



FAMILY FARMING, LIFESTYLE AND HEALTH IN SMALL ISLANDS, COUNTRIES AND TERRITORIES

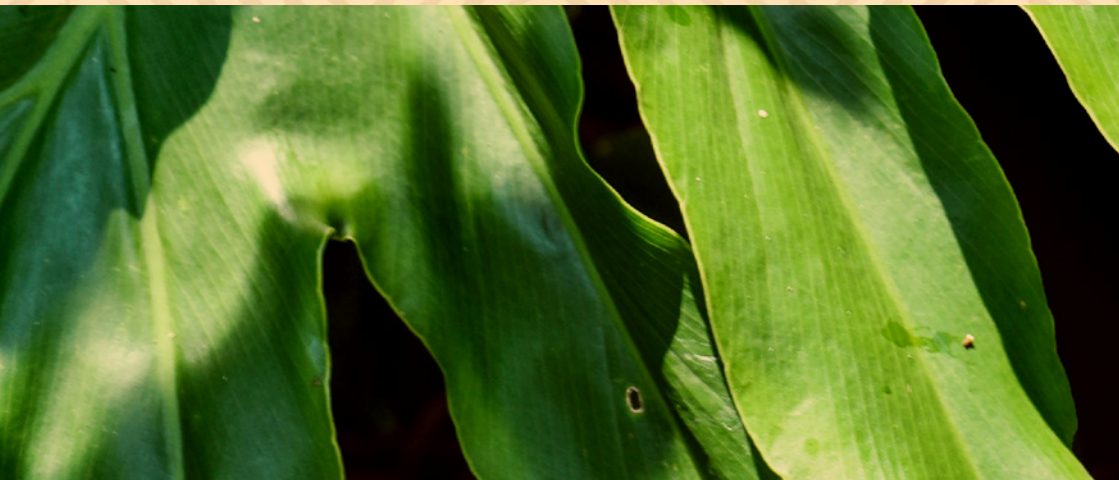
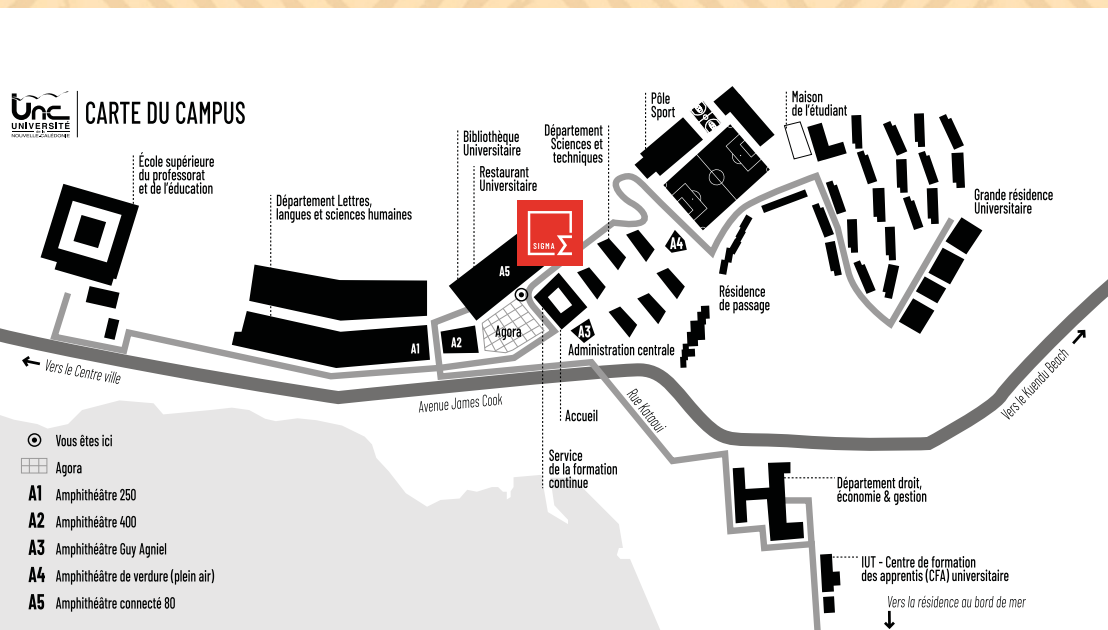


FALAH
Family farming, lifestyle & health

UNIVERSITY OF NEW-CALEDONIA, NOUMEA
18-20 MARCH 2025



REFERENCES FALAH - 873185
H2020 - Marie Skłodowska-Curie Actions
Research and Innovation Staff Exchange : RISE
H2020-MSCA-RISE-2019



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UNIVERSITY OF NEW-CALEDONIA, NOUMEA
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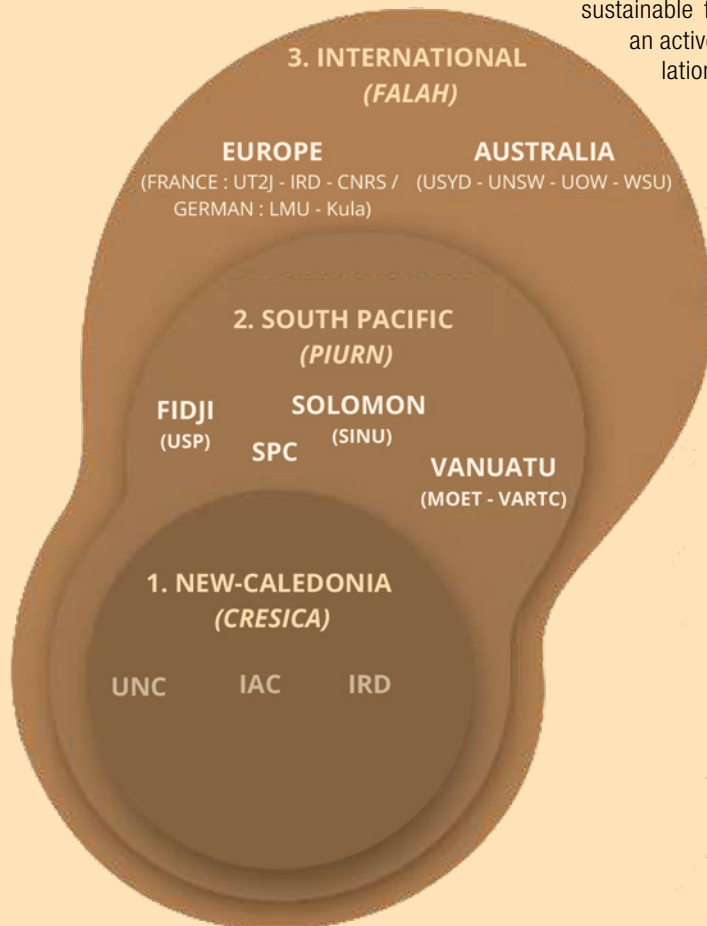
■ WHAT IS FALAH ?

FALAH is a multidisciplinary project of the European program H2020. It focuses on family farming, food, lifestyle and health of the population of the South Pacific islands: New Caledonia, Fiji, Solomon Islands and Vanuatu. It involves 95 researchers and PhD students from 14 teams, based in Europe, Pacific Islands and Australia over a period of 48 months.

The objectives of the FALAH project are to:

- **Promote sustainable family farming** for a healthy and balanced diet based on local products, a simple and less sedentary lifestyle, sharing and exchanging on traditional and scientific knowledge.
- **Ensure the supply of urban and rural populations to support** the transition to sustainable food systems, food security, an active life, the health of the population and the environment

The FALAH project brings together interdisciplinary teams organised in interconnected networks. It brings together scientists and professional actors to share knowledge, innovative methods and research results to support the sustainability of Pacific island societies.



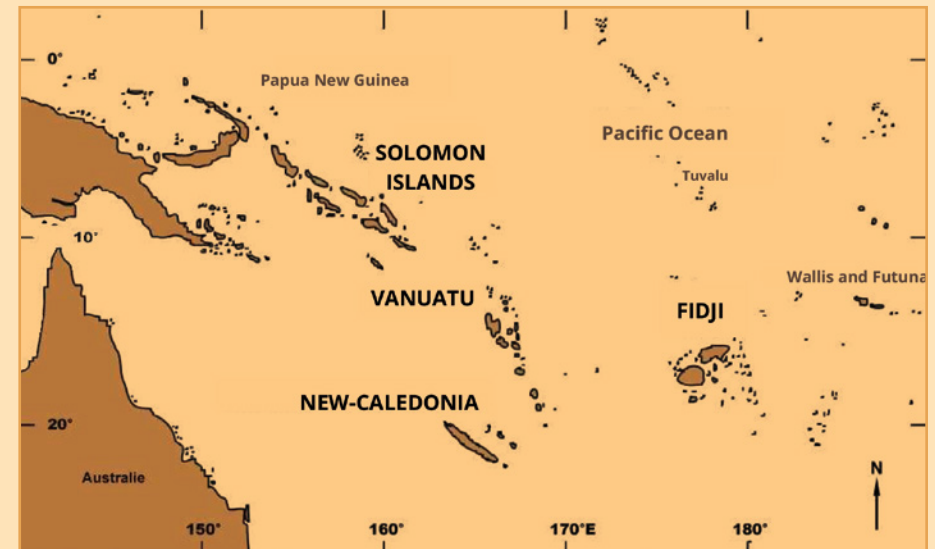
FALAH's research is carried out on study sites spread over 4 island territories located in the southwest of the South Pacific.

New Caledonia consists of a main island and 4 islands of the Loyalty Islands archipelago

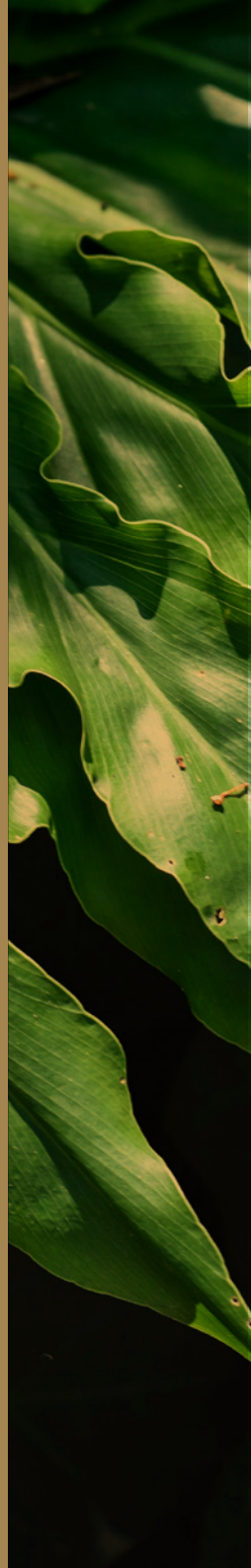
Fiji has 300 islands, the most important ones are Viti Levu and Vanua Levu

Vanuatu is made up of 83 islands, where Efate, Santo and Tanna are the most important ones

The Solomon Islands, consist of thousand islands and, the main ones are Guadalcanal, Malaita, San Cristobal and Santa Isabel.



INTRODUCTION 1



■ FAMILY FARMING, LIFESTYLE AND HEALTH IN SMALL ISLANDS, COUNTRIES AND TERRITORIES

UNIVERSITY OF NEW-CALEDONIA, NOUMEA 18-20 MARCH 2025

Small islands, countries and territories are the most vulnerable areas to global changes such as socio-economic transitions, climate change or sanitary risks. Small-scale farming including crops cultivation, breeding, fishing, gathering and hunting known as “family farming” ensures not only food production for families, but also fundamental social, environmental and cultural functions. Family farming represents 90% of farms in the world and produces 80% of the world's food in value. The lifestyle of family farmers embodies the concept of “from garden to fork”, with families enjoying good health because of their active lifestyle through gardening or fishing and eating garden produce. In these specific contexts, knowledge and practices regarding family farming lifestyle and health are cobuild both in families, in communities and in schools. However, the environment is subject to rapid transformations, which affect urban, peri-urban and rural spaces as well as natural environments.

These socio-economic and socio-cultural transformations have major consequences on food systems and regional livelihoods to local specificities and varieties of consumption, limiting the achievement of a healthy diet and influencing decisions about what to eat in small island communities. Similarly, industrialization and mechanization along with limited physical activity in daily life have greatly reduced regular activity, influencing human health. As a result, there is an urgent need to have a comprehensive understanding of family farming and the associated lifestyle

to provide solutions to the most vulnerable populations in the world and to achieve the Sustainable Development Goals, in particular «zero hunger» (SDG2) and “good health and well-being” (SDG3).

This conference aims to:

1) Share with hosted worldwide researchers who works on family farming, - ie crops cultivation, breeding, fishing, gathering and hunting -; lifestyle and health in Small Islands, Countries and Territories all over the world and share their research advances for Pacific researchers;

2) Sum up four years of research innovation and staff exchanges done during the FALAH project with original contributions from Vanuatu, Fiji, Solomon Islands and New Caledonia.

The presentation can be done in French and in English.

The three main themes of this conference are :

> 1. What place and what stakes for family farming in small islands?

Agricultural and fishing systems that produce food from the land and sea in small island states and territories rely heavily on family farming, primarily for local consumption. Major coastal marine resources include reef fish, shellfish, crustaceans, sometimes snappers, and pelagic fish. These fisheries require various knowledge, engines, and diverse marine management policies. Major

crops include yams, taro, sweet potatoes, cassava, bananas and various tropical fruits and vegetables. These crops require different water management techniques adapted to local conditions. However, lifestyle changes (such as migration and labor reorganization), land scarcity, and emerging climate and environmental issues are challenging these rich and diverse farming, fishing and hunting practices. In addition, agricultural and livestock production for local and export markets (such as kava, cocoa, spices, sugar cane and cattle) and fishing activities are affected by climate change. Soil changes, high water consumption, pest and disease pressures but also marine heatwaves threaten the financial stability of dependent households and countries that already have structural trade deficits.

This axis proposes to focus on:

A) Family farming in islands territories:

Opportunities, strength that already exists but the need for continuing and rapid adaptations of practices and products.

What are the land and sea developments and management options? What are the trade-offs complementarities and synergies / tensions and conflicts between different production systems? What are the relationships and links with other uses: economical, residential or landscape? What is the contribution of family farming systems to organization of space, from the farm scale to the catchment area? Landscape or agro-industrial activity basin?

B) Family farming facing agro-ecological stakes:

Against a backdrop of climate change, scarcity of natural resources and energy challenges, what agricultural and food production, protection and processing tech-

nologies are needed for Family farming? What types of funding are needed to encourage the agro-ecological transition and a better consideration of pluriactivity including sea and land activities? What types of specialized or diversified production, based on crops, livestock or aquaculture, should be developed to involve Family farmers/fishers and hunters of small islands as effectively as possible in global food security?

C) Family farmers/fishers/hunters as actors for the future of Pacific Islands territories:

Which objects and methods account for Family farming? Do “production system” and “activity system” approaches enable us to take better account of the interactions and interdependencies both within farms and in their relations with their economic, social and natural environment?

> 2. Food systems, lifestyles and health

The rapid socio-economic changes and the globalization process have considerably disrupted local agrifood systems, as well as main components of lifestyle that are physical activity and nutrition behaviors. Migration flows generated internally by rapid urbanization and externally by the search for international rents have a significant impact on the available labor force in rural areas by offering alternative sources of monetary income. The improvement of human capital (education) directs people towards less physically demanding jobs, reduces the attractiveness of agricultural jobs, which are generally much less remunerative. Among the large drivers of food systems, the nutrition transition has been characterized by a

decrease in subsistence agricultural production leading to a less physical active life and an increase availability and consumption of industrial food products that both significantly affect health of populations. Poor diet and unhealthy lifestyles are associated with overweight, obesity and non-communicable disease and therefore ways of assessing and monitoring the changes that happen overtime are required to co-design effective interventions to address population health. Such evolution also has serious consequences on the purchasing power of populations and food security. This is particularly the case following the acceleration of the globalization process, which has generated a strong increase in interdependencies and systemic risks, as shown by the recent Covid-19 crisis.

Therefore, this axis proposes to focus on:

A) Food systems transitions and agrifood systems: how family farming, fishing, hunting and their lifestyle can contribute to a sustainable transition in small islands countries and territories?

What is a sustainable food system in small islands? How can we improve the contribution of family farms and small-scale fisheries to the food systems of small islands?

B) Lifestyle: nutrition, physical activity and obesity:

How are individual lifestyles at home, in families, in schools and in communities. What is the influence of social, spatial and temporal dimensions on lifestyle? What is the relation between lifestyle and the socio-economic transition in the Pacific region?

C) Social and gender issues:

How is farming organized on small islands? Between family solidarity and public solidari-

ty, family farming acts as a social safety net: how can this function be enhanced? What role for women? What future for young people in the organization of family farms? What kind of intergenerational transfers? What kind of family forms are needed as people become more mobile?

D) Remittances, migrations and work in the family farming sector:

What are the induced transformations in the family workforce, in the family farming and fishing practices, and in the diets and food habits?

> 3. What paths for co-construction of knowledges in the land and sea production practices and food systems of small islands ?

The context of insularity provides Pacific populations with a greater vulnerability to food, socio-economic and climate challenges than populations living on the continents. More recently, the Covid-19 pandemic has revealed the limits of the current economic model. The island territories found themselves isolated from the rest of the world; they have been greatly disrupted. Cut off from the outside world, the populations have experienced difficulties of supply. Indeed, the pandemic has revealed food insecurity but also the resilience capacities of island societies.

This axis proposes to focus on:

A) What place is given to local knowledge in fishing, farming, hunting, gathering, raising animals for food, food preparation, food preservation, management of diseases and injuries, interpretation of phenomena, the creation of clothing, making traditional tools,

the construction of shelters, the manufacture of instruments, the orientation and the displacement, the understanding of a language, the practice of a vernacular language practices, and how is this knowledge learned and taught? How do various actors perceive this kind of knowledge?

B) How do local knowledge and the knowledge produced by science or institutions fit together, clash or intermingle? What are the levers that facilitate the mobilization of these different types of knowledge, or even the co-creation of new forms of mixed knowledge? What are the obstacles to this co-creation?

C) What place for extension and advisory services for family farmers/fishers/hunters in small islands?

D) What place for digital tools in co-construction of knowledge in Family Farming and Lifestyles?

> 4. What foreign aid and public policies for family farming in small islands?

Public policies, along with foreign aid and private actors, play a major role in the development process of Pacific Island Countries and Territories. This is particularly the case in the agriculture and education sectors, with the support of the media. In the past decades, international foreign aid policies have contributed to rehabilitating community management of common resources and the

place of local knowledge. However, the articulation of different levels of governance as well as different modes of regulation poses significant difficulties. Furthermore, the so-called «traditional» practices and their underlying knowledge are likely to be considerably affected by the acceleration of global changes, which make adaptation urgent for greater resilience.

Therefore, this axis proposes to focus on:

A) What is the role of development aid policies and private financial flows in maintaining and strengthening family farming?

B) Climate change adaptation, public and aid policies and family farming: what is the place of family farming in nature-based solutions and adaptation projects?

C) Climate and decarbonisation objectives and their constraints on family farmers (workforce, land, etc.). How to achieve energetic autonomy and resilience?

D) Liberalisation and financialisation of commodity and food markets: With urbanization, globalization and rapid socio-economic changes, what new markets do the towns and cities of the small islands represent for the agriculture of tomorrow? What is the relationship between family farming and these new markets? What are the challenges posed to family farming by the seed trade and the patenting of living organisms? How can we meet them?



SCIENTIFIC COORDINATORS

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Jean-Marie Fotsing is a renowned professor and researcher in geography, environmental studies, and geomatics. He holds a Doctorate in Geography from the University of Yaoundé and the University of Limoges, and an Habilitation to Supervise Research (HDR) from the University of Paris IV-Sorbonne. His research focuses on territorial planning, landscape dynamics, and sustainable development, particularly in Africa and the Pacific.

Throughout his career, Professor Fotsing has held academic positions at the University of Orléans, the University of Antilles-Guyane, and the University of

PROFESSOR OF GEOGRAPHY



New Caledonia (UNC), where he currently teaches. From 2007 to 2012, he directed the IRD Centre in French Guiana, leading research projects on environmental issues. He has been instrumental in creating academic programs in Oceania, including a master's degree in Vanuatu focused on territorial planning.

Professor Fotsing's work has significantly contributed to environmental sustainability, food security, and community development in island regions, earning him international recognition, including the 40th Anniversary Medal of Vanuatu's independence.

CONFERENCE ORGANIZING COMMITTEE

Olivier Galy

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SENIOR LECTURER



Olivier Galy is Director of the Interdisciplinary Research Laboratory in Education University of New Caledonia and scientific co-coordinator of the European project "Family farming, lifestyle and health in the Pacific" (H2020, MSCA-RISE 2020-2024). His expertise in the field of exercise physiology, aims to understand the the impact of human activity (exercise, physical activity, inactivity, sleep) associated with individual and socio-environmental lifestyle factors.

Its original approach combines the methodologies and knowledge of exercise with digital technologies to study the lifestyle of populations in real-life conditions (athletes, schoolchildren, families and communities).

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Séverine Blaise holds a PhD in economics from the Centre d'Économie et de Finance Internationales (CEFI-CNRS) at the Université de la Méditerranée (now Aix-Marseille Aix-Marseille University) and a Master's degree in Economy

of Development from the Research Institute of Hitotsubashi University (Tokyo). After working at the Australian National University (Canberra), she became a lecturer at the University of New Caledonia in 2007.

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RESPONSABLE DE L'ÉQUIPE TERAU



With a doctorate in geography and a degree in agronomy engineer, Séverine Bouard conducts research and social sciences at IAC since at IAC since 2005. Her research focuses more specifically on issues relating to livelihoods of rural households in the Pacific and the evolution of sustainable development policies. She is a regular partner for projects addressing

transitions (food, agro-ecology...) where methodological developments in the human and social sciences are thought out. She was in charge of Axis III "Rurality and Sustainable sustainable development" from 2016 to 2017, then head of the TERAU team (Territoires, acteurs et usages) team since 2017 at the Institut Agronomique neo Calédonien.

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RESEARCH OFFICER



Since 2019, she has been an expert at IPBES - the Intergovernmental on Biodiversity and Ecosystem Services - (co-author of the Transformative Change Assessment scoping report and lead author of the assessment) and currently contributes to 4 national or provincial agencies. Since 2014, she has also been a member of the of the Territoires, Réseaux, Acteurs, Usages research axis of the Institut Agronomique néo-Calédonien and, since 2021, of the Research Commission of the University of New Caledonia.

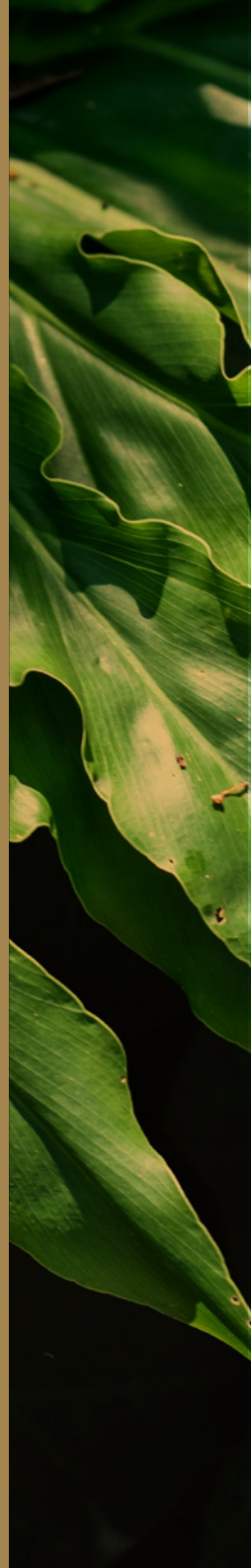
Adopting an anthropological and comparative approach (fieldwork in Africa, America, Indo-Pacific), she studies the

evolution of interactions between societies and their environment on islands and coastal locations. In particular, she analyzes how different types of knowledge, know-how, values, norms and representations are produced, articulated, confronted and even negotiated, values, norms and representations. A more operational objective guides her: that of working towards recognition of the diversity of local knowledge, ways of seeing and organizing the world, as this diversity deserves to be at the heart of societal concerns, particularly those claiming to manage the environment or promote the adaptation of societies to the impacts of climate change.



FAMILY FARMING, LIFESTYLE AND HEALTH IN SMALL ISLANDS, COUNTRIES AND TERRITORIES

UNIVERSITY OF NEW-CALEDONIA, NOUMEA
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LIFESTYLE TRANSITIONS: GLOBAL AND LOCAL PERSPECTIVES

ABSTRACT OF FALAH CONTRIBUTION

David Raubenheimer graduated in 1992 with a PhD from the University of Oxford. He currently holds the Leonard P. Ullman Chair in Nutritional Ecology and heads the Nutrition Theme at the Charles Perkins Centre of the University of Sydney, an interdisciplinary centre for research into obesity, diabetes and cardiovascular disease. David's work focuses on the interaction of behavioural and physiological aspects of nutrition with food environments, and how these interactions influence health and wellbeing. With a background in nutritional ecology, David has drawn on his experience working on over 40 species of animals, including 14

species of non-human primates, to develop new approaches to studying the health, environmental, and cultural impacts of increasingly industrialized human food environments. He has published over 400 journal papers and book chapters and has co-authored two books on his work. In 2022, David was awarded the Eureka Prize for Excellence in Interdisciplinary Research, and in 2024 shared the World Obesity Federation Wertheimer Award with Stephen Simpson for the development of the protein leverage hypothesis, according to which the strong regulation of protein ingestion exerts a disproportionate effect on energy intake in humans.

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FAMILY FARMING AND FOOD SECURITY: LESSONS FROM COVID FOR A VIABLE FUTURE FOR ISLAND TERRITORIES

AXIS 1A

ABSTRACT OF FALAH CONTRIBUTION:

In a global system characterized by frequent crises that impact food security, the most recent being the Covid-19 pandemic and the most lasting climate change, the viability of island territories needs to increase their food and energy self-sufficiency. The agricultural development model followed by many countries in the region, namely the extroversion of production based on monoculture and cash crops, leads to great vulnerability firstly to cyclones and droughts, and secondly to any crisis leading to restrictions on international trade. Family farming should logically play a major role in reducing this vulnera-

bility, provided that local decision-makers and island public opinion are fully aware of the issues and economic constraints that hinder this development. The main one is competition in terms of access and price between local products from family farming and imported products. In order to increase the supply of local products, it is necessary to facilitate their movement between production areas and the consumer market by building small cargo boats suitable for a low energy inter islands trade network including facilities for docking in most of islands.

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‘TO FILL AN EMPTY SHELL’: KNOWLEDGE, PRACTICE, CONSTRAINTS, AND NUTRITIONAL INSIGHTS RELATED TO REEF GLEANNING ACTIVITIES IN OCEANIA

AXIS 1A

ABSTRACT OF FALAH CONTRIBUTION

Shellfish gathering has long been a mainstay of Pacific Island subsistence practices. The importance of this form of reef gleaning can be gauged by studying the long-term trends and patterns seen in the archaeological record, especially in relation to the Lapita migrations in Near- and then into Remote Oceania more than 3,000 years ago. In recent historical times and contemporary settings, shellfish continue to contribute a significant portion of rural communities' diet. Yet, these activities have not been well documented compared to fishing. This may be attributed to the role of women in gathering, who are often perceived by local officials and external partners as marginal in the overall contribution to protein and micro-nutrient intakes. Another factor for the relative neglect rests on the assumption that gathering does not require any special skills or knowledge of environmental cues (with the exception of tidal cycles), in contrast to the techniques used in fishing. Detailed observations of shellfish gathering activities, together with a selected literature review, aim to fill some of the gaps pertaining to decision-

making in the extraction of largely sedentary inter-tidal resources. While food preferences need to be contextualized culturally, it is also argued that a human behavioral ecology framework can increase our understanding of patterns of harvest effort. Field methodology used to evaluate predictions of foraging models include observations on the targeted and actual shellfish harvested, search time, harvesting (processing) time, rate of encounter, as well as meat weight and general weather and tidal conditions insofar as these are relevant to the foraging process. Analytical methodology comprises information derived from time-motion records. It is demonstrated that variable returns can be correlated with gatherers' experience in the process of locating and gathering shellfish, as well as environmental constraints. Additional constraints, including over-harvesting for commercial purposes and the impact of Climate Change, may force an expansion of Diet Breadth, which could benefit from more detailed analyses of the nutritional value of various shellfish species.



**BUILDING HEALTH AND RESILIENCE:
IMPROVING FOOD SECURITY AND REDUCING
NON-COMMUNICABLE DISEASES
THROUGH URBAN AGRICULTURE IN
HONIARA (SOLOMON ISLANDS)**

Co-authors: Hugo BUGORO

AXIS 1C

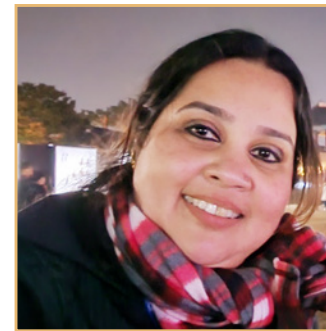
ABSTRACT OF FALAH CONTRIBUTION:

This proposal seeks to address the dual challenges of food insecurity and rising non-communicable diseases (NCDs) in Honiara, Solomon Islands, by promoting urban agriculture. Rapid urbanization in Honiara has led to increased reliance on imported, processed foods, contributing to poor dietary diversity and escalating rates of NCDs such as diabetes and hypertension. Urban agriculture offers a sustainable solution by empowering communities to grow nutrient-rich produce in limited urban spaces.

The project aims to train 500 households in sustainable farming techniques, increase the consumption of locally grown produce by 30%, and reduce reliance on processed

foods by 20%. A quasi-experimental pre-post design will assess the intervention's impact on food production, dietary habits, and health outcomes. Data collection will include household surveys, health assessments, and focus group discussions, complemented by public health campaigns to enhance awareness of nutrition and NCD prevention.

The 18-month initiative will directly address critical public health challenges, enhance food security, and promote healthier lifestyles. Findings will be disseminated through reports, academic publications, and community feedback sessions, providing a replicable model for urban centers in the Pacific and beyond.



**COMMUNITY PARTICIPATION AND POLICY
ASSESSMENT IN EBA FOR IMPROVING
RESILIENCE AND FOOD SECURITY**

Co-authors ; Dr. Hilda Waqa-Sakiti (USP), Dr. Lau Viliamu lese (U.Melbourne)

AXIS 3A

ABSTRACT OF FALAH CONTRIBUTION

The Pacific Island countries, like Fiji and Vanuatu, faced significant challenges due to climate change. It threatened their food security, increased the risk of natural disasters, and impacted the livelihoods of those relying on natural resources. This study examined how community involvement and government policies could improve Ecosystem-based Adaptation (EbA) to enhance food security and resilience. It highlighted the need for greater community awareness, supportive policies, and empowered communities to manage their resources. It also focused on specific food security variables, such as the availability of diverse foods, physical and economic access to these foods, adequate utilization of food items, and strengthening the stability of food systems. The study assessed the barriers that limited community participation in EbA, such as limited understanding, lack of funding, inadequate policy support, and the need for training and capacity building to empower

local communities. It also aimed to evaluate current national policies and identify gaps that hindered the success of EbA projects. The research used surveys, interviews, group discussions, and the transect walk method with community members, stakeholders, and policymakers, along with a review of existing policies and literature. Site-specific observations, were used to map local food systems and understand the context-specific dynamics of community participation. The objective was to understand the factors that helped or hindered community participation in EbA, identify policy gaps, and provide recommendations to ensure better community involvement and alignment of policies with community needs, including enhancing their capacity for decision-making, implementation, and monitoring of EbA measures. The findings were intended to be useful for policymakers, practitioners, and researchers working on climate adaptation, food security, and sustainable development.

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TRADITIONAL FOOD PLANTS IN THE LOYALTY ISLANDS PROVINCE AND HEALTH

Co-authors: Georges Kakue (PIL), Julien Drouin (IAC), Victor Carawiane (PIL), Marjorie Wejieme (PIL), Yawiya Ititiaty (IAC), Nadia Robert (IAC)

AXIS 3A

ABSTRACT OF FALAH CONTRIBUTION

In New Caledonia, the local populations have developed over time a certain knowledge of the local plants and their usefulness. Some of this vegetation-related knowledge has been passed down from generation to generation, or transcribed in ethnobotanical studies. Based on this ancestral knowledge, the PAPILLES project involves the Loyalty Island Province and scientists from IRD and IAC and focuses more specifically on under-utilized edible plants, cultivated or wild in the Loyalty Islands, to promote sustainable nutrition.

Around twenty species were identified based on bibliographic data, followed by 58 surveys in Mare and Lifou and field explorations. Among the 21 local plants identified, 17 have confirmed dietary value, while 4 are primarily

used for medicinal purposes. Interviews validated existing knowledge and revealed new uses, with barriers like accessibility and toxicity mitigation noted uses. Biochemical analyses are underway to assess chemical composition, bioactivity, and potential toxicity. After propagation, additional analyses will be conducted on the collected plant material to assess their agronomic and nutritional potential. Findings will be shared through communication, tools and community events to encourage dietary integration.

The project is in line with the themes of preserving agrobiodiversity and promoting sustainable agricultural practices and aims to raise awareness of the benefits of local resources in response to a worrying food transition and health situation.

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ILLUMINATING THE ROLE OF ITAUKEI WOMEN IN FIJI'S SMALL-SCALE FISHERIES

AXIS 2C

ABSTRACT OF FALAH CONTRIBUTION

Based on empirical work carried out in Fiji, this paper addresses the question of women's role in small-scale fisheries in the context of multiple social, environmental, and climatic changes. In Fiji, the contributions of iTaukei (indigenous) women to small-scale fisheries remain underestimated in social representations, official statistics, and management practices and policies. For gender equity in this sector, it seems necessary to ensure that the role of these women is better recognized, and thus made more visible by marine (social) science research. We will present two complementary strategies explored in the research project "A Sea Of Connections: Contextualizing Fisheries in the South Pacific Region" (SOCPacific, 2018-2022, ANR-DGF co-funding, IRD-ZMT-USP partnership) to highlight the role of iTaukei women in small-

scale fisheries in Fiji, respectively on two different islands of the archipelago (the 3rd and 5th largest). The first strategy involved a study of men's and women's catches and the associated monetary and socio-cultural values. The second documented iTaukei women's active engagement with the sea via their fishing practices, which constitute for them a gendered and more-than-human field of sociality, influenced by conservation ideas and regulations both internal and external to their community. Together, these strategies provide food for thought on how to better take gender into account in research on the challenges of sustainable management (or transition) of coastal fisheries as a key sector for food security and, more generally, for the future of South Pacific Island countries and territories.



THE ROLE OF TRADITIONAL FOOD PRESERVATION METHODS IN ENHANCING FOOD SECURITY AND HEALTH RESILIENCE IN SMALL ISLAND COMMUNITIES IN THE SOLOMON ISLANDS

AXIS 2A
ABSTRACT OF FALAH CONTRIBUTION:

Food security and health resilience are critical concerns for small island communities in the Solomon Islands, where environmental challenges, climate change impacts, and economic limitations affect food availability. This review examines the role of traditional food preservation methods—such as drying, fermentation, and smoking—in supporting food security and enhancing health resilience in these communities. Traditional preservation techniques extend the shelf life of locally available foods and provide essential nutritional benefits that contribute to dietary

diversity, reducing reliance on imported foods while strengthening community resilience against food shortages. Recommendations include documenting and revitalizing these preservation practices, integrating traditional knowledge into national food security strategies, and encouraging intergenerational knowledge transfer. This review underscores the need for policies that incorporate traditional methods within contemporary food security frameworks, fostering a culturally relevant and sustainable approach to health resilience in the Solomon Islands.



PACIFIC FOOD LAB, A KEY PLAYER IN THE FOOD TRANSITION IN NEW CALEDONIA AND THE PACIFIC

Co-authors: Gabriel LEVIONNOIS

AXIS 2
ABSTRACT OF FALAH CONTRIBUTION:

Since its creation, the Pacific Food Lab has established itself as a key player in the food transition in New Caledonia and the Pacific. Driven by an ambitious vision of sustainable and resilient food, the cluster is committed to federating local and international initiatives to meet the environmental, economic and social challenges linked to food. Through a participatory and multidisciplinary approach, the Pacific Food Lab has led concrete actions aimed at transforming food practices while respecting Pacific cultural identities. The Pacific Food Lab relies on a participatory methodology to co-construct solutions adapted to the realities on the ground. Working with scientists, canteen chefs, educators and local communities, the cluster develops educational and operational tools to promote more equitable and environmentally-friendly food systems. As part of the FALAH project, the Pacific Food Lab worked hand-in-hand with researchers

and practitioners to promote family farming as a central pillar of the food transition. These partnerships have made it possible to document and share traditional know-how, while integrating modern approaches to strengthen the resilience of food systems in the Pacific islands. Pacific Food Lab's work extends beyond New Caledonia. As part of a regional dynamic, the cluster aims to become a benchmark for other island territories facing similar challenges. The cluster's initiatives are based on the principles of circular economy, biodiversity preservation and community empowerment. These principles are at the heart of a global food transition, which positions Pacific territories as innovation laboratories for the world. The FALAH end-of-project conference is a unique opportunity to celebrate these successes and strengthen synergies to continue writing this collective history.



PHYSICAL ACTIVITY BEHAVIOUR OF ADOLESCENTS LIVING IN THE PACIFIC ISLAND COUNTRIES AND TERRITORIES (PICT) AND ITS ASSOCIATION WITH WEIGHT STATUS: CROSS-SECTIONAL STUDY USING ACCELEROMETRY ASSESSMENT IN NEW CALEDONIA

Co-authors: Corinne Caillaud (USYD), Olivier GALY (UNC)

AXIS 1A

ABSTRACT OF FALAH CONTRIBUTION

Pacific Island Countries and Territories (PICTs) have undergone rapid socio-economic transition, especially since the middle of the 20th century. Globalization induced important modifications in terms of islanders' lifestyle. From a rural way of life, mainly based on agriculture and its rhythms on daily life, many of them tend now to have a modernized urban way of life that is closer to a Western lifestyle. This transition has had an impact on nutrition since the access to processed chip food is easy compared to what have to be done to produce food in a traditional system. The impact has also been seen on physical activity (PA), which was practiced naturally and regularly as a result of the traditional way of life. As a consequence, islanders' health has suffered from these lifestyle changes, especially regarding non-commu-

nicable diseases and the associated factors including overweight and obesity. The aim of this study is to: 1) assess PA behavior of adolescents living in a PICT with objective measures; 2) identify components of PA that are the more associated with adolescents' weight status; 3) compare with studies that have previously study similar populations. Data processing regarding the selection of variables is yet ongoing but it seems that the place of living (i.e., rural and urban) and indicators about light PA and (probably) sedentary times are the most predictive for IOTF z-score. The results we expect from this study would contribute to better understand which components of PA are to be targeted in education or intervention program to tackle the overweight and obesity pandemic in the Pacific.



LIVELIHOOD AND LIFESTYLE IN PACIFIC ISLANDS COASTAL COMMUNITIES: NEW RESEARCH PERSPECTIVES WITH LIVING LABS

Co-authors: Jane Tuilevuka (USP), Mariane Visai (UNV), Clarence Cheon (SINU), Séverine Bouard (IAC), Corinne Caillaud (USYD), Juliana Chen (USDY), Margaret Allman-Farinelli (USYD), David Raubenheimer (USYD), Sushil Kumar (USP), Olivier Galy (UNC)

AXIS 2B

ABSTRACT OF FALAH CONTRIBUTION

As a research project of the current RERIPA Call 3, aiming to develop living labs in the Pacific region, CHANCES-Pacific looks at livelihood, lifestyle and health in the context of changing lifeworlds and environments among six communities in Fiji, Vanuatu and the Solomon Islands affected by sea-level rise and coastal erosion and/or flooding. This presentation discusses the innovative approaches taken in this project and focuses on the content-related perspectives as well as on the methods by referring to the current research process and first insights. In the six coastal communities, the project investigates family farming, diet, physical activity, as well as key aspects of transforming sociality, economic factors and environment(s) together with community members' ideas and perspectives regarding changes in these practices and processes.

From quantitative and qualitative methods, data will be triangulated to determine interconnections between those practices, processes and ideas. Among other tools, a digital app for assessing diets (iRecall.24) and a digital questionnaire are used together with a digital platform to support data collection and analysis with individual recommendations to be generated.

An important framework for the project is the idea of living labs, realised as co-development of the research by participation and co-design with the members of the communities during the research process. This allows a collaborative approach which includes the sharing of knowledge at all stages between the partners involved and is directed towards the co-creation of research findings and adapted responses to local challenges which the communities face.



FROM FOOD SECURITY TO FOOD DESIRABILITY: EXPLORING THE SYMBOLIC AND RELATIONAL VALUES OF FOOD

Co-authors: Sophie Caillon (CNRS), Arnaud Banos (CNRS), Jérôme Munzinger (IRD)

AXIS 2A/B

ABSTRACT OF FALAH CONTRIBUTION

The main aim of this presentation will be to think about the integration of relational and symbolic values of food into the analysis of the current food transition on Epi, Vanuatu. As elsewhere in the Pacific, the increased consumption of processed and imported foods notably lead to the rise of non-communicable disease and further the insertion into formal economy (Savage and al., 2020). Although the idea that foods are “good to think about” is not new (Barrau, 1983), it deserves to be re-examined in the light of global climatic and socio-economic changes, where the focus is usually placed on the risks of food scarcity. The concept of food security could carry a decontextualized, individualized and restrictive vision of food (Wittman, 2011; Hayes-Conroy, 2013). However, food is far from consisting of the sole satisfaction of a basic biological need, but also supports unique system of representations and relationships that link people, more-than-human beings and land together (Mitchell and al., 2020). As such, dietary transitions, not necessarily determined by environmental drivers (Lebot and Siméoni, 2015), are also in-depth cultural transitions. It is then about paying attention to the way in which food is thought locally. What are the values attributed to foods according to their origin, their mode of acquisition and preparation? Which foods or culinary processes are associated with physical and spiritual health? How the introduction of exogenous foods, practices, or policies recompose this system? How, in highlighting the gap between discourse on what an ideal diet should be and observed dietary practices, the daily constraints influencing food

choices can emerge? The qualitative data come from a three-month immersive fieldwork and was produced by participant observations, daily informal discussions supplemented by semi-structured interviews conducted with six men and four women between 29 to 57 years old, and focusing on food acquisition and production strategies, food preferences as well as representations related to food. These preliminary results seem to highlight the impregnation of successive prevention campaigns, carried out by the State or by partner NGOs, in which the place of processed foods varies: foods can be valued for their origin, or considered by their function. In this case, residents are encouraged to consume “tri kaen kakae” meals (with starchy foods, vegetables and animal proteins), in which processed foods can then be considered components of a healthy diet. Ancestors’ food is alternately valued for its ability to shape strong, healthy bodies and for its adaptation to an uncertain environment; or discredited, envisioned as a mark of backwardness. Another interesting divide emerges between the cuisine of the “blakman” and that of the “waetman”, which are distinguished in particular by their texture (strong/soft), their vitality and the range of flavors produced (by nuances or by contrasts). By examining in detail what foods, meals, and culinary practices mean for those who consume or practice them, it is possible to outline their aspirations beyond nutrition: what relationships should be cultivated, and then, what futures are desirable. These results can therefore be instructive for imagining appropriate policies.



AN EVALUATION OF EXTENSION APPROACHES TO PROMOTE TRADITIONAL FOOD VEGETABLES FOR FOOD SECURITY IN KOMPIAM-AMBUM DISTRICT, ENGA PROVINCE.

AXIS 2B

ABSTRACT OF FALAH CONTRIBUTION

An evaluation of approaches to promote traditional food vegetables for food security in traditional communities in Kompam-Ambum district of Enga province, Papua New Guinea (PNG) was completed. The topic is very important because the district is the food hub of the province and it is believed that the agriculture extension services are ineffective with poor coordination, supervision and reporting systems in place to provide timely extension services as needed by farmers, which to some extent has created severe food insecurity and discarding of some of the indigenous vegetables. The purpose of this thesis was to provide an analysis of the district’s agriculture extension needs, approaches and services, verify their

ineffectiveness, and suggest recommendations for the district agriculture division as to how it should address the identified issues in the district. The performance of the agriculture extension services depends on an ability to align strengths and weaknesses with the opportunities and issues encountered in the division and, in particular, in the district. Therefore, the diagnosis of key issues that extension has failed to address in the district depends on the discretion and ability of the District Rural Development officer (DRDO) to conduct effective management, communication, coordination, supervision and reporting in the division and the district as a whole.



SOCIO-CULTURAL DIMENSIONS OF INNOVATION AND ADOPTION IN FAMILY FARMING

ABSTRACT OF FALAH CONTRIBUTION

Development policy makers often view family farms in the developing world as obstacles to 'real' development and 'modernisation'. This view is underpinned with an assumption that traditional practices and socio-economic values must be transformed for progress to occur. Such views overlook the well-documented evidence of experimentation and innovation among family farmers worldwide and fail to recognise the diverse social and economic values underpinning family farming. Such perspectives perpetuate the misconception that family farmers in developing countries lack agency and are incapable of determining their own best interests. In this presentation, we investigate the role of socio-cultural factors and non-market

values in adoption and innovation—an area that remains understudied. We explore adoption and innovation across multiple dimensions, including intra-family relations, the tension between modern and traditional farming practices, and the indigenous socio-economic and cultural values shaping production, consumption, and distribution. By examining these less understood factors, like indigenous values, habits, and socio-cultural institutions, we aim to highlight their influence on social innovation and technology adoption. In doing so, we seek to underscore the adaptability and resilience of family farming systems, and their role in sustaining cultural values and practices that are central to quality of life.



PERSONAL FACTORS AFFECTING MEDICA- TION ADHERENCE AMONG HYPERTENSIVE PATIENTS IN SOLOMON ISLANDS

AXIS 1A

ABSTRACT OF FALAH CONTRIBUTION

Hypertension is a significant risk factor for cardiovascular diseases, which are among the leading causes of mortality globally. Adherence to antihypertensive medication is crucial for effective management and prevention of complications. This study aims to explore the personal factors affecting medication adherence among hypertensive patients in the Solomon Islands. This qualitative study involved 30 hypertensive patients attending the Non-communicable Diseases (NCD) clinic at the National Referral Hospital (NRH) in the Solomon Islands. Participants were selected using purposive sampling, and in-depth face-to-face interviews were conducted with a semi-structured, open-ended questionnaire. The interviews were audio recorded, transcribed verbatim, and analyzed thematically to identify common themes related to medication adherence. Thematic analysis revealed five major themes influencing medication adherence: poor patient knowledge, reliance on herbal or alternative medicine, negative attitudes

toward treatment, forgetfulness, and alcohol intake. Poor patient knowledge included misconceptions about hypertension and its treatment, contributing to non-adherence. The use of herbal and alternative medicine often led to a preference for traditional remedies over prescribed medication. Negative attitudes, including a lack of belief in the effectiveness of treatment, also played a role in poor adherence. Forgetfulness, particularly among older patients, was a common barrier, as was the consumption of alcohol, which interfered with medication regimens. Non-adherence to antihypertensive medication among patients in the Solomon Islands is influenced by various personal factors, predominantly related to knowledge, attitudes, and practices. Addressing these factors through enhanced patient education, professional counseling, and community-based interventions could significantly improve adherence and reduce hypertension-related complications.



COMPARATIVE ASSESSMENT OF FOOD LOSS AND CLIMATIC RISKS IN DAIRY FARMING SYSTEMS BETWEEN FIJI AND AUSTRALIA

Co-authors: Viliamu IESE (U. Melbourne), Hilda Waqa-Sakiti (USP) and Gayathri Mekala (U. Melbourne)

AXIS 1B

ABSTRACT OF FALAH CONTRIBUTION

Postharvest loss in dairy farming systems between Fiji and Australia remains a significant challenge that affects food security and the livelihoods of farmers. This paper provides a comparative assessment of food loss in dairy farming systems between two geographically distinct regions: Fiji and Australia. The paper looks at key factors contributing to food loss in dairy farming systems on-farm and post-harvest in developing country Fiji and compare these factors to a large, developed country Australia, the extent to which climate and environmental conditions influence food loss within dairy farming systems in both countries and provides a comparative analysis of dairy farming practices in Fiji and Australia and recommendations for best practices. On farm and postharvest data were gathered through interviews, surveys, and field observations, examining production practices, infrastructure, milk handling and storage and transportation. Study sites in Victoria, Australia and Tailevu, Fiji was selected based on accessibility- based selection. A total of

30 Fijian farmers were surveyed with 10 Australian farmers undertaking key informant interviews using Kobo toolbox. Climate data was collected through dairy Australia and Fiji weather meteorological service climate portals and analysed using excel, ANOVA and R-Software. Food loss is reported both on-farm, particularly in feed production and infrastructure limitations, and post-farm, primarily due to transportation challenges. The vast number of primary resilience challenges in Fiji include sourcing and growing feed, introducing appropriate livestock breeds, access to veterinary services, and strengthening dairy structures on farm whilst large-scale farms in Australia face far lesser issues mainly around infrastructure and high-quality feed procurement. The findings of this study are crucial for developing region-specific strategies to reduce food loss in dairy farming in Fiji and Australia, supporting food security, economic stability, and the sustainability of dairy production between both regions.



EMPOWERING ADOLESCENTS THROUGH PARTICIPATORY RESEARCH: A CASE STUDY IN NEW-CALEDONIA

Co authors: Louisa PERALTA (USYD), Juliana CHEN (USYD), Rowena FORSYTH (USYD), David RAUBENHEIMER (USYD), Guillaume WATTELEZ (UNC), Olivier GALY (UNC), Krestina L. AMON (USYD) and the APY team

AXIS 2B/D

ABSTRACT OF FALAH CONTRIBUTION

Behavioural risk factors for NCDs are highly prevalent in the adolescent population with several risk factors often present together in adolescents. For example, in the Pacific region 88% of adolescents

present at least two risk factors, with the more prevalent cluster being physical inactivity and low fruit and vegetables (76%). Despite decades of public health initiatives low physical activity and poor diets remain an issue. There is a need to identify key levers that can shift behaviours and diets.

Our recent systematic review investigating facilitators and barriers for PA in the Pacific Islands showed that PA or sport programs that are committed to communities through formal co-design partnerships were needed.

This project aims to empower adolescents to advocate and innovate for their health and wellbeing. Young people themselves want to be involved, and their participation is a human right exemplified in the Lansdown 22 / 30 UNICEF framework for adolescents' participation. It is crucial to engage young generations in the debate to collaboratively identify research priorities and to engage in co-designing research projects and innovative solutions for the future. This project addresses the lack of participatory research involving adolescents for the prevention of non-communicable diseases, specifically in the Pacific.

The objectives of the project are to: 1) conduct

a participatory research workshop with adolescents to co-design solutions that encourage healthy lives and wellbeing and 2) co-produce research outputs and 3) assess the impact of their involvement in participatory research on their sense of leadership and societal impact.

This project received ethics approval from the University of Sydney ethics committee and from the Commitee de Protection des Personnes de Nouvelle-Calédonie. Year 8 students attending participating school were invited to participate the research as collaborators "Recherche-Action Junior". During a 2-hour structured workshop, adolescents engaged in co-design and co-production activities to develop either an advocacy statement (Change makers) or an innovation (Innovators) in small groups. They produced a 1-min video about their idea including scientific evidence. Participating adolescents completed a questionnaire asking if the activities enhanced their self-efficacy and leadership skills.

Adolescents were offered 3 packages in each theme (either Change Makers or Innovators) including solutions about facilitated access to sport facilities or equipment, encourage water rather than soft drinks, sport festivals, smart shoes, apps, phone lock functions.

Participatory research is powerful way to engage with adolescents and to co-design solutions and research output that aim for an impact in their community for people like them.



BARRIERS AND FACILITATORS TO HEALTHY DIETS AND THE OPPORTUNITY FOR DIGITAL TECHNOLOGY SOLUTIONS: ADOLESCENTS' PERCEPTIONS FROM URBAN AND RURAL SCHOOLS IN NEW CALEDONIA

Co-authors: Maria Nanan (USYD), Krestina Amon (USYD), Rowena Forsyth (USYD), Louisa Peralta (USYD), Stephanie Partridge (USYD), Olivier Galy (UNC), Corinne Caillaud (USYD)

AXIS 2B

ABSTRACT OF FALAH CONTRIBUTION

Poor diets contribute to the rising obesity rate (25%) among New Caledonian adolescents. While digital technologies are prevalent, little is known about how New Caledonian adolescents access online health information or how technology could support healthier diets. This study aimed to identify barriers and facilitators to healthy eating and explore the potential of digital solutions. A mixed-methods, participation-based approach was used. Year 7-10 students from three New Caledonian schools (two urban, one rural) completed online surveys on nutrition and digital technology use. They then participated in group workbooks discussing diet-related barriers, facilitators, and technology's role in supporting healthy eating. Data were analysed using descriptive and thematic analysis. 146 adolescents (aged 12-15) participated – 34% from rural schools and 45% female. Group research included 18 groups. Individual barriers to healthy eating included lack of motivation, cravings, and

emotions, while facilitators included avoiding illness, maintaining strength, and improving appearance. External barriers included high costs of healthy foods, availability of unhealthy options, social influences, and advertising, while external facilitators included reducing unhealthy nutrients and parental influence. Technology was seen as both a barrier (e.g., excessive screen time) and a facilitator (e.g., educational tools like TV recipes). Digital technology was proposed to support healthy diet adoption by providing encouragement, access to information and education. Among participants, 89% had personal digital devices and primarily accessed health information via YouTube, TikTok, and Instagram. High digital technology use presents an opportunity to provide reliable health education and motivation. Social media campaigns promoting positive dietary behaviours could help counteract external barriers and support healthy eating among New Caledonian adolescents.



AGROBIODIVERSITY IN OCEANIAN FAMILY FARMING: A CASE STUDY IN MARÉ (NEW CALEDONIA) AND WALLIS&FUTUNA.

Co-authors: Jonas BROUILLON (IAC), Sebastien BLANC, Priscillia KOINDREDI, Alix MASURE, Jacques WAMEJONENGO, Séverine BOUARD (IAC), Didier VARIN, Nadia ROBERT (IAC).

AXIS 1A

ABSTRACT OF FALAH CONTRIBUTION

In Oceania, family farming plays a predominant role in the subsistence of populations and plays a major role in maintaining a high level of biodiversity in cropping systems. The aim of this study is to assess agrobiodiversity in two island territories: one located in the Polynesian cultural area of Wallis and Futuna and the other Melanesian on the island of Maré in New Caledonia. About sixty surveys were conducted with the help of local agricultural services in both territories. These surveys consisted of questionnaires with farmers, supplemented by field visits to identify the species and varieties grown. The study focuses on three main traditional species: yam, taro, and banana plants. Both territories share a rich cultivated agrobiodiversity and agriculture focused on self-consumption and cultural traditions. The

study shows that traditional plants, such as yam, are essential for local diets. In Maré, yam is the most diverse crop, with nearly 32 varieties per farmer. We also identified several types of fields defined by the main cultivated species. In Wallis and Futuna, yam and taro are central, with nearly 55 varieties per farmer. The introduction of new varieties compensates for the disappearance of some older ones, especially in Wallis and Futuna, where these crops are integrated if they provide added value without disrupting traditional agricultural systems. This work is based on an inventory of traditional species and varieties grown for food and ceremonial purposes. It constitutes a database on the diversity of crops on these islands, their functions and the factors influencing their evolution.



THE INFLUENCE OF EL NIÑO SOUTHERN OSCILLATION (ENSO) ON PACIFIC EQUATORIAL UPWELLING AND FISHERIES.

AXIS 1A

ABSTRACT OF FALAH CONTRIBUTION

Upwelling is a physical mechanism in the ocean that feeds the upper ocean with deep cold, nutrient-rich water that leads on to the subsurface ocean productivity. El Niño, on the other hand, is a climate phenomenon in the tropical Pacific by which we expect equatorial upwelling to 'shut down'. However, despite its importance in fisheries and ocean productivity, Pacific equatorial upwelling receives little attention scientifically even more so is the lack of understanding of how Ekman upwelling is influenced by El Niño Southern Oscillation (ENSO) in the Equatorial Pacific (EP). This work aims to investigate whether the suppression of Ekman upwelling during El Niño events still holds true in the Equatorial Pacific. This would lead to hiatus supply of fisheries food. For this study, we use Sea Surface Temperature (SST), zonal and meridional surface wind (10 m above sea level) from Era5 reanalysis dataset

from Copernicus as proxies to compute Ekman suction/pumping in the EP coupled with SST anomalies as signals to decipher its spatial and temporal distribution in the Pacific during El Niño period since 1960 to date. From the study we have uncovered that the equatorial downwelling during El Niño is balanced by the low to higher latitude upwelling especially along where Pacific islands sit. Additionally, the coastal upwelling along the west coast of North and South America also contributes to balancing out downwelling in the equatorial Pacific during El Niño period. This is justified by the balancing of intensification of upwelling in the lower and higher latitude sub-EP region during El Niño period with downwelling along the same region. Consequently, this would mean less disruption to fisheries supply and promotion of sustainable and steady food security for the Pacific Island nations.



ECOLOGICAL RESTORATION: PROMOTING FAMILY FARMING

Co-authors: Danielle Saintpierre (SIRAS)

AXIS 1A

ABSTRACT OF FALAH CONTRIBUTION

Agriculture "refers to all work aimed at the production of plants and animals useful" to humans "for feeding, caring for and clothing themselves, or to help them in their various activities" (Raymond, 2018). From this point of view, revegetation in New Caledonia, particularly of mining sites, can constitute various sources of income for local populations. Research and development in recent years has led to improvements in the techniques used, ranging from planting to hydroseeding to direct seeding (Zongo 2010; Losfeld et al. 2015; Itiaty et al. 2020). Whichever method is considered, it provides employment, particularly at the time of seed collection (several tonnes each year) and throughout the supply chain, but also during seedling rearing in the nursery. The aim of this presentation will be to show how research supports those involved in revegetation (Amir et al. 2018;

Fogliani et al. 2018 a,b; Crosaz et al. 2022; Rey et al. 2022) and how SIRAS Pacifique, with its wealth of experience, has been able to involve local people in associations, families, housewives and retired women. This involves on-the-job training and regular remuneration, through the purchase of seeds collected or seedlings produced. The company also supports the establishment of nurseries in areas of great interest, like the one it has already developed. Beyond the financial aspect, these are genuine social and environmental actions. The growth prospects for this type of farming, which is family-based in many respects, are significant, given the absolute necessity of continuing the ecological restoration of our degraded environments. New techniques, such as the establishment of seed fields, will undoubtedly contribute to this growth.

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BARRIERS AND ENABLERS OF PHYSICAL ACTIVITY AMONG ADOLESCENTS IN THE MULTICULTURAL CONTEXT OF NEW CALEDONIA

Co-authors: Thibaut Derigny (U. Pau), Rowena Forsyth (USYD), Louisa Peralta (USYD), Guillaume Wattelez (UNC), Christophe Serra-Mallol (UT2J-CNRS), Corinne Caillaud (USYD) and Olivier Galy (UNC)

AXIS 2B ABSTRACT OF FALAH CONTRIBUTION

Physical activity (PA) among adolescents is an essential component of overall health and well-being. Unfortunately, 80% of the world's 1.2 billion adolescents do not meet the WHO's daily recommendations in terms of MVPV, with significant differences depending on age, sex and region of the world. The lack of physical activity is particularly marked in the Pacific region. Among adolescents aged 11 to 17, 89% of boys and 95.6% of girls do not meet the WHO's daily recommendation of 60 minutes of physical activity. In New Caledonia, the population is largely sedentary. Declarative surveys have shown that 66% of adolescents engage in some form of physical activity. This lack of physical activity is a recognized risk factor for the development of obesity including in adolescents, as well as for non-communicable diseases. It is therefore a priority to understand the barriers and factors that encourage physical activity among adolescents. Very recently, Arlinghaus et al. developed a framework to understand

barrier and facilitators in adolescents and their socialization including barrier subscales with social, environmental, competing interests; and facilitator subscales with family support, enjoyment and socialization. This framework is particularly adapted to New Caledonia where different social dimensions include Kanak, European, Polynesian, Indonesians, Ni-Vanuatu, Vietnamese communities. The aim of this study is to understand the effects of gender, place of residence on barriers (Screens, Social barriers, Environment barriers) and facilitators (Family support, Socialization, Enjoyment) of physical activity (PA) among New Caledonian adolescents in school context. A better understanding of the factors influencing New Caledonian youth within their living ecosystem rural or urban will enable us to provide better support for educational initiatives aimed at combating physical inactivity and its harmful consequences for lifestyle and health.

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LOCAL PERSPECTIVES ON CLIMATE CHANGE ADAPTATION AND LIFESTYLE CHANGES IN WIANA VILLAGE, EMAO ISLAND, VANUATU

AXIS 2B ABSTRACT OF FALAH CONTRIBUTION

This presentation examines the socio-cultural impacts of climate change on Wiana village, a coastal community on Emao Island, Vanuatu—one of the living labs of the RERIPA CHANCES-Pacific project. By exploring the lived experiences of this community, the study highlights how family farming practices, lifestyle, and local perceptions of change and continuity intersect in addressing environmental challenges such as coastal erosion and water scarcity.

The research focuses on how families in Wiana perceive and respond to these environmental changes, particularly in relation to their farming practices, daily life, and community dynamics. It also explores how traditional values and practices are maintained while adapting to new challenges. This aligns with FALAH's themes of family farming and lifestyle, emphasizing resilience and adaptation strategies in the face of climate change.



MOVE Ô: STUDY ON THE LIFESTYLE OF OCEANIA CHILDREN

Co-authors: Guillaume WATTELEZ (UNC), Stéphane FRAYON (UNC), Corinne CAILLAUD (USYD), Olivier GALY (UNC)

AXIS 2

ABSTRACT OF FALAH CONTRIBUTION

Childhood obesity is a major public health concern in the Pacific Islands, where over 50% of adults are overweight and non-communicable diseases account for over 80% of deaths. However, few data are available on children's stature, and very few studies have focused on the determinants/risk factors that may explain this overweight. The MOVE Ô study aims to describe the lifestyle (physical activity, sleep, and diet) of Oceanian children using qualitative methods (biometric measurements, digital application, accelerometers, self-administered questionnaires, direct observation) and quantitative methods (individual interviews). The pilot phase was conducted with 10-year-old children from Wallis and Futuna, their parents, and teachers to gain a comprehensive understanding of the children's lifestyle as well

as the environment in which they grow up (school, family, and community settings). The findings highlight a level of physical activity well above the WHO recommendations for this age group and the presence of numerous sports facilities in proportion to the size of the territory. The students' sleep duration is barely sufficient (an average of 9 hours), and screen use appears to be controlled. However, the study reveals a highly unvaried diet, with an almost complete absence of fruit and vegetable consumption. Additionally, 34% of the children surveyed are obese. Sufficient physical activity alone is not enough to compensate for an inadequate diet. A more in-depth study of dietary patterns is necessary to develop more effective prevention strategies and guide public policies to ensure a healthier future for children.



DIET IN THE PACIFIC ISLANDS COUNTRIES AND TERRITORIES (PICTS): A GLOBAL VIEW IN 2025

ABSTRACT OF FALAH CONTRIBUTION

Traditional diets in the Pacific Islands and Territories (PICTS) have been mostly healthy consisting of protein foods i.e. fish and seafood, pigs, chickens, starch foods i.e. root crops breadfruit and plantains, and protective foods i.e. leaves and some fruits, including coconuts. However, increasing westernization of traditional diets with foods and beverages containing high amounts of sugar and fat has impacted negatively on the nutritional health of the people. Climate change increasingly poses threats to fishing and farming. Overweight and obesity prevalence continues to climb and in many PICT countries is higher than neighbouring Australia and the prevalence of type 2 diabetes is among highest levels globally. Growing urbanization, abandoning traditional economies from farming and fishing and increasing mechanization and global digitalisation has meant physical activity declines and greater exposure to imported foods and consumption of ultraprocessed foods. As an example, our survey of 312 rural and 104 urban adolescents

(11-16 years old) in New Caledonia conducted in 2018/19 showed 98% of urban children and 94% of rural children consumed these ultra-processed foods and beverages and accounted for 27% of food consumption, appearing to replace traditional energy sources like starchy vegetables, but intake of protein and protective foods like fruit and vegetables is retained. A study of more than 10,000 adolescents in six PICT countries found an overall prevalence of 30% overweight or obese but this varied with a low rate in Vanuatu and high in Tonga. Education and health promotion in schools and communities that highlight the advantages of traditional diets and family farms for preventing and managing obesity and chronic diseases are warranted. National surveillance of dietary intakes and evaluation of the dietary change resulting from interventions can be facilitated by newly developed technologies for PICT. Supportive policies and regulations shown to be successful elsewhere may help reverse alarming dietary and chronic disease trends.



A SUSTAINABLE DATA LIFECYCLE FOR A BETTER FUTURE FOR SCIENCE AND SOCIETY: EXPERIENCE FEEDBACK

Co-author: Marie LATOUR (UNC)

AXIS 3A

ABSTRACT OF FALAH CONTRIBUTION

This communication aims to give a narrative overview of what can the lifecycle of research data be from collection to dissemination and reuse. This is an opportunity to show good practices and tools that can be useful in daily lives and daily works of researchers. Throughout the communication, we will show how some of the aspects described have been carried out in concrete cases in research projects. We will start the communication with a review of what is usually done in research practices, especially in small research structures to highlight and discuss what could be improved. Research data is pretty much all researchers produce and work with to carry out their research, from raw data to publication and dissemination via images, videos, etc. This overview will enable discussing the question: Why is research data valuable? Indeed, research data is the basics for researchers to be able to work and answer or bring elements to research issues. To target the issues, it is necessary to collect, transform, analyze and curate the data to have an overview of the problem and then publish and disseminate the results. We also know the importance of popularization to make the research results understandable, practical and useful for the society. However,

we could ask: and then? Are the data not shown, such as raw data, now useless? Have we really used all their potential? Would they be useful to anyone else? Actually, we don't know... That is why, when in doubt, it is needed to show and expose that we have data that can be useful for someone. To do this, the data must be referenced, understandable and actually re-usable. Using metadata is mandatory to properly achieve these goals. Throughout the communication, many stages in data handling will be discussed, showing the need to plan what will be done with the data and how over the course of the project. This is the aim of a data management plan, which is more and more requested by funders. This tool should not be considered as an additional daunting task for the researcher but rather as a means of anticipating what can be done with the data in order to exploit its potential to the full and thus increase the quality of research and their research. The main expectation of this communication is to make clearer to researchers the processes used in the data lifecycle. This will help to learn about good practices and practical tools that can be used to ensure the sustainability of research and improve its contribution towards the society.



STUDENT PERSPECTIVES OF PARTICIPATION IN CULTURAL ACTIVITY AND HOW THIS IMPROVES THEIR NUTRITION, PHYSICAL ACTIVITY AND OBESITY IN PHYSICAL EDUCATION

AXIS 3A

ABSTRACT OF FALAH CONTRIBUTION

The research aims at student's perspectives of cultural activity in physical education and how this improves students' nutrition, physical activity and obesity. Three secondary schools in Palmerston North of New Zealand accepted to be part of the research. It was envisaged that students' perspectives of cultural activities impacted students' health, and obesity, nutrition and physical activity (Hapeta, Palmer, & Kuroda, 2018). The questionnaires contained open questions to which students responded. In analyzing these qualitative responses, Bernard (2005) offered a unique way of understanding the data by thematically analyzing students' feelings and thoughts and then labelling them for common themes through the process of 'open coding'. Data from the surveys were categorized, then compared and merged into new concepts and eventually renamed and modified (Bernard, 2005). This approach enabled participants' thoughts and voices to

be expressed and these in turn empowered students to feel their ideas were important and valued (Te Ava & Paige, 2018). Students who commented positively on the questionnaire perceived cultural activity in physical education as an important part of improving nutrition, physical activity, and obesity in the schools. The study concludes the research shows there were benefits of teaching cultural activity in physical education from a holistic way, and how this was beneficial for improving nutrition, physical activity, and obesity. The recommendation of the school was to encourage students engaged in various cultural physical activity, and recreate opportunities for farming nutritional vegetables, and embedded the idea in the curriculum and policy of physical education since there's a space needed to bridge that gap in the New Zealand curriculum of physical education.



CALEDONIANS' RESILIENCE STRATEGIES FOR PRESERVING THEIR LIFESTYLES IN THE FACE OF SHORTAGES

Co-authors: Virginie de Barnier (UNC)

AXIS 2B

ABSTRACT OF FALAH CONTRIBUTION

Contemporary health, geopolitical, environmental and social crises are compelling consumers to adapt their lifestyles. New Caledonia is no exception to these crises, evolving in an economic system dependent on imports. The Caledonian region frequently faces shortages, prompting consumers to adjust their practices to mitigate the impact on their lifestyle. This research aims to explore the resilience strategies employed by Caledonian consumers in response to consumer goods shortages, beyond common practices such as stockpiling essentials or opting for more expensive alternatives. The methodology consist in a series of face-to-face interviews with 20 consumers in New Caledonia focusing on daily consumption practices, the cognitions and emotions triggered by shortages, and adaptive strategies implemented. Lexical analysis reveals three major lexical fields: (1) buying and stock-outs: "buying", "stores", "need", or "trade", and "order", "unavailable"; (2) adaptive strategies used to maintain one's lifestyle: "waiting", or "stocking up", (3) timewise: "often", "never", "years". Thematic analysis reveals : (1) The role of the social network:

Caledonians call on their network to keep abreast of deliveries via social networks; (2) The Consumer to Consumer option (C to C): Individuals find alternatives outside the market and develop bartering, buying from friends and family, or direct buying from farmers; (3) The "consumer-merchant" alternative : individuals are buyers and sellers. Our research underlines that Caledonian consumer are distrustful of the market and commercial practices. Exposed to shortages, they combine several strategies to build their resilience. The Caledonian "consum'actor" is emerging, reminiscent of the "prosumer" predicted by Toffler in 1980. The author predicts the "demarchandization" of the world, and the advent of a "consumer-producer" who produces himself a large part of the products and services he needs, and trades them when needed. The Caledonian "consumer-actor" expresses his resilience by shifting between the roles of buyer, producer and seller, thereby regaining control over consumption and adapting to the evolving landscape of the economy. These results align with research on collaborative consumption.



EXPLORING THE DIGITAL HEALTH LANDSCAPE: HOW ADOLESCENTS LIVING IN URBAN AND RURAL VANUATU USE SOCIAL MEDIA TO ACCESS HEALTH INFORMATION

Co-authors: Guillaume Wattelez (UNC), Akila Nedjar-Guerre (UNC), Rowena Forsyth (USYD), Louisa Peralta (USYD), Marie-Jeanne Urvoy (UNC), Olivier Galy (UNC), Corinne Caillaud (USYD)

AXIS 3D

ABSTRACT OF FALAH CONTRIBUTION

Worldwide, adolescents increasingly engage with online platforms as sources to search and discuss information related to health. With limited evidence of this from the Pacific Islands Countries and Territories (PICTs), understanding how adolescents in PICTs use online platforms for health information is important. Access to, and the use of, digital technologies vary across urban, rural, and tribal areas. Adolescents living in urban areas may face different health issues compared with their rural and tribal counterparts, necessitating tailored digital health (literacy) interventions.

This study investigates the online health-related behaviours of adolescents in Vanuatu. Recognising the unique cultural and contextual factors in Vanuatu, this study aims to shed light on how adolescents living in urban areas compared with those living in rural areas navigate online resources to make informed health decisions.

In June 2023, 245 participants were recruited from two schools in Vanuatu.

Findings reveal that 77% of participants own a mobile phone, primarily used for music (34%) and gaming (22%). Only 24% (n= 47) reported using apps, social media, or websites for health purposes. Contrary to the common notion of a digital divide, our study highlights similar patterns of online health platform use between urban and rural adolescents in Vanuatu.

Gaining insight into the patterns of use and purposes behind their engagement with online platforms for health-related information, we aim to bridge gaps in understanding and potentially tailor interventions that resonate with the specific needs of this population, contributing to the advancement of their overall health outcomes. This study highlights the importance of cultural sensitivity, addresses the risks of misinformation, and emphasises the role of policy and education in effectively engaging adolescents with digital health tools to foster positive health outcomes.

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THE KANU 2025 PROJECT : A TRADITIONAL CANOE EXPEDITION FROM NEW CALEDONIA TO VANUATU ARCHIPELAGO

Authors: David Battie, Benjamin Puget, Pierre-Yves Le Roux, Corinne Caillaud, Manfred Lenzen, David Raubenheimer, Olivier Galy

AXIS 2B

ABSTRACT OF FALAH CONTRIBUTION

The «KANU 2025» Project is an expedition that aims to connect New Caledonia to Vanuatu archipelago in a traditional sailing canoe journey of 1500km, in accordance with the values of sustainability, authenticity and cultural exchange. The canoe is a «Holopuni» which refers to a traditional canoe used in the Pacific islands, symbolizing both ancestral navigation and the links between the peoples of the Pacific.

This project aims to engage in an eco-responsible travel approach, to find a simple means of travel in the Vanuatu archipelago to : 1) get back to the origin of the Pacific lifestyle transition in isolated Ni-Van

communities only accessible by the sea and protected by nature from the socio-economic transition and its consequences; 2) create the conditions for an enriching human adventure, to exchange with Melanesian communities on the knowledge and practices regarding food environment 3) and finally raise the awareness to transform food habits for 80 days during the sailing expedition. With its scientific approach, the KANU project is also part of the Family Farming and Lifestyle in the Pacific (1) (FALAH) project, which examines the lifestyle of communities in the Pacific Islands and its consequences on health.

1 Jean Marie Fotsing, Olivier Galy (Eds.). Family Farming Lifestyle and Health in the Pacific Project. 2019. (hal-03150691)

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GENDER, CLIMATE CHANGE AND INDIGENOUS ECOLOGICAL KNOWLEDGE IN MANGROVES OF THE SOLOMON ISLANDS

Co-authors: Heide K. Bruckner (U. Graz)

AXIS 3A

ABSTRACT OF FALAH CONTRIBUTION

This paper examines how gender shapes the management of marine resources, such as mangroves and inshore fisheries, with a particular focus on the vital role of women in their conservation. By exploring both men's and women's knowledge and use of mangrove resources specifically in Marovo Lagoon, Solomon Islands, this research highlights how indigenous knowledge and its perceived values are gendered. Women's traditional knowledge, often passed down through generations, offers valuable insights into resource stewardship and resilience-building in the face of environmental stressors. Even as traditional gender roles are shifting due to economic pressures and livelihood changes,

women often remain at the forefront of developing household strategies for food security, ecological restoration, and climate adaptation. Our qualitative research from the Solomon Islands emphasizes that integrating indigenous knowledge with gender-sensitive climate action will be essential for addressing both environmental and social challenges in the Solomon Islands. By recognizing the contributions of diverse community members to food systems, ecosystem restoration, and climate justice, this research can foster more inclusive and effective approaches to environmental management, food security and resilience-building in the region.



POSITIVE IMPACT ON TEACHING PHYSICAL EDUCATION AND PHYSICAL ACTIVITIES WITH LOCALLY AVAILABLE MATERIALS AND INDIGENOUS GAMES (SOLOMON ISLANDS CASE).

AXIS 3A
ABSTRACT OF FALAH CONTRIBUTION

While Physical Education is a subject in the Solomon Islands curriculum, little equipment is delivered to schools for use by teachers in the delivery of physical education and implementation of physical activities in schools. The lack of appropriate equipment denies students of the extent of effective learning and teaching of the subject matter and physical activities. Having observed Physical Education teachers in school settings for a number of years, it has been observed and it is eminent that the complaints of teacher responses to the need for appropriate equipment is enormous. Obviously, when teachers showed initiative to find alternative means of teaching, they seemed more effective as Physical Education instructors. Further to the above gaps, the use of local materials and indigenous games will also set a platform that would enhance the development of fundamental movement skills, provide opportunities for physical activities, promotes and fully utilize the indigenous games that are available, and at the same time, help to address the rise of Non-Communicable Diseases in schools, communities and the country as a whole. In this paper advocates for the use of locally available materials and indigenous games as resources (equipment), and tool for teaching Physical Education and physical activities in Solomon Islands schools. Premised on my experience and observations as a Physical Education educator, I argue that physical education must be taught in a holistic teaching and learning school environ-

ment. In the context of Solomon Islands, this includes the physical and cultural settings wherein there are local materials that are available as alternative resource for use in the delivery of physical education and physical activities in schools. The research report is based on an ongoing work done so far with schools in Honiara and a few other provinces so far and will continue to employ the mixed methods to investigate the impact of the use of local materials and indigenous games in the delivery of physical education and physical activities, and its implication for the physical education curriculum in schools. The focus questions are as follows; what materials and indigenous games are available locally for use in teaching Physical Education and physical activities in schools? Why these materials and indigenous games are overlooked and are not being used? How these materials and indigenous games are be used? These questions are and will be explored with actual examples of locally available materials and games and identify how these can be used effectively. However, the research have already showed positive impact in the delivery and teaching of old physical education and physical activities, when local materials and indigenous games and employed. It is believed and that this is a positive impact for the delivery of physical education and physical activities in schools and the communities, and its implication for the school curriculum.

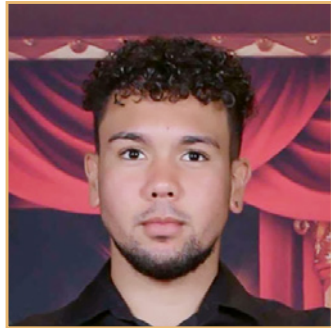


**FOOD CROPS ON ISLANDS:
NEW RESOURCES FOR MORE SUSTAINABLE TOURISM DEVELOPMENT?
THE EXAMPLE OF BALI IN INDONESIA**

AXIS: 3A OR 3B
ABSTRACT OF FALAH CONTRIBUTION

Tourism remains a major economic activity in Indonesia, particularly in Bali. Food is a central component of the tourism phenomenon, not only because tourists eat several times a day, but also because it is a privileged gateway to the culture and history of the region visited. At the same time as globalization is taking hold, there is a growing interest in local cultures. The aim of this contribution is to examine the economic and socio-cultural issues underlying the development of local food cultures for tourism, as applied to the island of Bali. From an economic point of view, the tourism and agri-food sectors operate at different levels. Firstly, tourists eat in hotels, restaurants and guest houses, or buy food on the local domestic market. In addition, food in its various forms plays an important role in the economic world of souvenirs bought and brought back after a trip. From a socio-cultural point of view, this process of valorization contributes to the re-appropriation of certain components of the food heritage by local populations, and through this to the maintenance and reconstruction of cultures. It also responds to a demand from tourists who are increasingly

aware of the food dimension of cultural heritage in terms of its originality and its spatial and temporal roots. This contribution is based on initial exploratory research carried out on the island of Bali in 2019, in collaboration with the University of Udayana. Data was collected from stakeholders in the island's food and tourism sectors, leading to 2 main lines of research: The first underlines the value of a systematic inventory of Balinese food heritage. By identifying products and dishes, pinpointing and describing the techniques they employ and the uses and rituals in which they are consumed, it helps to shape and make visible Balinese food culture(s) and their status in the lives and representations of the Balinese people; The second aims to identify the mechanisms already in place to promote this heritage, throughout the food supply chain (production, processing, distribution), on the understanding that promoting it helps to revitalize the local agricultural, craft and agri-food sectors and, by the same token, contributes to local development. This contribution could permit exchanges and discussions around Pacific islands environments.



UNDERSTANDING THE DISTRIBUTION OF PHYSICAL ACTIVITY BY CALEDONIAN ADOLESCENTS ACCORDING TO GENDER AND PLACE OF RESIDENCE

Co-authors: Thibaut DERIGNY (U. Pau), Olivier GALY (UNC)

AXIS 2B

ABSTRACT OF FALAH CONTRIBUTION

New Caledonia is undergoing transitions that are reshaping lifestyles. Traditional physical activity (PA) opportunities (agriculture, hunting, fishing) are becoming sedentary, affecting adolescents' health. To understand how adolescents adapt their PA behaviors, the ecological model examines the interaction between individual (gender), environmental (place of residence), and temporal factors. Time is studied through opportunities (kairos) seized by adolescents, defined as spatio-temporal invitations to engage in PA. This perspective differs from chronological time (chronos), which identifies critical PA schedules.

This study describes opportunities seized by Caledonian adolescents to engage in Moderate-to-Vigorous PA (MVPA) based on gender (male vs. female) and place of residence (urban vs. rural).

Sixty-six adolescents (male: $n=24$; female: $n=42$; age mean: 17.27 ± 0.60) from rural ($n=21$) and urban ($n=45$) areas participated in a 7-day accelerometry (ActiGraphTM GT3X+) with daily diaries. Twelve opportunities structured the diary: autonomous/

supervised leisure, physical education (PE), recess, housework, homework, meals, home, job, school, rest, and transport. Inclusion criteria were: (i) being in the last year of high school, (ii) wearing the accelerometer ≥ 10 h/day for ≥ 3 weekdays and one weekend day, and (iii) completing $\geq 70\%$ of the diary.

Results showed that male engaged in more MVPA than female (6 vs. 5%, $p<0.001$) and urban adolescents more than rural (6 vs. 4%, $p<0.001$). Gender-based differences appeared in school (6 vs. 3%, $p<0.001$), physical education (26 vs. 12%, $p=0.015$) and transport (7 vs. 4%, $p=0.04$). Location-based differences were found in school (4 vs. 2%, $p<0.001$), physical education (20 vs. 2%, $p=0.01$), recess (6 vs. 2%, $p=0.009$) and transport (7 vs. 1%, $p<0.001$).

These findings reveal discrepancies in MVPA opportunities among Caledonian adolescents, emphasizing the need for tailored PA promotion strategies. They highlight the key role of PE in adolescent PA, advocating for "opportunity education" to foster active lifestyles.



WHITE-EDGED LYRETAIL (VARIOLA ALBIMARGINATA): A PRELIMINARY STUDY ON SIZE AT SEXUAL MATURITY, SEASONAL GONADAL VARIATION, AND GROWTH.

Co-authors: Shirlene HIRU (SINU), Jim Hyacinth DAMU-SARU (SINU), Collin GERENIU (SINU), Kofi APREKU (SINU)

AXIS 2

ABSTRACT OF FALAH CONTRIBUTION

Variola albimarginata is a commercially important fish species, yet its biological aspects are poorly known. Hence, the present study investigates the size at sexual maturity, monthly change of gonadosomatic index, and growth of the species.

Monthly sampling of fish was conducted off the coast of northwest Guadalcanal from June 2022 to May 2023, using hooks and lines deployed from an outboard motor engine. Collected specimens were immediately chilled in ice and brought to the laboratory of the department of fisheries studies for further analysis. For each specimen, fork length (FL), body weight (BW), and gonad weight (GW) were measured. Gonads were classified into three stages, and maturity stages of fish were determined based on the percentage occurrence of mature individuals. Furthermore, a Linear Allometric Model (LAM), and the relationship of otolith weights (OW) and otolith length (OL) were performed to determine fish growth.

As a result, a total of 412 specimens were collected during the study period. The smallest size caught was at the range of 121-130 mm FL in the month of May, and the largest size was in the month of August at the range of 311-320 mm FL. Minimum size at sexual maturity was at 150 mm FL and all fish were assumed matured at 210 mm FL. Gonadosomatic index was high from November to June. Body weight (BW) and body length (FL), as well otolith weight (OW) and otolith length (OL) showed positive relationships.

The expected outcome of this study is to roll out the findings to other provinces for better management of targeted and related species. By understanding the biological parameters of Variola albimarginata, fisheries managers and stakeholders can develop informed conservation and management strategies to ensure the sustainability of this commercially important species.

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CALEDONIAN ELECTED REPRESENTATIVES' PERCEPTION OF FAMILY FARMING AND FISHING

AXIS 4A

ABSTRACT OF FALAH CONTRIBUTION

How do New Caledonia's elected representatives perceive family farming and fishing? How do they see them in relation to the country's other productive activities? What do they see as the main issues, strengths and weaknesses, and how are they developing? To answer these questions, which are

central to the FALAH project, in March 2022 we conducted individual qualitative interviews in face-to-face with sixteen elected representatives from the Territory (mayors, representatives at Congress, at the CESE, etc.), in both urban and rural areas, which main results will be presented.



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LABOUR SCHEMES, FOOD SECURITY AND KNOWLEDGE: EMERGING AND RENEWED TRENDS IN THE VULNERABILITY OF PACIFIC ISLANDS COUNTRIES AND TERRITORIES (PICTS) COPING WITH HEAVY CHANGES IN GLOBALIZATION

ABSTRACT OF FALAH CONTRIBUTION

The purpose of knowledge is to provide island actors with an understanding of their practices in order to make relevant decisions to meet current food security challenges. These are huge with the changes affecting the world: climate and health crises (Covid pandemic, Monkeypox in Africa) and the return of imperialism.

Securing access to food reflects two realities:

- a) producing food as close as possible to consumption centers,
- b) securing food imports and their equitable distribution.

This communication focuses on two points: a) island vulnerability, b) the relationship between labour and food security. These two themes will be studied from a diachronic perspective.

In terms of labour, three models of island development will be revisited: the export economy, formerly called a rent economy, the MIRABE economy, centered on international labor migration, and the endogenous development.

In terms of vulnerability, it will be shown that the dominant paradigm disseminated by the United Nations conferences on small islands (Grenada, 1994; Mauritius, 2005; Samoa, 2014; Antigua and Barbudo, 2024) corresponds to a globalized economy that supports small islands struggling with the difficulties caused by their insularity and their exposure to natural risks. This globalized economy is in crisis and generates a new type of vulnerability that requires islands to emphasize their food autonomy and only develop an extroverted economy for productions where the Pacific region can weigh on a global scale, particularly in terms of price.

The articulation between food autonomy and export food production must be at the heart of public policies for the development and planning of PICTs ; public decision-making must then be based on minimizing the vulnerability of island territories and their populations.



HOW DO YOU PRONOUNCE THIS IN A LOCAL LANGUAGE? A DIGITAL TOOL FOR LEARNING AND DISSEMINATING THE PRONUNCIATION OF LOCAL LANGUAGES

Co-authors: James Langeron (UNC), Julian Malaval (UNC), Antoine Corral (Université Paris 3-INALCO), Fabrice Wacalie (UNC), Pauline Welby (Aix Marseille Université-CNRS)

AXIS 3D

ABSTRACT OF FALAH CONTRIBUTION

Encountering written words and names in one of the almost 30 Kanak languages of New Caledonia is very common whether on road signs, in newspapers or in other media. It is a challenge to know how to pronounce these words, especially since the grapheme-phoneme (letter-to-sound) correspondences differ from language to language. To help address this challenge, we are developing a web application called LaPasserelle.nc ("the gateway"), which is conceived and designed as a tool to help people in properly pronouncing words in local language (in local language). The main aim of this phonetizer is to provide an idea of how to pronounce a word written in Oceanic languages, especially Kanak languages. The user enters text in the input box. This input is processed by using a grapheme – phoneme correspondences, and a pronunciation is displayed as output in either: 1/ the International Phonetic Alphabet (IPA) or, since IPA is not widely understood, 2/ *franétique* (> français + phonétique), a pronunciation respelling based on French (the language shared by almost all Caledonians), enhanced with multi-modal pedagogical tips. Work is in progress to reference the grapheme-phoneme associations into a database designed with these modeled associations, which can be queried using standardized languages dedicated to the semantic

web. An application programming interface (API) is under construction and can be interrogated by the web application as well as by other machines wishing to feed on or use the modeled knowledge for other purposes. The phonetization is based on the proposed writing systems of the Académie des Langues Kanak, as well as current research. A beta version of the phonetizer handles the Drehu and Paicî languages, and we plan to extend it to other languages spoken in New Caledonia, if the different communities so desire, including other Kanak languages, but also possibly Polynesian languages such as Wallisian, and Tahitian. The web of data database will be an asset for the dissemination and re-use of the knowledge acquired as a part of this project. For a neighboring Pacific country, Papua New Guinea, Kik et al. (2021) report that "ethnobiological knowledge is closely correlated with indigenous language skills" and that both are "declin[ing] precipitously. With that in mind, and fully aware that correlation does not imply causation, a broader goal of the LaPasserelle.nc project is to support and promote linguistic diversity in New Caledonia, by supporting language learning and the preservation and transmission of cultural knowledge more generally.



A SOCIOLINGUISTIC STUDY OF FACTORS INFLUENCING THE SUSTAINABILITY OF TRADITIONAL LANGUAGES AND CULTURES IN YOUNGER GENERATIONS OF FRENCH POLYNESIANS

AXIS 3B

ABSTRACT OF FALAH CONTRIBUTION

There is a lack of interdisciplinary research published in the English language on the language situation in the French-speaking territories of the Pacific. Most publications in the French language point to a decline in Polynesian heritage languages because they are not being passed on. Results from our study undertaken in Tahiti in 2022 and 2023 revealed five Polynesian languages present in the grandparents' generations. These have however, been replaced by French and Tahitian in the home environment, suggesting a language shift towards Tahitian and French across two generations which seems to be affecting younger generations more. Qualitative data from semi-structured interviews reveal a paradox in language attitudes towards traditional languages whereby Polynesian languages are valued as cultural heritage however there is a view that young people are not making efforts to sustain their ancestral languages. French as the dominant language in state institutions is perceived as the most useful and important language with a bright future as part of Tahitian culture. While English is a dominant language in the Indo Pacific region, it is a foreign language

in French Polynesia learnt in schools. Our study also revealed that younger Tahitians view English as more useful and important than Polynesian indigenous languages. The relationship between French, Tahitian and other Polynesian languages has been described in literature as one of triglossia, where French has the highest status followed by Tahitian then other Polynesian languages. This paper focuses on stage two of our study with a larger sample of seventy-two participants that includes students from two high schools in Tahiti. The data was collected on the ground using the same methodology as in the pilot study namely a structured questionnaire and semi-structured interview. The first section gives an overview of the social history and language situation with a focus on Tahiti where the data was collected. Part two describes the methodology and data collection. Part three presents the results on language habits and attitudes of young Polynesians with an emphasis on how local languages and cultures are being maintained in the context of favorable language policies by the pro-independence territorial government in power.

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**THE DIVERSITY OF KNOWLEDGE AND
PRACTICES MOBILIZED BY FAMILY
FARMING AS A CULTURAL ADAPTATION
TO ECOLOGICAL CONSTRAINTS IN THE
INTERTROPICAL PACIFIC ISLANDS**

AXIS 3B
ABSTRACT OF FALAH CONTRIBUTION

The objective is to show that the naturalist knowledge, techniques and geographical constructs mobilized by family farming in Oceania are a legacy of ancient strategies that constitute a cultural response by island populations to five major constraints: a) the high variability of the climatic and geological environment in space and time, b) the low intraspecific abundance of terrestrial and marine environments (few individuals per km² for each animal or plant species), c) the high spatial variability of interspecific diversity (number of species per km²), low human population densities, a material culture mainly focused on plants, which induces

a limited technological baggage. These constraints are all threats to the survival of the Oceanians and the reproduction of their societies. Small-scale family farming is part of a more global reference system, the village food system, which is structured around 2 strategies aimed at reducing the vulnerability of Oceanian populations to the constraints imposed by the island environment: a) diversifying food sources, b) managing and developing space to better manage time, adaptation strategies that stem from a pre-colonial culture of environmental risk.

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**LOCAL KNOWLEDGE AND THEIR
DYNAMISM FARMERS' CAPACITY OF
EXPERIMENTATION AS A LEVER OF
ADAPTING TO CLIMATE CHANGE**

Co-authors: Catherine Sabinot (IRD)

AXIS 3B
ABSTRACT OF FALAH CONTRIBUTION

The islands of the South Pacific are among the most exposed territories to climate change, but they are also areas of experimentation at the forefront of the fight against this phenomenon. These territories have resources embedded to their geographical, socio-cultural and ecological diversity, which can feed local, regional and national strategies for adapting to climate change. We'll be looking at localized resources such as local knowledge linked to agricultural practices: how can this knowledge be a resource for coping with climate change? How are they built, adapted, transmitted and how do they evolve? These questions are at the heart of the CLIPSSA project (Pacific Climate, Local Knowledge and Adaptation Strategies), deployed over 5 years (2022-2026) in four Pacific territories: New Caledonia, French Polynesia, Vanuatu and Wallis and Futuna. More specifically, we will look at empiricism as a fundamental resource for adapting local knowledge and farming practices to cope with climate change in French Polynesia.

There are many learning channels (family, professional, specialized groups, trainings, IT tools, etc.) mobilized in different ways by farmers (Richez, 2024). Among them, empiricism, a method that relies on concrete experience, has been identified as a method for testing new practices, adjusting them, or even developing them within the farm. In some cases, new practices implemented through empiricism have even been disseminated, through informal observation and transmission, to other farmers. From qualitative surveys conducted with farmers on the Tahiti peninsula and in Moorea, we will examine the following questions: to what extent is empiricism a resource mobilized by farmers? Is it widespread, or confined to a few expert figures? Does it facilitate the hybridization of knowledge, specifically the hybridization of scientific knowledge with local knowledge systems? And at least, how can they be supported by public policies to help them adapt to climate change?

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RAHUI (TIME-BOUND REEF FISHERY CLOSURES) AS A PATHWAY FOR CO-MANAGEMENT AND KNOWLEDGE CO-CONSTRUCTION

AXIS 3B ABSTRACT OF FALAH CONTRIBUTION

Resulting from the combined international promotion of community-based management initiatives and regional processes of cultural renaissance, we are currently witnessing in Oceania a steady movement towards the implementation of hybrid forms of customary marine resource management. In French Polynesia, the pre-contact institution of Rahui is being remobilized by a wide diversity of actors (local government agencies, local NGOs, fishers) to achieve, oftentimes, conflicting goals: ranging from habitat conservation, increase of fishing yields, securing communities' access to fishing grounds or re-asserting Polynesian identity in a post-colonial context.

Despite the variety of actors involved and of envisioned goals, different forms of Rahui share a common denominator: they are, in nature, time bound. When applied to marine territories they implement, in a given area, a temporary ban on the harvest of all or some reef resources. The time boundedness of such initiatives contrasts with the international promotion of permanent forms of marine conservation such as Marine Protected Areas depicted as the most efficient way to preserve marine resources.

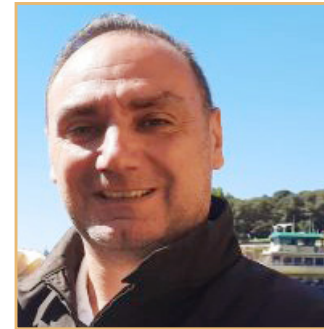
In this paper we make the argument that time-bound closures offer a unique opportunity to implement sincere and culturally sensitive resource co-management initiatives. First, time-bound closures address, by essence, the necessity to strike a balance between ecological concerns and social preoccupations. Second, because they have an expiry date, they require more regular interactions between a

wide diversity of actors which are not often used to interact -or only sporadically in the case of permanent closures - such as fishers, scientists and local government officials. The uncertainties surrounding the socio-ecological effectiveness of temporary closures requires a constant dialogue between stakeholders to decide what to do next. Not only do Rahui-type initiatives allow to actually implement co-management initiatives, but they also pave the way for the co-construction of knowledge about the dynamics of prized fish resources. Typically, a question such as "How long should we keep the area closed for unicornfish to be able to recover and to be sustainably harvested?" requires drawingsimultaneously on the local ecological knowledge of Polynesian fishers and on the expertise of Western scientific knowledge.

Here, we draw on a series of ethnographic case studies focusing on the socio-economic dimensions of reef fishing as well as the social, cultural and political dynamics surrounding the design, monitoring and daily management of contrasting forms of marine management in French Polynesia (ranging from a top-down managed network of MPAs in Moorea to community-based management of time-bound Rahui on the island of Tahiti). A fine-tuned analysis of the interactions between scientists, environmental activists, community leaders and reef fishers allow us to identify the key factors that either favor or hinder the articulation of diverse forms of knowledge.

...

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diversitiES

comprendre, préserver et valoriser

Led by the University of New Caledonia (UNC) in partnership with the IRD (Development Research Institute) and the CNRS (National Centre for Scientific Research), the DiversitiES project is funded under the France 2030 program to an amount of \$16 million over 8 years.

The project is based on 4 major axes:

- **Transforming UNC's structure for better integration into its environment.** The creation of a partnerships department and an Advisory Council is contributing to build a more resilient New Caledonian society that preserves and strengthens its diversity while addressing ecological, energy, socio-economic and political transition issue.
- **Transforming trainings to foster students' interdisciplinarity and employability.** Expansion of interdisciplinary field courses combined with the creation of courses on diversity and transitions will positioning UNC as a key actor related to diversities.

The DiversitiES project offers a strategy of academic differentiation and excellence for New Caledonia. It highlights the territory's biological, cultural, and linguistic diversity as a driver for transformation and development.

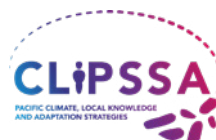
- **Transforming research to better meet New Caledonia's needs.** The development of research and observation stations on diversities will accelerate knowledge of New Caledonia's socio-ecosystems and their evolution. The UNC is working more closely with society by supporting the local population through citizen science and enhancing communication of research findings.
- **Positioning UNC as a key actor on issues related to diversities to strengthen cooperation in the Pacific region.** UNC will strengthen cooperation within the Pacific Islands Universities Research Network (PIURN) to develop regional research and training projects on diversities.

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PACIFIC CLIMATE, LOCAL KNOWLEDGE AND ADAPTATION STRATEGIES

ABSTRACT OF FALAH CONTRIBUTION

The island states and territories of the Pacific are particularly vulnerable to the effects of climate change, and have very uneven capacities for adaptation, given the diversity of their geographical, economic and social situations. These territories are already exposed to a variety of major climatic hazards that can cause considerable damage. In the face of these risks, these territories need to organize a coherent and structured response in terms of adaptation to climate change, i.e. to change the way they do things and the way they live, by drawing up National Adaptation Plans. The prerequisite for these strategies is detailed local knowledge of the future climate, in order to assess vulnerabilities. However, certain key characteristics of the future climate are not well known. More detailed climate simulations, using appropriate island spatial scales, are essential. CLIPSSA aims to produce unprecedented scientific data on the future climate of the Pacific in order to increase the climate change adaptation capacities of New Cale-

donia, French Polynesia, Wallis and Futuna and Vanuatu (with funding from the 2050 Facility). The key impacts of climate change on sectors such as agriculture, access to water and health will be studied to gain a better understanding of the vulnerabilities linked to climate disruption.

In collaboration with the Pacific Regional Environment Program (PROE), this scientific data will be made freely available on a web portal for use by local, national and regional institutions in Pacific island states and territories. We'll also be analyzing people's feelings and experiences in the face of these impacts, as well as the evolution of local knowledge mobilized to cope with extreme climatic events, which constitute "risk cultures". Finally, support will be provided to local and national authorities in drawing up or updating climate change adaptation strategies, drawing in particular on local traditional knowledge.

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NEXUS AGRICULTURE AND FOOD IN THE PACIFIC

AXIS 3B

ABSTRACT OF FALAH CONTRIBUTION

The program explores the link between agriculture and food, focusing on the potential of indigenous family farming to improve food and nutritional security in Pacific countries and territories. It is based on 3 working hypotheses: 1. Indigenous family farming still occupies a significant proportion of Pacific populations, protecting them from excessively sweet and salty diets. However, it does not contribute sufficiently to a diversified diet, particularly in terms of fresh fruit and green vegetables, 2. This type of farming is an under-exploited lever for diversifying the diet of rural populations, thanks to direct access to their own production. They offer the prospect of transforming farming and food systems towards greater self-sufficiency and healthier diets, 3. Multidisciplinary and integrated research can provide recommendations for improving the performance of food systems. This implies a better understanding of global food systems, the food and farming practices of rural populations, and the enhancement and improvement of these practices, particularly in pest control and crop diversification. The project aims to generate knowledge and

recommendations to improve the contribution of indigenous family farming to food and nutritional security in New Caledonia and Wallis and Futuna, complementing an exploratory approach in Vanuatu. It seeks to enhance the diversity of the food supply and traditional farming systems to counter the worrying trends of poorly diversified diets and dependence on imported products. Specific objectives include to characterize the dynamics of food systems in different territories, identify and document the agricultural and food practices of farm households and identify and mobilize agronomic levers to increase diversity and food security, by measuring the agronomic and nutritional performance of cultivated agrobiodiversity and implementing agroecological crop protection. In order to meet these objectives, the work is divided into three complementary components: 1. Characterization of major food system dynamics, 2. Surveys of farming households, documentation of farming and food practices and 3. Agronomic levers to increase food diversity and security.

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**STARTUP INCUBATOR – RESEARCH AND INNOVATION
VALORIZATION UNIT – NEW CALEDONIA**



**TOWARDS A SUSTAINABLE FOOD MODEL
IN NEW CALEDONIA: RESEARCH AND
INNOVATION CONTINUUM OF THE TRIAD
PROGRAM**

AXIS 3B

ABSTRACT OF FALAH CONTRIBUTION

New Caledonia largely relies on external markets to meet its food needs, leading to significant economic, societal, and environmental consequences. To address these challenges, the TRIAD Program (Trajectory Research Innovation for Sustainable Food) led by the Government of New Caledonia was developed in response to a France 2030 call for projects. Its ambition is to sustainably transform the Caledonian food model to achieve food self-sufficiency, public health goals, and agrobiodiversity valorization.

TRIAD aims to innovate throughout the food value chain in New Caledonia by promoting resilient and sustainable production, processing, distribution, and consumption systems. The program brings together public, associative, private, and scientific stakeholders to co-design solutions tailored to the territory's specificities.

To support this transformation, the transversal action «Creation of a Research and Innovation Valorization Unit» has been esta-

blished. Supported by CRESICA (Cooperation Consortium for Research, Higher Education, and Innovation in New Caledonia) and the local Startup Incubator, this unit assists TRIAD's initiatives and projects related to sustainable food. Its role is to enhance the value of CRESICA's research outcomes to meet the development needs of local businesses and stimulate innovation by leveraging both scientific knowledge and traditional local know-how. A mapping of research in New Caledonia has been initiated to identify drivers and barriers to knowledge flow and skills utilization, thus fostering the emergence of technological, social, and economic innovations. The presentation will present the TRIAD Program and the accompanying strategy for research valorization and innovation management. It will highlight the frameworks and actions implemented, which could inspire similar initiatives in other Pacific Island Countries and Territories.

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**PROMOTING PHYSICAL ACTIVITY
IN THE PACIFIC ISLANDS: CHAL-
LENGES AND OPPORTUNITIES**

AXIS 3B

ABSTRACT OF FALAH CONTRIBUTION

Physical inactivity is a major public health concern in the Pacific Islands, contributing to the high prevalence of non-communicable diseases (NCDs) and widening health disparities. While the benefits of physical activity are well known, the unique geographical, cultural, and socio-economic landscape of the Pacific presents both challenges and opportunities for promoting active lifestyles. This keynote will explore the latest research, policy initiatives, and interventions aimed at increasing physical activity in Pacific communities, drawing on findings from the WHO Pacific Ending Childhood Obesity (ECHO) Network, the SUNRISE International Study, and regional collaborations.

The WHO Pacific ECHO Network's physical activity research program has provided key insights into barriers and enablers across Pacific nations. Challenges include limited infrastructure, urbanisation-driven seden-

tary lifestyles, and cultural perceptions of movement, while community-driven solutions and traditional practices offer unique opportunities.

Findings from the SUNRISE Study in the Pacific provide critical data on physical activity, sedentary behaviour, and sleep in young children, supporting early interventions. My PhD student Sarah Ryan's research across the US-affiliated Northern Pacific, French Polynesia, New Caledonia, Wallis and Futuna, and Fiji highlights the importance of localised, culturally responsive approaches to physical activity promotion.

This keynote will also highlight my work with UNICEF's policy brief on physical activity in childhood and adolescence and the WHO Global Standards for Healthy Eating, Physical Activity, Sedentary Behaviour, and Sleep in Early Childhood Education and Care (ECEC) Settings.

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THE CIRCULATION OF KNOWLEDGE TO ADAPT TO CLIMATE CHANGE: THE CASE OF VANUATU AND NEW CALEDONIA

Co-authors: Catherine SABINOT (IRD)

AXIS 3B

ABSTRACT OF FALAH CONTRIBUTION

As part of my doctoral research, this presentation examines the construction, circulation and articulation of local knowledge in the face of the challenges posed by climate change in Vanuatu and New Caledonia. In the face of environmental and climate upheaval, the farming practices and know-how of the communities on these islands are essential to understanding their adaptation strategies. Initially, we will draw on field surveys conducted in the south-western and eastern regions of Santo Island, Vanuatu, to analyse the main agricultural practices observed, while taking into account the socio-cultural and environmental dynamics that frame them. Additional light will be shed on New

Caledonia, in order to compare and enrich the observations. Secondly, we will highlight the processes of learning and transmission of agricultural practices, by describing some of the local adaptation strategies developed by communities to cope with climatic hazards. Finally, we will explore the dynamics of knowledge circulation by tracing the flow of exchanges between stakeholders before, during and after the passage of cyclone Harold in April 2020.

This work aims to enhance understanding of the links between local knowledge, adaptive practices, and resilience to climate crises in the Pacific.

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CIRCULATION AND CO-CREATION OF KNOWLEDGE AND KNOW-HOW AT THE HEART OF ADAPTATION TO CLIMATE CHANGE FOR FAMILY FARMERS FROM THE SOUTH PACIFIC ISLANDS ?

Co-authors: Maya LECLERCQ (IRD), Samson JEAN MARIE (IRD), Gilbert David (IRD), Julien Drouin (IAC), Isaake Tuika-lepa (UNC), Jean Wencelius (CNRS), Séverine BOUARD (IAC)

ABSTRACT OF FALAH CONTRIBUTION

The South Pacific Island states and territories are at the forefront of the fight against climate change due to their high exposure and vulnerability to the region's diverse weather patterns. The most probable hazards to affect the region are the alternation of intense droughts and heavy rainfall, which will have a particularly adverse effect on family farmers. In order to gain a deeper insight into the resilience of island communities to future hazards, the CLIPSSA project (<https://clipssa.org/>), which unites climate and social science researchers with institutional and political stakeholders, has chosen to focus its efforts on the strengths and weaknesses of family farmers. The social science research team is examining how family farmers bring together knowledge(s) and know-how of today, combining a wide range of experience, knowledge and expertise.

Based on the ethnographic research carried out in the four archipelagos, the objective of this paper is threefold: (1) To analyse the influence of the nature of the knowledge, its vitality and the diversity of sources mobilised to acquire and adjust it on the degree of vulnerability of these people (potential and fragility) and the management of these hazards and their consequences; (2) to compare the results from the four survey sites, to identify and analyse contrasts, similarities and differences between the archipelagos and to draw lessons for the region as a whole; (3) to discuss a set of joint analytical frameworks and ways of translating our results and even ways of interweaving mixed knowledge, so that they can be grasped by the inhabitants in the field as well as by institutional stakeholders responsible for promoting the resilience of family farmers in the face of the future climate.



ROOT ARCHITECTURE OF TEAK AND FLUEGGEA IN MIXED SPECIES SYSTEMS IN THE SOLOMON ISLANDS

Co-authors: Timothy J Blumfield (Griffith University), Frederick Revechon (Griffith University), Zhinghong Xu (Griffith University)

AXIS 1A ABSTRACT OF FALAH CONTRIBUTION

As climate change hits hard on the Pacific Island countries, agroforestry is becoming an important and sustainable model and an alternative to monocultural land uses. In mixed species systems where agricultural crops are intercropped with commercial trees, root architectural traits of the component plants or trees that utilize different areas of the soil volume are advantageous. It minimizes belowground competition and promotes complementarity in the capture of growth resources with benefits of multiple products and ecosystem services.

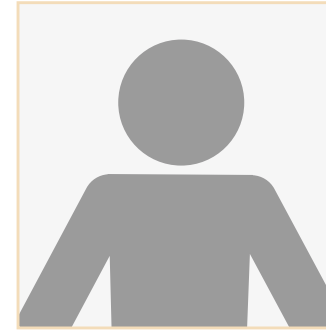
In an agroforestry system, where Teak and Flueggea were initially established as mixed species system, food crops were further intercropped. Root architecture of Teak and Flueggea were examined as both had high influence on growth resources uptake in the system.

To examine root spatial interaction, teak (*Tectona grandis*) and flueggea (*Flueggea flexuosa*) were grown in trial plots on Kolombangara Island, Solomon Islands. Seven pairs of trees were isolated using a plastic barrier at two different age trials, 100 m apart.

Three pairs of trees at age 2 years and four pairs of trees at age 4 years were manually excavated and productivity, biomass and root architecture, especially topology and distribution, were assessed. Additional trees growing without a barrier were also excavated to ensure that the effect of the barrier on root architecture was not significant.

The root architecture of both species had similar patterns of development but showed a different topology and distribution regardless of whether they were grown in an enclosed barrier or open environment. Teak had extensive horizontal and vertical roots and occupied a larger portion of the soil volume than flueggea which may relate to nutrient and water uptake and adaptive growth. Both species had similar root biomass increment of 87% between 2 and 4 years and had 20-22% of root biomass over total tree biomass at both ages.

Teak and flueggea roots occupied different depths within the soil volume, which would promote nutrient uptake efficiency and therefore minimizes belowground competition on growth resources.



SHIFTING PERCEPTIONS OF DIET AND NUTRITIONAL PRACTICES IN FIJI: A CASE STUDY OF NADOI VILLAGE, REWA

AXIS 2B ABSTRACT OF FALAH CONTRIBUTION

In Fiji, dietary patterns are undergoing significant changes, particularly in rural communities like Nadoi Village in Rewa. Diets regarded as traditional, once rich in locally produced staples such as taro, breadfruit, and fish, are increasingly replaced by ultra-processed, imported foods. This shift contributes to rising rates of non-communicable diseases (NCDs) and diminished cultural food practices. Research shows that these dietary transitions are driven by socio-economic factors like globalization, urbanization, and the availability of processed foods. Based on research conducted in the framework of the RERIPA CHANCES-Pacific project, this presentation looks at how the residents of Nadoi perceive these changes, identify the socio-economic and cultural factors driving them, and assess their health implications. Drawing from similar findings in small island developing states (SIDS), such as the role of affordability and accessibility in food choices, this presentation will discuss furthermore the possibility of culturally informed solutions. As Burkhart et al. (2021) suggest, addressing these challenges requires empowering local communities to

preserve 'traditional' diets while improving health outcomes. Residents of Nadoi are anticipated to perceive 'traditional' diets as a cherished aspect of their cultural heritage, representing local identity and community values. However, current dietary practices, dominated by processed and imported foods, are likely viewed as more practical and cost-effective due to changes in socio-economic conditions and food accessibility. These shifts in dietary patterns are expected to result in nutrient deficiencies and an increased prevalence of non-communicable diseases (NCDs) such as diabetes and hypertension. The findings will provide insights into how these perceptions and health outcomes reflect broader socio-economic and cultural drivers, addressing the research questions and emphasizing the importance of balanced strategies to preserve 'traditional' diets while improving health outcomes.

By focusing on Nadoi Village, this presentation will provide localized, culturally sensitive insights that can inform broader public health interventions and promote sustainable, healthier food practices across Fiji.



MIGRATING TO THE TOWN: CHANGING DIETS AND LIFESTYLES IN LORD HOWE SETTLEMENT, HONIARA, SOLOMON ISLANDS

AXIS 2B **ABSTRACT OF FALAH CONTRIBUTION**

The Solomon Islands, and in particular urban communities such as the Lord Howe Settlement in Honiara, the focus of this presentation, are experiencing significant changes due to migration, urbanization, and environmental challenges. As people move to Honiara, their lifestyles and eating habits are changing. Urban residents are increasingly relying on processed foods, contributing to a rise in non-communicable diseases. Women, in particular, face food security issues, limited land access, and shifting social dynamics, creating a gap between food practices followed in the past in inhabitant's home island of Ontong Java and the realities of city life. Case studies, like those involving Sikaiana migrants, show that while community institutions help preserve social connections, economic and social uncertainties remain. Based on research conducted within the framework of the RERIPA CHANCES-Pacific, this presentation will explore how migration and urbanization are interrelated with lifestyles and diets in

the Lord Howe Settlement. It will examine the shift towards a reliance on processed foods and evaluate this dietary pattern in relation to the Pacific guidelines for a healthy living, along with broader lifestyle shifts, including social and economic changes. A mixed-methods approach will be used, combining qualitative data from interviews and focus groups with quantitative survey data. Participants will include a diverse range of residents to capture different viewpoints. Data will be collected in collaboration with the Solomon Islands National University to ensure cultural relevance. The research seeks to enhance our understanding of how migration and urbanization impact diets and lifestyles in coastal communities. Its findings will provide insights that can support the development of policies and strategies to promote sustainable practices, improve the well-being of urban coastal populations in the Pacific, and strengthen cultural resilience and adaptation.



THE ENVIRONMENTAL CODE OF NEW CALEDONIA'S LOYALTY ISLANDS: AN EXAMPLE OF SUCCESSFUL LEGAL CROSSBREEDING?

AXIS 3B **ABSTRACT OF FALAH CONTRIBUTION**

In New Caledonia, ontological diversity is very much in evidence. This is all the truer in environmental protection law. Recent attempts at ontological crossbreeding, as in the Loyalty Islands' environmental code, create a skilful mix. The terms "environment" and "nature" appear together, and a provincial deliberation of June 29, 2023 confers legal personality on certain natural entities. Nevertheless, there is

resistance to this conceptual and legal blending. The Conseil d'État's opinion of May 31, 2024 is a particularly revealing example. The aim of this contribution is to highlight, in the light of this example, the different ontologies that coexist in New Caledonia, and the articulation of knowledge in legal texts (material point of view) and institutions (organic point of view).

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**STRENGTHENING THE LEGAL RESILIENCE
OF INDIGENOUS KNOWLEDGE IN THE
PACIFIC. A COMPARATIVE STUDY OF
CALEDONIAN AND NIVANUATU STUDENTS.**

AXIS 3B

ABSTRACT OF FALAH CONTRIBUTION

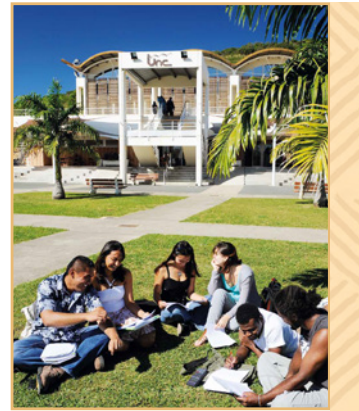
As part of the SPAR-Pacific research project, a survey was carried out among Caledonian and ni-Vanuatu students to assess their perception of the role of law in preserving indigenous knowledge and practices. This study was carried out against a backdrop of resilience in the face of crises, notably the Covid-19 pandemic, which undermined the lifestyles of students who are holders of traditional knowledge, often confined to an urban environment and far removed from their cultural practices. While resilience is generally approached from a social and cultural perspective, it can also be seen as a legal tool, particularly for preserving knowledge threatened by modernization and globalization. In New Caledonia, only 11% of students surveyed claimed to be familiar with the administrative and political organization of the territory, and of these, barely half felt

that the law effectively protected traditional knowledge. Conversely, in Vanuatu, 30% of students claim to be aware of their political-administrative framework, and of these, 80% believe that existing mechanisms are sufficient to ensure this protection. This contrast raises questions about the relationship between law and resilience: why do Caledonian students seem less aware of the legal tools available to protect indigenous knowledge? How can we reinforce their appropriation of the law as a lever of adaptation in the face of the risks of cultural loss? This contribution aims to analyze these differences and highlight the proposals put forward by students to make law a vector of legal resilience in the service of the transmission and preservation of indigenous knowledge in the Pacific.

**FAMILY FARMING,
LIFESTYLE AND HEALTH
IN SMALL ISLANDS,
COUNTRIES AND
TERRITORIES**



PRESENTATION OF THE UNIVERSITY OF NEW CALEDONIA



The University of New Caledonia (UNC)

is an institution of higher education and research established in 1987 which is positioned as a major player in training, research and international outreach. In perpetual evolution, the UNC is a University that works for the benefit of youth and science and aims to contribute to the progress of New Caledonian society. With high-tech infrastructures and equipment adapted to the needs of New Caledonia, the UNC plays its part as a lever of development through training and research as a structuring institution radiating over both Noumea and Kone but also at territorial, regional and international levels. It offers all of its students, teachers and research professors the most favourable conditions for carrying out their projects. It supports its students towards success with modern facilities, innovative pedagogy and a complete range of training courses up to PhD level.

Thanks to its strengths in research and its high-performance equipment, the UNC contributes to the creation and dissemination of knowledge about New Caledonia and Oceania in many fields and in particular Kanak languages and Oceanian civilizations, climate change, legal specificities and institutions, ecosystems, etc.

As a major player in higher education and research, UNC is a tool for development, construction and rebalancing in the service of New Caledonia. Having a special constitutional legitimacy stemming from the Noumea agreement, the University «must meet the training and research needs of New Caledonia» (Article 4.1.1). Thus, it aims to support the country's developments in the field of training (general, professional and continuing), scientific research and also contributes to its regional integration.

The values cultivated within the establishment are reflected in the motto: «Ædificare – Tradere – Diffundere». UNC Generations

With more than 10,000 graduates over the past 30 years, the UNC has set up its network of 'Alumni'. A bridge between businesses, the University and its graduates, this network aims to unite former students of the UNC, offering them many services, tools, conferences and other events.



PRESENTATION OF CRESICA



From the mountain peaks to the deep sea, through the cultural societies that populate it, New Caledonia is an exciting land for research. Traditional knowledge keepers, explorers, and scientists of the modern era have always made it a land of knowledge and science.

Today, the archipelago faces many challenges: climate change, food security, shared governance, preservation of cultural heritage, biodiversity, and natural resources...

Thus, the local scientific community is committed to better organizing itself to understand the underlying dynamics and provide appropriate feedback to public policy, the industry, and citizens.

In this context, **CRESICA**, Consortium for Research, Higher Education and Innovation in New Caledonia, was created in 2014, and the founding members signed a partnership agreement.

CRESICA is a consortium of 9 research and higher education organizations: **BRGM**, **CHT**, **CIRAD**, **CNRS**, **IAC**, **Ifremer**, **IPNC**, **IRD**, and **UNC**. It is a framework for cooperation, sharing, and optimization of resources and equipment.

The activities of **CRESICA** are also part of an ambitious and shared scientific project. It revolves around three themes of interest for the country and the region :

- **Natural capital: biodiversity, mining, and environment**
- **Improvement of human health**
- **Analysis and support of the social and institutional evolution**

And two transversal themes :

- **Insularity and globalization,**
- **Climate change**

A unit to coordinate **CRESICA** projects was established in 2018. It supports researchers in the field and the laboratory and facilitates the implementation of the "Along the River" program. The unit also organizes events to promote networking among researchers and disseminate research results to the public (Science Festival, seminars, etc.).



PRESENTATION OF PACIFIC ISLANDS UNIVERSITIES REGIONAL NETWORK



The Pacific Islands Universities Research Network has identified four main strategic research themes that are in line with the United Nations Sustainable Development Goals (2015-2030) :

PIURN is a consortium of 15 universities from Pacific island countries and territories, established in 2013 to enable closer and more meaningful collaboration between researchers in the consortium, and to collectively enable Pacific universities to become key contributors to finding solutions to the challenges facing the region.

- Food security and nutrition, and health and non-communicable diseases
- Climate change and biodiversity, including land degradation
- Capacity building, data and statistics
- Social development, gender equality and education





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EUROPE AND ASSOCIATED COUNTRIES



INTERNATIONAL ORGANISATION



Pacific
Community
Communauté
du Pacifique

SOUTH PACIFIC



Ministry of Education & Training
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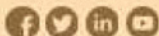
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