# PLANNED RELOCATION: MAMMOTH TASK FOR FIJIAN GOVERNMENT

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Abstract:

Climate change is undeniably a global phenomenon, which requires timely global efforts and sincere commitments to save the planet before it is too late. The blue Pacific region as a whole is experiencing the destructive effects of climate change, arguably more so than any other nation in the world. Scientists warn us that this slow-in-motion phenomenon is claiming entire nations and will continue to do so. Nations will cease to exist on the face of the earth as early next century. Sea level rise is one of the biggest existential threats that the region is facing. Countries such as Tuvalu, Kiribati and the Marshall Islands have already started sinking, with their citizens looking for alternate countries.

In Fiji, more than 200 low-lying villages are at risk of sinking and the government with its meagre economy has decided to relocate these communities to higher ground. The relocates will lose their most precious commodity, the land, which is their identity, status and source of survival. The other most precious commodity to which they attach a sense of belonging which will be lost for life is their ancestral home, along with their culture and traditional way of life. The relocation plan also creates a large distance between people and the sea, which is the source of their food.

This article argues that despite being considered as an effective adaptation mechanism to climate change, the relocation plan is facing multiple hurdles. The plan is far beyond the financial capacity and technical prowess of the Fijian government. The other possible alternative to mass relocation is strengthening the locally-made seawalls into strong durable structures, which can withstand the strength of cyclones and be an effective barrier to further shoreline erosion into the sea. The small island developing nations of the Pacific region will need the financial and technical assistance of industrialised nations to implement the project successfully.

**Keywords:** Mass relocation, climate change, adaption, mass migration, social conflict, seawall

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### INTRODUCTION

Climate change is one of the most pressing and challenging transnational issues that threaten the very existence of many coastal cities and countries around the world. Steady sea level rise, destructive and powerful cyclones, tropical storms, hurricanes, long periods of drought, sea acidification, destruction of the coral reefs, and melting of the ice caps in the Arctic are some of the major challenges that the world as a whole is grappling with.

Climate change has indeed become one of the most pressing scientific, political and economic challenges of our time. Despite being at the top of international political agendas and the existential threats that it poses, the international community has been slow to take action.<sup>22</sup> This inability and lack of interest to take robust action is endangering the lives of millions of people and hastens the destruction of many countries, ensuring their non-existence shortly. Millions of people will become homeless. According to IPCC, since the late 19th century the sea level has risen 26 centimetres globally and it could rise to one meter by the end of the 21st century.<sup>23</sup>

The Republic of Fiji Islands, a developing island nation located in the South Pacific region, is one of the front lines in the battle against climate change. For the tiny tropical paradise in the vast Pacific Ocean, the effects of this cataclysm are not in the future but are already in the present. This small island nation is made up of 330 islands and many islets, of which one third is populated and constitutes a landmass of 18,333 km2. The two major islands, Viti Levu (10,429 km2) and Vanua Levu (5,556 km2) constitute 87% of Fiji's inhabitable territory.<sup>24</sup>

Agriculture constitutes the backbone of Fiji's economy with a considerable number of people particularly in the rural areas engaging in subsistence farming and cultivating various types of cash crops both for export and domestic consumption. Being surrounded by the Pacific Ocean, Fiji has an oceanic tropical maritime climate associated with multiple natural calamities.

This Pacific island nation is threatened by natural disasters such as sea-level rise, coastal erosion, cyclones, prolonged droughts, flooding, sea flooding, tidal inundation, and tropical depressions. These natural disasters hit Fiji year-in-and year-out, affecting its economy, hampering social development, harming people, destroying infrastructure, and making it an aid-dependent country. For instance, the 2016

<sup>&</sup>lt;sup>22</sup> Stefanie Tye and Juan-Carlos Altamirano, Embracing the Unknown: Understanding Climate Change Uncertainty, 2017> https://www.wri.org/blog/2017/03/embracing-unknown-understanding-climate-change-uncertainty> [accessed 30 November 2020].

<sup>&</sup>lt;sup>23</sup> John Church and Peter Clark, Sea level change, 2018< Sea Level Change> [accessed 30 November 2020].

<sup>&</sup>lt;sup>24</sup> UNCCC, How Fiji is Impacted by Climate Change, 2017<https://unfccc.int/news/how-fiji-is-impacted-by-climate-change> [accessed 29 November 2020].

Tropical Cyclone Winston, one of the biggest storms recorded in the Southern Hemisphere "impacted 62% of the Fiji population and caused FJD2 Billion in damage (20% GDP). It killed 44 people, injured hundreds, and left 131,000 people homeless". The sheer volume of carnage that Winston left behind was far beyond the government's financial capacity. Hence, the government had to ask for foreign aid. <sup>26</sup>

People in Fiji and the entire Pacific region query their role in climate change. According to a Fijian official, "what makes this an especially bitter pill to swallow is that Fiji and other Pacific nations have contributed almost nothing to global warming. Fiji's carbon emissions [is] less than 0.004% of the world total". <sup>27</sup> Yet, the region is paying for the commercial and economic activities of others in the distant developed world.

Climatologists have observed that in recent years the frequency and severity of natural disasters have increased markedly. <sup>28</sup> In the blue Pacific region, tropical cyclones are particularly disastrous when they make landfall. In 2018, three cyclones were heading towards Fiji. Although they did not make landfall, they brought heavy rainfall, which caused flash flooding and damaged crops and affected people. Cyclones in Fiji are seasonal, occurring during the rainy season which starts in November and ends in early May.

Although the Intergovernmental Panel on Climate Change (IPCC) and other multilateral organisations, as well as governments time and again, have warned about the severe impacts of climate change and how countries will be affected in years to come, the Pacific island nations are experiencing it right now. <sup>29</sup> The region will be the first to produce a large body of climate refugees and nowhere to take refuge. <sup>30</sup> Both Australia and New Zealand have refused to accept the sinking population of their Pacific neighbours with Australia itself being affected by drought and water shortage.

Despite all these disasters caused by climate change, there are climate change sceptics who believe climate change is not happening in the way and magnitude as it

<sup>&</sup>lt;sup>25</sup> World Bank, Resilience and love in action: rebuilding after Cyclone Winston, 2017< https://www.worldbank.org/en/news/feature/2017/11/07/resilience-love-in-action-rebuilding-after-cyclone-winston [accessed 29 November 2020].

<sup>&</sup>lt;sup>26</sup> *Ibid*.

<sup>&</sup>lt;sup>27</sup> Ibid.

<sup>&</sup>lt;sup>28</sup> Vinod Thomas and Ramón López, Global Increase in Climate-related disasters, 2015< https://www.adb.org/sites/default/files/publication/176899/ewp-466.pdf> [accessed 30 November 2020].

<sup>&</sup>lt;sup>29</sup> Laurence Caramel, Besieged by the rising tides of climate change, Kiribati buys land in Fiji, 2014< https://www.theguardian.com/environment/2014/jul/01/kiribati-climate-change-fiji-vanua-levu> [accessed 30 November 2020].

<sup>&</sup>lt;sup>30</sup> Saber Salem and Armin Rosencranz, 'Climate Refugee in the Pacific', Environmental Law Reporter, Vol. 50, Issue. 7 (2020), pp. 10540-10545.

is being portrayed. They put the weight of their argument behind science, arguing that technological advancement will reverse the "concocted severity" of climate change. They believe the rise in temperature to be good for humanity. However, they are oblivious to the fact that the sea level has been steadily rising for the past few decades and has claimed many villages in Fiji. Since 2006, the Fijian government has relocated five villages and earmarked 42 others for the same. This, as many scientists warn, is the beginning of nations disappearing, with the Pacific region taking the lead.

This article argues that the planned relocation of coastal villages requires technical and financial assistance from the donor community to help ease the way for Fiji to succeed in this endeavour. The relocates need necessary infrastructure in their new communities to build a new life. In the absence of social services such as medical services, schools, roads and social amenities, it will be hard for the government to convince people to relocate to higher ground voluntarily. A more viable alternative to relocation is building seawalls to keep villages safe and the inhabitants in their ancestral homes.

### RELOCATION CHOICE

The rapidly rising sea levels in the Pacific region ensure harsher effects of climate change for the islands. It has swallowed up five of the Solomon Islands since the middle of the 20th century.<sup>31</sup> Although sea levels have risen an average of 3 millimetres per year around the world, they are rising faster in the blue Pacific region where a "natural trade wind cycle has caused an extra build-up of water over the last half-century".<sup>32</sup> While this 3-millimetre sea level rise per year is not a tsunami, it reduces the margin of safety for low-lying coastal communities.

The small atoll island nations of Tuvalu, Marshall Islands, and Kiribati have already started sinking. As a humanitarian gesture, Fiji has offered help by selling 6,000 acres of land to Kiribati where its small population of 103,000 could be resettled. On average these island nations are barely 2 meters above sea level.<sup>33</sup> According to the Potsdam Institute for Climate Impact Research, the new satellite images show that sea levels may rise to 60% faster than the earlier data released by IPCC. This indicates that atoll nations will disappear much faster than predicted earlier.<sup>34</sup>

<sup>&</sup>lt;sup>31</sup> Loes Witschge, *In Fiji, villages need to move due to climate change,* 2018<a href="https://www.aljazeera.com/indepth/features/fiji-">https://www.aljazeera.com/indepth/features/fiji-">tillages-move-due-climate-change-180213155519717.html.</a> [accessed December 10, 2020].

<sup>&</sup>lt;sup>32</sup> Alice Klein, Eight low-lying Pacific islands swallowed whole by rising seas, 2017< https://www.newscientist.com/article/2146594-eight-low-lying-pacific-islands-swallowed-whole-by-rising-seas/> [accessed 30 November 2020].

<sup>&</sup>lt;sup>33</sup> Parick Nunn and Nobuo Mimura, 'Vulnerability of South Pacific Island Nations to Sea-level rise', *Journal of Coastal Research* (1997), no.24, pp. 133-151.

<sup>&</sup>lt;sup>34</sup> Paul Voosen, *Seas are rising faster than ever*, 2020< https://www.sciencemag.org/news/2020/11/seas-are-rising-faster-ever> [accessed 30 November 2020].

Fiji has already started relocating villages located near the coastline, which are vulnerable to coastal erosion, sea-level rise, floods, and cyclones. The government is not only moving homes but also graves to encourage people to relocate without protest because most evacuees do not wish to leave their ancestral places. They associate many poignant memories with their birthplaces.<sup>35</sup>

According to Professor Elisabeth Holland at the University of the South Pacific, these people "want to stay exactly where they are, where they have been for generations, where their ancestors are buried". In the meantime, they do not have any options because they are "exposed to the risks of increasing water variability, climate change and extreme weather events [that] lead to losses in livestock, crops, and agricultural incomes". According to the Fijian government, the country has been experiencing a 3 to 6-millimetre sea-level rise each year since 1993. The south Pacific, the south Pacific Pacific Pacific, the south Pacific, the south Pacific, the south Pacific, the south Pacific Pacific Pacific Pacific, the south Pacific Pac

For Fiji, relocation is considered to be an effective and durable option. On the margins of the 74th United Nations General Assembly in 2019, the Fiji government spearheaded the launch of the relocation trust fund for people displaced by climate change. According to the Fijian Prime Minister, the fund was "undeniably one of the most effective ways of helping our communities to adapt to climate change". <sup>39</sup> However, with the eruption of the COVID-19 pandemic and the global economic downturn, the funding commitment of approximately five million US dollars a year may not be met by the donor community.

This will create a conundrum for the Fijian government as it has already started relocating low-lying communities away from the rising water that has inundated homes, ruined croplands by washing saltwater, flooded burial sites and left people vulnerable to landslides. The government is adamant that they act now and "cannot wait for communities to be drowned out by the encroaching tides. We need a holistic approach...and adequate resources".<sup>40</sup>

Although the Fijian government believes in mass relocation as an effective adaptation mechanism, the scheme is encountering multiple hurdles and has been slow in

40 Ibid.

<sup>35</sup> Loes, Supra note 11.

<sup>&</sup>lt;sup>36</sup> Ibid

<sup>&</sup>lt;sup>37</sup> Wodon, Q. 2015. 'Focus of the Study and Data', in O'Donnell Anna and Wodon Quentin (ed.). Climate Change Adaptation and Social Resilience in the Sundarbans. Routledge: Oxford and New York.

<sup>&</sup>lt;sup>38</sup> COP23, How Fiji is Affected by Climate Change, 2018< https://cop23.com.fj/fiji-and-the-pacific/how-fiji-is-affected-by-climatechange/#:~:text=Since%201993%2C%20Fiji%20 has%20recorded,of%20the%20island%20nation%20uninhabitable.> [accessed 30 November 2020].

<sup>&</sup>lt;sup>39</sup> Permanent Mission of Fiji to the UN, World's first ever relocation trust fund for people displaced by climate change launched by Fijian Prime Minister, 2019< https://www.un.int/fiji/news/world%E2%80%99s-first-%E2%80%93ever-relocation-trust-fund-people-displaced-climate-change-launched-fijian-prime> [accessed 3 December 2020].

its implementation. Meanwhile, the sea level is rising, inundating people's homes, salinating agricultural lands and sources of drinking water. There are predictions that people in the Pacific region will run out of safe drinking water well before they run out of land. <sup>41</sup>

## CHALLENGES TO RELOCATION

Being surrounded by the vast Pacific Ocean, Fiji is feeling the pinch of climate change the hardest. It not only "tends to be heavily affected by climate change and natural disasters, but besides, a large share of its population tends to be poor, and thereby has limited means to cope and adapt". Every year, as the impacts of climate change intensify, so does the enormity of relocation, which is considered to be an effective coping mechanism and adaptation strategy.

According to a Fijian government official, "in 2015 the government was looking at possibly relocating as many as 676 villages". <sup>43</sup> This is a staggering figure for Fiji. These relocations mean that the government has to create proper infrastructures such as clinics, schools, roads, bridges and other required facilities to make the newly-created villages inhabitable. However, the Fijian economy cannot afford to pay for the relocation of 676 villages with proper and functioning infrastructure.

The first pitfall that the government is encountering is insufficient funding. According to a study conducted jointly by the World Bank and the Fijian government, the relocation project will require a budget of US\$4.5 billion for the next ten years to find measures to adapt to climate change. This figure is the size of Fiji's annual GDP. Given the magnitude of the issues involved and the activities required to be undertaken, the financial resources of Fiji alone cannot cover all the costs. The financial contribution and commitments from traditional donors are also lagging far behind the needs. It is largely due to the lack of funding that the government in Fiji has been sluggish in the implementation of its relocation project. The donor community has been equally indifferent, and in some respects negligent about the severity of climate change and the suffering of the people. International donors also do not have any direct interests in rescuing the sinking people of the Pacific at a time when their economic growth has been slow, and unemployment has been rising.

The second hurdle for the relocation plan island. The people in Fiji "cannot live without their physical embodiment in terms of their land, upon which survival of

<sup>&</sup>lt;sup>41</sup> Saber Salem, *Climate Change and the Sinking Island States in the Pacific*, 2020< https://www.e-ir. info/2020/01/09/climate-change-and-the-sinking-island-states-in-the-pacific/> [accessed 30 November 2020].

<sup>&</sup>lt;sup>42</sup> Wodon, Supra note 17.

<sup>&</sup>lt;sup>43</sup>Loes, Supra note 11.

<sup>&</sup>lt;sup>44</sup> World Bank, *Acting on Climate Change & Disaster Risk for the Pacific*, 2013< https://www.worldbank.org/content/dam/Worldbank/document/EAP/Pacific%20Islands/climate-change-pacific.pdf> [accessed 30 November 2020].

individuals and groups depends. It provides nourishment, shelter and protection, as well as a source of security and the material basis for identity and belonging".<sup>45</sup> Bearing this inseparable bond between land and people in mind, planned separation of people from their inherited ancestral property or giving their ancestral land to the new arrivals is likely to cause more ethnic and tribal tensions.

As Campbell argues, "the act of relocation may be seen as a measure that can create a fissure in this set of relations. This may be particularly so for those who leave their [land], but also may apply to those who may give up some of their [land] for relocatees". 46 The government is faced with a right versus wrong ethical dilemma at the moment. It is right according to domestic and international laws to provide shelter for people who are victims of sea-level rise, inundation, flooding and cyclones.

In the meantime, it is arguably wrong for the government to confiscate people's lands for the relocates, which they consider as their identity, status, and as connected to their very survival.<sup>47</sup> In Fiji, 87% of the land belongs to the native Fijians, which is legally prohibited to be "sold, exchanged or sub-let".<sup>48</sup> This puts the government in a legal clash with its people. Also, relocation has cultural significance as most people do not wish to dilute their inherited ancestral culture and way of life with people who might have different cultural practices. For the older generation, this cultural dilution is very difficult to come to terms with and relocation is a bitter pill to swallow.

In the Fijian context, culture has a physical connotation, which is tied to the land. For the culture is a property bestowed upon them from their ancestors, which they trace back thousands of years. Climate change is disrupting people's way of life and their peaceful co-existence with nature. The relocation of people from a place with specific values and cultural practices to another place with a different way of life will undoubtedly cause friction between communities.

This climate-induced conflict was noticed in the Solomon Islands and Papua New Guinea (PNG) in 1998.<sup>49</sup> Similar societal frictions could erupt in Fiji, especially after the government intervenes and systematically confiscates land to allocate it to

<sup>&</sup>lt;sup>45</sup> Campbell, J. R. 2008. 'International Relocation From Pacific Island Countries: Adaptation Failure?, Research Gate Jan 2008, https://www.researchgate.net/publication/267963740\_International\_Relocation\_from\_Pacific\_Island\_Countries\_Adaptation\_Failure 

<sup>46</sup> Ibid.

<sup>&</sup>lt;sup>47</sup> Gharbaoui, and Blocher, 'The Reason Land Matters: Relocation as Adaptation to Climate Change in Fiji Islands', In A. *Milan et al. (eds.), Migration, Risk Management and Climate Change: Evidence and Policy Responses*, 2017, Global Migration Issues 6, DOI: 10.1007/978-3-319-42922-9 8

<sup>&</sup>lt;sup>48</sup> Oskar Kurer, 'Land and Politics in Fiji: Of Failed Land Reforms and Coups', *The Journal of Pacific History*, Vol. 36, No. 3 (2001), pp. 299-315.

<sup>&</sup>lt;sup>49</sup> Kate Higgins and Josiah Maesua, *Climate Change, Conflict, and Peacebuilding in Solomon Island Communities*, 2019< https://www.newsecuritybeat.org/2019/11/climate-change-conflict-peacebuilding-solomon-islandcommunities/#:~:text=Today%2C%20a%20number%20of%20 locations,of%20conflict%20across%20the%20country [accessed 1 December 2020].

a different group of people. The changes that arise from climate change are only "deemed negative within a given cultural frame of reference, making it difficult to predict which of the changes arising from climate change will lead to losses of cultural assets that communities value".<sup>50</sup>

According to one of the village headmen, "we now know that we are being subjected to a gradual, creeping and insidious process which directly threatens our future and our ability to live in our homeland. [We know that] our people will be scattered, and the survival of our unique culture, lifestyle and even our language, may be lost forever". <sup>51</sup>

Furthermore, moving to the high ground also comes with a high price. People have to travel long distances to the sea to catch fish. In an interview with a native Fijian tribal chief, the author was told, "our food is in the sea. We catch fish, crabs and others from the sea; get our taro and cassava [all root crops] from the land; boil the two and feed the entire family". <sup>52</sup>

Such is a laidback lifestyle in Fiji and the entire Pacific. However, the relocation has created a huge problem for people and that is part of the dissatisfaction with relocation. They have to travel to see, catch their fish, and carry everything up the hill where there is no road or transport. <sup>53</sup> This problem has become especially acute for the elderly whose adult children have gone overseas for work. The relocation has created a long distance between them and their source of food, the sea.

Furthermore, mass relocation also raises the chances of competition over scarce and dwindling resources such as water, space, healthcare, education, and other social services. It will cause overcrowding, the spread of various viral diseases and a significant reduction in employment because local companies cannot absorb all the job seekers.

It is therefore argued that environmentally-induced mass relocation could lead to social disturbances if the government fails to manage the "settler-recipient" relations properly. This conflict could happen over land, water, and other natural resources and could easily escalate under conditions of scarcity and inequality. The land will become an explosive issue as the sea level rise forces more people out of their community and they encroach upon other people's land.

Traditionally, native Fijians have communal family structures where they share their belongings with their immediate family members. However, the new settlers from different communities and tribal setups may not be welcome. This unfriendliness could lead to environmentally-induced social unrest.

<sup>&</sup>lt;sup>50</sup> Campbell, Supra note 25.

<sup>&</sup>lt;sup>51</sup>Republic of Kiribati, I-Kiribati want to migrate with dignity, 2012<a href="http://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/">http://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/">https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/">https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/">https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/">https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/">https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/">https://www.climate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/12/i-kiribati-want-to-migrate-with-dignity/">https://www.climate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/i-kiribati-want-to-migrate-with-dignity/">https://www.climate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/i-kiribati-want-to-migrate-with-dignity/">https://www.climate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/i-kiribati-want-to-migrate-with-dignity/">https://www.climate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/i-kiribati-want-to-migrate-with-dignity/">https://www.climate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/i-kiribati-want-to-migrate-with-dignity/">https://www.climate-with-dignity/<a href="https://www.climate.gov.ki/2013/02/i-kiribati-want-to-migrate-with-dignity/">https://www.climate-with-dignity/<a href="https://

<sup>&</sup>lt;sup>52</sup> Interview SP009, 6 May 2019.

<sup>&</sup>lt;sup>53</sup> Loes, Supra note 11.

## SEAWALL: ALTERNATIVE TO RELOCATION?

In Fiji and the wider Pacific region, coastal communities are eroding at a much faster rate. <sup>54</sup> The best possible alternative to the problem is building seawalls, which is "realistically beyond the capacity of many local area communities in the Pacific Islands". <sup>55</sup> It is believed to be an effective defence mechanism against advancing sea level rise and tidal inundation. Seawalls are hard structures with the primary function of preventing further erosion of the shoreline. <sup>56</sup> In Fiji, coastal dwellers have built their seawalls using basic methods and tools. However, they are poorly designed and constructed, which tends to increase rather than decrease coastal erosion, and have been unable to prevent ocean flooding. <sup>57</sup>

It is now widely believed that seawalls are a customary response to coastal erosion and flooding and that they prevent coastal residents from migrating to upper grounds. It is also proven that building seawalls will help prevent salinization of agricultural lands and sources of drinking water during king tides and tropical cyclones. The "disadvantages of alternative response measures, especially among local community members, is not known".<sup>58</sup> Nevertheless, the advantage of building sea walls along the shoreline is that it is indeed an effective barrier to rising sea levels.

Fiji and its Pacific neighbours do not have the necessary technical skills and revenue to implement this vitally important project on their own.<sup>59</sup> A lack of "capacity and resources had led not only to poorly designed and constructed seawalls but also to difficulties in enforcing rules and regulations such as bans on sand mining".<sup>60</sup> The latter could create yet another major environmental challenge if not regulated and administered properly.

Given that the project is costly and the small island developing nations of the Pacific region cannot finance it on their own, all hopes are now placed in the coffers of the donor community. Though vitally important, the donor community does

<sup>&</sup>lt;sup>54</sup> Nobuo Mimura and Patrick D. Nunn, 'Trends of Beach Erosion and Shoreline Protection in Rural Fiji', Journal of Coastal Research, Vol. 14, No. 1 (1998), pp. 37-46.

<sup>&</sup>lt;sup>55</sup> Patrick D. Nunn, 'Responding to the challenges of climate change in the Pacific Islands: management and technological imperatives', *Journal of Climate Research*, Vol. 40, no.2-3 (2009), pp. 211-231.

<sup>&</sup>lt;sup>56</sup> CLIMATE TECHNOLOGY CENTER AND NETWORK, Seawalls, 2020
https://www.ctc-n.org/technologies/sea-walls> [accessed 1 December 2020].

<sup>&</sup>lt;sup>57</sup> Ibid.

<sup>&</sup>lt;sup>58</sup> Carola Betzold and Ibrahim Mohamed, 'Seawalls as a response to coastal erosion and flooding: a case study from Grande Comore, Comoros', *Regional Environmental Change*, Vol. 17 (2017), pp. 1077-1087.

<sup>&</sup>lt;sup>59</sup> Nunn, Supra note 35.

<sup>60</sup> Ibid.

<sup>&</sup>lt;sup>61</sup> Carola and Mohamed, Supra note 38.

not see any financial dividend in funding it. This absence of interest makes it less attractive for the international community to invest in the Pacific seawall project. The Pacific leaders, as part of their climate diplomacy, are increasingly speaking and making individual submissions at the United Nations Framework Convention on Climate Change (UNFCCC) and other multilateral organisations to hasten the shift from discussion and negotiation to implementation and action.

It seems that Pacific's climate diplomacy is not making headway and has not been able to produce the intended outcome. It is blamed for being a mechanism for goal-setting rather than action and implementation. It is now time for action because countries in the wider Pacific region are losing their shoreline at an unprecedented rate. The action from the international community has not kept pace with the magnitude of destruction caused by the fast-rising ocean waters.

It is therefore about time that the donor community steps in and helps Pacific islanders with the much-needed funds and technical assistance needed to build protective seawalls to turn the tide against coastal erosion. This will help prevent future social conflicts and mass migrations. The onus is on the developed countries to find engineering solutions to develop well-designed and constructed seawalls to retain the islands' land, protect their people and their dignity.<sup>61</sup>

## **CONCLUSION**

Climate change and environmental catastrophes are becoming existential threats to the small island nations of the Pacific region. Some island nations have already started sinking and have become uninhabitable due to sea-level rise which has been increasing alarmingly over the past decades. The greatest challenge that developed nations will face, indeed are already facing, is a large body of climate refugees.

Fiji, like other island nations, is grappling with rapid sea-level rise – so much so that the government has decided to relocate a big portion of its coastal population to higher ground. The cost of relocation is far beyond the financial capacity of Fiji. Every year cyclones, torrential rains and floods claim many human lives, destroy residential houses, kill livestock, inundate agricultural lands, and contaminate sources of drinking water. When king tides push saltwater onto croplands, they become uncultivable, resulting in poverty and chronic hunger. Also, the relocation plan has been fraught with multiple challenges. The first challenge is funding The Fijian economy cannot afford to pay for it. Without the financial assistance and technical cooperation of the donor community, the Fijian government will not be able to independently implement it.

The second challenge is the unwillingness of the affected population to abandon their ancestral land and graves. For the indigenous population, the land is their identity, status, and way of survival. Many tribal chiefs have made it clear that they prefer dying on their land rather than abandoning it.

Finally, the relocation plan may cause social conflicts. Some communities might be amenable and welcoming towards the evacuees. However, others might not be 78 Jindal Journal of Public Policy, Vol. 5, Issue 1

willing to give their land, with which their very survival is associated, to "aliens". This antipathy towards relocatees might result in civil unrest, which could easily spiral out of control.

The best solution to the problem, which is considered to be an effective adaptation mechanism, is the erection of seawalls. It is durable and can prevent further erosion of the shoreline. Building seawalls is not a new practice. It has existed from ancient times to prevent the submerging of coastal communities by the onslaught of the rising water.

Given that the threats of tsunamis, tropical cyclones, and sea-flooding have increased substantially, it necessitates the building of such preventive structures in a bid to reduce the menace of natural catastrophes and assure coastal dwellers of their safety. In the Pacific region, sea-level rise wreaks havoc on the lives of the coastal inhabitants. Thus, seawalls are effective barriers and a sustainable solution to be employed to resolve some of the problems of the Pacific islanders.

However, with the global economic downturn caused by the COVID-19 pandemic, the donor community may not be interested in funding climate-related projects either in the Pacific region or globally. As a result, people will continue to be affected by environmental disasters even further. They will lose their homes, land, and sources of drinking water and start transnational mass migrations. Arguably, this will become a lot costlier to the international community than building seawalls now and ensuring the security of disaster-prone people within their communities and geographic regions.

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