Papua New Guinea (**PNG**), the largest and most populated island in the Pacific is under enormous threat from the impacts of global warming and climate change. PNG is located in the Pacific ‘Ring of Fire’ and as a result, frequently experiences seismic and volcanic activity and landslides with the coastal areas are prone to tsunamis, king tides and floods (Ramakrishna, 2015). As the Centre for Environmental Law & Community Rights (**CELCOR**) Inc. is based in PNG, we have responded to the questions primarily from that perspective.

**Question 1**

PNG’s volatile environment makes its citizens prone to many hazards such as volcanic eruptions, earthquakes, landslides, tropical cyclones, floods, king tides and droughts. The recent El Nino (2015) has introduced a level of unpredictability into PNG’s weather patterns which presents its’ own host of issues.

Several low-lying islands in the Manus Islands of PNG have recently experienced unseasonal storms and king tides which have flooded traditional villages and forced local inhabitants inland. A recent study by the Australian Bureau of Meteorology has revealed that approximately one-fifth of the land in PNG is subject to impending inundation (Australian Bureau of Meteorology and CSIRO, 2014:220).

Orokolo Bay, Gulf Province, Papua New Guinea

Most recently, through a series of environmental and human rights justice interventions, CECLOR[[1]](#footnote-1) observed a community in the Orokolo Bay, situated along the coastal area of the Kikori district, in the Gulf Province of Papua New Guinea. The Orokolo Bay is situated along the coast and between the mouths of two large rivers, the Vailala on the east and the Purari on the west. It is a community that is landlocked, meaning no access roads and only accessible by sea travel or walking through the terrain in which the water table is very high, due to its location between two tributaries and smaller rivers and creeks. Due to the nature of its terrain, the main source is food is the sago, which can grow in swampy/high water tabled areas and also the marine food sources from the ocean and rivers, however not many other alternate crops can grow there. Fresh drinkable water is accessible through colonial-built water wells and rainwater. The main source of revenue is the betelnut and sago trade which they take to the main town of Kerema, about two hours boat ride away.

Through these series of observations, it was noted the exponential rate of the sea level rise, loss of buffer mangroves along the coastline due to coastal erosion and the migration of locals from the coastline further inland, were all indicators of climate change. Within a ten-month period, there were drastic changes in the shoreline biodiversity. Mangrove species at the forefront of the shoreline mangrove buffer were noted to be in a decaying state due to the rising seas washing away the coastline. This also threatens the freshwater supply that is accessible via water wells. Crops are noted to have changed their growing pattern due to the changing weather pattern and storms on the ocean during storm season were also noted to become more severe in nature and unpredictable. Locals have observed over decades the receding of their shoreline which they indicate began in the 1960s, previously, the shoreline stretched out at least two (2) kilometres out from where the current shore is at the present day, which used to be rich in biodiversity, tributaries, flora, fauns, marine life etc., are now underwater.

The people of Orokolo Bay are also in a dire situation as although landlocked and with accessibility issues, the Ihu LLG (of which they are a part) is very rich in natural resources such as petroleum, and iron ore sand, coal and gas. There is much national and international interest in extracting raw resources from their land with some projects being permitted and granted licenses already. Projects like the Mayur Resources Ltd’s Orokolo Sands Bay Project and the Ihu Special Economic Zone Project, form a boundary around the eight (8) wards which make up the Orokolo Bay community. Mayur Resources Ltd has been granted a license (2021) to mine iron ore sand which will project to see a total of one hundred and twenty million tonnes of sand (not including the waste) being extracted from an already swampy area, over the next twenty years. This project area is situated directly behind the Orokolo Bay Community and a fear that was expressed by the locals was that due to the encroaching sea and with migration already happening with people moving further inland, they are unsure whether the effects and impacts of climate change were taken into account in the permitting and licensing of this project. They now fear that they would now have no place to migrate to as their traditional land has been licensed for sand mining and earmarked for another project the Ihu Special Economic Zone.

Carteret Islands, Autonomous Region of Bougainville

The Carteret Islands – also known as the Carteret Atoll - are located in the Autonomous Region of Bougainville in Papua New Guinea and were among one of the first (known) places in the world to have their populace relocated due to a rise in sea levels.

Inhabitants of the island were initially relocated to the main island of Bougainville, however, many drifted back to what is being termed the ‘sinking islands’ due to various conflicts on the mainland over land, resources, money etc. The resettled people of the Carteret Islands have been called the “world’s first climate change refugees” (Island Business, 2008).

Historically, migration has never been a major concern in PNG, with over 90% of land owned by customary landowners. However, *forced migration* as a result of climate change and environmental degradation has gradually been making its way to the forefront of national conversations. Relocation of displaced peoples continues to be an issue in Papua New Guinea – one which the national government has neglected to adequately and permanently address thus far.

**Question 2**

A review of the existing policy framework in PNG reveals that environment and climate change-related migration has not been addressed in climate change adaptation plans or disaster risk management plans or policies. Similarly, migration-related policies do not deal with climate change and environmental migration (Naser, 2015).

Loss of land and displaced communities

The main issue encountered by the Government of PNG when confronted with issues related to climate change is the relocation of displaced persons. The most immediate and arguably the biggest loss faced by displaced groups is that of access to their land, whether for subsistence gardening, growing of food crops for sale, or merely for security. The majority of Papua New Guineans, particularly those who will be most affected by climate change, are subsistence farmers who rely on their land for survival.

Land in PNG is predominantly vested in customary landowners, with a small portion allocated as state land. Historically, the movement of local people due to climate change (for example, the rise in sea levels) was a matter of agreement between neighbouring customary groups.

In the Madang province of PNG, vast numbers of inhabitants of a volcanic island named Manam Island were evacuated by the PNG Government and relocated to various shelters within the province termed *care centres*. Almost two decades later, the PNG Government has yet to create a permanent solution for these displaced groups who have had to settle on land that is traditionally not theirs. This has created tensions amongst customary landowners and has resulted in many tribal wars since.

In almost all cases in PNG, the immediate issue is the evacuation of the affected population. However, planned evacuations are usually short-term solutions and are not linked to longer-term management plans (Naser, 2015). Evacuations are usually considered a solution to a temporary problem, with the option seemingly remaining for displaced persons to return to their homes. In cases such as that of the inhabitants of the Carteret and Manam Islanders, this is not a possibility.

Acquisition of customary land for resettlement

The *Land Act* 1996, the *Land (Tenure) Conversion) Act* 1963, the *Land Groups Incorporated Act* 1974, the *Land Disputes Settlement Act* 1975 and the *Land Registration Act* 1981 all have provisions relating to the use of customary land. These acts do not provide for the compulsory acquisition of customary land by the government to use for resettlement of people displaced by climate change, environmental degradation or natural disasters. The government would be remiss if it didn’t consider the options in our laws that provide for the acquisition of land from landowners to resettle displaced people.

In May 2022, the National Executive Council of PNG endorsed a National Sustainable Land Use Policy which recognizes the threats of climate change to the environment, biodiversity and land use in PNG. It highlights the importance of incorporating climate concerns in land use planning as a form of risk management and sustainable development.

Immediate actions must be taken to address local issues relating to the displacement of people due to climate change and environmental degradation. We suggest that these actions could be:

* + Government-led initiatives and resettlement programs;
  + Compulsory acquisition of land for resettlement and/or temporary relocation of people displaced by climate change and/or natural disasters;
  + Enactment of legislation/policies to address climate-related emergencies and other natural hazards.

If the recent trend is to be taken as an indication of PNG’s future, more formal arrangements will have to be put in place by the government to quell any tensions between customary landowning groups.

While community-initiated relocation and assistance programmes can be part of an initial response to addressing the needs of those displaced and otherwise affected by climate change, these initiatives can only supplement any formal system resettlement program put in place by the government. The PNG Government must reconsider national laws and policies on disaster risk management and climate change adaptation plans in terms of damage, loss and displacement and integrate these risks into national laws and policies.

**Question 3**

While PNG experiences a significant amount of displacement caused by environmental degradation and climate change-related effects, no policy framework specifically deals with people displaced due to the adverse impacts of climate change (Naser, 2015). In PNG, businesses, civil societies and individuals are usually the first to respond to displaced persons, with churches and church-run organizations at the forefront of relief efforts.

Coordination of these efforts can more readily and easily be done through the assistance of PNG’s National Disaster Centre; however, this coordination has been lacking in the past few years. The National Disaster Centre falls under the Department of Provincial & Local-level Government Affairs (**DPLGA**). The DPLGA is the agency responsible for intergovernmental relations. In the absence of a coordinated and consistent national effort, provincial governments are addressing disaster at their levels.

For example, in 2007, the Autonomous Region of Bougainville in PNG (where the Carteret Islands are located) adopted the *Atolls Integrated Development Policy* (**AIDP**). The AIDP focuses on ensuring the ongoing sustainability of the settlement and the long-term welfare of both settlers and host communities. The AIDP includes the voluntary resettlement of Carteret Islanders to designated resettlement sites on Buka Island or mainland Bougainville as well as support for communities remaining on the islands. According to this policy, the land will be purchased and registered and allocated to displaced families (Naser, 2015).

Local government initiatives and policies such as these are necessary to address displacement issues given the present level of coordination at the national level at present.

**Question 4**

As previously mentioned, in PNG, businesses and civil society organizations are often the first to respond to disaster efforts. These disaster relief efforts include responses to climate migration.

An example of this is the response of mining industry participants who responded swiftly to disaster efforts in the Southern Highlands province of PNG following an earthquake measuring 7.5 on the Richter scale in February 2018 (Mori, 2018). The mines in the surrounding area immediately began evacuating staff and those in affected areas, whereas the PNG Government responded days following the earthquake, announcing a multi-million-kina disaster fund (Mori, 2018). Government response time, whether through the provincial governments or the PNG National Disaster Centre, must be boosted.

The government of PNG must work with business houses and civil societies to support vulnerable communities in the following ways:

* Provide funding to the PNG National Disaster Centre to better respond to crises;
* Donate food, clothing and assistance in relocation exercise of vulnerable and impacted communities;
* Fund restoration exercises for essential services disrupted by natural disasters as a result of changes in weather conditions.

**Question 5**

The *Disaster Management Act* 1987 provides legislative and regulatory provisions for disaster management in PNG. It describes the basic disaster management structure and responsibilities and requires disaster plans to be prepared. However, the PNG Government’s approach to disasters has significantly changed over the past few years, which is reflected in the *Disaster Risk Reduction and Disaster Management National Framework for Action*, Vision 2050 and the Climate Compatible Development Strategy (Naser, 2015).

While there are numerous policies, plans and strategies to address disasters in PNG, the focus is on emergency responses as opposed to proactive planning and long-term solutions. No strategies have been devised for displacement, loss, damage to property, livelihood and lifestyles, whether short or long term. Similarly, the PNG National Disaster Centre is not equipped to manage displacement, damage or loss sustained by those affected by climate change.

Reform of national policy relating to land use and the environment to reflect international treaties and conventions is long overdue.

**Question 6**

The ‘polluter-pays’ principle is a good concept. Multinational corporations and industrialized nations should be paying money to the Green Climate Fund or an entity of a similar nature to support loss and damage experienced by vulnerable communities.

Communities in vulnerable situations and or impacted communities will be able to access the funds through their respective government agencies and not directly or through private arrangements. In Papua New Guinea, legislation like the *Climate Change Management Act 2020*, must make provisions to regulate such arrangements.

**Question 7**

With climate change now being a cross-cutting development issue, it is important that all actors within the development, service delivery, corporate and civil society spaces, as well as the general populace, be well aware of and have mitigation and adaptation plans for climate change, in place at all facets. For instance, with the newly launched Connect PNG Road Plan 2020-2040, plans to cater for impacts/effects of climate change must be captured with close to accurate estimations of climate data modelling and forecasted impacts. The same should be applied to all major infrastructure development of national interest such as the extractive industry projects and any other projects/activities that require an environmental permit to function. This should be a requirement by all state agencies and actors to factor the impacts and effects of climate change into policy, regulatory requirements and safeguards to ensure the sustainability of the intended development and sustainable service delivery. Stricter regulation on fossil fuel emissions must be implemented and harsher penalties for those who do not comply with the country’s laws.

There also needs to be direct penalties/sanctions on those nations who have agreed and signed on to international agreements/commitments but continue to permit projects that contradict their National Determined Contributions and climate goals i.e., restrict climate financing to those nations.

The business fraternity and the corporate sector must take into consideration and plan for climate change and its impact and effects on their business models and operational standards. For instance, an Australian company, Mayur Resources Limited has been attempting to develop a coal industry in Papua New Guinea (and would be the 1st in the Pacific) since 2016. Although Papua New Guinea has signed on to the Paris Climate Agreement, submitted the Nationally Determined Contributions, and signed various Agreements from the COP26 in Glasgow (2021), the PNG Environment Authority (Conservation and Environmental Protection Authority), granted an environmental permit for a coal plant to be built in the second-largest city PNG. This is a clear indication of a disregard for the climate emergency faced by smaller island states and the international agreements that PNG committed itself to[[2]](#footnote-2), and an indication of disregard to international commitments and/or respect to the climate emergencies faced in the country/region and planet.

**Question 8**

Increase financial support to government, civil society and intergovernmental organizations to enhance actions directed to reduce the climate change impacts on vulnerable individuals and communities. For instance, financing NGOs who are working with vulnerable communities on mangrove restoration programs. Collaboration is required in the space of awareness and advocacy on the importance of climate change and its cascading effects on livelihoods.

There must be immediate policy changes and legislative efforts to regulate activities that exacerbate harm to the environment. An example of such in PNG saw a ban on the Special Agriculture and Business Lease (SABL) putting an immediate stop to further deforestation. Better interventions were then considered with the endorsement of the *National Sustainable Land Use Policy* and the *Protected Areas Policy*. More action and funding are needed to implement such policy interventions.

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1. www.celcor.org [↑](#footnote-ref-1)
2. A campaign was launched at [www.nogatcoal.org](http://www.nogatcoal.org) in protest to the Mayur Resources plans) [↑](#footnote-ref-2)