



From
the People of Japan

GENDERED VOICES

*Women's roles in biodiversity:
Eco-system restoration, and
climate justice*

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GENDERED VOICES

Women's roles in biodiversity, Eco-system restoration, and climate justice

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INTRODUCTION

Climate change, one of the most pressing issues of our time, is affecting both women and men but differently and disproportionately.¹ More women than men have died in heatwaves in India, China and France, and in tropical cyclones in the Philippines and Bangladesh.² Moreover, despite of a surge in women's engagement in biodiversity and eco-system restoration, they are globally underrepresented at decision-making levels in the fight against climate change. This edition of the UNDP Mauritius Gendered Voices Newsletter shares the stories of women involved in biodiversity, ecosystem restoration and climate justice in Mauritius and Rodrigues, and reveals their experiences of gendered barriers in these fields and their coping mechanisms. This edition also focuses on practical and strategic responses in the environment sector to contribute to policy formulation and programs aimed at assisting women as powerful actors in the fight against climate change.



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WOMEN'S ROLES IN BIODIVERSITY, ECO-SYSTEM RESTORATION, AND CLIMATE JUSTICE



Message from ...
H.E. Mrs. K. Nandini Singla,
High Commissioner of India to Mauritius



Date: 30 May 2021

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Climate change is a real, present and existential threat to humanity today. Be it the extreme drought in Madagascar or the devastating bushfires and floods in Australia, the impact of climate change is evident worldwide. The fact that 2020 was one of the warmest years on record, is yet another stark reminder that we need to act now!

Despite the colossal challenge, it is baffling that 50% of humanity,

represented by women, is currently not an integral part of the solution. Neither does the world fully recognize that women, as primary care givers and nurturers of families, are amongst the most adversely impacted by climate change – whether it is the impact on food, water, housing, health, sanitation or livelihoods, they ultimately affect the well-being of families and, most of all, the women who are at the nucleus of it.

I would therefore like to commend UNDP for dedicating this issue of Gendered Voices, to “Redressing gender imbalances in the fight against Climate Change”, which is an oft-ignored but vital dimension in effectively countering climate change. I am particularly delighted to read real-life examples of four pioneering Mauritian women whose extraordinary work in climate change adaptation and mitigation are truly inspiring.

I am also happy to see that there is growing recognition about the centrality of the gender

dimension in addressing climate change. For instance, in India, more than 80 million women have been provided subsidized clean cooking fuel under the Ujjwala Yojna scheme. Similarly, 232 million bank accounts have been opened for women under the Jan Dhan Yojana scheme, to facilitate micro-credit and economic self-empowerment. In order to involve women in grass-root level environment management and decision-making, 1/3rd of the total seats in all local bodies in India are now reserved for women.

While these are welcome initiatives, we need to do a lot more as a global community to proactively enlist this most vulnerable and vital half of humanity, so that we leave behind a better world for our children. I congratulate UNDP and salute the four extraordinary women of Mauritius for leading by example. May their tribe increase!

H.E. Mrs. K. Nandini Singla
High Commissioner of India to Mauritius

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REDRESSING GENDER IMBALANCES IN THE FIGHT AGAINST CLIMATE CHANGE

Climate change is not gender neutral.³ More than 130 worldwide studies on climate change's effects, show that 69% of women face heightened health risks compared to 23% of men.⁴ These encompass mental illness (69% for women), food insecurity (79%), low reproductivity and maternal health (100%), and death/injury from extreme weather (64%). While new gendered challenges have emerged, climate change is concurrently exacerbating pre-existing and embedded forms of gendered problems such as gender-based violence. In the aftermath of disasters, displacement of people often leads to sexual harassment and other forms of gender-based abuses.⁵

Furthermore, despite the increasing number of women entering fields such as biodiversity and eco-system restoration, and taking leadership and claiming climate action at national and international levels, women are not yet playing major roles in the environment sector.⁶ The underrepresentation of women, especially at decision-making levels in entities addressing the climate crisis - such as the UN Framework Convention on Climate Change - remains pervasive. For example, in 2018, only 38% women constituted the 11,306 national delegates at COP 24 in Katowice, Poland.⁷ *

In a bid to redress gender imbalances in the environment sector, nations are today reaffirming their commitments to mainstream gender at cross-cutting levels, with the recognition that "*Women are a powerful force to fight climate change*".⁸ In this context, the Republic of Mauritius has held: a 'Gender Training Workshop for Climate Change Mitigation' in 2020; 'Women Empowerment in Disaster Risk Reduction and Enhancing Resilience against Extreme Weather' workshop in 2019; and the 'Enhancing the Livelihood of Women in Grand-

Sable in Response to Climate Change Impacts' project from 2013 to 2015, supported by UNDP GEF Small Grants Programme, which benefitted women farmers, planters and entrepreneurs from the region.⁹

As a Small Island Developing State, Mauritius is extremely vulnerable to climate change. The World Risk Report 2020 ranked the country 53rd for highest disaster risk, and 10th on the list of countries most exposed to natural hazards.¹⁰ Among the already-felt or looming impacts of climate change are: a 8% drop in annual rainfall and a 13% decrease in water resources by 2050; more frequent summer heatwaves; a sea-level rise of 1m by 2100; increased high-energy waves and accentuated beach erosion (USD 50 million value loss by 2050); more frequent extreme weathers like flash floods and tropical cyclones; the propagation of vector-borne and infectious diseases; heat stress impacting the livestock sector; and a 30% decline in agricultural produce by 2050.¹¹

Having ratified the Paris Agreement on Climate Change, Mauritius is implementing the National Climate Change Action Plan and policy framework with adaptation and mitigation measures.¹²

The Climate Promise Initiative, which forms part of the UNDP's support to Mauritius, entails (i) assisting in the review of the Mauritius' Nationally Determined Contributions (NDCs); (ii) mainstreaming NDCs at national and subnational levels via political and societal actions; (iii) providing technical assistance to update the National Adaptation Plan; and more. The UNDP also assisted "Les Assises de L'Environnement" and is supporting the finalization of the environment national masterplan.

**In the context of Mauritius, sex-disaggregated data on gender and environment are to date lacking.¹³*



THE RESERVE AS HER SECOND HOME: LILIANA'S CONTRIBUTION TO BIODIVERSITY CONSERVATION

39-year-old Liliana has been working for the Mauritian Wildlife Foundation (MWF) in Rodrigues for 12 years, contributing to the conservation of the native fauna and flora of the island with emphasis on Grande Montagne Nature Reserve. Being one of the most protected areas in Rodrigues, the reserve is a viable habitat for endemic plants like the Lili-flowered Hibiscus (*Hibiscus liliiflorus*), and for endemic endangered animals such as the Rodrigues Fruit Bat (*Pteropus rodricensis*).

“Growing up in Rodrigues and spending most of my childhood between the mountains and the ocean, I nurtured a sensitivity towards the environment and the various species it accommodates. From my school years of volunteering to my earlier jobs, I was engaged in marine and terrestrial conservation activities. After completing my studies in Environmental Education in South Africa, I landed my dream job at the MWF.”

At the reserve, although my professional title is Educator, I am involved in diverse projects. All female and male staff at MWF handle tools like machetes, spades, hoes, etc., though men mainly use chainsaws. For us women working at the reserve, we are often stereotyped 'Tom boys'! Adhering to the socially constructed concept of femininity, such as maintaining a manicure, is difficult when you are involved in fieldwork, planting seedlings, removing weeds; pushing wheelbarrows around; and moving soil from one spot to another. My profession inherently challenges gender stereotypes!

I sometimes start work at 6 am for bird-count exercises, or finish work very late at night for our regular bat survey. As a mother, this can be challenging. But I do sometimes bring my daughter along to help me and acquire new skills. In fact, the workforce at MWF constitutes predominantly of women, and likewise for job applicants! Bottom-line, women are interested in nature, have remarkable skills and are very capable!

Some of the projects run by the MWF, such as the plant nursery, have also been implemented at grassroot community level to engage and empower the communities to propagate endemic plants and promote ecological awareness.

“ The most enjoyable exercise for me is educating both children and adults on our rich biodiversity through story-telling. For instance, compelling and emotive stories on endangered species such as our unique endemic bats, can overturn people's negative attitude towards the mammal, which is often associated with diseases and fruit devouring. I would draw an analogy between bat's and human's habitats, and then ask the

audience how they would feel if they were ripped away from their homes and loved ones to be killed ... simply for eating a couple of fruits? To encourage people to genuinely care about nature, they must first develop a passion for it. People only truly protect what they love.

In Rodrigues, more and more people, both young and old, are starting to understand the importance of preserving our natural resources. However, ongoing problems such as poor waste disposal facilities, coral bleaching and overfishing of small lagoon fishes, have to be addressed. It would be interesting to introduce measures in the same vein as the octopus fishing season, which has allowed control of spawning periods.

With the support of the Forestry Service of the Rodrigues Regional Assembly, the UNDP GEF Small Grants Programme and other stakeholders, ongoing and future projects of the MWF include enhancing ecotourism and achieving the SDGs and substituting invasive high-water-use exotic plants with endemic ones. The latter need less water to grow and prove to be less brittle – in sum, they are more resilient to climate change, drought seasons and tropical cyclones in Rodrigues.

“ I believe that women have a pivotal role to play in preserving, conserving, and restoring the biodiversity. Women can innately transmit this environmental sensitivity to others, which is at the root of changing people's mindset and attitude towards nature.”



DISASTER RISK REDUCTION AND MANAGEMENT: DOYANA'S ROLE IN ENSURING RODRIGUES' PREPAREDNESS TO EMERGENCIES

A policewoman since 2011, 33-year-old Doyana has been co-running the Rodrigues Disaster Centre with another female colleague for the last four years. This centre was conceived to drive disaster risk reduction and management, and to respond to declarations of state of emergency, as per the National Disaster Risk Reduction and Management Act 2016. As the focal point for national coordination in times of natural calamities, Doyana is a young professional woman and a single mother vested with monumental responsibilities.

“My work entails community sensitization on natural catastrophes across Rodrigues, especially for those residing in red zone areas with heightened risk. I also conduct at least 4 simulations per year with focus on preparedness. This exercise involves the participation of the local community and diverse commissions including infrastructure,

social security, health, police, fire brigade, and other key institutions.

In times of real disasters such as floods, my office embodies its role as Rodrigues Emergency Office Command. Working directly under the Chief Commissioner's office, my colleague and I become entrusted with more authority and responsibility to coordinate and issue commands to other commissions and institutions, in a bid to mitigate impacts and prevent fatalities. During the 2020 COVID-19 lockdown, pandemics were under the aegis of our office, and this added more pressure and responsibilities to our daily load. As a single mother working around the clock, I had to find an alternative care solution for my son. During that time, I endured loneliness.

Being a woman, especially in this particular job, it can be challenging to give orders to men. Recently, I received a hurtful comment from a high-profile man who questioned how I weaved my way up to land this work position. Such remarks are mentally detrimental, but I am strong-willed, and I believe in my capacities.”

Doyana explains that Rodrigues' topography makes it inherently susceptible to calamities - with a high propensity for flooding despite only 70mm of rain compared to 100mm for Mauritius. The mountainous landscapes and deep valleys of the island inhibit the outflow of water, especially in the event of storms and sea level rises that push water back inland.

“Port Sud-Est is one of the most risk-prone sites of Rodrigues. In times of heavy rainfall, the region is difficult to access and is literally cut off from the surrounding villages. I collaborated with the Mauritius Red Cross on a disaster response project that was funded by the UNDP GEF Small Grants Programme, to train civilians from Port Sud-Est on disaster prevention and coping mechanisms.”



Throughout Rodrigues, communities respond positively to Doyana's trainings, which contribute to a greater awareness of the natural precariousities faced by the island, and more-so with climate change. The majority of the workshop beneficiaries are women, and their engagement is deemed critical and strategic. As many women are at home, they are the first to react and take the necessary precautions for their households, and to alert others.

“ Human activities play a huge role in aggravating the impacts of natural disasters and climate change.

In Rodrigues, one of the ongoing problems is the non-compliance with norms concerning constructions on slopes, which disrupt the land ecosystem and its associated functions. During the Berguitta cyclone, due to such careless construction practices, large

amounts of soil were washed from the mountain into the sea, causing large scale sedimentation and disturbance to the marine ecosystem. These harmful human practices have unfortunately contributed to the decline of our marine biodiversity and to the bleaching of our corals.

Women's contribution to risk reduction and biodiversity conservation is critical. In Rodrigues many single mothers like me own their own home and have decision-making power over construction procedures; thus, they can be encouraged to construct in sustainable ways. Women also play a key role in transmitting values to the young generation such as the respect for nature and the limitation of waste.”

FOCUSING ON ENVIRONMENTAL POLICY AS A KEY FOR CHANGE: ADI AND CLIMATE JUSTICE



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Mostly known as the spokesperson and driver of the 'Platform Moris Lanvironnman' (PML) since 2010, 61-year-old Adi counts over a decade of environmental policy advocacy in Mauritius. A social scientist and historian by profession, she has been involved in research and projects, including a multimedia production on Mauritius depicting the island during the 20th (1900-1999) century. From the latter task, Adi began to delve into the country's history with specific focus on economic development and its subsequent repercussions on the biodiversity and ecosystems of the island.

“My research on the historical evolution of development in Mauritius was an eye-opener on the multifaceted impacts of development plans, notably on the environment, socioeconomic system, social stratification and people's livelihoods. Climate change is irrefutably detrimental to our terrestrial and marine biodiversity; however, it must be underscored that the effects are not felt equally. The more I studied land development in Mauritius, the clearer it became that deprived

areas are bearing the brunt of natural/man-made disasters, compared to affluent ones. Environmental justice - hence, climate justice - has since become central to my fights.

In 2009, with what would become the PML team, I opposed the La Chaumière Waste-to-Energy incinerator Project, which thankfully never saw daylight. The impact would have been multidimensional with a total backlash on sustainable waste management and the 3R's - Reduce, Reuse and Recycle, and on human health.

Along the path of my activism and policy advocacy, I have been attacked, but I persevere... Many do not enjoy the same 'freedom' that I have to speak my mind. I am not tied up financially to any company, governmental bodies or specific entity for a living. Hence, I presume that I can enjoy a certain level of freedom of expression that many others do not, even in a democracy like ours."

Adi shared that activism is an instrumental tool to call for climate justice. Real change erupts from policy advocacy, executing policies and filling policy gaps on environmental protection. She pinpoints that very often high-level talks and political commitments on sustainable development are not aligned with actions undertaken.

“ Women can and must engage in the fight against climate change and climate injustice. To that aim, entrenched gender roles, stereotypes and time poverty that impede women having an active sociopolitical life must be addressed. There is not one approach, but diverse ways to get involved. I usually encourage women who ask what they can do, to initiate sensitization and awareness activities at grassroots community-level on environmental degradation and protection. Women's contributions and voices matter, more than ever!”





OCEAN ECOSYSTEM RESTORATION AND CONSERVATION: MARINE'S DESTINY AS A CHILD OF THE OCEAN

28-year-old Marine works as a marine biologist at Reef Conservation since 2018. Of French origin, the young professional woman pursued a Master's degree in Reunion island on the biodiversity of various tropical ecosystems, with emphasis on Aquatic Littoral Insular. To complete her degree, she embarked on an internship in Mauritius to study the venomous *Acanthaster* (known as Crown-of-Thorns starfish). Today, settled on the island, she works towards the restoration and conservation of the marine ecosystem and of its numerous vulnerable species.

“ I have a family anecdote about why I love the ocean so much: my mother PADI-dived in Tahiti, while I was still in her womb! Also, I am told that before I could even walk as a baby, I was able to swim head under water! During my teen years, my interest in scuba diving grew to the point that I began travelling with my family exclusively to diving spots around the world. My first trip to the Seychelles, at 14, was a fascinating discovery of turquoise ocean and coral reefs. I knew then that my job would be ocean and aquatic-life oriented.

Empirical evidence and my innumerable dives in the Mauritian waters have exposed me to the extent of its marine ecosystem degradation. The Coral Reef Status report of 2017 divulges that only 20% of healthy corals remain in Mauritius. Amongst the main

local stressors are human activities such as overfishing, including fishing of herbivorous fishes, and the use of agricultural pesticides and noxious chemicals that find their way into the sea. Boaters also drop anchors pretty much anywhere and break the corals. Natural stressors encompass climate change effects, global warming, cyclones and tidal surge. More recent is the increased presence of a corallivores starfish, the Acanthaster, in coral hotspots in Mauritius. These can release 4 to 60 million eggs in one go and they feed on coral polyps."

Early this year, Marine was appointed project leader of a new Reef Conservation mission to cull the Acanthaster population by means of vinegar (concentrated acetic acid) injections. The project also entails training diving clubs to carry out the injections, and sensitizing communities on this lethal species and how it links to coral decimation.

“ At Reef Conservation, my team of biologists consists of one man and three women, including myself. During the MV Wakashio oil spill crisis, upon the solicitation of our NGO for support, our team was dispatched into different groups including experts from Japan, etc. At the beginning, I was diving with the ‘coral reef’ expert team, afterwards I was shifted to the ‘seagrass’ team. I was the only woman professional on the diving boat amongst male collaborators from diverse institutes. It was not a hindrance. I kept focusing on my tasks."

Gender stereotypes pertain to male-female physiological differences and capacities. Diving with the oxygen bottle, while simultaneously carrying materials, can be seemingly challenging for women.

With some training, women can adapt and operate. In fact, we see more and more women professionals stepping into the oceanic world. Even at university, there was a majority of women among students in marine biology studies"

Further to using social media platforms, Reef Conservation has also conceived the mobile ‘Bis Lamer’ (Sea Bus) to drive to various establishments such as schools and private companies across Mauritius, to inform and educate participants on marine biodiversity and conservation programs. Hitherto, the project has met with great success.

“ The current state of corals in Mauritius is alarming. Many have lost their tridimensional structures and have undergone bleaching due to all the stressors mentioned before. To restore the corals and marine ecosystem, and to conserve the aquatic species that are on the brink of extinction, we need to rely upon collective actions, including women’s vital engagement. If everybody makes a small step, we will together save our ocean and planet!"



FINDINGS

This Newsletter has brought to light substantial information about women's critical roles in biodiversity, ecosystem restoration and climate justice in the Republic of Mauritius including Rodrigues. Based on the diverse experiences of the four female informants, it is clear that (i) more and more women are integrating the environment realm in various roles; (ii) women have the ability to transmit ecological values and sensitivity to others; (iii) as women embrace their jobs/roles in biodiversity conservation and ecological advocacy, several forms of sociocultural and traditional gender stereotypes are simultaneously dismantled; (iv) women can effectively handle work-related pressure and deliver in environment and natural disaster leadership/decision-making positions; (v) women master skills and quintessential knowledge on biodiversity, ecosystem restoration and elements that can exacerbate or alleviate impacts of climate change; and (vi) women at grassroots community levels are endorsing environmental consciousness and play a key role in developing adaptation mechanisms and building resilience against climate change.

Conversely, gender barriers in the environment sector persist and create roadblocks in women's engagement in the domain. According to the informants, deeply rooted gender norms/roles and stereotypes in the domestic sphere contribute to limit women's participation in an active sociopolitical life or ecological advocacy. Moreover,

gender biases that ascribe certain jobs to men and women in the environment sector, such as diving with bulky research equipment, continue to hinder women's access to certain experiences. Additionally, the underrepresentation of women prevails in physical sciences and in decision-making positions. Finally, the media representation of women in biodiversity, ecosystem restoration and climate justice, remains limited and may reinforce gendered perceptions that women do not occupy important roles in the marine world and in the fight against climate change.

Addressing gender inequalities in the environment sector does not only empower women to participate to their full capability as ecological agents, but fundamentally recognizes the pivotal role that women play in environment, whether as proficient experts, advocates, or at grassroots community level. Targeted gender responses at policy level in the environment sector can eliminate gender-based discriminations, bolster equal opportunities for women to be more involved in the environment, and mainstream gender at cross-cutting levels in the ecology domain, for immediate and long-term benefits for both women and nature. Reorienting women's careers into the scientific field will also produce a stronger human-resource base ready to engage with innovative techniques and to invest in emerging areas such as green jobs and the blue economy.







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