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Title: Climate Change Students' Symposium Book of Abstracts

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Vilma Ratumudu, Unaisi Bicinivalu and Letila Talemaitoga

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Chair Associate Professor Jeremy Dorovolomo

Secretariat Dr. Rosiana Lagi, Dr Ledua Waqailiti, Ms. Vilma Ratumudu, and Ms. Letila Talemaitoga.

Organized in Collaboration of the Climate-U, USP Research Office, PaCE-SD and SPACE.

SYMPOSIUM 2023 ABSTRACT

Climate Change Implications for Secondary School Agricultural Science Curriculum in Fiji

Ashish Kumar, Assistant Lecturer, School of Pacific Arts, Communication, and Education, The University of the South Pacific, Suva, Fiji.

Abstract

A qualitative study was undertaken to ascertain the coverage of Climate Change (CC) phenomena in Fijis Secondary School Agricultural Science curriculum. Agriculture shares a unique intertwined relationship with CC, being both a contributor and victim of CC. It becomes important to those receiving formal Agriculture training to be well versed with CC knowledge and skills in the context of Agriculture. As such it becomes imperative to investigate how well the various phenomena of CC are integrated in the existing Agricultural Science curriculum.

Questionnaires, semi-structured interviews, talanoa and document analyses were as study research tools. The research participants consisted of Year 13 Agricultural Science students, Agricultural Science teachers, Senior Agricultural Officers and Senior Education Officers. Document analysis was done for the National Curriculum Framework and the Agricultural Science curriculum, consisting of the syllabi and textbooks. Both qualitative and quantitative methods were employed to analysis the study data.

While the Education Officer (Agricultural Science) regarded the curriculum to be effective in teaching about CC, data gathered from Agricultural Science teachers and students suggested that there is a needed for greater inclusion of CC phenomena in the Agricultural Science curriculum. According to the teacher and student participants, the current curriculum may not suffice in adequately informing students about CC in relation

to Agriculture. Teachers also perceived students having low knowledge of CC. Mass media was identified as an important source of CC information amongst the students.

The analysis of the Agricultural Science curriculum further suggested that a more rigorous inclusion of CC phenomena could be done. The strands and sub-strands present in the curriculum allows space for a more vigorous teaching of CC in relation to Agriculture. While CC related concepts are present in the curriculum, a better organisation and contextualisation is needed.

A greater emphasis on CC related concepts in the Agricultural Science curriculum is recommended. These include the definition and description of key terms associated with CC, agricultural contribution to CC, impact of CC on agriculture, and various mitigation and adaptation practices that could be used to ensure environmental sustainability and food security. A greater emphasis on actions towards adaptation and mitigation, with well - planned practical component that would help students understand about CC is also recommended. The Ministry of Education is to collaborative with stakeholders such as Agriculture Science teachers, Ministry of Agriculture and expertise from external institutions such as Secretariate of Pacific Community and University of the South Pacific and expertise with traditional and indigenous agriculture knowledge and skills in reviewing and editing the curriculum. Professional development of Agricultural Science teachers on CC is recommended to upgrade and prepare teachers for effective teaching of the CC phenomena.

For generations, our ancestors have used traditional/ indigenous knowledge for sustainable livelihood, and it is imperative that such knowledge is strategically included in the formal curriculum. Future research focusing on traditional and indigenous agriculture knowledge in relation to CC is also proposed. Such an inclusion would ensure that while students are taught the modern westernised curriculum, they are also not

deprived of the cultural history of sustainable food production knowledge and skills that have originated in their own locality.

As majority of the teacher participants indicated a lack of CC education training at tertiary institutions, an investigation of the tertiary Agricultural Science curriculum is also proposed.

Biodata

2022 Joined USP as a Teaching Assistant

2023 Assistant Lecturer, Labasa Campus Discipline of Education SPACE

20 Years of High School Teaching Experience Prior to joining USP

PhD Candidate in Education (USP)

Master of Agriculture (USP)

Children's Perceptions on Climate Change Displacement: A Fiji Case Study

Rosiana Lagi and **Apolosa Robaigau**, PACE-SD

Abstract

Climate displacement is experienced by men, women, boys and girls. As such, they should be equally consulted and involved in talanoa and decision making. This study explores the perceptions of fifty children of Nabuna village on climate displacement and the interventions provided by the Fiji's Ministry of Education, faith-based organizations and the vanua in responding to their views. This study found that children were not consulted before relocating and climate displacement is not taught in schools nor by faith-based organizations or the vanua. However, the adults stated that they participated in awareness programs organized by educational institutions

and faith- based organizations as well as being involved in negotiations and talanoa with the vanua in matters related to building their homes in their new land. It is recommended that climate displacement is included in the climate change curriculum so that children are equipped with relevant skills and knowledge and are e involved in talanoa in their homes so they can be included in decision making regarding climate displacement.

Biodata

Apolosa Robaigau

Mr. Apolosa Robaigau is a Climate Change Post Graduate Scholar and Environmental Science Graduate. His research interests are conservation, climate change adaptation and environment advocacy. He is a Practitioner and a community liaison who works with communities – children and youth groups on natural resource management projects weaving indigenous and contemporary me

Climate Change and Identity Disruptions amongst the Indigenous Communities in Fiji

Sereima Baleisomi, Katarina Ruru, Laisa Vuetaki, Matereti Sarasau, Mosese Natuilagilagi.

Abstract

Climate change has had a drastic impact on communities in Fiji. One such impact is the relocation of affected communities. For indigenous communities, relocation could mean a disruption in their traditional and cultural identity. Indigenous people are connected to their ecosystem in a very special way – having ecological relations to the forest, the ocean and rivers, and the land. This paper will discuss the impact of relocation due to Climate change, has on two Indigenous communities in Fiji. The two communities have been affected by climate change;

however, their relocation was influenced by two different disasters. The study engaged qualitative approach and Talanoa was used to gather data through the stories of the community elders. Data was analyzed thematically. Analysis of their stories indicate that the relocation has not only disrupted their identity as Indigenous to their specific community, but also have experienced identity loss through their traditional gift healing and sacred spaces. Therefore, it can be concluded that the effects of climate change have not only affected communities physically, it has a massive impact emotionally, psychologically and culturally.

Key words: *identity loss, sacred space, traditional healing, relocation, ecological relations.*

Weaving Indigenous Knowledge of Climate Change Adaptation into the Tongan Society and Culture Subject Curriculum

Helen Palu

Abstract

Climate Change (CC) is a global threat that is severely affecting communities and ecosystems in many `different ways. Tonga and the rest of the Pacific island countries (PICs) have been identified to be amongst the most vulnerable to CC. It poses substantial challenges to the sustainability of some important aspects of all PICs such as natural resources, food and water security, and cultural practices. This paper refers to CC as a change in the pattern of weather and related changes in oceans, land surfaces, and ice sheets that occur over a long period of time.

The impacts of CC are felt around the world and it is now recognised that mitigation alone cannot be depended upon to fight against it but indigenous knowledge (IK) of climate change adaptation (CCA), and education must also be included.

IK of CCA is the traditional knowledge and practices of the indigenous people (IP) acquired through observations and experiences and they are orally passed down from older to younger generations. This study believes that education is the most influential mean of addressing the impacts of CC and the IK of CCA should be taught at school in the Tongan Society and Culture (TSC) subject.

The indigenous knowledge system (IKS) of the indigenous Tongan people has long provided them with a profound understanding of their surroundings and the means to adapt to changing conditions caused by CC. However, the integration of IK of CCA into the formal education system in the country remains incomplete. This study aims to investigate and document the Tongan indigenous knowledge (TIK) of CCA and explore the potential of incorporating it into the TSC subject curriculum, a subject taught in all primary and secondary schools in Tonga.

The Kakala research framework was employed to guide this study. It is a framework embedded in Tongan cultural values and epistemology that highlights cooperation, reciprocity, and respect for IK. The Kakala research framework offers a culturally appropriate lens through which to analyse the incorporation of IK into the TSC curriculum and to conduct this study. It was also appropriate to engage TIK holders, educators, and community leaders as study participants to seek their own knowledge and practices and their perspectives on the relevant contents and delivery approaches for incorporating IK of CCA into the TSC subject curriculum.

The Qualitative research design of the interpretive approach where interview and talanoa were employed to acquire the perceptions of CC of the indigenous Tongans and gather their IK of CCA. Their suggestions for the best way to transmit IK to the younger generations were also gathered. Indigenous Tongans perceived CC as changes in the weather patterns stated in their traditional calendar that affected their way of living and livelihood. However, they claimed that their IK had enabled

them to predict the weather through the observation of certain signs, and the application of their indigenous adaptation methods had also enabled them to cope with the hazardous impacts of CC.

The first findings of this study demonstrate that indigenous Tongans possess a wealth of IK that can address the needs of the country and its people in the context of CC. These findings also indicate that it can contribute to the expansion of a culturally responsive and justifiable curriculum that aligns with the Tongan way of life and values. In addition, the second findings of this study can provide an understanding of the challenges and opportunities of incorporating IK into the formal education system. It can also contribute to the broader study of the role of education in CCA and sustainable development.

Therefore, this study recommends that all IK of CCA should be included in the school curriculum and taught in the classroom. Further research is also recommended to be conducted in other parts of Tonga to ensure that students are given the best and most effective IK of CCA strategies so that they can be well adapted to the consequences of CC.

Biodata

Ajnesh Avinit Prasad is one of the pioneers in Fiji graduating with a master's in emergency nursing last year. He worked as a Lecturer at Fiji National University at the School of Nursing. He is a nurse by profession specializing in Emergency and Trauma. He has 12 years of working experience as a registered nurse. He is also a disaster-trained personnel whose interest lies in disaster and climate change after seen the effects in the northern division

Emergency Nurses Knowledge, Attitude and Practices regarding Disaster Preparedness and Management in Emergency Departments in the Northern Division, The Republic of Fiji

Principal Investigator and Presenter: Ajnesh Prasad-MN(EMN)[1], Co-Investigator: Diane Brown (PHD)[1,2], Keshni Singh (MN)[1], Sabiha Khan[4], Antony Robinson[3,5].

Institutions and Affiliations

[1] *School of Nursing- College of Medicine, Nursing & Health Science, Fiji National University.*

[2] *WHO Collaborating Centre for Nursing, Midwifery and Health Development*

[3] *National Critical Care and Trauma Response Centre*

[4] *Lecturer, School of Public Health and Primary Care, Fiji National University, Suva, Fiji.*

[5] *Adjunct Lecturer, Fiji National University.*

Abstract

Introduction/Aim:

Since the adoption of the Hyogo Framework for disaster mitigation, much work has been done to mitigate the effects of disasters on communities. However, despite this work, disasters have continued to exact a heavy toll and as a result, the well-being and safety of individuals, communities and countries has been affected. Therefore, disaster preparedness and management are important, as adequate preparation will enable emergency nurses to mitigate the negative consequences on health service users. Emergency nurses are at the front-line attending emergencies during a disaster. This study explored emergency nurses' knowledge, attitude, and practices (KAP) regarding disaster preparedness and management in Emergency Departments in the Northern Division of the Fiji Islands.

Method

A quantitative, cross-sectional study design examined the

knowledge, attitudes and practices (KAP) of Registered Nurses working in Emergency Departments (ED) in divisional, sub-divisional hospitals and health centers in the Northern Division of Fiji. Sixty-one nurses participated. A self-administered questionnaire was used to determine knowledge, attitudes, and practices regarding disaster management. Results were determined using descriptive statistics.

Results

A low proportion of only (23%) of nurses have attended disaster preparedness training from the time they started working with the employer. This is the first study to explore the disaster preparedness of nurses in Fiji, and it has shown that emergency nurses are not prepared to mitigate the effects of disaster on the affected population in Fiji.

Though they have adequate knowledge and a positive attitude in engaging themselves towards disaster management, only 43% of the emergency nurses in the northern division were knowledgeable about appropriate policies and procedures in relation to disaster preparedness and management. This study has very clearly identified that a large number of nurses (72.1%) have never read or seen their health disaster management policy. This is a major concern and it has hindered the nurses from providing standardized practice.

Conclusion

Given the number of disasters experienced in Fiji every year, there is an urgent need for a comprehensive disaster management policy for emergency departments across the Northern Division. Emergency nurses KAP regarding disaster preparedness and management are all linked. Quality of care will be compromised if nurses lack one of the qualities of KAP. This study recognised that there is a need for enough funding, continuous training, education, and drills especially tailored for nurses for skill development to improve standards of practice.

Keywords: *Disaster management, Disaster Preparedness, Knowledge, Practice and Nurses*

Biodata

Ms. Nunia Bari is a Master of Science in Climate Change candidate (by research) under Pacific Center of Environment and Sustainable Development (PaCE-SD). Ms. Nunia Bari obtained her Bachelor's degree in Environmental Science and completed her Post-Graduate Diploma in Climate Change at USP. In the first semester of her post-graduate programme, she was enrolled into PC431: Disaster Risk Reduction for Resilience, and developed the passion of pursuing a Master's degree under the thematic area of disaster risk management and reduction considering the many risks and impacts faced by Pacific Islands especially in Fiji.

The Role of Churches In building resilient communities through Values, Rules and Knowledge Framework (VRK) in Fiji

Nunia Bari (MSc CC Can) Affiliation: Pacific Center for Environment and Sustainable Development (PaCE-SD).

Abstract

Human induced climate change has increasing effects faced globally, threatening livelihoods, wellbeing, and security. The IPCC (2021) report stated that the subtropical central Pacific will experience more intense tropical cyclones (Category 4 and 5), but decrease in frequency in the 21st century. Fiji is highly vulnerable to climate change, and requires adaptive strategies and environmental policies relevant to its context, which includes cultural and faith systems (Gomez and Brincat, 2021). Churches play important roles in Fiji with a wide presence in all communities (Iese et al., 2021) influencing communities' perception of climate change and disasters. The influential role of churches in communities can contribute to the action or inaction on environmental issues (Havea et al., 2018). This

research will be focusing on the roles of churches and faith-based organizations (FBOs) in influencing decision contexts in households and communities for actions to build disaster resilience. Given that Fiji is vulnerable to intense and frequent weather and climate extremes, it is vital to maximize and mobilize resources, implement disaster-ready plans and ensure that outcomes of resilient building projects are long-term. The IPCC report (2021) stated that there will be more intense weather and climate extremes, thus churches and communities will need to establish better decision contexts and mobilize resources for risk reduction. Currently, there is no research based on understanding the decision-making context and actions of households, communities, and churches for disaster resilience and how the church or faith-based organizations influence the decision-making contexts. The results from the case study will help understand decision contexts for resilience by households, communities, and churches. This study will show that capacities built and decisions made will benefit the community years after the completion of any project led by churches and FBOs.

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Can Indigenous knowledge and practices of food preservation be an insurance for coping mechanism in the face of extreme events. A case study in Nabuna, Koro Island

Veisa.F[1], **Lagi.K.R**[1], **Robaigau.A**[2],**Waqa-Sakiti.H**[1] & **Iese.V**[1,3]

Abstract

Food preservation in the Pacific region is a critical aspect in ensuring food security and sustainability in a geographically diverse and culturally rich area. Most of these Pacific countries rely on subsistence agriculture and fishing.

The practices of food preservation differ for each Pacific country. These practices include sun drying, smoking, and salting to ensure that access supplies from the plantation or sea have extended shelf life for daily consumption and not merely wasted away. Modern technologies for food preservation including refrigeration, canning, and freezing have also made inroads especially in urban and rural- urban areas, however, due to geographical locations not all communities have access to such infrastructure.

This abstract provides an overview of the various traditional food preservation methods employed by the people of Nabuna in Koro Island, Fiji. It presented the findings of opportunities of being resilient during and after an extreme event and how this knowledge plays a pivotal role in ensuring food security during and after cyclones.

Due to the island geographical location, access to infrastructures such as full supply of electricity is a barrier to preserve excess food supply, thus the use of traditional knowledge of food preservation is an ideal tool of insurance during such times. Community based initiatives are vital in addressing food preservation in Nabuna. These efforts will empower local communities with knowledge and ensure being resilient in any given situation.

[1]-The University of the South Pacific; [2]- World Wild-Life Fund;

[3]- The University of Melbourne

Biodata

My name is **Giulio Panettiere**, I am from Sicily Island in Italy and I am 26 years old. I am a Master's student of environmental Anthropology at the University of Oslo (Norway) and a visiting researcher at USP, where I am also enrolled in the programme of Climate Change (PaCE-SD) as an exchange student. My fieldwork research in Fiji started in September 2023 and should conclude in March 2024. As an Islander born in the middle of the Mediterranean Sea, my passion for social and environmental issues has led me in Oceania to study and learn from Pacific perspectives on climate change and small island states advocacy and development. My hope is to engage in fruitful conversations with Oceanian Fellows and Students on how to enrich inter-island communications and collaborations as vulnerable environments and spaces.

The Conundrum of Relocations as a Climate Change response strategy and the challenge of Oceanian Unity: Perspectives from a Mediterranean Student

Giulio Maria Panettiere University of Oslo, University of South Pacific exchange and research affiliation

Abstract

In 2014 the Fijian government finalised the planned relocation of Vunidogola Village, in Vanua Levu, as a result of persistent flooding due to climate change-related phenomena. Vunidogoloa, which was relocated from its original site to higher ground further inland, was the first sound case of an entire community that decided to move because of the environmental impacts of climate change. Since then, many Fijian villages have been enlisted as potentially in need of relocation and some of them started walking the same, pernicious, process (Narikoso in Kadavu, Tukuraki in Viti Levu, Vunisavisavi in Vanua Levu). Sea level rise, salinization of the soil, stronger cyclones and acidification of the ocean water are impacting coastal communities in Fiji, the Pacific and elsewhere. While relocations are often thought of as a 'last resort solution', they are likely to become an encouraged strategy of adaptation in the region. However, every situation poses a different challenge that takes into account the risk of displacement as well as the emotional and cultural dimensions of relocated communities. Furthermore, the Tuvaluan and Kiribati communities in Suva (and Fiji) are growing fast due to the particular vulnerability of the Atoll islands. Kioa and Rabi Island in Fiji, are likely to receive an increased number of people from Tuvalu or Kiribas in the coming years. While humans have always migrated leaving their homelands, what happens when your land disappears due to climate change is yet to be understood and needs a new anthropological framework to uncover the emotional and cultural impacts on these communities.

In this paper, I will explore the impacts of environmental governance on local communities, exposing the potential subsequent cultural loss and the problematic aspects of relocations in the Pacific while reflecting on how climate-induced mobility in the Pacific will give an opportunity to Pacific islanders to practice Oceanian Unity (One Ocean) as a coping strategy against the threat posed by climate change. As an islander myself, I will reflect on how climate issues in the Pacific might potentially shed light on environmental challenges in the Mediterranean Space which, despite its much smaller dimension, faces political divisions that hinder intercultural dialogue. In doing so, I will rely on the ethnographic data I have collected so far in my fieldwork in Fiji.

Reviewing Public Health Responses to Climate Extremes in Fiji Islands

Simon OTIWA

Discipline of Chemical and Biological science,

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Abstract

Climate extremes are on the rise; these include floods, extreme heat, and drought. The Pacific Islands are perceived as highly susceptible to the health impacts caused by climate extremes. This underscores the crucial importance of thoroughly evaluating the responses of governments and non-government actors to the pressing health challenges and welfare of affected indigenous populations. This study reviews the public health responses from national stakeholders and international organizations in the phase of climate extremes in Pacific

countries, with reference to Fiji. The review stressed health issues resulting from climate extremes, notably dengue fever, diarrhea, and nutrition-related diseases. Data cutting across renowned international organizations emphasizes a disconcerting association between climatic extremities and an upsurge in dengue fever and diarrhea in Fiji. These climate extremes create favourable breeding grounds for vectors that contaminate water sources. Climate change is exacerbating extremes, and these extremities are projected to increase in intensity and frequency due to global warming. This further affects agriculture, leading to food insecurity; hence, it intensifies the prevalence of nutrition-related diseases, amplifying an already delicate public health disease. The study identifies a critical gap in the existing health response strategies, emphasizing their inefficiency in adequately addressing the mounting long-term health challenges of victims of climatic disasters. To bridge this gap, this study proposes an encompassing health response mechanism. This includes the establishment of enhanced health surveillance to monitor and manage climate-induced health risks effectively; the integration of degree programs such as disaster medicine, humanitarian studies, and mental health psychology into our university's course syllabus; the provision of mental health and trauma support programs to address the psychological strain induced by climate-related disasters; mapping of disaster-prone areas; and the introduction of public health education to disaster-prone areas. The review concluded by emphasizing the urgency of proactive strategies and urging stakeholders to collaboratively implement these proposed measures to safeguard public health amid the growing threat of climate change.

Keywords: *climate change, tropical cyclones, health responses, dengue fever, diarrhea, Fiji Islands.*

Biodata

Viliami He Vaha 'I Moana Vakapuna from Tafahi, Niuatoputapu, the most northern island in the Kingdom of Tonga. The son of a low-class proud father and mother with no formal education. Education started at Tafahi Government Primary School, Tonga High School, Tonga Institute of Education, and the University of the South Pacific. Worked as a Senior Lecturer at the Tonga National University. Currently, a PhD candidate in a bi-institutional study between the University of the South Pacific and the University of Begen, Norway. My interest is based on how policy and curriculum address climate change preparedness. Already married with six children.

Climate Education – Literacy and Justice Title: *Fonua pe Tangata:* Depoliticization of Climate Change

Author: Viliami He Vaha 'I Moana Vakapuna
Affiliation: A PhD candidate on a bi-institutional climate change study between the University of the South Pacific and the University of Bergen.

Abstract

This article delves into the transformative power of depoliticization research in the realm of climate change education. The study analyzed 15 research articles from the last decade, originating from 10 different countries and utilizing a range of research methodologies. Critical discourse analysis was employed to evaluate quantitative and qualitative patterns based on an Indigenous ideology of Fonua pe tangata. The study highlights the importance of depoliticizing climate change education to foster global unity and understanding. By avoiding finger-pointing and the creation of hierarchies based on perceived superiority or inferiority about the effects of climate change, we can work towards a brighter future for all. The research also

evaluates the proposals put forward by various governments for climate change education. It is important to note that many of these strategies prioritize economic concerns and scientific knowledge over education priorities related to climate change. This demonstrates a lack of governmental responsibility and attention to the political dimensions of climate change. In contrast, some articles call for depoliticization of climate change education as a pro-environmental action at all levels, including from policymakers. However, some government strategies for depoliticization may place additional demands on schools and teachers without creating the necessary policy environment. Ultimately, this article argues that government strategies must go beyond mere appearances and address the fundamental policy problems at hand to truly make a difference.

Biodata

Education

Peter Emberson is currently a PhD N-POC scholar with a background in Pacific history, political science, diplomacy and international politics. He earned his Bachelor of Arts degree in Pacific History and Political Science from the University of the South Pacific (USP), where he developed a deep understanding of the complex dynamics shaping the Pacific region.

Peter was a Rotary Peace Scholar at the University of Queensland in Brisbane where he earned a Master's degree in International Politics with a specialized focus on Peace and Conflict Resolution.

Professional Experience

Peter has worked extensively within the Pacific civil society space, contributing his expertise to indigenous and faith-based institutions. Peter also served in the Fijian Government, where he held the role of Director of Climate Change, and later Director Multilaterals. Peter recently served two years as a consultant with the United Nations Economic and Social Commission for Asia and the Pacific (SRO), as advisor to the Pacific Climate Change Migration and Human Security (PCCMHS) Programme.

Traditional Knowledge's Role in Enhancing Climate-Induced Migration Understanding and Resilience Amidst Rising Seas and Disasters

Peter Emberson (N-POC PhD Scholar)

Abstract

This study investigates the vital role of traditional knowledge in improving communities' understanding of climate-induced migration challenges associated with rising sea levels and escalating disasters. Drawing upon a comprehensive review of climate change, migration, and traditional knowledge literature, the research aims to unravel the potential contributions of indigenous and local knowledge systems in addressing the intricate dynamics of population displacement in the context of environmental change.

Methodology and Theoretical Framework:

To accomplish this goal, the research employs a mixed-methods approach that combines qualitative methods, including interviews, focus groups, and case studies, with quantitative data analysis. This multidisciplinary approach integrates insights from the social sciences, anthropology, and climate science to provide a holistic understanding of the interplay between traditional knowledge, climate change, migration, and disaster resilience. Our theoretical framework encompasses the concepts of indigenous knowledge systems,

traditional ecological knowledge, community resilience, and post-colonialism.

Originality and Significance:

This study bridges a critical gap in existing literature by examining the specific ways traditional knowledge can enhance comprehension and responses to climate-induced migration. By highlighting the potential of traditional knowledge systems in the face of sea level rise and disasters, it offers valuable insights for policy formulation, adaptation strategies, and community resilience-building efforts.

Keywords: traditional knowledge, climate change, migration, sea level rise, planned relocation, displacement, disasters, community resilience.

Biodata

Maika Daveta is a part time Masters students pursuing his Master's of Science - Biology degree on the elucidation, mass production and inoculation of rhizobium for restoration of degraded lands." Maika works as the National Project Coordinator for the Food and Agriculture Organization of the UN "Forest and Landscape Restoration Project. His work revolves around plant genetic resources, biodiversity and conservation, food and nutrition security, climate change adaptation and mitigation, land degradation, rural development and capacity building to name a few.

Screening of plant growth promoting bacteria for indole acetic acid and ammonia production from Malolo and Naviti, Fiji

Maika Daveta[1]*, **Tamara Osborne-Naikatini**[2]

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Abstract

Lately the search for cleaner technologies that do not pose risks to the environment and to human health has gotten increasing interest from scientists. One possibility is related to the use of microorganisms as an alternative to chemical fertilizers and pesticides, when selected isolates are applied as biofertilizers and biological control agents. In this context, plant growth promoting bacteria (PGR) can benefit plant development through multiple mechanisms of action, exercised directly, through the production of substances which promote growth and increase nutrient availability in soil, or indirectly, through the suppression of plant pathogens in the rhizosphere. In Fiji there is potential to use PGR for application in enhancing seed germination and seedling growth. Soil samples from Naviti and Malolo were screened for their capacity to produce indole acetic acid (IAA) and ammonia. A total of 200 bacterial isolates were screened for IAA and ammonia production using visual observation and quantified through UV spectrophotometry at a wavelength of 530 nm and 430nm respectively. Four isolates were identified to produce high IAA and ammonia. These isolates would be further tested for its effects on seed germination and growth dynamics and survival in restoration activities.

Keywords: plant growth promoting bacteria, Naviti, Malolo, indole acetic acid producing bacteria, ammonia producing bacteria,

Thursday 23.11.23 Closing Event **Venue: ICT Lecture Theatre**

4.30pm – 5.30pm	**Arrival of Guests & Photograph Exhibition**	
5.35pm	Welcome	Deputy Vice Chancellor and Vice President **Dr. Giulio Paunga**
5.40pm	Lotu	
5.45pm	Song	
5.50pm	Introduction of Project	**Professor Tristan McCowan**
6.00pm	Introduction of Chief Guest	
6.05pm	Chief Guest Address	Honorable Minister for Education, **Aseri Radrodro**
6.20pm	**Performance**	
6.25pm	University of Fiji Team Lead & Community Representative Talanoa	**Professor Shaista Professor Shameem/Mr. Mosese Baseisei**
6.35pm	**Performance**	
6.40pm	Fiji National University Team Lead & Community Representative Talanoa	**Professor Unaisi Nabobo-Baba**
6.50pm	**Performance**	
6.55pm	USP Team Lead & Community Representative Talanoa	**Dr. Rosiana Lagi**
7.05pm	**Performance**	
7.10pm	Introduction of ClimateU Network	**Dr. Jackline**
7.15pm	Concluding Remarks	**Professor Michael Crossley**
7.30pm	**Performance Cocktail & Photograph Exhibition**	