**SUSTAINABLE DEVELOPMENT GOALS AND PNG ENVIRONMENT& CONSERVATION POLICIES- SDG Environmental Localization Report**

**Acknowledgement**

**Abstract**

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**List of Acronyms/ Abbreviations**

SDG: Sustainable Development Goals

CEPA: Conservation and Environment Protection Authority

DEC: Department of Environment and Conservation

DNPM: Department of National Planning and Monitoring

ED: Endangered Species

MEA: Multilateral Environment Agreements

GIS: Geographical Information System

HDI: Human Development Index

MEA: Multilateral Environment Agreement

NGDP: National Goals and Directive Principles

NGO: Non-governmental Organisation

UNDP: United Nations Development Programme

POP: Persistent Organic Pollutants

PNG: Papua New Guinea

ESD: Ecologically Sustainable Development

RSD: Responsible Sustainable Development

SD: Sustainable Development

**Acknowledgement**

First of all, I would like to express my heartfelt gratitude to my supervisor and lecturer Professor David Mowbray for his tireless supervision and quality time. Whilst being an intern for the national department that regulates environment, he suggested an interesting research topic- to localise environmental SDG into the CEPA policy framework. The research helped me fully comprehend the mandated role of CEPA and were also able to identify gaps and blocks towards achievement of sustainable development. Hence, I was able to produce the document as an initial roadmap for the department as a head start for localization exercise in the environment sector.

Secondly, I thank some CEPA staffs for their understanding and kind deeds given throughout the research period. I am very pleased to have a director like Maino Virobo who has never failed his officers when seeking assistance. I thank him particularly for providing me the CEPA Corporate Plan and Strategic Plan that has helped me a lot in compilation of the final report.

**Executive Summary**

Papua New Guinea must be within the top 50 countries in the world as per Human Development Index (HDI) ranking by United Nations by 2050. All its citizens must be prosperous, healthy and happy by then. Consequently we must be very serious about the National Strategy on Responsible Sustainable Development and Sustainable Development Goals. Toward this end, one must thoroughly understand the underlying definitions of sustainable development and sustainability.

It is important to comprehend what sustainable development means in environment context to attain sustainability. In order to see sustainability prevail, we must be ecologically wise first.

Sustainable development is commonly defined as “development that provides for today’s generation without compromising the ability to provide for future generation” as quoted from the Brudtland’s report. Its four main pillars are: social, economic, environmental and institutional.

Though it calls for social, economic and ecological justice through practice of good governance, the trend of development and environment protection still remains a controversy. Hence the term is regarded as oxymoron by well-known authors like Haydn Washington.

Early movement of environmentalism in late 1960s after Silent Springs had projected Stockholm Convention in 1972. This global treaty is aimed at protecting human health and the environment from the effects of persistent organic pollutants (POPs).

Since then several other international conventions and treaties emerged until 1992 Rio Earth Summit where UN member States signed and ratified the three (3) Rio Conventions (UNCBD, UNFCCC, UNCCD) and other two additional documents: Agenda 21 which is the action plan and the Rio Declaration containing 17 sustainable principles.

As a result PNG developed its first National Strategy for Sustainable Development in 1994 naming ‘Rio to Rai’ as a reinforcement to PNG’s Constitution and its Directive Principles. Afterwards, PNG signed the Millennium Declaration Goals at the dawn of the millennium in year 2000 to address pressing issues throughout the globe.

The Sustainable Development Goals Agenda 2030 superseded MDGs in 2015. The Agenda of SDG is very broad yet comprehensive and highly ambitious in its approach. The Agenda does not replace the MDG agendas but elevates its goals and integrates recent global challenges such as climate change for a better planet.

In 2014, Government of Papua New Guinea through the Department of National Planning and Monitoring via the ministerial leadership of Charles Abel developed StaRS as guiding principles for Responsible Sustainable Development, and localization of SDGs in PNG context. Establishment of StaRS was in fact resurrection of PNG’s commitment to Sustainable Development which was long forgotten. The concept of StaRS measures sustainable development way better than PNG’s strategic plan Vision 2050 which is people and economic centred. The StaRS is ecologically oriented and embraces strong sustainability.

However, implementation of all these so called strategic action plans and international obligations have been considerably poor. Perhaps PNG faces countless hiccups during implementation phase including financial, capacity, technical assistance. I believe that the most underlying reason of PNG’s inefficiency is due to ineffective collaboration amongst different government sectors and levels of government. This is the very reason why the MDG localization was delayed by four (4) years after its adoption (MDG Report 2015).

PNG is now at the crossroads to sustainable development as active member of the UN States and also depending directly on extractive/ non-renewable industries for country’s development. However, translation of these project developments into community’s welfare and PNG’s overall development has been poor and wavering since independence.

Fortunately, the country is subjected to necessary legal litigation process whereby all developers are to abide. Following are key laws and regulations that guide the development process to protect the environment:

1. Conservation Act
2. Environment Act 2000
3. CITES Act

Environment Act 2000 is the significant legislation that regulates the overall development activities in the country in protection of the environment. In addition, Conservation Act is also paramount as biodiversity conservation is very crucial in sustainable development strategy. PNG CEPA is also committed to implement international environmental conventions and MEAs that falls under its mandate. These are the key functions of CEPA performed by the three different technical wings: Environment Protection Wing, Sustainable Environment Programs Wing and Policy Coordination and Evaluation Wing respectively.

This report provides an overview of the environment and conservation policies in PNG within the mandate of CEPA. It examines major challenges of environment and development in PNG thus proposing sustainable solutions and principles.

The report also integrates feasible environmental SDGs into CEPA’s policy framework and priority plans. It highlights CEPA’s performance on its mandated function, stating its operational constraints and provides appropriate approaches towards its competency and efficiency at organisational level.

PNG is a member state of the United Nations General Assembly. As a party to the Assembly, States are obliged to integrate and implement internationally agreed goals and targets into its development plans and agendas. The UN proposes international agreements – both legally binding and non-legally binding documents like SDGs to fundamentally address trans-boundary environmental issues such as movement of hazardous wastes, ozone depletion, climate change which are interlinked to socio-economic issues such as poverty, health& sanitation, human rights. This report provides the initial roadmap of environment SDG into CEPA policy framework.

SDGs superseded MDGs after its expiry on 2015. They are a much more comprehensive set of goals (17), targets (169) and indicators (243) with a higher level of ambition than its precedent. These goals are aimed at achieving “a prosperous, high quality of life that is **equitably shared** and **sustainable.**” The PNG Government has added some more targets and indicators suiting PNG conditions.

Yet PNG has a particularly unique and challenging context for prioritization and implementation of international goals and targets. There is a growing inconsistency with PNG’s activities on ground and its commitment to sustainable development at international level. For instance, though PNG is a founding member for Coalition for Rainforest Nations (CfRN)that strongly calls for REDD+ in response to Kyoto Protocol, yet allows logging industry and special agriculture and business leases (SABLs) without stringent law enforcement ([Babon and Gowae 2013](#_ENREF_1)).

Implementation of MDGs in the country has been cumbersome and challenging given the perennial constraints such as geographical isolation, cultural barriers and corrupt government system. Translating environment into development comes with enormous challenges especially in terms of coordination, implementation, monitoring and evaluation **(DNPM, MDG Summary Report 2015).**

On the flip side, PNG is actively involved in international dialogue making commitment to sustainable development. Its first National Strategy for Sustainable Development was launched after the 20th Waigani Seminar on “From Rio to Rai: Environment and Development in PNG” in 1994. It was called *“Stretim Nau Bilong Tumora”* which was supported by action plan entitled *“Yumi Wankain” (Mowbray 2014).*

According to Mowbray, over the decades, much of this seem to be greatly forgotten. In 2007, Vision 2050 was published setting out the road map for what was termed a visionary development strategy to guide our socioeconomic development **‘We will be a Smart, Wise, Fair, Healthy and Happy Society by 2050.’** It was an aspirational statement and a vision for our future. However, the strategies and targets set are economic and development oriented which contradicts the ultimate aim of sustainable development.

PNG has shown a concerted effort to develop an improved governance structure through National Responsible Strategy. In March 2014 the Minister for National Planning and Monitoring Mr Charles Abel presented a new 'development revolution' for PNG. He proposed the new National Strategy for Responsible Sustainable Development.

In fact it is a resurrection of an earlier PNG National Sustainable Development Strategy that was accepted by NEC back in 1994 but long since forgotten. Moreover this is a greatly improved strategy with firm PNG Government support. It is more environment and people oriented and is a great way forward for sustainable development.

The localization report examines the environmental opportunities and challenges at national level and in CEPA as national department responsible for environment protection. Improvements on CEPA policies, action plans and strategies, efficient implementation and vigorous enforcement would provide an equitable and sustainable outcomes for PNG. Yet major constraints and barriers persists:

* Poor Agency Coordination and Collaboration: Institutional linkages and synergies is poor at both vertical (different levels of government) and horizontal (sectoral) institutions;
* Ineffective, inefficient and incompetent monitoring/ evaluation and compliance/ enforcement as per Environment Act;
* Poor initiation and facilitation of sectoral programs within the organisation which is funded by the GoPNG. Most are project-oriented programs funded by donor agencies of which CEPA coordinates its implementation on ground within a timeframe.
* Lack of enforcement of sustainability principles:

At organizational level:

* Understaff: CEPA seriously lacks officers.
* Capacity building
* Communication gaps
* Services- internet, stationeries, uniforms
* Welfare- rightful incentives,

The outlook for enhanced, effective and competent SDG localization by CEPA is not necessarily bleak. The Agenda of SDG has the potential to provide new sustainable path and mobilize the necessary support for the efficiency of CEPA’s mandated function.

1. **Introduction**

We want a future that is not only sustainable, but also desirable – a future that allows a prosperous and equitable economy embedded in a harmonious society that remains within planetary ecological boundaries (Robert Constanza, ANU).

Sustainable Development in Papua New Guinea (PNG) remains highly controversial, despite the fact that the country has significant commitments on ensuring environmental sustainability at international and regional levels. Yet effective national environmental governance is a key to Sustainable Development ([Fulton and Benjamin 2011](#_ENREF_2)).

Sustainable Development is commonly defined as the development that meets the needs of today’s generation without compromising the ability to meet the needs of the tomorrow’s generation as per the Brudtland’s report 1987. PNG

The Earth is just ‘right’ for life to thrive.

The Mother Earth provides conducive living environment for human and other species for survival. The atmosphere, biosphere, hydrosphere, lithosphere and cryosphere functions holistically in a systematic manner. There exists different systems and processes within these spheres which are naturally structured in a way to deal with significant changes that affect the planet for 3.5 billion years (Miller 2017, 7). That is why we must mimic nature’s way of dealing with environmental problems for sustainability to endure.

It is not possible to pin down the exact inception point for the modern environmentalism. Some argue that ‘old sustainability’ strategies had resulted in conservation movement while others say emergence of pollution started environmentalism (Washington, 2015).

Early conservationists and environmentalists had a special connection with the nature, their worldview was that humans were linked to nature. They did not only conserve for their future generation but respected, cared and had utmost value to nature. They used terms such as ‘caring’, ‘harmony’ and balance of nature. Christian theology used words such as ‘Christian Stewardship’ where they had ethical responsibility to care for nature and not dominate. The Christian theology and sustainability calls for one thing in common: **enoughness**. As it is stated in the1 Timothy 6:6, “well, religion does make a person very rich, if he is satisfied with what he has”. So these early conservationists, in particular, recognised the rights of all living things and our need to understand and respect our links with nature. Ideas on sustainability grew from these early conservationists.

**Theology & Sustainability**

* **Handle with care;**
* **God equips and instructs his people to steward wisely;**
* **Dominion is not the authority to work against God’s creation, but ability to work for it.**

According to Mowbray, the most recent movement of environmentalism arose after the publication of Silent Springs by Racheal Carson in 1962, New York, USA while working for US Fisheries and Bureau of Wildlife as a biologist. It dealt with pollution from persistent organic pollutants, in particular DDT which had a lasting effect on the wildlife and poses serious health threat on human beings via the increasing food chains. In 1970, through studies Mowbray had found out that eggshell thinning in kookaburras and kestrels in Australia in cotton growing areas where much DDT was used. As such, it is supposed that DDT surely had a detrimental effect on health both ecosystems and human beings. Hence the early conservationists had claimed that humanity had ‘break this link with nature’- or we may say today as ***living unsustainably***.

Many people in the less-developed countries struggle to survive due to social and environmental challenges such as poverty and pollution. By contrast, many individuals in more-developed nations enjoy affluence, or wealth, consuming large amounts of resources far beyond their basic need.

To explain this, Willam Rees and Mathis Wackernagel had developed the concept of ecological footprint. The “per capita ecological footprint in the average ecological footprint of an individual in a given country or area”.

Just as the ecological footprint, scientists Paul Ehrlich and John Holdren developed a simple model showing how population size (P), affluence, or resource consumption per person (A), and the beneficial and harmful environmental effects of technologies (T) help to determine the environmental impact (I) of human activities. The model is summarised by the simple equation I = P × A × T.

Impact (I) = Population (P) × Affluence (A) × Technology (T)

These important concepts of environment took place in early1970.

Discussion and negotiation of environmental problems affecting countries and transboundries were recognized by Un General Assembly in 1968. (Mowbray paper).

Sustainable Development is of paramount importance in this day and age yet is considerably challenging to achieve globally. The concept of SD dates back 60 years ago. The publication of Silent Springs in 1962 by Racheal Carson, a biologist from US Fisheries and Wildlife division in New York has revealed that DDT and persistent organic pollutant had detrimental effect on wildlife and the environment. Hence it is argued that pollution was the start of environmentalism movement while some sustainability scholars say SD developed after 1987 (Washington 2015, 38).

There is an overwhelming support from international laws related to sustainable development. At the dawn of the new millennium the global community committed itself, through the United Nations Millennium Declaration of September 2000, to achieving an equitable, healthy and happy world within fifteen (15) years.

It prioritized eight goals, 21 targets and 60 indicators, inferred from most challenging and critical development concerns of the previous decade (1990-2000).

The MDGs formed the global platform for sustainable development, as follows:

Goal 1: Eradicate extreme poverty and hunger

Goal 2: Achieve universal primary education

Goal 3: Promote gender equality and empowerment of women

Goal 4: Reduce child mortality

Goal 5: Improve maternal health

Goal 6: Combat HIV/AIDS, malaria and other diseases

**Goal 7: Environmental Sustainability**

Goal 8: Develop a global partnership for development

Environmental Sustainability encompasses the health of ecosystem,

Following the duration of MDGs in 2015, the 2030 Agenda for Sustainable Development was agreed by Heads of State and Government to set the world on a sustainable development path of as a carry on from its precedent. The SDGs are much more comprehensive set of goals (17) and targets (169) with a higher level of ambition than the MDGs. These goals are aimed at achieving “a prosperous, high quality of life that is **equitably shared** and **sustainable.**” [2] These goals provide simplified and demarcated actions towards sustainable development, as follows;

|  |  |
| --- | --- |
| Goal 1 | No Poverty |
| Goal 2 | Zero Hunger |
| Goal 3 | Good Health and Wellbeing |
| Goal 4 | Quality Education |
| Goal 5 | Gender Equality |
| Goal 6 | Clean Water and Sanitation |
| Goal 7 | Affordable and Clean Energy |
| Goal 8 | Decent Work and Economic Growth |
| Goal 9 | Industry, Innovation and Infrastructure |
| Goal 10 | Reduced Inequalities |
| Goal 11 | Sustainable Cities and Communities |
| Goal 12 | Responsible Consumption and Production |
| Goal 13 | Climate Action |
| Goal 14 | Life Below Water |
| Goal 15 | Life on Land |
| Goal 16 | Peace and Justice, Strong Institutions |
| Goal 17 | Partnership for the Goals |

The challenge of articulating these shared goals lies within individual countries and communities.

Effective national environmental governance is a key to Sustainable Development ([Fulton and Benjamin 2011](#_ENREF_2)). PNG Government has shown great effort and is strongly calling for sustainable development deliberating on natural resources assets.

It is evident that wise management of our natural capital and collective benefit from its development is paramount for country’s progress towards sustainable development.

Conservation and Environment Protection Authority (CEPA) formerly Department of Environment and Conservation is the responsible leading agency for environment protection, conservation and implementation of international environment commitments such as MEAs and SDGs.

Its constitutional mandate and function is stipulated in the fourth National Goal and Directive Principle in our Constitution where it states;

*“We declare our Fourth National Goal to be for “Papua New Guinea’s natural resources and environment to be conserved and used for the collective benefit of us all, and be replenished for the benefit of future generations”.*

CEPA does not only perform national obligations to protect the environment but also has regional and international duties as signatory to Rio Conventions, MEAs and regional agreements.

The Government is also keen on prompt localization of SDGs as a catalyst to sustainable development.

SDG localization is very urgent given the state that natural capital is being depleted rapidly exceeding its time for replenishment. The need for localizing environmental SDGs are in consistent with Fourth National Goal and Directive Principle of PNG’s Constitution which states:

*“We declare our Fourth National Goal to be for “Papua New Guinea’s natural resources and environment to be conserved and used for the collective benefit of us all, and be replenished for the benefit of future generations”.*

The localization exercise is very fundamental and aims to:

* Provide effective and efficient roadmap towards on-ground implementation of SDG 15 and other related SDGs which seeks to promote green economic development in trust for future generations and the health of ecosystems;
* Enable close consultation and partnership with other line agencies, donor agencies particularly UNDP, stakeholders, NGOs, civil societies, other external assisting bodies and intense involvement of different levels of government especially at local levels and land/resource owning communities;
* Aligning priorities of StaRS and its implementations at sectoral and local level promoting green economic growth
* Implementation of MTDP 3 (2018-2022) especially in regards to national strategic assets and enhanced monitoring and evaluation of the progress;
* Achieve Vision 2050 where PNG will be Smart, Wise, Fair and Happy, **maintain spirituality, maintain cultural diversity, maintain biological diversity, maintain a sustaining environment, have good governance, and have empowerment (especially of women), equality, ‘enoughness’ and well-being** by 2050. And PNG will be within the top 50 countries of the HDI ranking.

The shared goals provide an ultimate target and ways in tracking the progress in achieving them. According to the report from MDG localization in PNG, the localization was delayed by four (4) years after its adoption in 2000. Hence, the report is formulated purposely to provide a clear pathway to CEPA in providing assistance to the localization exercise in the country to avoid the failure again.

Biodiversity conservation is crucial in achieving sustainable development. CEPA has the national mandate to regulate PNG’s environment and biodiversity conservation. The report provides highlight of CEPA’s progress in terms of environment regulation and biodiversity conservation. Legal and policy component within CEPA’s mandate is vital and would be discussed as well.

Coordination, monitoring and evaluation of international environment conventions and MEAs is significant to the State as it would prove how serious PNG is dared to protect its natural environment and biodiversity at international and regional level. The current Agenda on SDG provides a simple yet overarching goals and targets which are in line to the aims and objectives of the MEAs and international treaties. Besides, it aligns with other international binding and non-binding commitments on environment sustainability as well

Sectoral departments, different government levels, civil societies, NGOs and other relevant stakeholders like business communities are all obliged to integrate these goals and targets into their priority plans as a means to achieve sustainable development.

Perhaps CEPA is tasked with implementation of environmental SDGs and its relevant targets. The localization exercise is governed by PNG Planning & Monitoring Responsibility Act 2016 giving more powers to DNPM to oversee the localization exercise in the country.

As another year begins, it is of paramount importance that responsible government agencies are serious on localization exercise so as to avoid repeating the failure of late implementations of MDGs **(PNG- MDG Final Summary Report 2015).**

Therefore, as an intern and active supporting officer attached with Policy Coordination and Evaluation Division, I am enlightened to produce this report as a ready-made roadmap to be used by CEPA for enhanced implementation of environment SDGs kick-starting this year.

* 1. **Aim**

This report aims to provide an effective framework for localization of SDG 15 and other related goals into CEPA policy framework. Besides, it aims to review the current trend of regulation of CEPA in terms of environment protection, biodiversity conservation and implementation of MEAs and national policies and legislation guiding environment development in the country.

* 1. **Scope and Limitation**

The scope of this report is set within the knowledge of localizing environment SDG into CEPA Policy, the role of CEPA, constraints and barriers CEPA encounters and appropriate approaches should CEPA integrate into its policies and plans.

The conceptual framework (Figure 1) provides the CEPA current roles and responsibilities elevating environmental SDGs into environmental localization framework.

CEPA Framework

Environment Protection Division

To improve the efficiency and effectiveness of environment regulatory processes, including through partnerships with other levels of Government, the private sector, NGO’s and the communities.

Sustainable Development Programs Division

To demonstrate on-ground improvement on environment and economic outcomes through implementing large scale pilot projects in partnership with other levels of Government and external stakeholders.

Policy Coordination& Evaluation Division

To develop policies, strategies, information management system, indicators and a reporting framework to ensure effective implementation of the Government’s Sustainable Development Agenda and UN SDGs.

**Figure 1**: The environmental localization framework

The research is limited to the localization of environmental SDGs; initially by integrating into CEPA Policy Framework, this being the basic component of this report. SDGs, captures cross cutting environmental, economic, social, governance and personal components of sustainable development. However, the report is limited to environment SDGs, CEPA’s mandate and its relevance and significance to PNG’s development.

* 1. **Approach/ Overall Report**

The report is compiled mainly through desktop review of relevant national legislation, policies and strategies relating to biodiversity, its protection and sustainable use. Informal interviews were initiated during pep talks and meeting breaks mainly to gain senior officers’ viewpoints and suggestions.

* 1. **Structure of this Report**

1. **Literature Review**

We must join together to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace. Towards this end, it is imperative that we, the peoples of Earth, declare our responsibility to one another, to the greater community of life, and to future generations.

(Preamble, Earth Charter 2000)

Our lives on this planet depend on nature’s provision of stability and resources. Current rates of human-engendered environmental destruction threaten those resources and leave death and misery in their wake. But we can avoid this. To do so, we must act in concert and with a sense of urgency to make the structural and policy changes needed to maintain ecosystems and their services, control water and air pollution, and reverse the trends leading to global warming. This must be done if we are to achieve the level of environmental sustainability necessary to meet the UN Sustainable Development Goals addressing poverty, climate change, hunger, inequity, unsafe drinking water, and environmental degradation.

Environmental sustainability is essential to achieving all of the other Sustainable Development Goals. By environmental sustainability we mean meeting current human needs without undermining the capacity of the environment to provide for those needs over the long term. Achieving environmental sustainability requires carefully balancing human development activities while maintaining a stable environment that predictably and regularly provides resources such as freshwater, food, clean air, wood, ﬁsheries, and productive soils and that protects people from ﬂoods, droughts, pest infestations, and disease. Therefore, environmental sustainability is necessarily a fundamental objective in the pursuit of the seven other Sustainable Development Goals.

‘Sustainability’ is a fascinating topic full of contradictions, tangled meanings, unstated assumptions and confusion. (Washington 2015: 2). In this day and age, sustainable development is a great controversy to governments, business corporations, civil societies, academia, etc. as more needs are being demanded from increasing population and corporate interests.

However before even the concept evolved, sustainability draws back to history of human thinking (and feeling) about living in harmony and balance with Nature.

Early conservationists understood the link between Nature and humans very well that they did not only conserve but respect its existence, cared for and lived satisfactorily. They used terms as ‘caring’, ‘harmony’ and ‘balance of nature’. They had an interesting worldview such that humans were no more than nature and had ethical responsibility to care for nature. Besides, Christian Theologian used the term Christian ‘stewardship’ as not to have dominion over but be good managers of nature.

the first wave of modern environmentalism was inferred from recognition of pesticide pollution and how pesticides where moving through food chains and how they affected many other animals other than the pests they were intended to control. This was the start of the journey of sustainable development. Racheal Carson’s writing on Silent Springs captured national sentiment thereby initiated a transformation in the relationship between humans and the natural world. The publication has stirred and awaken public environmental consciousness.

In introduction, the need for report on SDG localization into CEPA policy framework was stated. Incorporation of SDGs into policies and priority plans of responsible sectors is appreciated. In fact, our people had practiced sustainability traditionally for decades as “wisdom of elders” were passed from generation to generation. After independence, PNG had developed number of National Sustainable Development Strategy as a reaffirmation to the PNG’s Constitutions. However, it was all forgotten decades ago but was resurrected by Charles Abel during his term as minister for DNPM in 2014. (Mowbray 2016).

An appreciation of the international targets of SDGs and StaRS as national strategic roadmap on responsible sustainable development into country’s development agendas are necessary. By reviewing SDGs and StaRS in this manner, preliminary acknowledgement of localizing SDGs into respective sectoral policy framework is necessary. With that in mind, holistic localization of the environmental SDGs into CEPA policy is imperative for environment protection is the central focus of sustainable development. It provides a synthesis of ideas and concepts that would enhance the mandate of CEPA.

This section subsequently reviews the literature of evolution of sustainable development and significance of MDGs and SDGs.

Sustainable development is a broad concept where it literally means to maintain development over time. According to *Our Common Future*, SD is the ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’. However, Washington (2015) claims that sustainable development is an oxymoron with ecological contradictions.

Papua New Guinea (PNG) had a delayed start of MDG localization by four (4) years since its adoption in 2000. The MDG Agenda were translated into 8 goals, 15 targets and 67 indicators globally. This was further revised and expanded into 23 targets and 91 indicators in 2010.

1. **Role of CEPA (formerly DEC)**

Conservation and Environmental Protection Authority (CEPA) was established in 2015 for enhanced

**3.1 Policy Coordination and Evaluation (PCE) Wing**

In any operations, policy coordination is very crucial for enhanced management. The Policy Coordination and Evaluation Wing for CEPA is directly responsible for developing environmental policies and strategies for better management of natural environment in the country. The division also takes care of information management system such as Geographical Information System (GIS) and other appropriate Environment Management Information Systems (EMIS). However, there is still ineffective information system in the department and also with other line agencies.

Importantly, the division is also responsible for monitoring environment related SDG indicators for better reporting mechanism to ensure effective implementation of Government’s Sustainable Development Agenda and United Nations SDGs. Its policy analysis aims to improve the process of monitoring and reporting of the health and climate of PNG’s environment.

Through PCE of CEPA, the authority administers fourteen (14) MEAs or international treaties and conventions with close consultation with other responsible division, especially conservation component.

* 1. **Environment Protection (EP) Wing**

Environment Protection is paramount in Sustainable Development. The Environment Protection Wing is wholly responsible for efficiency and effectiveness of environment regulatory processes. Its main aim is to improve the regulation and management of major development projects to reduce the risk of environmental harm and damage.

**Environment Regulatory Framework**

The Environment Regulatory Process is principally guided by Environment Act 2000. The Act is an amalgamation of three former Acts: Environment Contaminants Act (1978), Environment Planning Act (1978) and Water Resources Act (1978) for effective and efficient coordination and enforcement. The Act regulates discharges to the air, land and water including controlling the level of noise emissions. The Act is somewhat based on “Polluter Pays Principle” philosophy.

The Environment Act 2000 provides comprehensive steps in management and protection of PNG’s natural environment. It also provides the legal basis for the establishment of a range of mechanisms for the protection and management of the environment, including –

1. Regulations : Five Regulations have been developed under the Act and includes-

* Environment (Permits & Transitional) Regulation
* Environment (Prescribed Activities) Regulation
* Environment (Fees & Charges) Regulation
* Environment (Water Quality Criteria) Regulation and
* Environment (Procedures) Regulation.

The regulations are specifically for pollution control, except Environment Procedures Regulation where it regulates necessary steps are undertaken accordingly.

1. Environment Permit: The Permitting System CEPA undertakes gives utmost power to the agency to perform its duties efficiently. The permit enables CEPA to have direct control of activities that may have impact on the environment and community livelihood. It is a tool that is designed in a way to ensure overall objectives of the Environment Act 2000 are accordingly complied with.
2. Enforcement: the enforcement component of the environment regulatory framework is very vital. It makes sure strong notices are issued to situations where an environment damage has occurred or is likely to occur.

In a nutshell, the environment regulatory framework enables CEPA to effectively discharge its statutory responsibilities in ensuring justice for both nature and human wellbeing whilst promoting sustainable socioeconomic developments.

The regulatory framework also provides the mechanism for dealing with activities with potential for causing environmental harm and the different categories of environmental harm.

* 1. **Sustainable Environment Protection (SEP) Wing**

Biodiversity Conservation is paramount in preserving vulnerable habitat and endangered species from degradation and extinction. The division is responsible to demonstrate on-ground improvement in environment, biodiversity management and economic outcomes through implementing large scale pilot projects. Besides, it aims to work in partnership with other levels of Government and external stakeholders in conserving wide range of biological diversity. The Wing also demonstrates how Government policies can be effectively implemented to deliver environmentally sustainable development on the ground working in partnership with key stakeholders.

* 1. **DEC Environment Review**

Table 1: CEPA Policy Framework:

**MATRIX OF INTERNATIONAL CONVENTIONS CEPA ADMINISTERS IN PNG**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CONVENTION** | **FOCUS** | **SPECIFIC OBJECTIVE** | **NATIONAL POLICY FRAMEWORK** | **CHALLENGES** | **STRATEGIC APPROACH** | **LINK TO BIODIVERSITY AICHI TARGETS** |
| 1. Convention on Biological Diversity | Biodiversity:  Provision of food, shelter, medicine, aesthetic beauty  Regulation of air, water, land/soil | Sustainable use and management of biological diversity | * PNG Policy on Protected Areas   (PNGPPA)   * Environment Act (2000) * Fauna(Protection& Control) Act (1966) * Conservation Area Act (1978) * Vision 2050 * National Biodiversity Strategic Action Plan (NBSAP) * Biodiversity Law& Policy in PNG * PNG Development Strategic Plan 2010-2030 | * Weak legal and institutional linkages * Lack of bio-data collection& management * Financial constraints * Lack of rigorous monitoring in all extractive sectors * Overexploitation * Climate change * Overpopulation * Habitat degradation & fragmentation | * Establish a robust legal& institutional network * Update biodiversity database on a regular basis * Active community participation * Step by step implementation of NBSAP * Apply Ecosystem Based Approach Conservation Strategy | Target 1  Target 2  Target 3  Target 4  Target 11  Target 18 |
| 1. Cartagena Protocol | Genetic Resource:  Safeguards genetic diversity, prevents species extinction | Protection of PNG’s biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology. | * PNG’s National Biosafety Framework- Final Draft * NBSAP * PNGPPA | * Ethnic diversity hinders access to benefit sharing * Institutional and legal challenges * Lack of financial and technical resources * Limited laboratories and human resources | * Policy, Planning and Regulation * Identify roles of offices concerned and execute plans cooperatively * Technical assistance& strategic guidance required * Work alongside with Australian/ Japanese team to effectively implement this convention * Education, training, awareness * Laboratories establishments | * Target 13 * Target 19 |
| 1. Convention on International Trade of Endangered Species   (CITES) | Endangered Species:  Endemic, iconic, vulnerable to extinction | * To minimize/ prevent ED from commercial trade within PNG and abroad. * To be cautious of invasive species brought into the country | * CITES Act (2003) * Environment Act (2000) * Conservation Area Act (1978) * Fauna Act (1966) * PNGPPA * Biodiversity Law& Policy in PNG | * Agencies fail to monitor introduction of invasive species * Locals has less knowledge on invasive species thus fail to report immediately to responsible agencies * Lack of ecological monitoring and adaptive management * Overexploitation of ED regardless of law * Locals selling for self- economic gains * Habitat fragmentation threatens ED that survives in colony, and individuals too | * Apply Species Based Approach Biodiversity Conservation Strategy * Improved monitoring system * Community participation | Target 9  Target 12 |
| 1. RAMSAR Convention | Wetlands:  Regulates freshwater    Provision of conducive habitat for other species | For PNG to use its wetlands and associated flora and fauna in a sustainable manner.  Vulnerable ecosystem that needs immediate attention of conservation | * PNGPPA * Biodiversity Law& Policy in PNG * Conservation Area Act (1978) * National Parks Act | * Oil Spills * Disposal of domestic trash& sewage * Littering, runoff debris * Waste discharge from alluvial mining * Impacts of climate change | * Establish office in the two existing RAMSAR sites * Regular monitoring& evaluation programs | Target 11  Target 14 |
| 1. World Heritage Convention | Cultural& Natural Heritage Site:  Provision of oldest archaeological materials | Promote PNG’s cultural and natural heritage, maintaining traditional lifestyle | * National Parks Act * Biodiversity Law& Policy in PNG * PNGPPA * Conservation Area Act (1978) * Vision 2050 | * Limited capacity and technical team for excavation * Geographically rugged, culturally diverse * Expensive excavation claims | * Effective communication channel amongst line agencies * Formulation of attainable policies | Target 18 |
| 1. United Nations Convention on Combating Desertification (UNCCD) | Forest:  Regulation of air& water land/ soil | Restoration of degraded land and to support sustainable development at community level | * Forestry Act (1996) * Logging Codes of Practice * National Forest Policy * National Forest Development Guidelines * Reforestation Policy * Eco-forestry Policy * Environment Act (2000) * Lands Act 1996 | * Unsustainable logging practice * Large scale intensive farming * Locals consistently clear forests for housing, other basic necessities * Weak enforcement of legislation * Ineffective communication amongst responsible agencies * Clearing vegetation for increasing human settlement * Complicated land tenure | * Strict enforcement * Active monitoring& compliance * Sustainable logging * Land Use Management Plan * Collaborative work between LO’s and agencies for forest conservation * Use of GIS& other tools to create buffer & map degraded area * Assist LOs in registering their land with ILGs | Target 7  Target 15 |
| 1. Basel Convention | Hazardous Wastes:  Jeopardizes human health and environment | To prevent movement of hazardous wastes being transported into PNG and its disposal | * Environment Act (2000) | * Unregulated and illegal trade& utilization of hazardous chemicals * Incompetent, ineffective custom services in PNG * Weak implementation and enforcement of laws | * Effective implementation& enforcement related legislation * Facilitate trainings/ workshop frequently * Work in collaboration with Australian Customs to improve services in PNG |  |
| 1. Stockholm Convention on Persistent Organic Pollutants | POPs:  Risk of bio-accumulating in fatty tissues | To control the importation/ exportation of 12 identified POP substances | * Environment Act (2000) | * Continuous use of POPs by locals * Illegal entry of POPs into the country by Asians * No proper monitoring of POPs trade& usage * National food security is at stake | * Educate/ train local farmers * Strictly prohibit the entry of POPs * Revive traditional gardening methods | Target 8 |
| 1. Rotterdam Convention | Hazardous chemicals& Pesticides | Cooperatively limit the trade of hazardous chemicals/ pesticides | * Environment Act (2000) | * Resistance to climate change- pesticides develop adaptive features over time to cope with changing climate * Ignorance- people fail to report incidents * Poor monitoring& compliance | * Prohibit the entry of non-permitted hazardous chemicals& pesticides * Revive traditional gardening methods * Do a regular random check-ups on all companies that manufacturers and imports these products * Come hard on illegal traders | Target 8 |
| 1. Wagani Convention | Radioactive wastes:  Occupational Health | To prohibit the importation of hazardous and radioactive wastes into PNG | * Environment Act (2000) * Occupational Health Act | * Increased needs of radioactive materials regardless of impacts * Cheap and efficient products | * Regular & random checks on all Hardware shops * Polices, Planning and Regulation |  |
| 1. Vienna Convention | Ozone:  Stratospheric ozone depletion | Protection of Ozone layer | * Deficiencies in data-collection | * Climate change * Continuous emission of aerosols |  |  |
| 1. Montreal Protocol | Ozone:  Absorption of UV rays from sunlight | Focus on reducing ozone depleting substances |  | * Continuous use of air conditioning system |  |  |
| 1. Convention on the Protection of Natural Resources& Environment of South Pacific Region (SPREP) | Biodiversity& Regional Cooperation: | Protection of natural resources and environment in the South Pacific through cooperation and shared responsibility | * Environment Act (2000) | * Lack of communication with Regional Partner Countries * Insufficient technical officers on-ground * Lack of reporting and documentation * National differences |  | Target 1, 2, 3, 4 |
| 1. Apia Convention | Biodiversity in the South Pacific: | Conservation of nature in the South Pacific Region | * Environment Act (2000) | * Locals still depend on natural environment for survival * Lack of monitoring and evaluation |  |  |

**6. Step by Step Procedure of environmental SDG Localization**

Step 1:Initiate an inclusive and participatory process- AWARENESS

Awareness is a helpful tool

Step 2: Set the Local SDG Agenda – INTEGRATION INTO POLICY

Step 3: Financing Analysis and Investment Strategy – ON GROUND WORK

Step 4: Monitoring and Evaluating SDG outcomes – MONITOR EFFECTIVENESS

**SUSTAINABILITY SOLUTIONS**

* Changing worldviews from Anthropocentrism to Ecocentrism
* Tapping into renewable/sustainable energy sector from dominated Oil& Gas sector
* Strict enforcement of PES system
* Become environment literate
* Environmental Sustainability Awareness
* Effective and Competent coordination of MEAs

**Annex 1: Legislation**

**Environment Act, 2000**

It provides the administrative mechanism for environmental impact assessment and evaluation of activities regulating impacts on the receiving environment through an established environmental approval and permitting system.

**Conservation Act (1978)**

It provides the mechanism for the management and control of resources in protected areas including flora and fauna and sites of cultural and historical importance.

**Fauna (Protection and Control) Act (1966)**

It provides the mechanism for the protection and control of faunal species involved in International Trade activities.

**International (Flora and Fauna) Trade Act (1978)**

It provides the mechanism for the control of exportation and importation and introduction flora and fauna from the sea, whether dead, alive, their by-products, parts of derivatives.

**Crocodile Trade (Protection) Act (1978)**

It provides the mechanism for the management and control of crocodile exports and other related activities.

**Annex 2: International Conventions, Treaties and Protocols**

**Convention on Biological Diversity (CBD, 1993)**

This Convention was ratified in 1993 and is aimed at protecting the Earth’s biological diversity.

**Convention to Combat Desertification (CCD, 2000)**

This Convention aims to deliver a new integrated approach to solving the problem of land degradation and to support sustainable development at community level.

**Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES, 1973)**

This Convention was ratified by the PNG Government in 1975 and is for the protection of endangered species from being used as commercial products.

**Convention on Wetlands of International Importance, especially as Waterfowl Habitat (RAMSAR, 1971)**

This Convention was ratified by PNG IN 1993 and requires PNG to use its wetlands and associated flora and fauna in a sustainable manner. ‘

**Convention for the Protection of the World Cultural and Natural Heritage, (1972)**

PNG Ratified this Convention in 1997. In 1999 a National World Heritage Committee was established to consider sites in PNG to be declared as World Heritage Areas based on the criteria and guidelines of this Convention.

**Basel Convention on the Trans-boundary of Hazardous Wastes and their Disposal (198)**

This Convention as the name explicitly states was formulated as a result of increasing frequency and quality of hazardous wastes being transported from developed countries to developing countries.

**Protocol on Biodiversity (Cartagena Protocol)**

The Protocol seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology.

**Stockholm Convention on Persistent Organic Pollutants (POPs Convention)**

This Convention is aimed at controlling the importation/ or exportation of twelve (12) identified persistent organic substances.

**Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention)**

This aim of the Convention is to promote shared responsibility and cooperate efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm.

**Vienna Convention for the Protection of the Ozone Layer (1985)**

This Convention is an agreement for Party Countries to take action to protect the protection of the ozone layer.

**Montreal Protocol on Substances that deplete the Ozone Layer**

The Montreal Protocol is a further agreement to the Vienna Convention focuses on the phasing out of potential Ozone Layer depleting substances.

**Convention to Ban the Importation in Forum Islands Countries of Hazardous Wastes and Radioactive Wastes and to Control the Trans boundary Movement and Management of Hazardous Wastes within the South Pacific Region (Wagani Convention).**

Objective of this Convention is to prohibit the importation of hazardous and radioactive wastes into the Pacific Islands Developing country parties.

**Convention on Conservation of Nature in the South Pacific Region (Apia, 1996)**

This Convention was ratified in 1996 and deals with the conservation of nature in the South Pacific Region.

**Convention for the Protection of the Natural Resources and Environment of the South Pacific Region and related Protocol (SPREP, 1986)**

This Convention forms the basis for the establishment of SPREP and outlines the broad objectives of SPREP.

**Box 2: CEPA’s Vision, Mission, Values, Principles and Mandate**

**Our Vision**

To establish a sustainable, safe and healthy community and environment for the future generations by applying the best available environment regulation and biodiversity protection practices. (Corporate Plan 2017-2019).

**Our Mission**

To ensure natural resources and managed to sustain environmental quality, human well-being and support improved standards of living.

**Our Values and Guiding Principles**

In upholding the National Constitution the Authority seeks to honour the following values:

* Transparency, integrity and impartiality in carrying out its core business
* Being accountable
* Accepting responsibility
* Commitment to engaging with and partnering with all stakeholders as the custodians of the environment and natural resources
* Client focused and result oriented
* Teamwork, open communication and mutual respect

**Our Mandate**

The Authority is mandated to ensure that PNG’s environment is managed in an environmentally sustainable manner, in particular to implement the Government’s **sustainable development** policy agenda. The sustainable initiative aims to strengthen the use of economic instruments and strategies to assisting industry and people to manage their environment sustainably whilst maintaining economic growth and improving livelihood.

The Authority’s mandate is derived from the Fourth Goal of the National Constitution. CEPA is empowered to implement its Mandate through a number of key pieces of legislation and International Conventions, to which the Government is a signatory to.

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