in national, regional, and local levels at both strategic and tactical horizon".

CDs that are covered by the National Integrated Protected Areas System³ (NIPAS). The responsibility for the development and management plans of these sites, which have “ecotourism potential and cultural heritage value” [16, p.16], lies with the Department of Environment and Natural Resources (DENR) in coordination with the DOT.

2.2 Local and Shared Governance

The Republic Act No. 7160, or the Local Government Code (LGC), was enacted in 1991 to ensure the autonomy of local political units in the country. It provides for the decentralization of certain powers and authority to local government units (LGUs) with the central aim of bringing public goods and services closer to the people. In relation to tourism development, the LGC mandates municipalities, cities and provinces to provide basic services and facilities such as the establishment of tourism facilities, information services and tourism promotion programs, among others [17]. In addition, the Tourism Act provides unique policy opportunities relating to shared responsibilities of the national and local governments [13]. The Act (RA 9593) mandates the DOT to closely coordinate with LGUs and to harmonize all local and regional tourism development plans with those of the national government. It likewise requires LGUs to integrate other local plans (zoning and land use, infrastructure development, and heritage and environmental management) within their local tourism plans. On the part of the national government, the DOT is required to extend assistance to LGUs in the form of financial and technical support, capacity-building, and strict enforcement of laws and regulations [16].

2.3 National Ecotourism Policy

Although the idea of ecotourism was introduced as early as 1992, it was only in 1999 that the Philippine government officially adopted an ecotourism policy through the issuance of Executive Order No. 111⁴. This provided a legal framework for the DOT and DENR to work together with other stakeholders in the ecotourism sector [7]. It also mandated the formulation of an ecotourism strategy program. As a result, this became the basis for the

³National Integrated Protected Areas System (NIPAS) refers to the classification and administration of all designated protected areas to maintain essential ecological processes and life-support systems, to preserve genetic diversity, to ensure sustainable use of resources found therein, and to maintain their natural conditions to the greatest extent possible. (Source: Republic Act No. 11038 or the Expanded NIPAS Act of 2018).

⁴Executive Order No. 111, s. 1991 is entitled, “Establishing the Guidelines for the Ecotourism Development in the Philippines”.

production of the country’s first integrated ecotourism management plan - or the National Ecotourism Strategy (NES) - which laid out the blueprint for ecotourism development in the country [15]. While the goal of the first NES (2002-2012) was to mainstream ecotourism in community-based resource management, the latest NES (2013-2022) focuses more on ensuring responsible development and management of sites that will, in turn, contribute to inclusive growth [18]. The second NES recognizes ecotourism as a development tool that can transform the country into a haven of competitive ecotourism destinations, products and services, without compromising efforts to conserve natural resources and to promote environmental education and ethics [18]. Table 1 shows the ecotourism resources and products that are available in the Philippines as identified in the NES. The majority of the ecotourism options in the country are a mix of sites and activities that fall under the tourism categories of sun and beach, nature-based, and diving and marine sports [14].

Table 1. Philippine Ecotourism Resources and Products

Category	Resources and Products
Natural Areas / Resources	Mountains, Volcanoes, Hills, Forests, Caves, Karst Formations, Marshes, Lakes, Rivers, White Beaches, Mangroves, Coral Reefs, Flora and Fauna, Landscapes, Seascapes
Culture / Tradition	Festival, Fiestas, Cuisine, Historical Sites, Archeological Sites, Rituals, Costumes
Products / Activities	Mountaineering/Trekking, Hiking, Spelunking ⁵ , Biking, Bird-watching, Whitewater Rafting, Kayaking, Scuba Diving, Snorkeling, Dolphin-/Whale-/Whaleshark-watching, Firefly-watching, Research

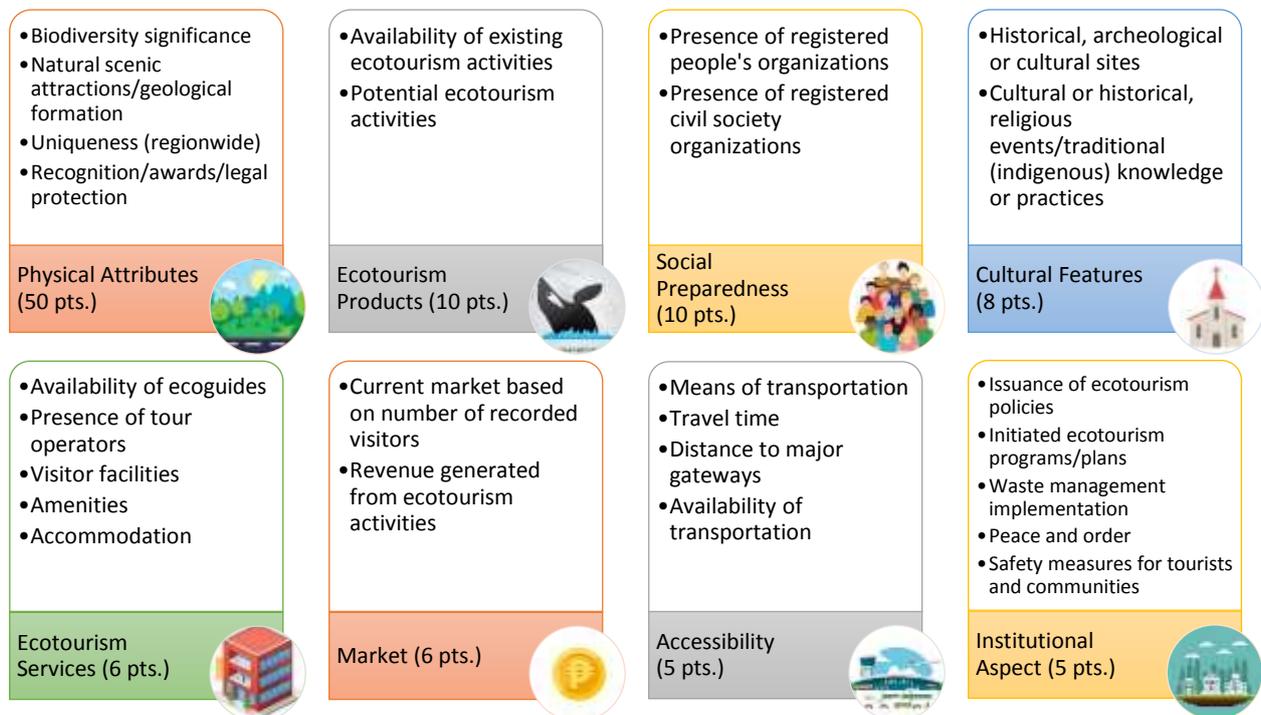
Source: National Ecotourism Strategy 2013-2022

The NES has also provided a set of criteria (see *Figure 1*) to determine which sites will be prioritized, given the limited budget and resources available for ecotourism development. These criteria are weighted, with 100 points divided over eight categories; the highest allocation of 50 points is assigned to “physical attributes”. This aspect particularly highlights biodiversity, the uniqueness of the natural attraction, and the legal and institutional recognitions of the site or destination [15]. By allocating half of the total points to this category, the government has recognized the importance of prioritizing the protection of natural areas that possess high levels of biodiversity. The remaining criteria focus primarily on

⁵“Spelunking” relates to the exploration of caves.

auxiliary ecotourism products and services that indicate the potential and readiness of a site in terms of other attributes. Sites can receive a maximum of 5-10 points from each of these criteria [15].

Figure 1. Criteria for the Selection of Priority Ecotourism Sites

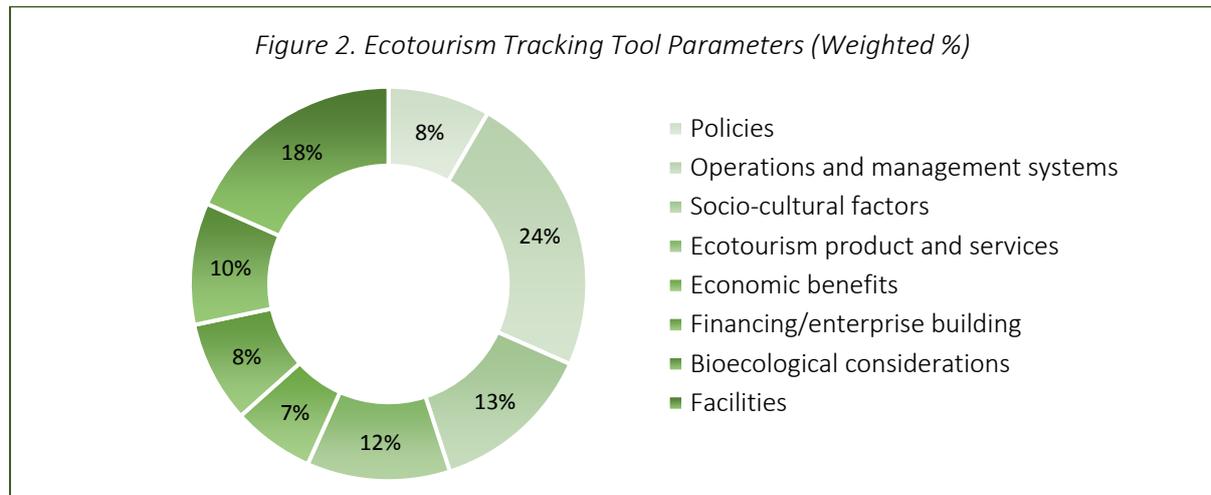


Source: National Ecotourism Strategy 2013-2022

2.4 Ecotourism Monitoring and Evaluation

While the NES lists the monitoring of outcomes and impacts as one of the main strategies, the government acknowledges that the task of evaluating tourism sites and activities without established guidelines and standards is daunting [19]. In fact, the previous NES (2002-2012) mentioned the weak implementation of monitoring and evaluation (M&E) mechanisms as one of its areas of concerns. However, the fact that, in 2018, the DENR launched a new M&E tool to track ecotourism sites and/or projects is a welcome development. The DENR developed the Ecotourism Tracking Tool (ETT) to monitor and measure existing ecotourism sites and activities in terms of their *friendliness* to the environment, as well as their *adherence* to the principles of ecotourism. There are two versions of the ETT in order to cover ecotourism sites/projects both (a) within and (b) outside protected areas. There are eight common parameters covering policies, operations and management systems, socio-cultural factors, ecotourism products and services, economic benefits, financing/enterprise building, bioecological considerations, and facilities (see Figure 2) [17]. The ETT also provides

authorities with a basis for justifying the issuance of necessary permits and for deciding whether or not a site qualifies as an ecotourism zone or area [19, 20].



Source: ETT in M&E of Ecotourism Sites or Projects in the Philippines (2017)

III. Environmental Impacts

Ecotourism offers a wide range of opportunities including decent livelihoods, higher local incomes, and better environmental awareness, particularly for local community members. However, rapid and unplanned ecotourism developments, and the consequent influx of people, can have a negative impact on the environment and natural resources, and this trend has become more evident and alarming [7]. The 1991 Tourism Master Plan, the predecessor to the NTDP, even stated that human activities have altered natural and cultural environments in the Philippines [15].

Even though data on the environmental impacts of ecotourism in the Philippines is limited, there are some local studies and information indicating that certain destinations in the country are experiencing environmental problems such as marine and terrestrial life degradation, natural resource depletion, environmental pollution and vandalism (*see Table 3*). A 1999 study by Evacitas [21] on whale watching activities in Tañon Strait, Bais City, showed that the close interaction between humans and cetaceans (dolphins and whales) has affected the marine life and environment in the vicinity. The study noted that the cause of water turbidity and coral reef destruction near the city's Hingungawan Wharf was due to the constant operation of tourist vessels [21]. In another study (2004-2005) conducted in Donsol, Sorsogon, researchers discovered that the activities associated with whale shark watching, such as flash photography, diving, and playing (by touching) with whale sharks, had affected

the movement and behavior of these animals [22]. Moreover, a 2015 research report indicated that a similar activity in Oslob, Cebu, had also led to the degradation of the coral reef ecosystem, which was exemplified by higher microalgae and lower coral density in the area [23].

Table 3. Environmental Impacts of Ecotourism

<ul style="list-style-type: none"> • Flora and fauna destruction • Local resource (e.g. water) depletion • Water quality degradation • Land degradation • Vegetation degradation • Wildlife disturbance 	<ul style="list-style-type: none"> • Solid waste and litter accumulation • Soil contamination • Groundwater and coastal water pollution • Sewage pollution • Aesthetic pollution 	<ul style="list-style-type: none"> • Natural habitat loss • Deforestation • Soil erosion and compaction • Accelerated erosion • Damage to natural features • Vandalism • Ground cover loss
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Source of basic data: Global Development Resource Center, case studies, government reports

Another consequence of excessive tourism development is the pressure exerted on scarce natural resources such as water and local raw materials [11]. This usually happens when the number of tourists and activities exceeds the carrying capacity or limit of that destination [7]. The Department of Environment and Natural Resources (DENR), in their National Water Quality Status Report for 2006-2013, reported that they had identified some coastal and marine waters (i.e. Manila Bay, Coron Bay, and Nasugbu Bay) which were not safe for human activities due to high levels of human excrement (>200MPN/100ml) [24]. The same report also noted that Boracay Island’s groundwater resources were highly vulnerable to contamination, and that “unregulated pressures due to tourism development could lead to the further degradation of the groundwater and coastal water resources” of the renowned island [24, p. 21]. However, these problems do not relate only to marine and coastal areas. In fact, Dulnuan, in her research, revealed that before Sagada in the Mountain Province became well-known as a tourist spot, the water supply was still accessible and sufficient for local residents [25]. But, as the number of tourists in Sagada increased, the water problem worsened and even led to the privatization of some watersheds [25].

Pollution, specifically waste creation and garbage accumulation, is another pressing concern that LGUs and tourism communities are now facing. The construction of additional lodging facilities, food and beverage establishments and other tourism related infrastructure

contributes to the generation of additional solid waste and sewage pollution and to the modification of the physical landscape of some sites [11]. This has been the case in Boracay Island in Malay, Aklan. National and local authorities reported that the unprecedented growth in tourism, the failure of businesses to obey environmental regulations, and the public's disregard for the environment had all contributed to the sorry state the island was in [26]. In 2018, before Boracay was shut down for rehabilitation purposes, the island was generating around 90-115 tons of garbage per day when it was set-up to deal with only 30 tons [27]. Based on the experience of local destinations, the pollution problem worsens during peak seasons and holidays simply because of the sheer volume of tourists coming in and out of these sites [25].

IV. Policy Options

Ecotourism is clearly one of the fastest growing sectors of the travel industry and a leading contributor to national development not only in the Philippines but also in the Asia Pacific region as a whole [26]. The successes of the industry reflect how effective and sustainable the policies and programs of both the national and local governments have been. However, in order to encourage proactive ecotourism development planning, the government could try to ensure that its policies remain relevant and responsive to the changing needs of the travel industry. Policymakers need to be able to address the issues and challenges without deviating from the principles of sustainable development and good governance. In this regard, the following measures might be considered to address these policy issues:

1. Review the existing national tourism law – To support legislation, Congress could exercise its oversight power to inquire into, and review the performance of the DOT and DENR in terms of their implementation of the Republic Act No. 9593 or the Tourism Act of 2009 over the past ten years. This legislative review would be beneficial for both government and industry stakeholders to identify implementation issues and challenges, and to assess whether or not there is a need to amend related tourism and environmental laws.

2. Institutionalize a National Ecotourism Policy – The institutionalization of a national ecotourism policy would help proponents of ecotourism development to mainstream and adopt the principles of sustainable tourism development at the community, regional and national levels. This would likewise compel LGUs and the national government to increase their budgetary support for tourism and to prioritize prospective ecotourism development programs and projects.

3. Mandate ecotourism research and database development – One of the weakest components in Philippine tourism development is the lack of updated and comprehensive statistics and studies relating to the performance of tourism sites and projects and their impacts on communities. The institutionalization of ecotourism research could strengthen the monitoring of existing sites, projects and activities. Furthermore, the development of a tourism database and accounting of ecotourism sites and natural resources at the community/LGU level could provide a more precise and specific understanding about our resources and tourism markets. This could eventually guide decision-making bodies in crafting responsive policies, and in exacting accountability among stakeholders in the future. This endeavor could be conducted through engaging a national research institution and reputable state universities and colleges around the country.

4. Grant fiscal and non-fiscal incentives (e.g. in the form of subsidized capacity development) – In a move to encourage and promote responsible and people-centered ecotourism programs and projects, the government could devise an equitable and fair incentive program to provide fiscal and non-fiscal benefits for localities and tour operators that are complying with the relevant regulations and that are performing well. This incentives scheme could also support the national government in determining future ecotourism sites that have good potential for employment generation, local business growth and the promotion of environmental education.

V. Way Forward

It is important to note that, while ecotourism can be a financially rewarding activity for the local economy, it also presents a serious threat to the environment and host communities if it is abused by tourists and developers. This is, however, where the government could step-in by providing long-term solutions to achieve the right balance between economic viability and environmental conservation. The government could take this opportunity to craft a favorable policy environment and to strictly implement national laws on tourism and the environment. Furthermore, by collaborating and partnering with the private sector, general public, non-governmental organizations and other key stakeholders, the government could take the lead in ensuring that mitigation and impact management measures are properly carried out. In the end, the key to achieving sustainable ecotourism development is proactive multi-stakeholder cooperation.

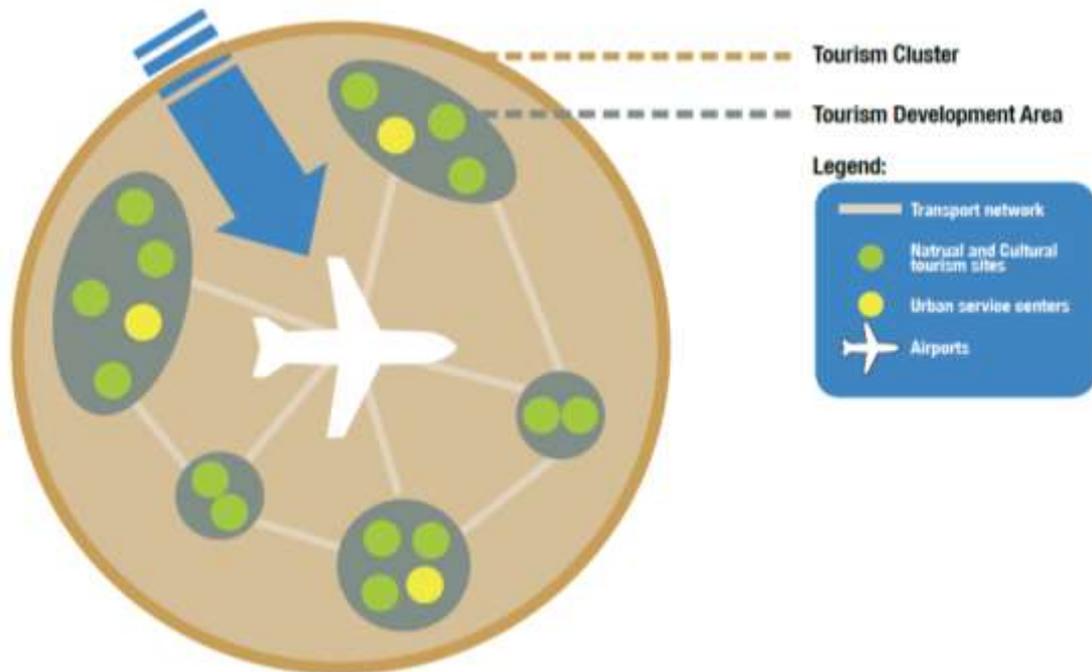
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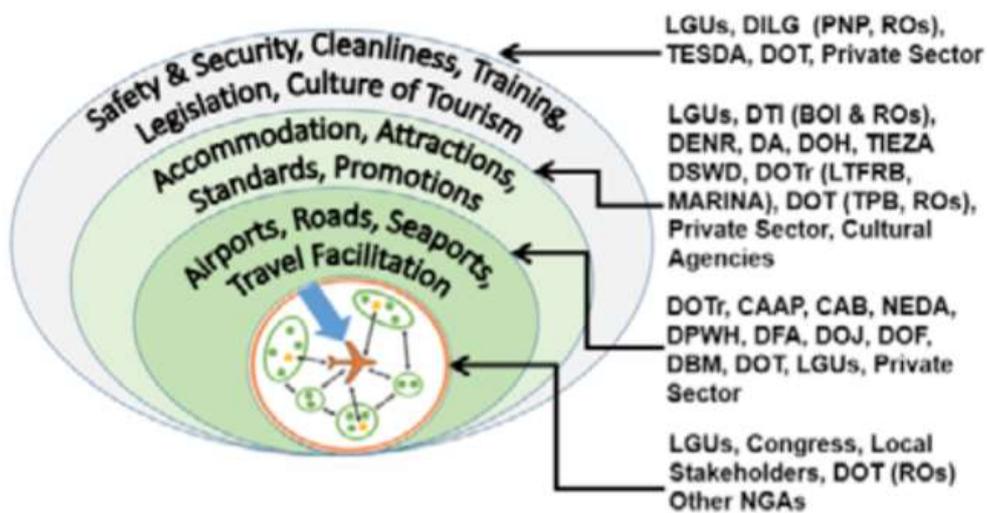
Appendix A: National Tourism Development Plan (NTDP) Guiding Principles

Figure 3. Tourism Cluster Concept



Source: National Tourism Development Plan 2016-2022

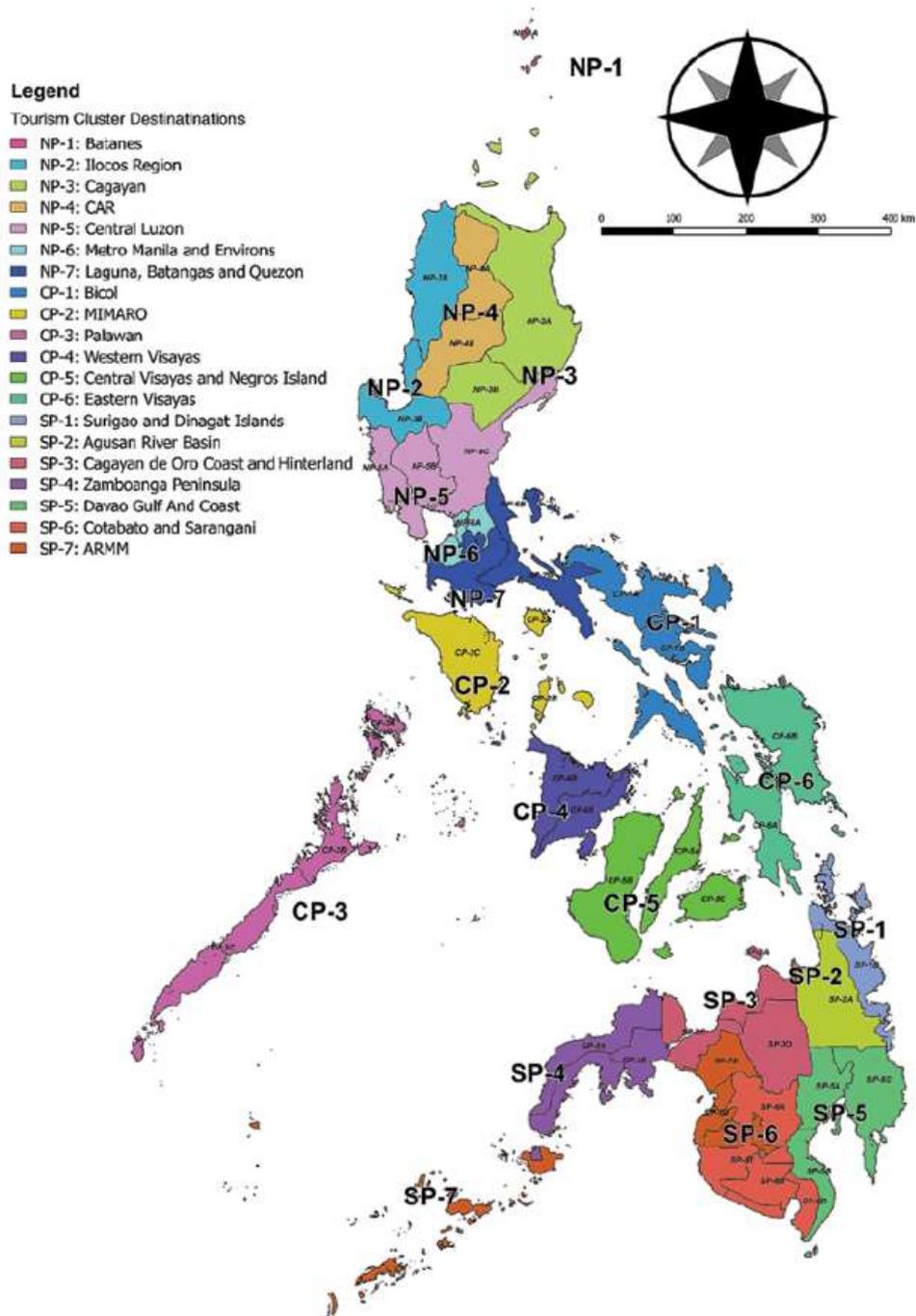
Figure 4. Tourism Convergence Principle



Source: National Tourism Development Plan 2016-2022

Appendix B: Cluster Destinations (CDs)

Figure 5. Map of Cluster Destinations



Source: National Tourism Development Plan 2016-2022