

## Programme 28/06

**Venue:** AusAid Lecture Theatre, Main Campus USP

**Date:** 28 June, 2022

**Time:** 11:00am to 4:30pm (Fiji Time)

11:00 – 12:30 pm 20'	FALAH presentation : research project, additional enrichment, deployment, aim of the Fiji workshop.	Prof Jean-Marie Fotsing, Scientific coordinator (UNC), Dr Olivier Galy, Scientific coordinator (UNC)
15'+10'	Presentation of WP2 : "family farming"	Dr Severine Bouard, Team leader of WP2 (IAC)
15'+10'	Presentation of WP3 : "Lifestyle and health"	Dr Olivier Galy, Team leader of WP3 (UNC)
15'	Expectation and layout of the Fiji workshop	Dr Viliamu Iese (USP)
12:30 – 1:15pm	Lunch	
1:30 PM 20'+20'	FALAH scientific activities at USP	Assoc.Prof. Siaka Diarra (USP) Dr Viliamu Iese (USP)
20'+20'	FALAH scientific activities at Pacific Community	Dr Ellen Iramu (SPC) and Dr Atumaira (SPC)
20'	Presentation of administrative, financial, partnership and secondments aspects	Ms Marine Martinez (UNC) Ms Mathilde Souchon (PIURN)
10'+10'	iRecall24 : a digital nutrition app for Pacific Islands: the example of New Caledonia.	Dr Juliana Chen (The University of Sydney)
10'+10'	Presentation of FALAH Team from the Solomon Islands National University	Dr John Fasi (SINU) Dr Hugo Bugoro (SINU)
15'	Discussions & conclusions of the day	Dr Viliamu Iese (USP), Dr Olivier Galy (UNC), Prof Jean-Marie Fotsing (UNC)
4:00-4:30	Afternoon Tea	
5:00	Cocktail and cultural entertainment	Marine Campus Fale



## Programme 29/06

**Venue:** MSP Lecture Theatre, Marine Lower Campus, USP

**Date:** 29 June, 2022

**Time:** 9:00am to 5:00pm (Fiji Time)

9:00 – 9 :10	Presentation of day 2 : study cases, methodological discussions and epistemology for WP2 and WP3	Dr Viliamu Iese (USP)
20'+10'	Presentation of Papua New Guinea teams and upcoming research on small scale agriculture, Lifestyle, and health.	Dr Elisabeth Schuele (DWU) Dr William Pomat (IMR)
10'+10'	Presentation of Vanuatu teams and first results on urban and peri urban agriculture in Port Vila.	Ms Adeline Mweleuel (MOET)
10+10'	Food Security and small holder farming in Pacific Island countries and territories: A Scoping Review	Dr Nidhi Wali (WSU)
10:20 – 10 :50	Morning Tea	
10:50 – 12 :00pm	Case study in Lifou (New Caledonia): discussions on epistemology and transversalities	Dr. Olivier Galy (UNC)
12:00-1pm	Public seminar How to build an international multi-disciplinary research project : FALAH an European Union Research and Innovation Staff Exchange project	Prof Fotsing (UNC) Dr Galy (UNC)
1:00 – 1:45pm	Lunch	
1:45 – 3 :00pm	Part 1: Case study in Fiji and discussions on achievements and opportunities to improve methods and Approaches for WP2 and WP3 (Fiji, Vanuatu, New Caledonia, Solomon Islands, Papua New Guinea)	Dr Viliamu Iese (USP), Prof Jean-Marie Fotsing (UNC), Dr Olivier Galy (UNC)
3:00-3:30	Afternoon Tea	
3:30-5:00	Part 2: Discussions on achievements and opportunities to improve methods and Approaches for WP2 and WP3 (Fiji, Vanuatu, New Caledonia, Solomon Islands, Papua New Guinea)	Dr Viliamu Iese (USP), Prof Jean-Marie Fotsing (UNC), Dr Olivier Galy (UNC)
5:00 – 5:30	Synthesis & discussions	2 USP rapporteurs



## Programme 30/06

**Meeting:** USP Marine Lower Campus.

**Date:** 30 June, 2022

**Time:** 8:00pm (Fiji Time)

8:30am	Field visit – Depart from Marine Campus	FALAH team
8:45am	Field visit 1: SPC Narere Office to visit Ce-PaCT and Food Cube field research	
9:15	Field visit 2: Nausori Market	
9:45	Field visit 3: Moliuva and Vusuya communities	
10:15	Morning tea	
10:45	Field visit 4 : Buretu village	FALAH team
1:30	Lunch	
3:00pm	Return to Suva	
4:00pm	Arrive to Lower campus	
4:15 pm	Debriefing and closing	FALAH team
6:00pm	Closing Dinner	FALAH team
Zoom Link	<a href="https://usp-fj.zoom.us/j/89664807426?pwd=U3hkcWJNQXdrUjFjQlo3N3pNRUxN-QT09">https://usp-fj.zoom.us/j/89664807426?pwd=U3hkcWJNQXdrUjFjQlo3N3pNRUxN-QT09</a>	

Sklodowska-Curie Actions Research and Innovation Staff Exchange (RISE)  
H2020-MSCA-RISE-2019



# Family farming, lifestyle and health in the Pacific

## Fiji scientific event 2022

June 28, 29, 30-2022 – The University of The South Pacific, Suva

Prof Jean-Marie Fotsing - Project Leader, Scientific coordinator

Dr Olivier Galy - Team Leader WP3, Scientific co-coordinator

Marine Martinez – Administrative and financial coordinator



YouTube





# **FALAH presentation :**

## **Research project, Additional enrichment, Deployment and Aim of external common events**

**Prof. Jean-Marie Fotsing**  
Projet Leader - Scientific coordinator

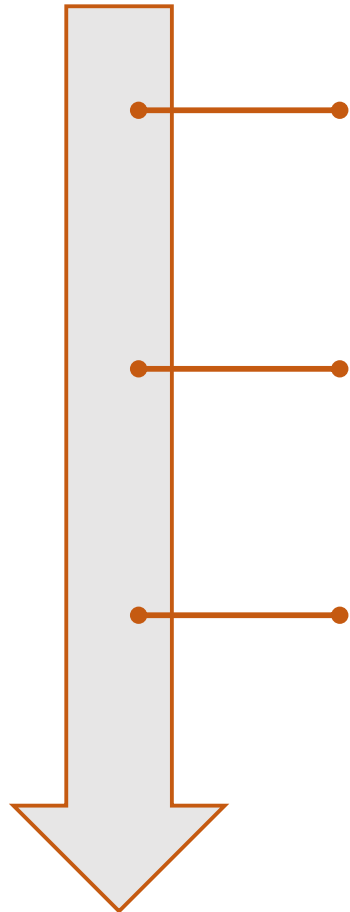
**Dr Olivier Galy**  
Team Leader WP3 - Co-Scientific coordinator





# FALAH Presentation Plan

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**Research project**

**Project implementation**

**Fiji and forthcoming events 2022**



# Research project Positioning



A.M.S.C. Program in Horizon 2020 → **5 actions:**

- Innovative Training Network (**ITN**)
- Individual fellowships (**IF**)
- Cofund
- European Researchers' Night (**NIGHT**)
- **Research and Innovation Staff Exchange (RISE)**

**HORIZON 2020: Objective:** Strengthen the **creative and innovative** potential of **experienced researchers** wishing to diversify their individual skills through **advanced training, international and intersectoral mobility**

**EUROPEAN HORIZON:** EU framework program for **research and innovation 11**





# Research project

## Project timelines: main steps



**1**

**UNC, USYD, IRD, SAMOA**

Mode de vie, activité physique chez les enfants du Pacifique insulaire



2015



2016

**2**

**RISE: « SPEAK »**

**FIDJI, VAN, SALOMON, NC, PF, PNG, UK**

RISE MSCA

South Pacific smallholdEr Agricultural Knowledge

**3**

**UNC, USYD, UT2J**

Cultures alimentaires chez les adolescents calédoniens & leur famille

2017- 19

**4**

**USP, Uni Goroka, Solomon Islands National Uni, UNC, IAC**

Menaces pour la sécurité alimentaire traditionnelle, la qualité de l'alimentation dans les sites ruraux du Pacifique



2017-19

PIURN FIJI

2018-20

PIURN AASIP- I

**5**

**UNC, CITRAV & MEEF Vanuatu, Divine World Uni, Uni of Technology, IRD**

Agriculture familiale, alimentation et santé dans les îles du Pacifique

2019-21

PIURN AASIP -II



**02 Juillet 2019 FALAH**

**6**

**UNC, SALOMON, Wallis & Futuna**

Agriculture familiale, alimentation et santé dans les îles du Pacifique

**7**

**RISE FALAH**

« Family farming, lifestyle and health in the Pacific »



# Research project Partners and Teams

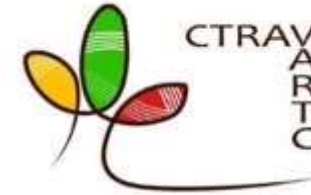
## EUROPE (MS)



## EUROPE (AC)



## PACIFIC ISLANDS (TC)



Ministry of Education & Training  
Government of Vanuatu

## AUSTRALIA (TC)



UNSW  
SYDNEY



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA



THE UNIVERSITY OF  
SYDNEY



WESTERN SYDNEY  
UNIVERSITY





# Research project

## Multidisciplinary and networks

### Multidisciplinary based on:

- Scientific proximity (between disciplines)
- Disciplinary complementarities
- Transversalities and gateways (Teams & WPs)

### Network of networks:

#### N1-CRESICA

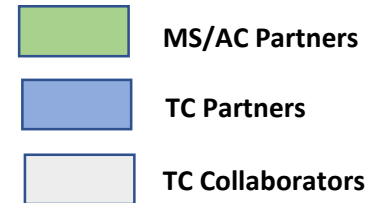
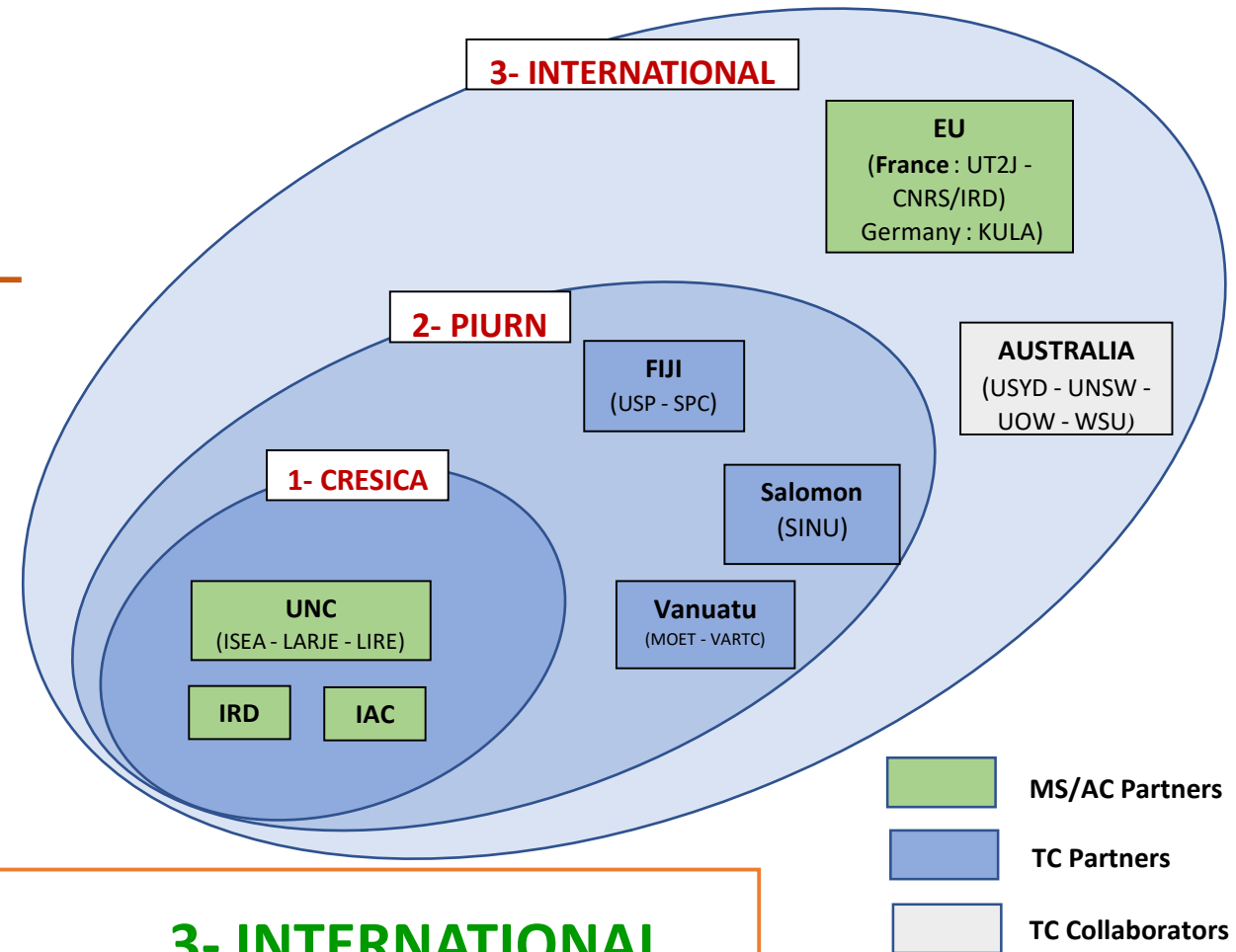
**3 HERI** (UNC, IAC, IRD)  
 \* 5 teams  
 \* 33 members

#### N2-PIURN

**4 PICT** (+ PNG)  
 \* 8 institutions  
 \* 32 members

#### 3- INTERNATIONAL

**2 EU** (F+G) + **AUS+ SPC**  
 \* 8 institutions  
 \* 30 members



**FALAH**  
 14 institutions  
 95 members

**CRESICA:** Caledonia Research, Higher Education and Innovation Consortium

**HERI:** Higher Education and Research Institutions

**PICT:** Pacific Island countries and territories





# Research project

## Scientific context

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### General context

#### PICTs:

- Rapid socio-economic transitions
- Climate change and future consequences
- Sanitary risks

→ HIGH VULNERABILITIES of the SPI

- However, family farming is a practice rooted in the culture of the Pacific populations
- But we find that there are few studies on agriculture, food and their health consequences on the Pacific island scale





# Research project

## Scientific organisation (3 WPs)

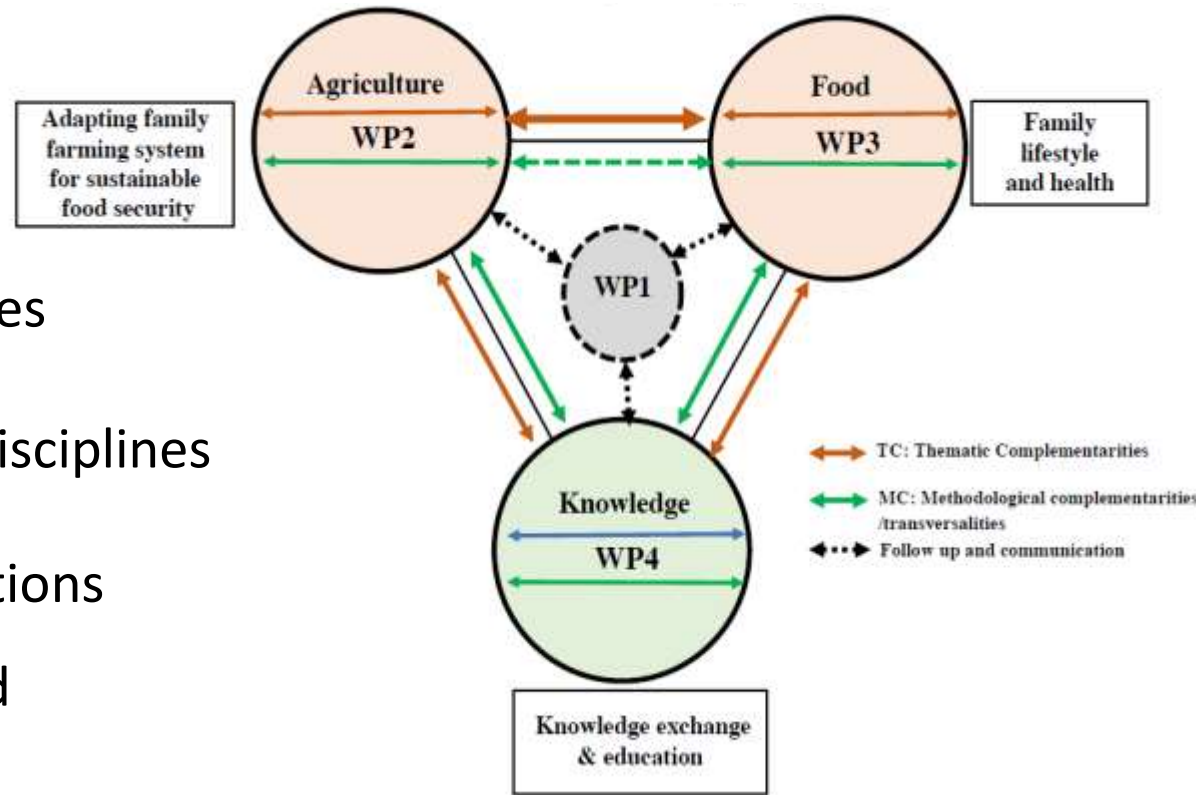
### WP2

From gardens to markets

- Multi-thematic approaches
- Comparative studies
- Involvement of several disciplines

⇒ Methodological innovations

⇒ Sharing Knowledge and experiences



### WP3

From gardens to markets... to kitchens... even to the hospital

**WP2:** Sharing knowledge, experiences and training

**2 Th. WPs + 1 Kn. WP : 9 Research questions**





# Research project

## Fields of application

### 4 PICT

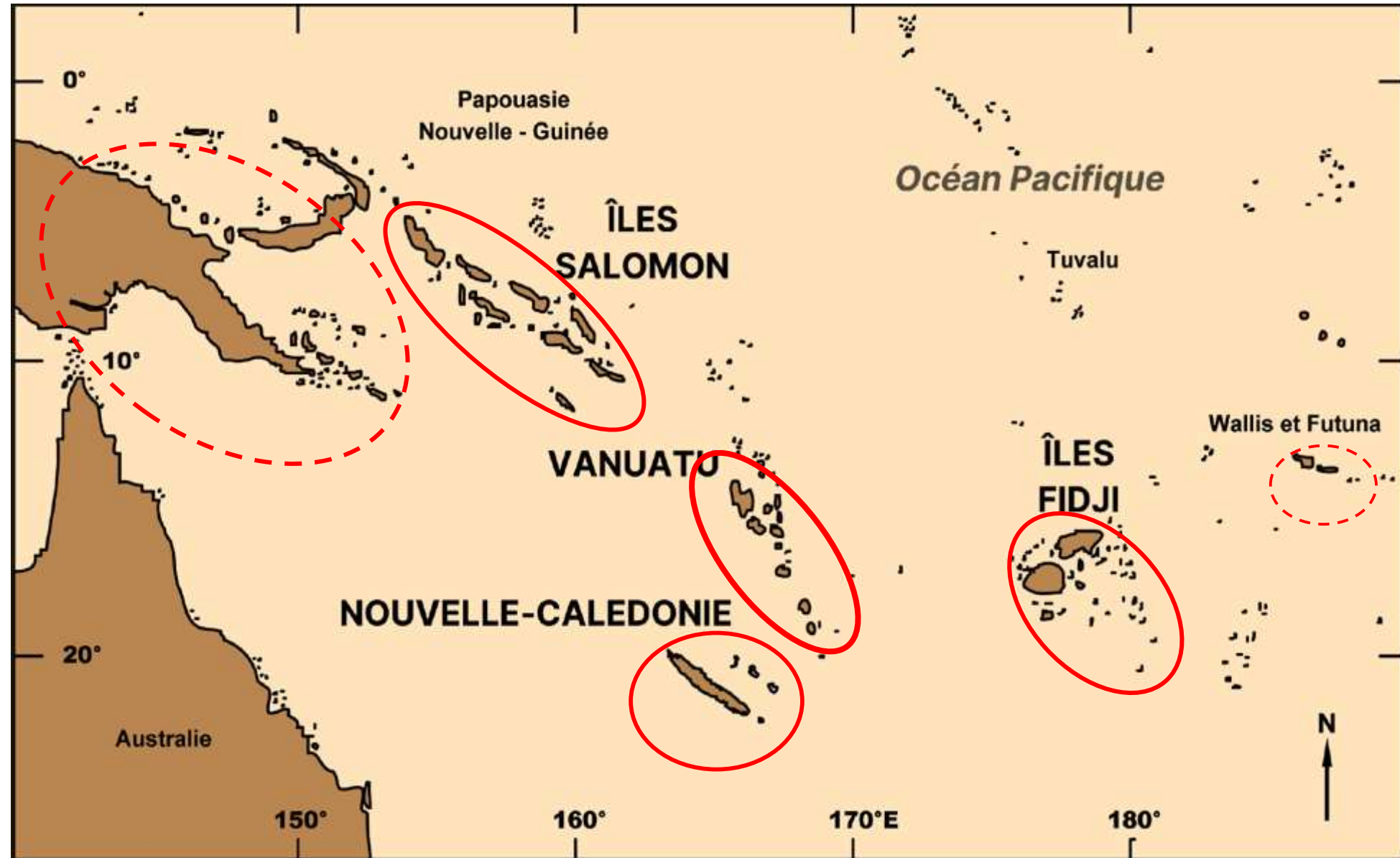
- NC (AC)
- SI (TC)
- Van (TC)
- Fiji (TC)
- PNG (TC)
- WF (TC)

### Spatial comp.

- Rural
- Urban-PU
- Coastal area

### Social comp.

- Children
- Families
- Communities...





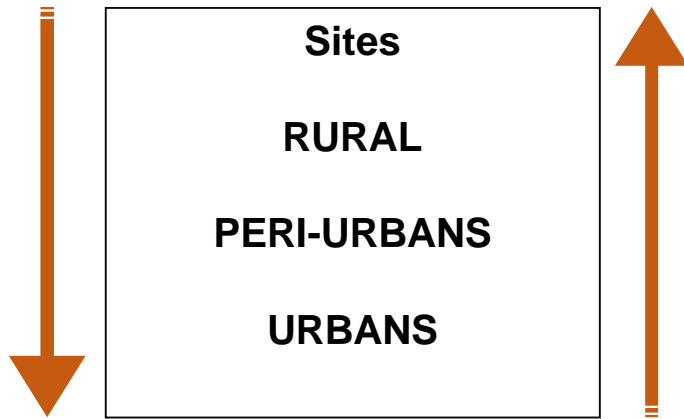


# Research project

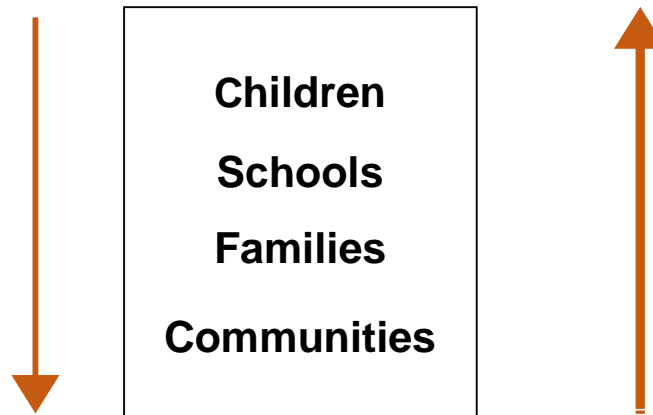
## Sites and methodology



### Spatial components



### Social components



### Temporal components





# Research project

## Evaluation and Results

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### H2020-MSCA-RISE-2019 \_ Projet FALAH N° 873185

Score: **91.8%** (eligibility threshold for funding: 70%)

**308** proposals and **67 laureates** in Humanities and Social Sciences

Budget: **1,269,600 euros** (approx. **2 930 000 \$FJD**)

Number of trips: **284 people per month**

Duration: **48 months (4 years)**

- resumption of the project as of 01/01/2022 (and ends on 31/12/2025)  
shift of secondments, events and deliverables



# Project implementation

## Enrichments & scientific links

### Grant agreement signature

Grant Agreement number: 873185 — FALAH — H2020-MSCA-RISE-2019

 Associated with document Ref: H2020-MGA-MSCA-RISE-MH115-V5-1127/11/2019



EUROPEAN COMMISSION  
Research Executive Agency

Director



#### GRANT AGREEMENT

NUMBER 873185 — FALAH

This **Agreement** ('the Agreement') is **between** the following parties:

**on the one part,**

the **Research Executive Agency (REA)** ('the Agency'), under the powers delegated by the European Commission ('the Commission'),

represented for the purposes of signature of this Agreement by Head of Unit, Research Executive Agency , Excellent Science, Marie Skłodowska-Curie Research and Innovation Staff Exchange, Fredrik OLSSON HECTOR,

**and**

**on the other part,**

1. 'the coordinator':

**UNIVERSITE DE NOUVELLE CALEDONIE (UNC)**, established in 145 AVENUE JAMES COOK NOUVILLE BANIAN, NOUMEA 98800, New Caledonia, represented for the purposes of signing the Agreement by Gaël LAGADEC

and the following other beneficiaries, if they sign their 'Accession Form' (see Annex 3 and Article 56):

2. **INSTITUT AGRONOMIQUE NEO-CALEDONIEN (IAC)**, established in PORT LAGUERRE, PAITA 98890, New Caledonia,





# Project implementation

## Enrichments & scientific links

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The Ethics Consultative Committee of New Caledonia validated FALAH project in November 2020

Avis 2020-11 002 rendu par le Comité Consultatif d'Éthique de Nouvelle-Calédonie pour les Sciences de la Vie et de la Santé (CCE NC SVS) en vue de la mise en place du projet :

FALAH - Promouvoir et redynamiser l'agriculture familiale en Océanie afin d'améliorer l'alimentation des familles

Présenté par Olivier Galy

Lors de l'assemblée plénière du CCE NC SVS du 23 novembre 2020

Le Comité Consultatif d'Éthique de la Nouvelle-Calédonie pour les Sciences de la Vie et de la Santé s'est réuni ce 23 novembre 2020, en formation régulière dans les conditions prévues par l'article 59 de la délibération modifiée 228 du 13 décembre 2006, pour donner son avis sur le projet FALAH dans le cadre de la délibération modifiée 228 du 13-12-2006, art. 52, 2<sup>nd</sup> alinéa, « ce comité a pour mission d'émettre un avis et de rédiger des recommandations sur les questions éthiques soulevées par les nouvelles technologies, la recherche et les progrès de la connaissance dans les domaines de la biologie, de la médecine et de la santé », et, art. 56 « le comité.....peut être saisi par....un établissement public ou privé, une fondation ou une association. Établissements, fondations ou associations doivent avoir pour objet principal la recherche, le développement technologique médical ou le progrès de la connaissance dans les domaines de la biologie, de la médecine et de la santé.... ».

### Projet

Par correspondance en date du 21 octobre 2020, Olivier Galy confirme saisir le CCE NC SVS du projet suivant : FALAH - Promouvoir et redynamiser l'agriculture familiale en Océanie afin d'améliorer l'alimentation des familles.

Le projet FALAH, qui sera réalisé par l'Université de Nouvelle-Calédonie, a pour ambition de trouver des solutions innovantes pour l'alimentation.

### Décision

Le projet est conforme aux critères éthiques et les réserves émises en séance plénière ont fait l'objet d'un correctif qui donne satisfaction. Il n'y a donc pas d'opposition à sa validation par le CCE NC SVS.

L'avis donné au projet est favorable.

Le présent avis, communiqué à Olivier Galy, et au Gouvernement de la Nouvelle-Calédonie sera par ailleurs expressément mentionné au Journal Officiel de la Nouvelle-Calédonie, et intégralement cité sur le site internet de la DASS NC. Il est toutefois rappelé que les avis fournis par notre Comité ne sont pas ceux d'un Comité de Protection des Personnes (CPP) dont le CCE NC SVS n'a pas les attributions.

Pour le Comité Consultatif d'Éthique de Nouvelle-Calédonie pour les Sciences de la Vie et de la Santé,

Nouméa, le 17 février 2021

Le Président,

Docteur Frédéric TOUZAIN



# Project implementation

## Enrichments & scientific links

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### Scientific links (Gateways/Bridges)

**2020 Nutrition, health and food security in French Pacific communities.**  
*Raubenheimer D (USYD), Galy O (UNC), Bouard S (IAC), Caillaud C (USYD), Fasi J (SINU), Iese V (USP), Metsan P (NUV). 24 000 €*

**2020 Small scale agriculture, Lifestyle, and health in Papua New Guinea Families.**  
*P Michon (PNG: Divine World University, Institute of Medical Research, University of Goroka), partners: Fiji and NC ; 66 000 €*

**2022 Understanding lifestyle behaviours in the Pacific using human-centred artificial intelligence from activity sensors and nutrition digital tools.**  
*K Yacef (USYD), C Caillaud (USYD), O Galy (UNC), P Michon (NUV); 60 000 €*

2022- 23: -





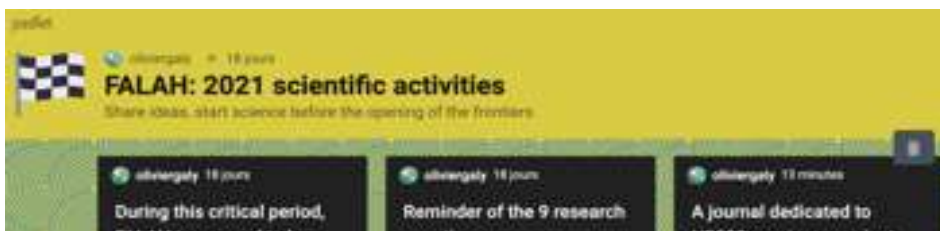
# Project implementation

## Enrichments & scientific links

### Scientific links

July 2021

<https://padlet.com/oliviergaly/69693th3p3nl7nif>



Then, each initiative permitted to:

- identify gaps in the literature
- prepare fields of research that will be explored during secondements
- feed future discussions during seminars workshops planned

N	Initiative Lead Name(s) & Institution(s)	Initiative Title	Initiative Type
1	Olivier Galy and Jean Marie Fotsing	FALAH webinar series presentation by coordination team	Introduction to FALAH webinar series
2	Séverine Blaise	Place of family farming in international and regional aid policies towards the SIEs of Oceania	Research article
3	Antoine N'Yeurt/Lau Viliamu Iese	Valorization of pest marine seaweeds and invertebrates for the production of agri-fertilisers	Research articles, Field Manuals for communities
4	Séverine Bouard	Family farming: from the diversity of definitions and theoretical framework to emerging challenges.	Research articles, Concept note
5	Pauline Welby	Brainstorming session: Talking about and transmitting family farming and eating practices	Litterature review
6	Samsul Huda	towards Enhancing Food Security in the Pacific Island Countries	Litterature review
7	Nichole Georgous and Charles Hawksley	Food security and small holder farming in pacific island countries and territories	



# Project implimentation

## Sc. In-webinar – Agenda & Val.

<https://open-research-europe.ec.europa.eu/about/>

Rules of publication for H2020 programs:

**Publish in open access journals**

**Acknowledgements to EU**

Proposal from EU :  
**Open Research Europe Journal**  
Dedicated to H2020 grantees



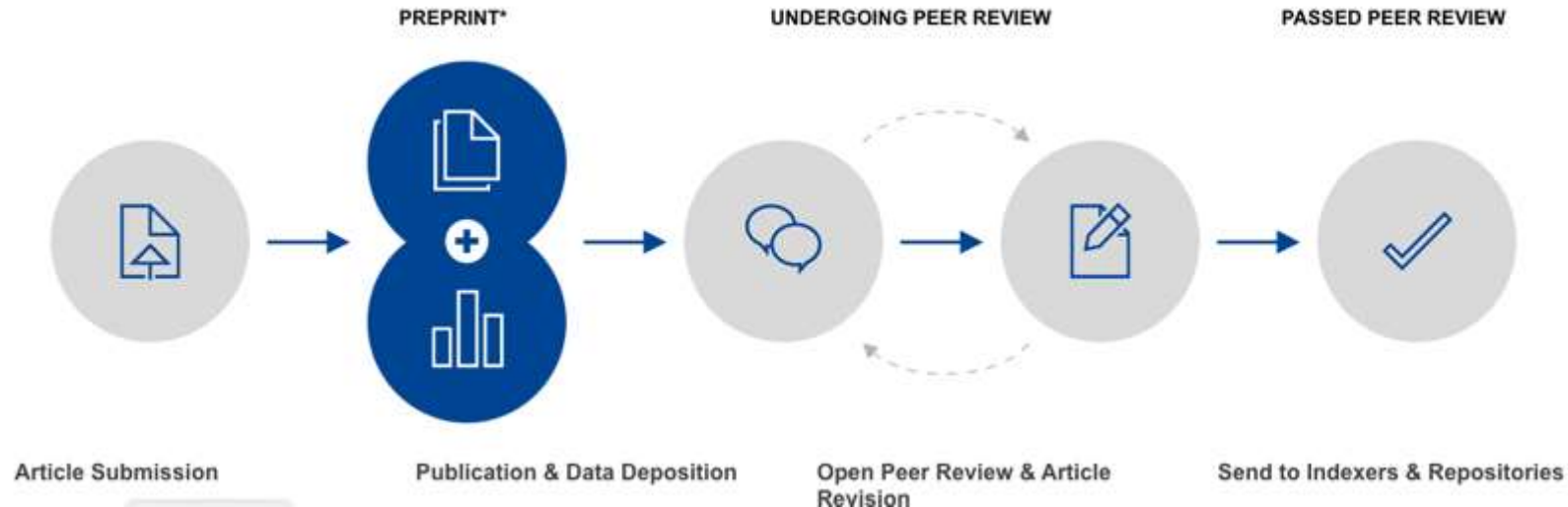
Home > How it Works

### How it Works

#### Rapid & Transparent Publishing

Open Research Europe is an open access publishing platform for the publication of research stemming from Horizon 2020 funding across all subject areas. The platform makes it easy for Horizon 2020 beneficiaries to comply with the open access terms of their funding and offers researchers a publishing venue to share their results and insights rapidly and facilitate open, constructive research discussion.

#### Our Publishing Process







# Project implementation

## Common tools & training

### COMMON TOOLS WITH THE SAME APPROACH ON FALAH FIELD

#### Tablets

- Digital questionnaires / survey
- ✓ Descriptive & Health outcome variables
- ✓ Family farming and livelihoods
- ✓ Physical activity
- ✓ Etc.



#### RESEARCHER INTERFACE

1. Research Database Access (Log in)
2. eCohorte Database
3. Participant inclusion (UUID)
4. Participant recorded
5. Participant consent
6. Participant follow-up
7. Online dashboard
8. Attachment file
9. Online data export and analysis



#### iRecall 24 App



EXODATA



# Project implementation

## Common tools & training

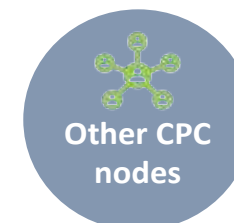
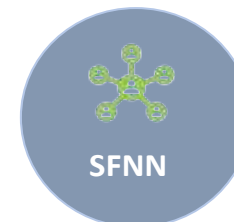
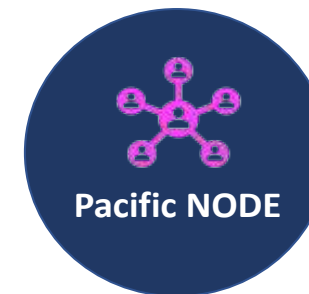


**“Children and adolescents’ health and wellness in the Pacific region”  
node’s at the heart of WP3 for training and capacity building**

**Prof. Corinne Caillaud**, University of Sydney  
**Dr. Olivier Galy**, University of New Caledonia



**48 collaborators from NC, AUS, NZ,  
Fiji, VAN, SI and PNG**







# Project implementation

## Common tools & training

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### Training and capacity building

12 Phd students involved:

UNC: 3 PhD (WP3 and WP4)

NUV: 4 PhD (WP2 and WP3)

USP: 5 PhD (WP2 and WP3)

15 Internships and fellowship:

USP: n=9

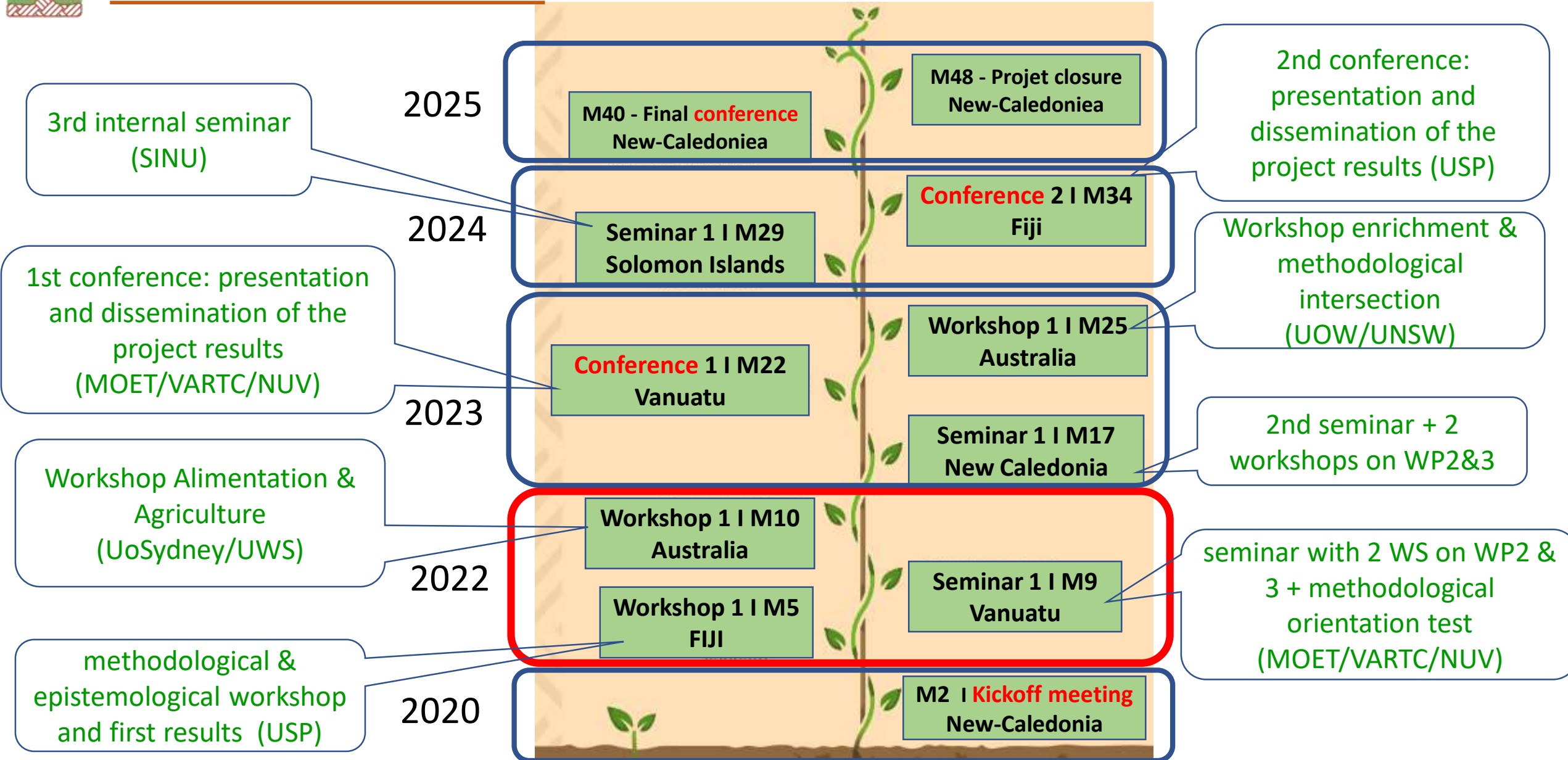
UNC: n= 6

Research training sessions



# Project implimentation

## Major scientific events



# **FALAH presentation :**

## **Research project, Additional enrichment, Deployment and Aim of external common events**

**Prof. Jean-Marie Fotsing**  
Projet Leader - Scientific coordinator

**Dr Olivier Galy**  
Team Leader WP3 - Co-Scientific coordinator

*This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 873185*



*Disclaimer: the views expressed in this presentation are purely those of the author and may not in any circumstances be regarded as stating an official position of the Research Executive Agency*

# Steps towards Divine Word University (DWU) as a Healthy University

Elisabeth Schuele, DrPH  
Faculty of Medicine and Health Science  
Divine Word University, Madang, PNG

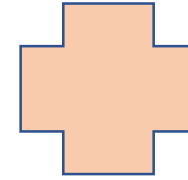




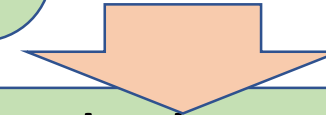
# Title: Steps towards DWU as a Healthy University

## Sub Title: Healthy University concept

**Healthy settings - Ottawa Charter:**  
Health is created and lived by people in their settings of their everyday life; where they work, play and love (Kickbusch, 1997)



**Salutogenesis:**  
Strength oriented  
(Lindstream & Erikson, 2005)



### Healthy settings - whole university approach:

- **Create** - healthy, supportive and sustainable learning, working, living environments
- **Increase** - University's core business: learning research and knowledge exchange
- **Connect** - contribute to health in wider community



Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

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## Operationalizing the healthy university approach

- Epistemological foundation of ecological approach: critical theory (Crotty, 1998)
  - ➔ Analysis of power relations in participatory action – reflection process, promotes skills, values, local knowledge
- Different from conventional approach on lifestyle, behavioral approaches
- **System change**: working across disciplines, part of university, with communities
- **Ecological approach**: place, participation and culture





Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

## Three phases (adopted from WHO, 1995)

Phase 1: informal phase of project preparation and planning	Phase 2: Getting organized	Phase 3: Taking action
Building of a support group DWU management support	Steering committee	Increase health awareness
Understand ideas	Plan strategy	Advocate strategic planning
Know the university Analyze environment	Build capacity	Mobilize intersectoral action
Develop a dream	Establish accountability	Encourage community participation
Prepare project proposal		Promote innovation
Get it approved		Secure healthy public policies



Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

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## Tentative proof of concept: visioning workshop staff

November 2021: 18 academic staff of Faculty of Medicine and Health Sciences:

Trans-sect walk: environmental health, nutrition and physical activity.

Took pictures and presented:

- In 2040, DWU received a WHO award
  - In relation to environmental health this has happened
  - In relation to food and nutrition this has happened
  - In relation to physical activity this has happened



Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

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## Tentative proof of concept: visioning workshop staff

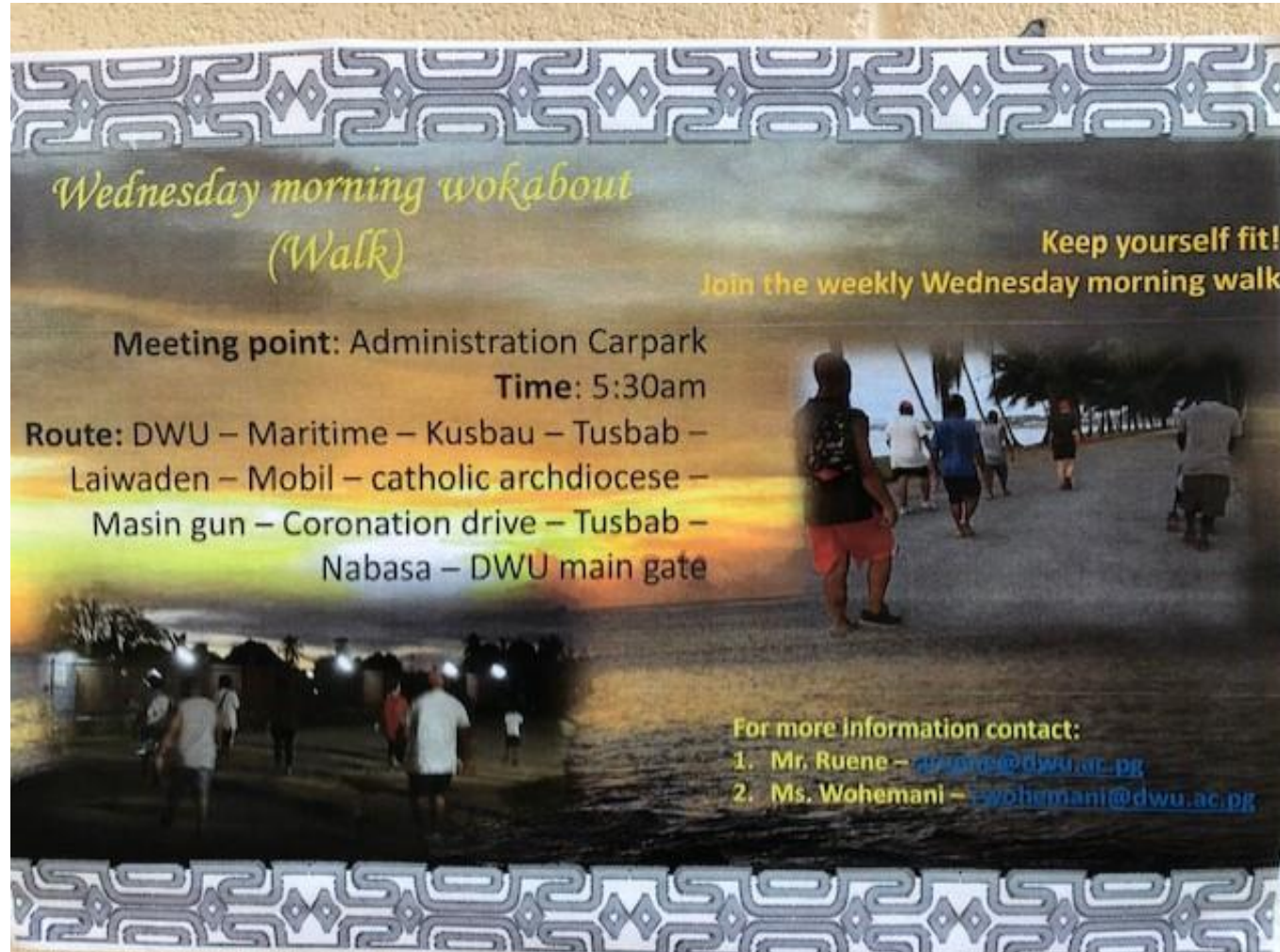
- Presentation of vision in present tense
- Work backwards from the vision:
  - articulate positive strategies to move from the current to the next state



Title: Steps towards DWU as a Healthy University  
Sub Title: Healthy University concept

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## Tentative proof of concept: Morning 'wokabout'



*Wednesday morning wokabout*  
*(Walk)*

**Keep yourself fit!**  
**Join the weekly Wednesday morning walk**

**Meeting point:** Administration Carpark  
**Time:** 5:30am

**Route:** DWU – Maritime – Kusbau – Tusbab –  
Laiwaden – Mobil – catholic archdiocese –  
Masin gun – Coronation drive – Tusbab –  
Nabasa – DWU main gate

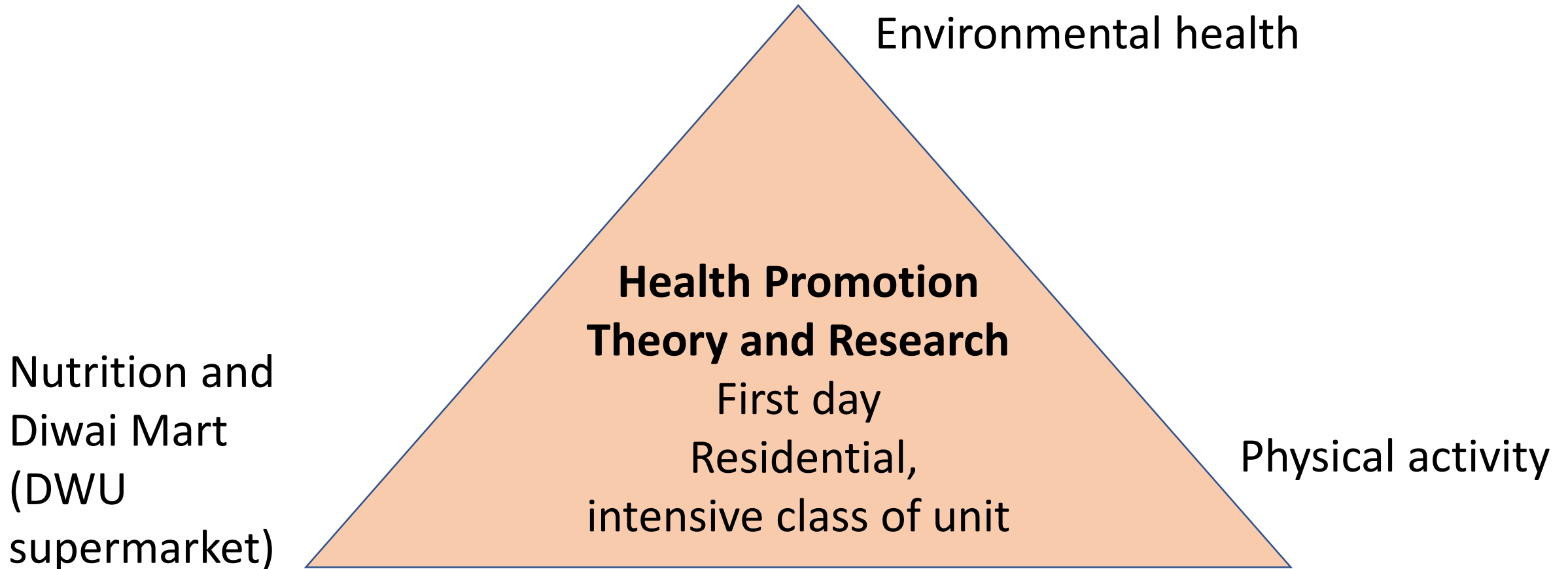
**For more information contact:**  
1. Mr. Ruene – [aruene@dwu.ac.pg](mailto:aruene@dwu.ac.pg)  
2. Ms. Wohemani – [wohemani@dwu.ac.pg](mailto:wohemani@dwu.ac.pg)



Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

## Tentative proof of concept: MPH students







Title: Steps towards DWU as a Healthy University  
Sub Title: Healthy University concept

## Tentative proof of concept: Environmental health







Title: Steps towards DWU as a Healthy University  
Sub Title: Healthy University concept

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# Tentative proof of concept: Nutrition and Diwai Mart







Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

## Tentative proof of concept: Physical activity





Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

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## Tentative proof of concept: Visions for 2017

‘DWU Management and staff and other partners/sectors work together to improve the sanitary conditions.’

‘The Diwai Mart is a health promoting supermarket, providing cost-effective, environmental-friendly and healthy choices of goods and services to the communities.’

‘DWU students, staff, family members and the neighbouring communities living a health and physically active life with equal access to affordable, appropriate facilities, equipment and sustainable wellness and fitness programmes.’



Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

---

## Tentative proof of concept: Reflections

### Quality of education:

- Experiential learning using the healthy university approach

### Possibilities of healthy university:

- Living laboratory for relatively low cost research with strong community benefit
- DWU could help promote health and wellbeing and sustainability of the wider community (Cawood et al., 2010).



Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

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## What next? Some question to resolve

Health promotion has always been influenced by **biomedical and behavioural understandings of health and illness**:

- Expert position when dealing with illnesses and behaviours of individuals and groups who are either sick or at risk
- The **settings approach** is **conceptually different**. Focuses on the daily conditions of living as principal determinants of behaviour and risk.
- Very difficult for people trained individual and deficit approaches to become comfortable in this new paradigm.
- Settings approaches more difficult to explain in day-to-day and practical terms





Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

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## What next? Some question to resolve

Many health promotion theories and strategies use *power over* moving evidence, education and behaviour change.

Settings approach emphasises community participation, local cultural knowledge and lived experience using *power with* and to conduct research and craft proposals for change.



Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

---

## What next? Some question to resolve

Healthy university approach requires **new ways of working**.

Universities typically organised into separate professional and academic units, often with very different cultures and approaches to knowledge. Tried to work across sectors and silos.

The evidence for long term effectiveness on intersectoral action is patchy at best (Laris & MacDougall, 2016).

Need deep reflection about new ways of working across the university and with surrounding communities.





Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

---

## What next?

Healthy university is much more than a technical process using a checklist

Will start with projects with a good chance of small scale success, and which bring together a range of people across the university

Develop governance structures that ensure effective implementation of this new concept.



Title: Steps towards DWU as a Healthy University  
Sub Title: Healthy University concept

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**Thank you very much!**



Title: Steps towards DWU as a Healthy University

Sub Title: Healthy University concept

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## Presentation of FALAH WP3 "Family lifestyle and health"

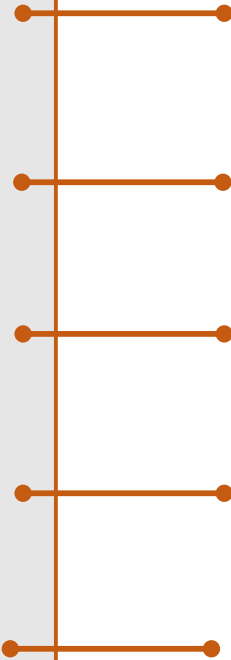
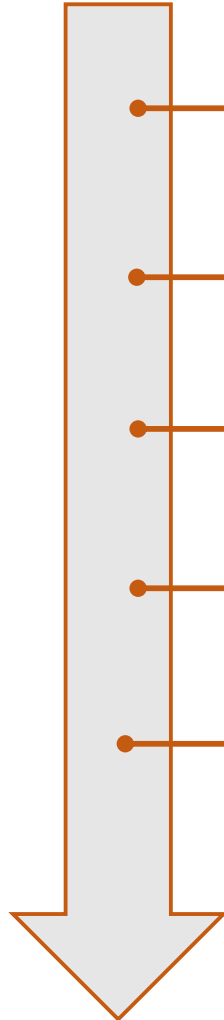
Dr Olivier Galy  
Scientific co-coordinator  
Team leader WP3 (UNC)





# Summary

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**WP 3 and research questions**

**What is lifestyle?**

**Links with health outcomes**

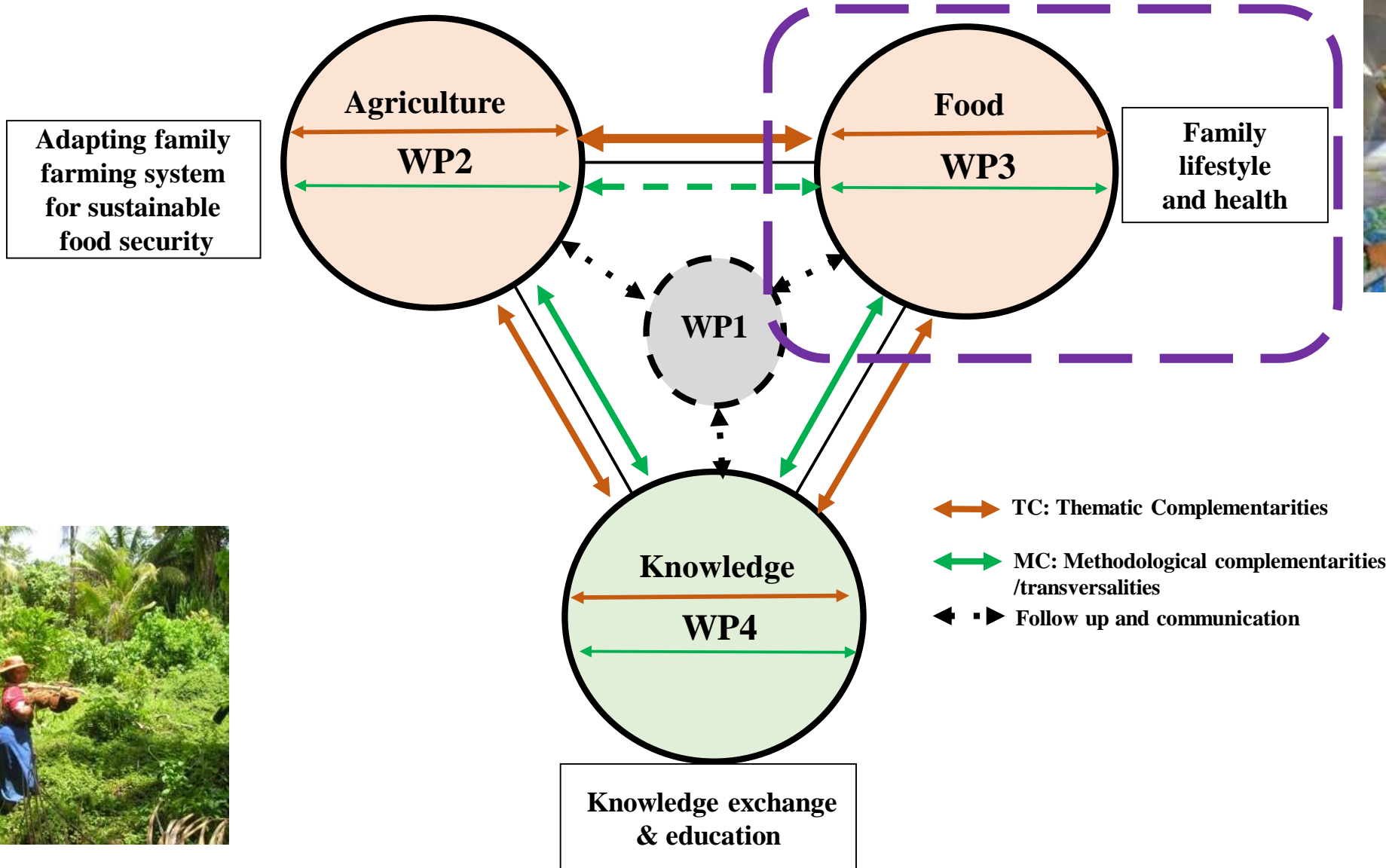
**Tools, methods and metrics**

**Keywords expertise for the WP3**





# WP 3 and research questions





## WP 3 and research questions

WP2

- 2.1 Gather and summarize knowledge on cropping practices, consumption, innovation and the dynamics of family farming
- 2.2 Improve understanding of how family farming functions through ecological, economic, sociological and spatial dimensions and how it adapts to the environment

WP3

- 3.1 Examine the effects of family farming on lifestyle and its impact on the health and well-being**
- 3.2 Explore diet and physical activity in families practicing family farming**
- 3.3 Analyze inter-generational benefit on family farming lifestyle**

WP4

- 4.1 Compare traditional family farming practices, its adaptation to the environment and identify best practices to disseminate
- 4.2 Examine the role of school in promoting food education, physical activity, and changing dietary habits
- 4.3 Share new knowledge to develop sustainable intervention strategies that can help people from other regions
- 4.4 Accumulate, cross and share traditional and scientific knowledge on small-scale farming and eating habits to establish production and consumption strategies adapted to the socio-cultural context.



# What is lifestyle?

## Epistemology

---

WP3

Lifestyle and health

Lifestyle of a person can be understood as the combination of daily physical activity, diet and sleep behaviors that are influenced by social, spatial and temporal components in which the person lives



# What is lifestyle? Components

---

## Social components

Children  
School  
Families/Households  
Communities  
Public places



## Spatial components

Rural  
Peri Urban Areas  
Urban

## Temporal components

Seasonal aspects  
Inter generational  
Semi longitudinal



# What is lifestyle?

## The structure

---

WP3

Examine and explore the **diet** and the place of family farming in diet across generations



Analyze **physical activity and sleep** in families and the impact of family farming in the daily energy expenditure across generations

Improve **health** from the youngest to the oldest

Three Pillars:  
Diet  
Food system  
Food security





# What is lifestyle?

## Diet, food system and food security

---

**Diets** comprise the individual foods that a person consumes and dietary patterns are the quantities, proportions, and combinations of different foods and beverages in diets and the frequency of how they are habitually consumed

(Hu, 2002)



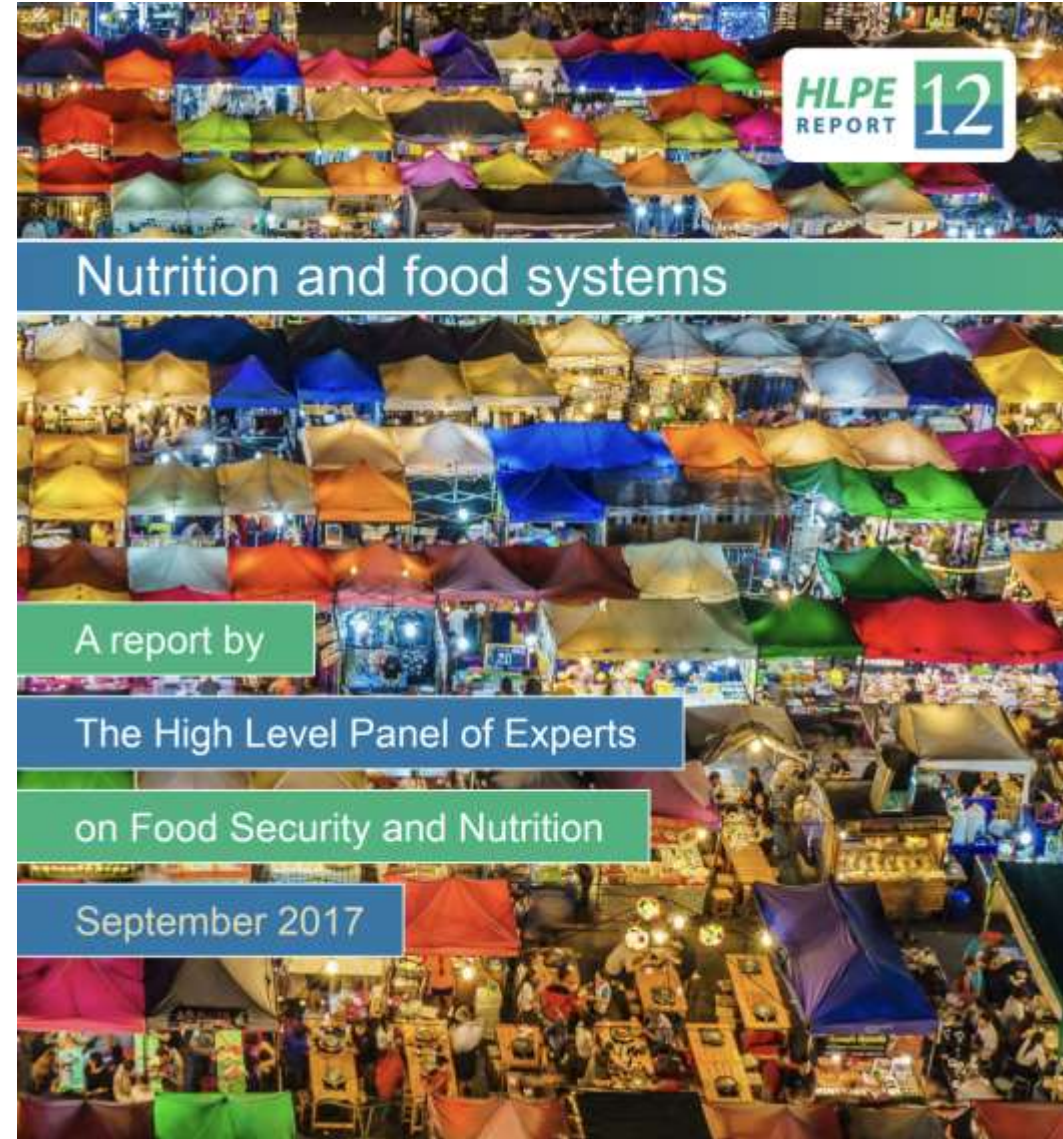


# What is lifestyle?

## Diet, food system and food security

---

“A **food system** gathers all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the output of these activities, including socio-economic and environmental outcomes”  
(HLPE, 2014)



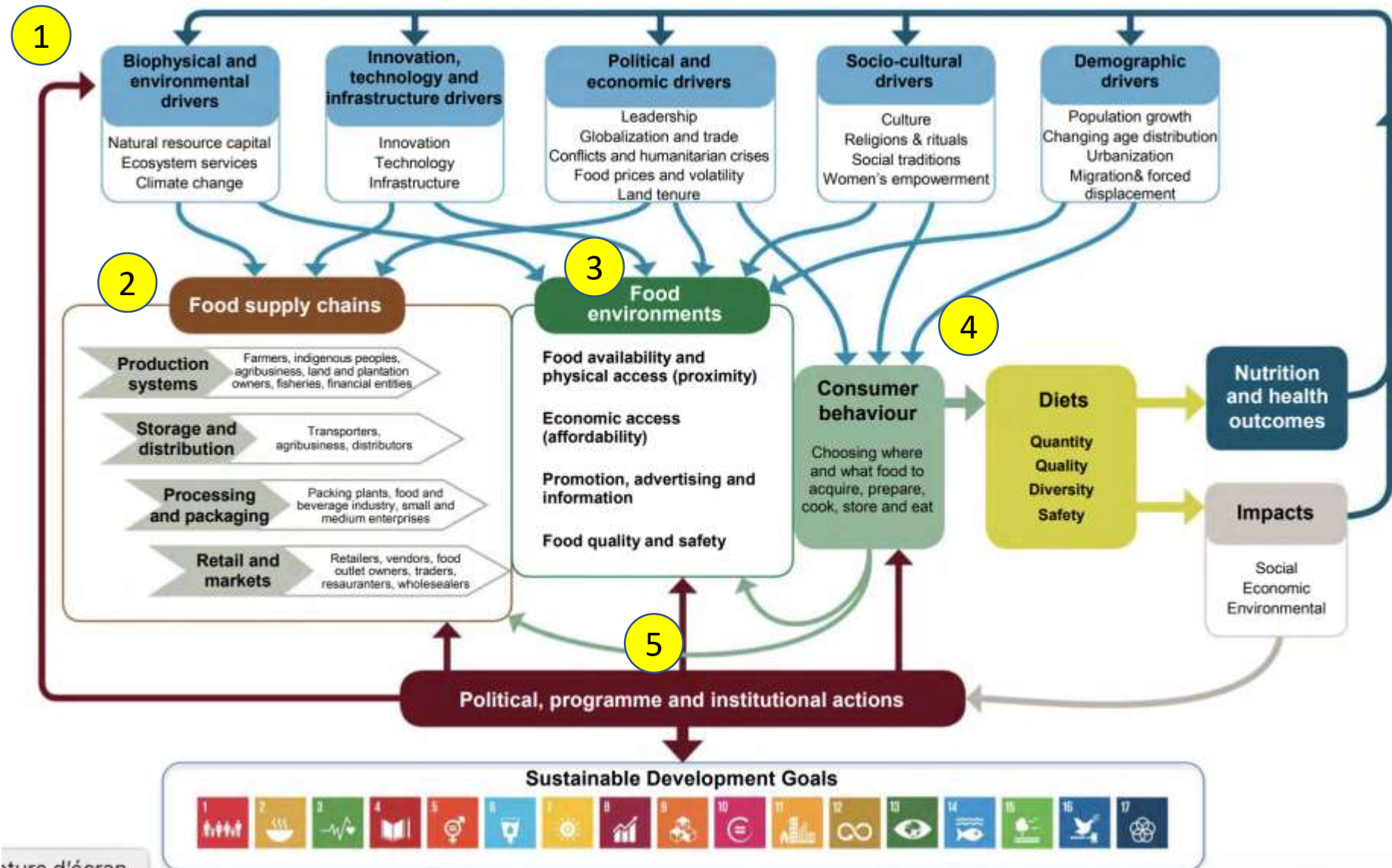




# What is lifestyle?

## Diet, food system and food security

Figure 1 Conceptual framework of food systems for diets and nutrition

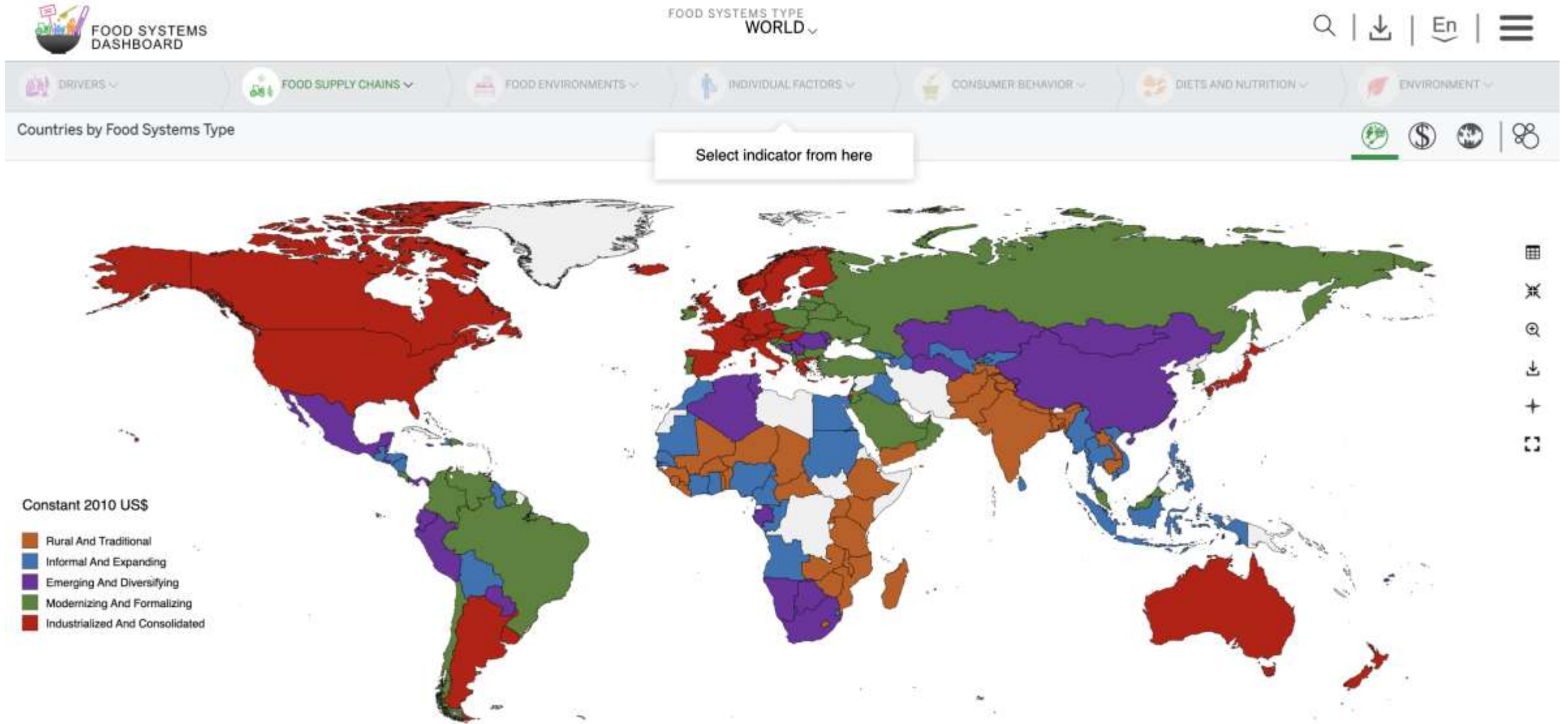




# What is lifestyle?

## Diet, food system and food security

<https://foodsystemsdashboard.org/>







# What is lifestyle?

## Diet, food system and food security

---

« **Food security** exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.

Household food security is the application of this concept to the family level, with individuals within households as the focus of concern. »

FAO (2001)



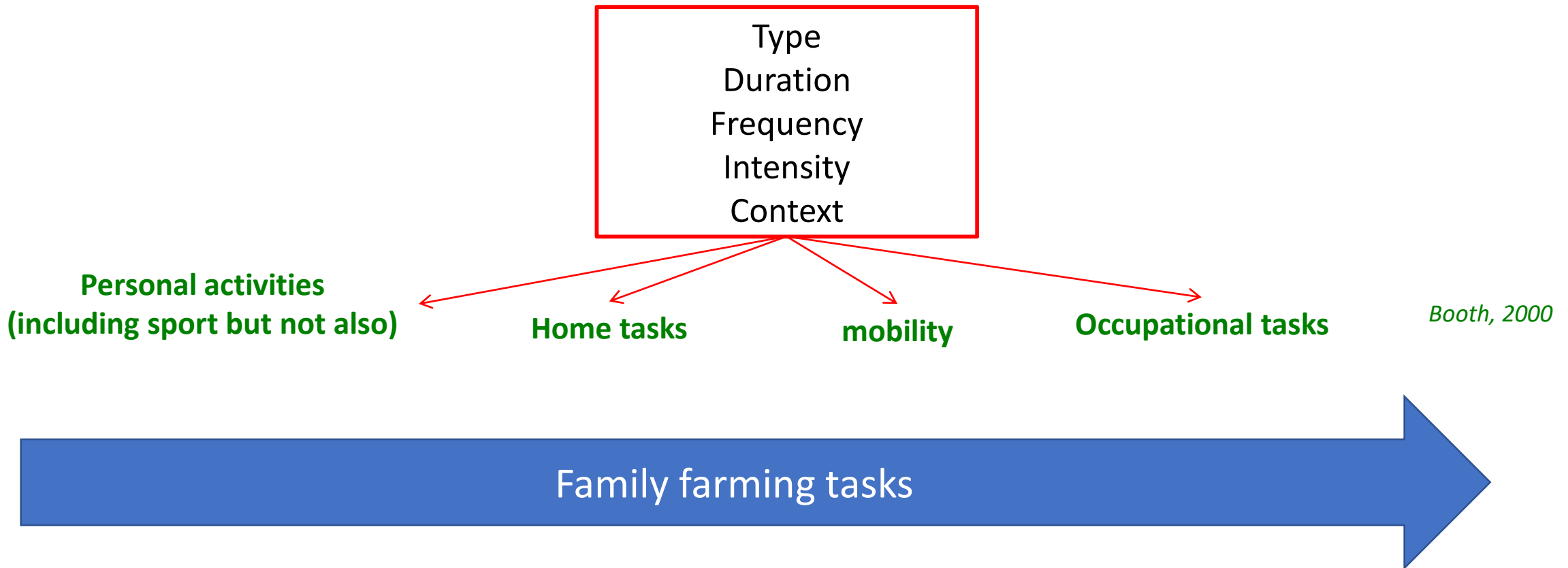




# What is lifestyle?

## Physical activity

WHO defines **physical activity** as any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activity refers to all movement including during leisure time, for transport to get to and from places, or as part of a person's work. Both moderate- and vigorous-intensity physical activity improve health.





## Links with health

# Health concept and consequences of unhealthy lifestyle

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WHO define **Health** as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity

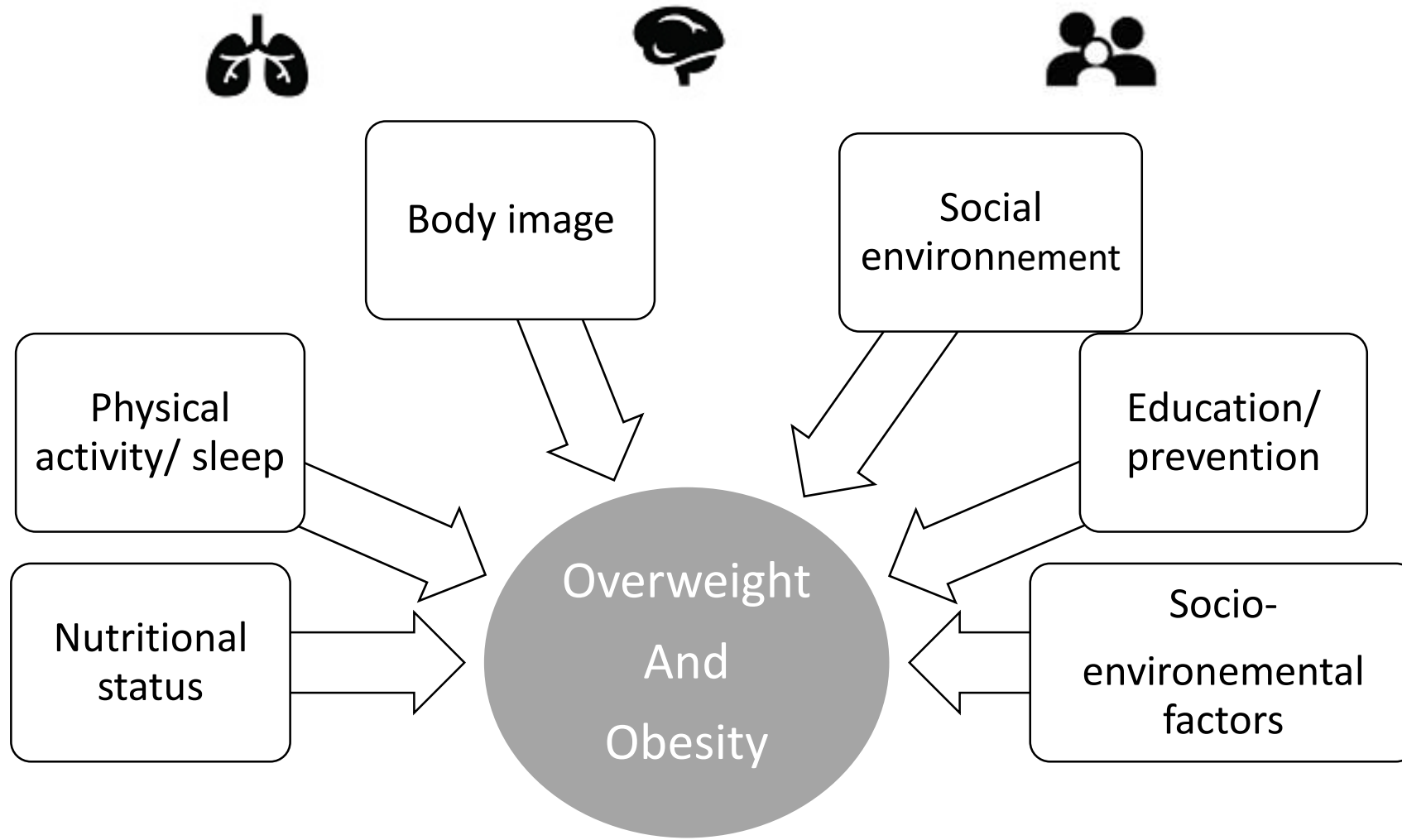




# Links with health

## Health concept and consequences of unhealthy lifestyle

Overweight and obesity are multifactorial ... and related to « lifestyle »





## Links with health outcomes

# Health concept and consequences of unhealthy lifestyle

Simple **health variables** are useful and necessary to appreciate the degree of risks factors (NCDs) and well being of family farmers in the Pacific region

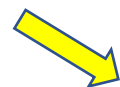




# Tools, methods & metrics For WP2 & WP3



## The challenge of creating a database considering the diversity of dimensions, scales & variables



**Each participant is allocated an ID number - Data in the platform are de identified**

Theme	Level of observation	Variables	Tools	Methods	Units	Time of observation
Family farming and livelihoods	Members of the household	Farming-related activities of each member	Questionnaire/ interview	mixed	N/A	1- Data collected at home in the family; 2- time scale: one day per year
	Household	Land use/cultivated area	Questionnaire	Quantitative	sq meters or acre	
		Agricultural equipment, fishing gear	Questionnaire	Quantitative	local currency & USD	
		Crop, Livestock production, fisheries, hunting	Questionnaire	Quantitative	kg	
		Destination (auto-consumption, gift, sell)	Questionnaire	Quantitative	local currency & USD, kg	
		Crop production, livestock, hunting and fishing costs	Questionnaire	Quantitative	local currency & USD, kg	
		Monetary incomes	Questionnaire	Quantitative	local currency & USD	
Nutrition	Members of the household	Diet & nutrition	24hr dietary intake survey (Digital)	Mixed	Categories, % of diet, mg, g, calories	1- Data collected at home in the family ; 2- time scale is of one day (can be repeated over the year)
		Diet & nutrition	Food Frequency Questionnaire	quantitative	portions, unit/week	
		Assessment of processed food consumed	NOVA classification	Mixed	% in each NOVA category	
	Household	Number and time of meals	Questionnaire	Quantitatif	number of occurrence	
	Community	Food environment (shops selling food)	Questionnaire/existing database	Quantitatif	NOVA classification for food available in shops	
Physical activity	Members of the household	Physical activity (Type of activities, mode of transportation etc...) and sleep	Questionnaires, Wrist Accelerometry, heart rate sensors and GPS	Mixed	Nature of activities, duration (min), frequency, time (min/day), Heart rate variability (day), Distance (m or km/day) and area of daily activities (m2/day)", sleep duration (hr) and quality	1- Data collected at community level, 2- Time scale if one year"
	Household	Physical activity equipment	Questionnaire / interview	Qualitative	Number and nature of equipment	
	Community	Land use	Questionnaire / interview	Mixed	Equipment / natural and built environment with regards to physical activity	
Descriptive variables & Health outcome variables	Members of the household	Descriptive variables: Age, gender, education, occupation	Questionnaire/ interview	mixed	year, N/A	1- Data collected at home in the family 2-time scale: day of measure
		Health questionnaire	Questionnaire	Qualitative	N/A	
		Body composition	Bioimpedancemetry/scale	Quantitative	Kg, Body Fat %, Total Body Water %, Muscle Mass, Physique Rating, Bone Mineral Mass, Basal Metabolic Rate, Metabolic Age, Body Mass Index, Visceral Fat	
		Body height	Height gauge/ruler	Quantitative	cm	
		Well being	Well being index	Quantitative	index	
		Waist	Measuring tape	Quantitative	cm	





# Tools, methods and metrics

## Tools and Data management

### Tablets

Digital questionnaires / survey

- ✓ Descriptive & Health outcome variables
- ✓ Family farming and livelihoods
- ✓ Physical activity
- ✓ Etc.

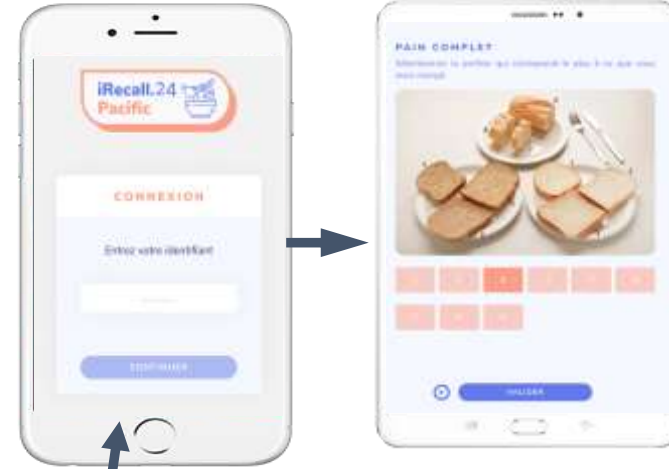


### RESEARCHER INTERFACE

1. Research Database Access (Log in)
2. eCohorte Database
3. Participant inclusion (UUID)
4. Participant recorded
5. Participant consent
6. Participant follow-up
7. Online dashboard
8. Attachment file
9. Online data export and analysis



### iRecall 24 App



EXODATA





# Tools, methods and metrics For Physical activity

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Questionnaires (subjective)



Accelerometry (objective)

GENEActiv

HOME PRODUCTS USING GENEActiv RESOURCES & SUPPORT

GENEActiv helps you measure physical behaviour. **Accurately.**

- scientifically validated accelerometer
- designed for free-living & sports research & clinical trials
- raw data output opens up endless research applications

 View spec & order

Leading the way in wrist-worn raw data actigraphy since 2008

GPS (objective)



Antony N-yakabong, an enumerator from the Ghana study team, demonstrates during a training session how participants should wear the accelerometer.





# Tools, methods and metrics

## Physical activity in FALAH

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# Keywords expertises for the WP3

## our collaborators are...

*Vector Borne Diseases, malaria, climate and environment variabilities, mosquito bionomics, malaria elimination*

*Nutritionist, dietary pattern*

*urban and peri-urban agriculture in Vanuatu, Food supplies, markets, Port Vila and Luganville*

*Sport- Exercise -Physical activity- health*

*Nutritional ecology*

*Nutrition – ecology-metabolism - aging*

*Nutrition - dietetics*

*Artificial Intelligence in Education, human-centered data mining (for health and education)*

*Diet, immunity, gut microbiota and non communicable diseases*

*Immunology- inflammation- endocrinology & metabolism- exercise physiology - child health*

*Epigenetics- Metabolism- Reproduction- Exercise Skeletal Muscle*

*Sport and exercise medicine paediatrics*

*NCD – Childhood obesity – health promotion – social determinants – environmental determinants – Pacific region*

*food and nutrition security vulnerability assessment and adaptation approaches*

*Australian Aid to Pacific Islands Development Studies  
Food Security Police-building Pacific Islands Politics*

*Natural product, food and water microbiology, natural products*

*Lifecycle nutrition, community nutrition, dietary intake and analysis,*

*Food preservation methods for nutritionally quality of food. Implications for food and nutritional security, community food production and health*

*Sociology of food, sociology of health, sociology of development, food cultures, food heritage, food barometer*

*food practices and representations, cultural dimensions of food production*

*Risk analysis, consumer behaviour*

*Food-Food patterns-Cultures-Social interactions-Collective identities, Malaysia, Creolization. Migrations.*

*Food heritage, tourism, development, heritagization, rural spaces*

*Food social space, Food System, Culinary Space*

*Sustainable tourism; Heritage tourism; Cultural food and tourist behavior;*

*spatial modelling – networks – environment – complex systems – health - education - participative modellina - sustainability  
Social-ecological systems, sustainability, adaptation, environmental change, vulnerability, conservation, resilience*

*Exercise, Health, lifestyle, physical activity, education, ethnicity, ehealth*

*Sustainable cities, citizen, engagement, media, digital, environment, health, youth*

*oceanian linguistics, languages didactic, anthropo-linguistic*

*Exercise, lifestyle, health, education*

*Obesity, adolescents, lifestyle*

*Lifestyle and behavior, Nutrition and food consumption in Pacific, health, education, statistical model, Remote sensing*

*Physical activity, adolescents, education*

*Humanitarian and development studies*

*Health-Clinical Psychology*

*Pedagogy-Education-Personal development-Teaching-Well Being*

*psychology- humanitarian development*

*food security, livelihood, climate variability, climate change, family farming and agriculture*

Research articles here

***Thank you for your attention***



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 873185*



*Disclaimer: the views expressed in this presentation are purely those of the author and may not in any circumstances be regarded as stating an official position of the Research Executive Agency*



# Food security and Family farming in Pacific Islands Countries and Territories (PICTs): A scoping review

Nidhi Wali

(HADRI, Western Sydney University)



# FALAH Main objectives & Research questions

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WP2

- 2.1 Gather and summarise knowledge on cropping practices, consumption, innovation and the dynamics of family farming
- 2.2 Improve understanding of how family farming functions through ecological, economic, sociological and spatial dimensions and how it adapts to the environment

WP3

- 3.1 Examine the effects of family farming on lifestyle and its impact on the health and well-being
- 3.2 Explore nutrition and physical activity in families practicing family farming
- 3.3 Analyze inter-generational benefit on family farming lifestyle

WP4

- 4.1 Compare traditional family farming practices, its adaptation to the environment and identify best practices to disseminate
- 4.2 Examine the role of school in promoting food education, physical activity, and changing dietary habits
- 4.3 Share new knowledge to develop sustainable intervention strategies that can help people from other regions
- 4.4 Accumulate, cross and share traditional and scientific knowledge on small-scale farming and eating habits to establish production and consumption strategies adapted to the socio-cultural context.

# UN Sustainable Development Goal (SDG) 2: Zero Hunger

links ending hunger to **achieving food security, improving nutrition, and promoting sustainable agriculture.**

The Food and Agriculture Organisation (FAO) has declared the years 2019–2028 to be the Decade of Family Farming.





## RESEARCH ARTICLE

# Food security and small holder farming in Pacific Island countries and territories: A scoping review

Nichole Georgeou<sup>1</sup>, Charles Hawksley<sup>2\*</sup>, Nidhi Wali<sup>1</sup>, Sophie Lountain<sup>3</sup>, Ella Rowe<sup>3</sup>, Caleb West<sup>3</sup>, Liesje Barratt<sup>3</sup>

**1** Humanitarian and Development Research Initiative, Western Sydney University, Penrith, Australia,

**2** School of Humanities and Social Inquiry, University of Wollongong, Wollongong, Australia, **3** Western Sydney University, Penrith, Australia

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Doi: <https://doi.org/10.1371/journal.pstr.0000009>

# What is a Systematic Review?

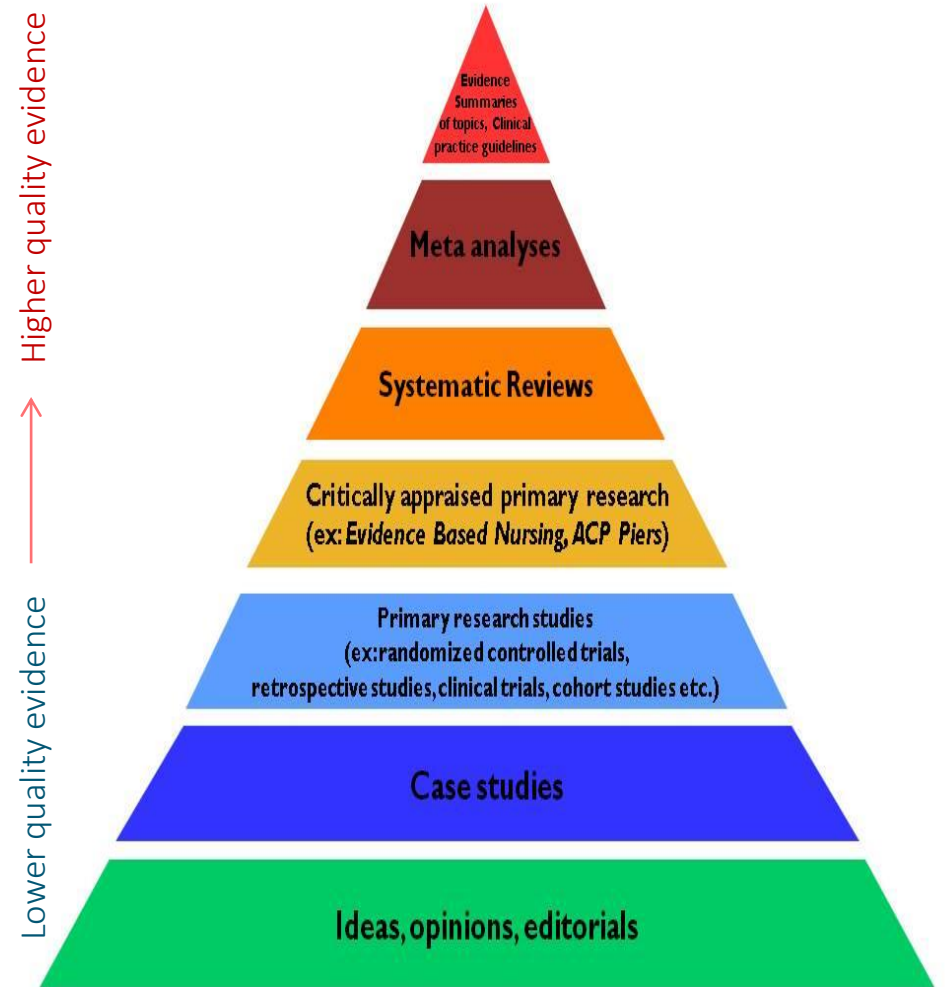
A systematic review is an appraisal and synthesis of research using a rigorous and clearly documented methodology in both the search strategy and the selection of studies.

- **This minimises bias in the results.**
- **The clear documentation of the process and the decisions made allow the review to be reproduced and updated.**



# Why conduct a systematic (vs. non-systematic) review?

- Less chance of selection bias
- A priori design
  - Protocol
  - Research questions
  - Inclusion/exclusion criteria
- Systematic searching
  - Sensitive and specific
  - Replicable
- Less chance of reporting bias
- Non-selective reporting of results (adhere to protocol)
- Includes unpublished data, where possible
- Follows reporting guidelines
  - Preferred Reporting Items for Systematic reviews & Meta-Analyses (PRISMA)
  - A completed PRISMA checklist is now commonly required by journals at submission



RESEARCH ARTICLE

# Food security and small holder farming in Pacific Island countries and territories: A scoping review

**Research Question:** “What is the relationship of small holder agricultural production to food security in Pacific Island Countries and Territories?”

Review is informed by **Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols (PRISMA-P) reporting guidelines**

**Comprehensive literature search:**

- 9 databases for academic literature and thesis/dissertations
- 17 sources for grey literature sources including websites of International Organisations, funding organisations and Government departments

RESEARCH ARTICLE

# Food security and small holder farming in Pacific Island countries and territories: A scoping review

## Inclusion and Exclusion criteria

	Included	Excluded
<b>Type of studies</b>	Peer reviewed articles and other scholarly studies such as reports, working papers, and dissertations, both published and unpublished Grey literature - Reports, Evaluation Reports, and other relevant documents	Books, news articles and editorial opinion pieces
<b>Base Year</b>	Studies published after 1970- 2020	Studies published before 1970
<b>Language</b>	English	Published in any other language
<b>Scope</b>	Agricultural food sources such as vegetables (which includes root crops) and fruits	Fish, aquatic foods and livestock

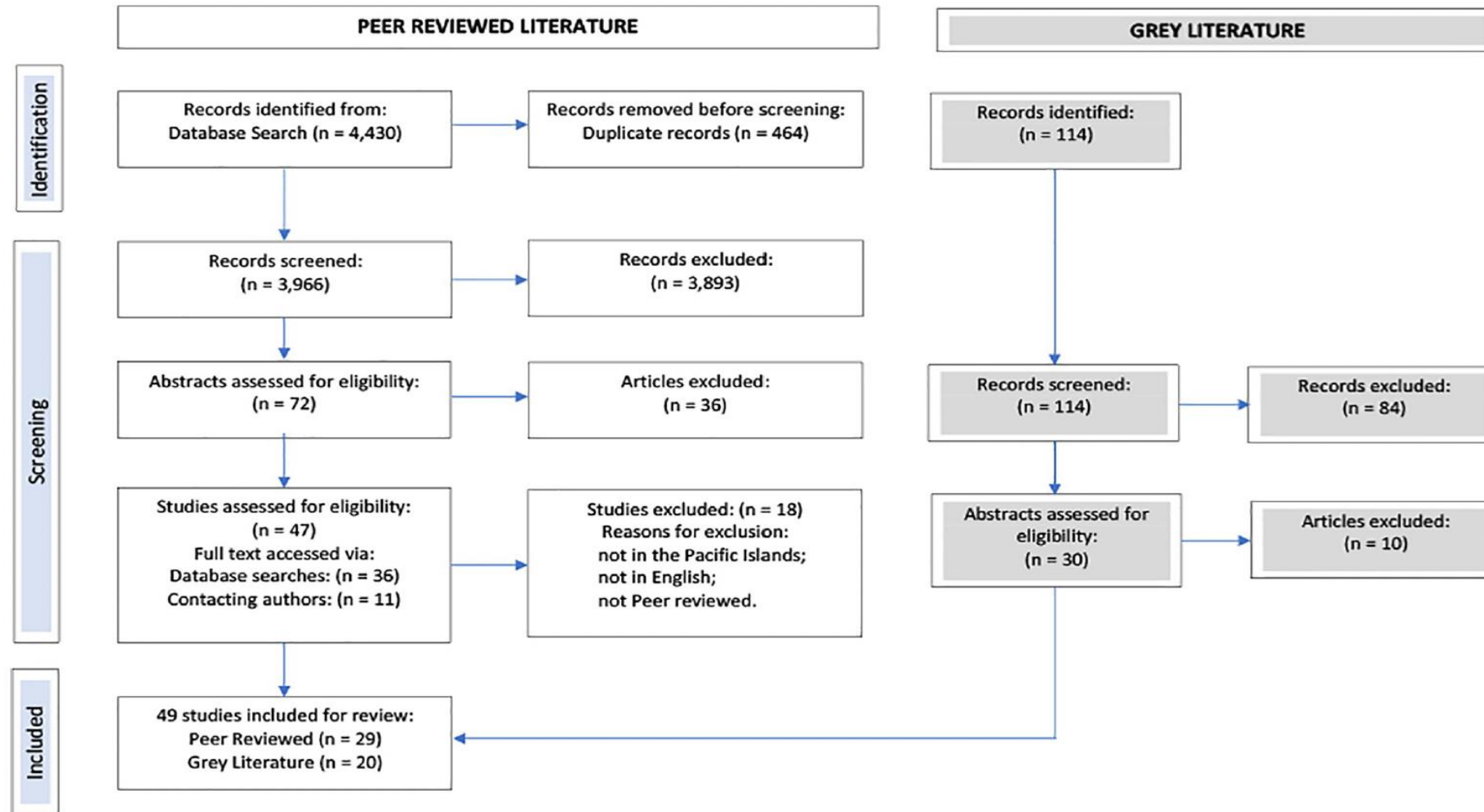


Fig 3. Study selection process. Source: Created by authors.



Analysis of 49 studies included in the review: 29 peer reviewed and 20 grey literature studies

Data analysis: Thematic analysis using Braun and Clark (2006)

Data extraction:

No.	Author	Title	Org/Journal	Year
1	H. Jones and K. Charlton	A cross-sectional analysis of cost and affordability of achieving recommended intakes of non-starchy fruits and vegetables (NSFV) in the capital of Vanuatu	BMC Public Health	2015
2	V. Lebot and P. Simeoni	Community Food Security: Resilience and Vulnerability in Vanuatu	Human Ecology	2015

# Food Security and Small Holder Farmers: emerging themes

- **Community adaptation, resilience and crop diversification;**
- **Decreased availability of local foods and land;**
- **Changes in diet;**
- **Gender and agricultural production.**

## Present:

- 80% of all Pacific Islanders rely on agricultural produce from gardens / small holder farmers to support /supplement diets.
- Food imports are increasingly common in PICTs— cheap foods, generalised health problems.
- Increased reliance on imports = diminishing food security
- PICTs facing a range of food security challenges,

## Peer reviewed literature by main themes

Smallholder farming and food security themes				
Peer review study number	Community adaptation, resilience and crop diversification	Decreased availability of local foods and land	Changes in diet	Gender and agricultural production
1.		X	X	
2.	X		X	
3.	X			
4.		X		
5.	X			
6.	X			X
7.	X		X	X
8.	X			
9.	X			X
10.	X			X
11.	X	X		
12.	X		X	
13.	X			X
14.	X			X
15.	X		X	
16.	X	X	X	X
17.	X	X	X	X
18.	X	X	X	
19.	X	X	X	
20.	X		X	
21.	X			
22.	X		X	X
23.	X			
24.		X		
25.	X		X	X
26.		X	X	
27.	X			
28.	X			X
29.	X			

## Grey literature by main themes

Grey Lit	Smallholder farming and food security main themes			
	Community adaptation, resilience and crop diversification	Decreased availability of local foods and land	Changes in diet	Gender and agricultural production
1.		X		
2.		X		
3.	X			
4.	X		X	
5.	X			
6.	X	X	X	
7.	X		X	
8.	X			
9.		X	X	
10.	X			X
11.		X		
12.	X	X		
13.	X	X		
14.	X			
15.	X			
16.	X			
17.	X			X
18.	X		X	X
19.		X	X	
20.	X			

## **Theme 1: Community adaptation, resilience, and crop diversification**

### **Theme 2: Decreased availability of local foods and land**

- Land, Logging, Urbanisation, Salinity/sea levels
- Food, Cultural attitudes
- Remittances
- Low-cost imports

### **Theme 3: Nutrition Transition – Changes in diet**

- Shift from ‘traditional foods’ (longer time in preparation)
- Shift to: Biscuits, Noodles/Pasta, Sugar drinks
- Highly accessible
- High in carbohydrates/sugar
- Some protein (canned tuna)
- Leads to decrease in local food production

### **Theme 4: Gender and Agriculture Production** (limited studies to PNG, SI and Samoa)

- Gendered division of activities
- Cash income from sale goes to household
- Men take most profitable crops
- Subsistence farming important for household food security (protection in times of low prices)



Food security continue to be affected by urbanisation, population growth, a decrease in arable land and climate change.

Role of small holder agriculture as crucial to: (1) growing local foods to support food security, and (2) expanding domestic asset creation to promote economic development, especially for women.

Thank you



## **Title: FALAH Scientific Activities at USP**

Diarra, Siaka & Viliamu Iese – on behalf of USP FALAH Team





# Title: Attaining food security in the Pacific through research

## Sub Title: Aspects in Food Security

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# Ongoing Sustainable Farming Systems Research Activities at USP

## Continued research in crop-livestock integration



Sheep-Legume integration



Sheep-Taro integration



Vegetables in intercrops



Sheep under cassava-papaya-  
mulberry intercrops

### Benefits

- Intensification (more produce per area of land)
- Soil health and productivity
- Animal health and productivity
- Higher crop yield
- Healthier products
- Healthier environment
- Reduced cost of labour
- Reduced cost of feeding

# Yam propagation through vine cutting



- More yam available for consumption
- Continue research into management practices of the new yam

Harvest from 5 month-old vine propagated yam at SAFT

- Processing and storage of surplus food
- Development of food products



Six month-old frozen yam & sweet potato at USP



Various food products processed at SAFT





# Livestock Feed Research

- Continued research into locally available ingredients
  - ✓ Cost reduction
  - ✓ Value addition
  - ✓ Income generation
  - ✓ Job creation – smallholder farms



Processing giant taro (*Alocasia macrorrhiza*) corm for stock feeding



Processing cassava root and peel for poultry feeding



Processing moringa leaf for poultry feeding

- **Continued research into alternative feed additives**

- ✓ Products safety
- ✓ Cost saving on chemical additives
- ✓ Value addition
- ✓ Income generation
- ✓ Environmental benefits



**Green and ripe noni fruit powder in poultry feeding**

- Undergraduate research in laying hens
- Masters research in broilers

**Benefits**

- Value addition
- Save cost on synthetic feed additives
- Improve poultry health
- Improve consumer health



Canarium (*Canarium ovatum*)  
tree and nut

Master research (2018) - canarium nut meal replaced synthetic lysine in broiler feeds

Further investigations are ongoing at PhD level

**Benefits**

- Add more value to the nut
- Save and cost on synthetic lysine
- Residual oil reduces conventional energy sources in the diet
- Health benefits from canarium



## **Continued research in culinary habits and education**

- Masters research in meat preferences
- Masters research in perception on goat milk consumption
- Masters research on introduction of locally grown leafy green vegetables in school children' diets

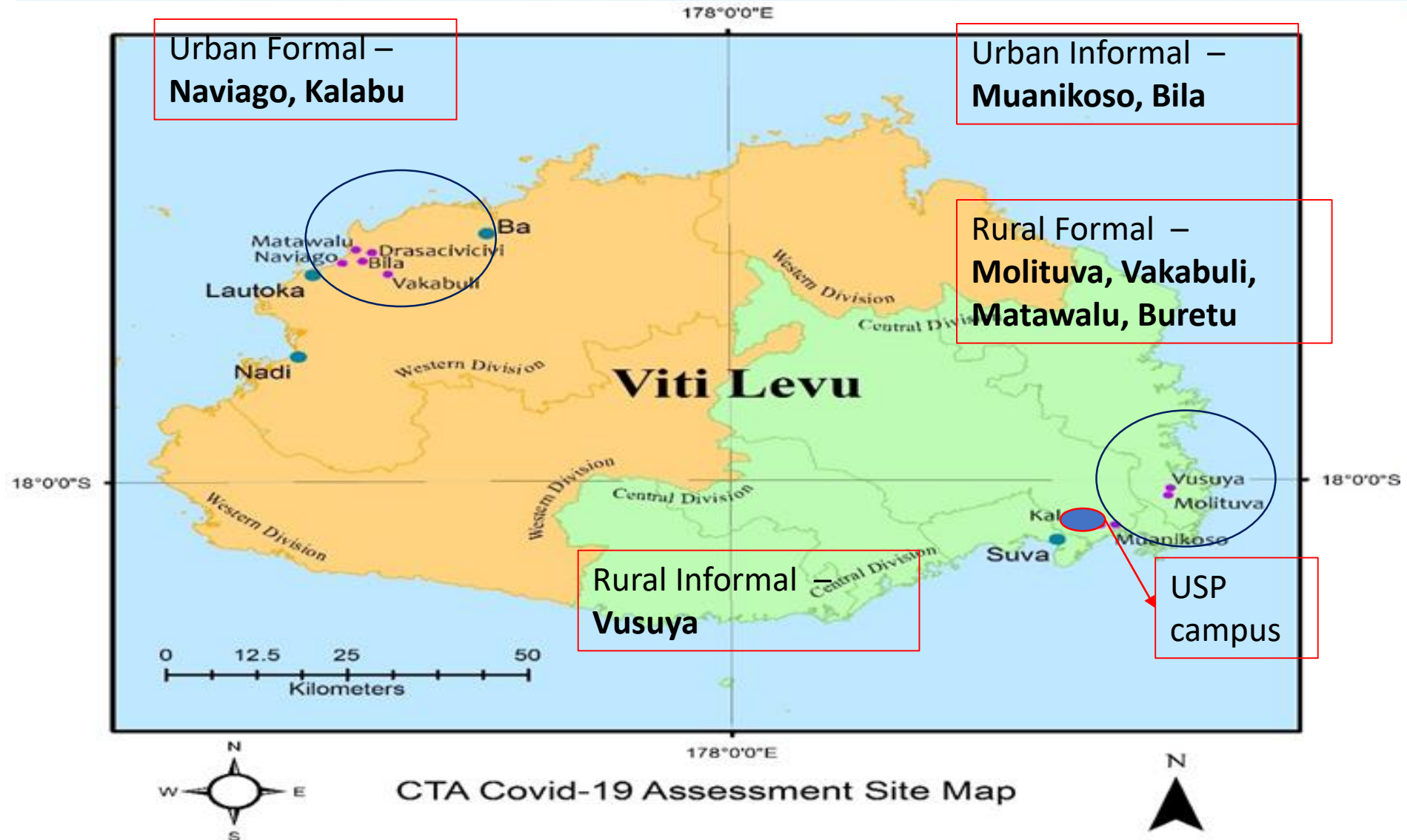


# Title: FALAH Scientific Activities at USP

## Additional Research



# Research Sites in Fiji



# Pacific Centre for Environment and Sustainable Development (WP2 and 3)

- Intervention Co-creation to Improve Community-based Food Production and Household Nutrition in Small Island Developing States (ICoFaN) - UKRI
- Co-creating evaluation frameworks for community food production initiatives and reducing community health risks (Co-CFaH) - SRT
- NIHR Global Health Research Group on Community Food, Nutrition and Planetary Health in Island States (Global CFaH) - NIHR

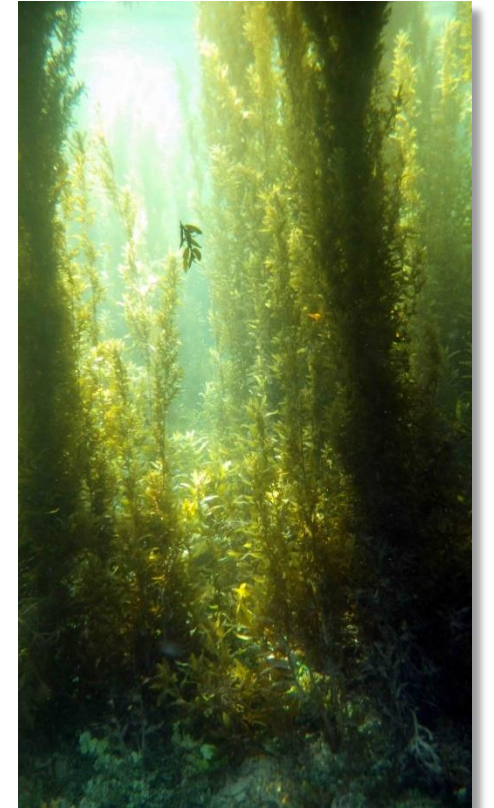




# Pacific Centre for Environment and Sustainable Development

## Valorization of Pest Marine Seaweeds and Invertebrates for the Production of Agri-Fertilisers (WP2)

- Dr. Antoine D.R. N'Yeurt, Dr. Lau Viliamu Iese,
- Ms. Catherine Soreh & Ms. Sarah Griffin



# Additional research – PaCE-SD

- Conservation agriculture and sustainable intensification – ACIAR
- Agro-climatic research to promote the use of crop models to assess climatic risks and inform agriculture adaptations in the Pacific Islands – with **A/Prof. Samsul Huda from Western Sydney University**
- Market functionality index and Minimum expenditure basket for Fiji and Samoa – UNWFP





# Institute of Marine Resources (Cherie Morris)

- Octopus and lobster research
- *Harvester stories on behavioral patterns of octopus documented at Koroinasolo, Bua.*
- *Still yet to document that of Votua, Nadroga whereby a certain clan's totem is octopus.*
- *DNA sequencing, morphological assessment, market survey*
- *Temporal genetic variation in the coral sea maskray (*Neotrygon trigonoides*) from Fiji*
- *Environmental DNA in Fiji - Aqueous eDNA samples were collected from Votua and greater Serua. Samples will be sent to France for DNA extraction, PCR-amplification, Next Generation Sequencing and bioinformatic decoding resulting in the diversity assessment of various shark species at the sampling sites.*



# Additional research (WP2) – Joape Ginigini

- <https://pacman.obis.org/>
- Joape Ginigini (Project Manager)  
– Institute of Applied Sciences (IAS)
- Pacific Islands Marine Bioinvasions Alert Network
- Deals with loss of biodiversity that leads to food insecurity





# Additional research (WP2) – Dr. Frank Thomas

- Ethnoarchaeological Investigation of Two Extraordinary Shell Middens, Vanua Levu Island (Fiji): Implications for Human-Environment Interactions. (SRT)



# Graduate Students research (Some)

Topic	Name	WP
Assessing the management of natural, mixed and managed mangrove systems in Fiji-Case study of Nasese Seawall and Saweni Beach (Lautoka)	Salote Nasalo	WP2
Intergrating gender equity in small scale fisheries to improve food security resilience in Fiji communities	Roslyn Nand	WP2
Investigating the impacts of climate change and climatic variability on sugar cane production in Nadogo District of Labasa	Rahul Prasad	WP2
Investigating local consumer attitudes, habits, and preferences for sheep meat in Samoa.	Tusiata Lemuelu	WP2
Farmers' perception and willingness to consume goat milk and goat milk products in Fiji	Gulista Dean	WP2
Effect of pig breed on the utilization of ensiled cassava root-leaf-oil concentrate as energy source	Kellon Moses	WP2
Partial replacement of maize with cassava root-moringa leaf and vegetable oil concentrates in broiler finisher diets	Tigris Havea	WP2
A study on the effects of vegetative pruning on the growth, yield and nutrient uptake of selected genotypes of food yam (Dioscorea)	Sateki Tanginoa Siu I Moana	WP2
Consumption of local leafy green vegetables (LLGVs) by school children in Solomon Islands	Talia Ian Waena	WP2

Topic	Name	WP
Intercropping taro ( <i>Colocasia esculenta</i> ) with legumes (Peanuts( <i>Arachis hypogaea</i> ) and Dwarf bean ( <i>Phaseolus vulgaris</i> ) in a tropical Inceptisols	Sione Taung	WP2
Assessing the effectiveness of agricultural drought management in the Western Viti Levu (Fiji Islands)	Vinesh Kumar	WP2
Impacts of climate change on domestic crop production in the Solomon Islands: Implications for household food and nutritional security	Zina Bird	WP3
Ecosystem-based Adaptation practices for food security and livelihood in Fiji and Vanuatu.	Jyoti Prasad	WP3
The Impacts of Natural Hazard (Cyclones & Droughts) on Farmers and Fishers and Demand for Microfinancing: A Quantitative and Qualitative case study	Filipe Veisa	WP2

# Approaches and next step

- Inter-WP2, 3, 4 – Whole of society approach in Fiji
- Co-financing and partnerships within and outside – including communities and NGOs
- Need to finalize secondments from USP and to USP
- Things to note – both USP and overseas;
  - Meet the USP FALAH team
  - Present a public seminar
  - Conduct a training and do publications

# Vinaka – time to move





## Public seminar

# How to build an international multidisciplinary research project : FALAH an European Union Research and Innovation Staff Exchange project

Prof Jean-Marie Fotsing, Scientific coordinator (UNC)

Dr Olivier Galy, Scientific coordinator (UNC)





Title:

Sub Title:

---

Notes issues de la conf publique de FIJI:

- 1-Interest for the Region
- 2-Key words
- 3-visit institutions concerned and identify teams
- 4- The leader invite Teams (2 days) closed workshop
- 5-realise a conceptual framework
- 6-reduce the team for the writing process (Admin/research)
- 7- retroplanning
- 8-submission



*Horizon Europe :  
Actions Marie Skłodowska-Curie pour les PTOM*

# Family fArming Lifestyle And Health in the Pacific

**N°873185**

*Présenté par*

**J-M. FOTSING, O. GALY, M. MARTINEZ**



**FALAH**

Agriculture familiale, mode de vie & santé

Disclaimer: the views expressed in this presentation are purely those of the author and may not in any circumstances be regarded as stating an official position of the Research Executive Agency

10-11/06/2021



# Chronologie du montage du projet



- 1- Portage et historique: équipes et orientations
- 2- Consortium
- 3- Cadrage administratif et scientifique
- 4- Construction et rédaction du projet
- 5- Soumission et résultats
- 6- Pré-démarrage du projet





# 1- Portage et historique: équipes et orientations



**FALAH**  
Agriculture familiale, mode de vie & santé

**Evaluation:  
91,8%**

## RISE-SPEAK

**2015-2016**

(South Pacific  
smallholdEr  
Agricultural  
Knowledge

**Evaluation: 67%**



**2016**

**WHO=>** UNC

**WHAT=>** Lifestyle  
priorities and feasibility  
workshop

**WHERE=>** NC,  
VANUATU SAMOA,  
AUSTRALIA,  
GERMANY, FRANCE



**2017**

**WHO=>**UNC

**WHAT=>** « Food  
culture in New  
Caledonian  
adolescents and  
families en NC »

**WHERE=>** NC

**2017-19**

**WHO=>** USP, Uni  
Goroka, Solomon  
Islands National Uni,  
UNC, IAC

**WHAT=>**

“Addressing threats to  
traditional food security  
and diet quality in the  
rural Pacific“

**WHERE=>** NC  
PNG FIDJI  
VANUATU  
SOLOMON SAMOA

**2018-20**

**WHO =>** «UNC,  
CITRAV & MEEF  
Vanuatu, Divine World  
Uni, Uni of  
Technology, IRD

**WHAT =>**AASIP

« Family farming,  
food and health in  
Pacific islands »

**WHERE =>**  
NC, PNG,  
VANUATU

**2019-21**

**WHO=>** UNC,  
SALOMON,  
Wallis & Futuna

**WHAT=>**  
AASIP -II

« Family  
farming, food  
and health in  
Pacific islands »

**WHERE =>**  
SOLOMON  
FIJI

**FALAH  
Project N°:  
873185**



European  
Commission

**02/07/2019**

**WHO=>** UNC &  
PARTNERS

**WHAT=>** RISE  
MSCA

« Family farming,  
lifestyle and health  
in the Pacific»

**WHERE=>**  
FIDJI  
VANUATU  
SOLOMON  
NC

PIURN  
FIJI



PIURN  
AASIP- I



PIURN  
AASIP -II

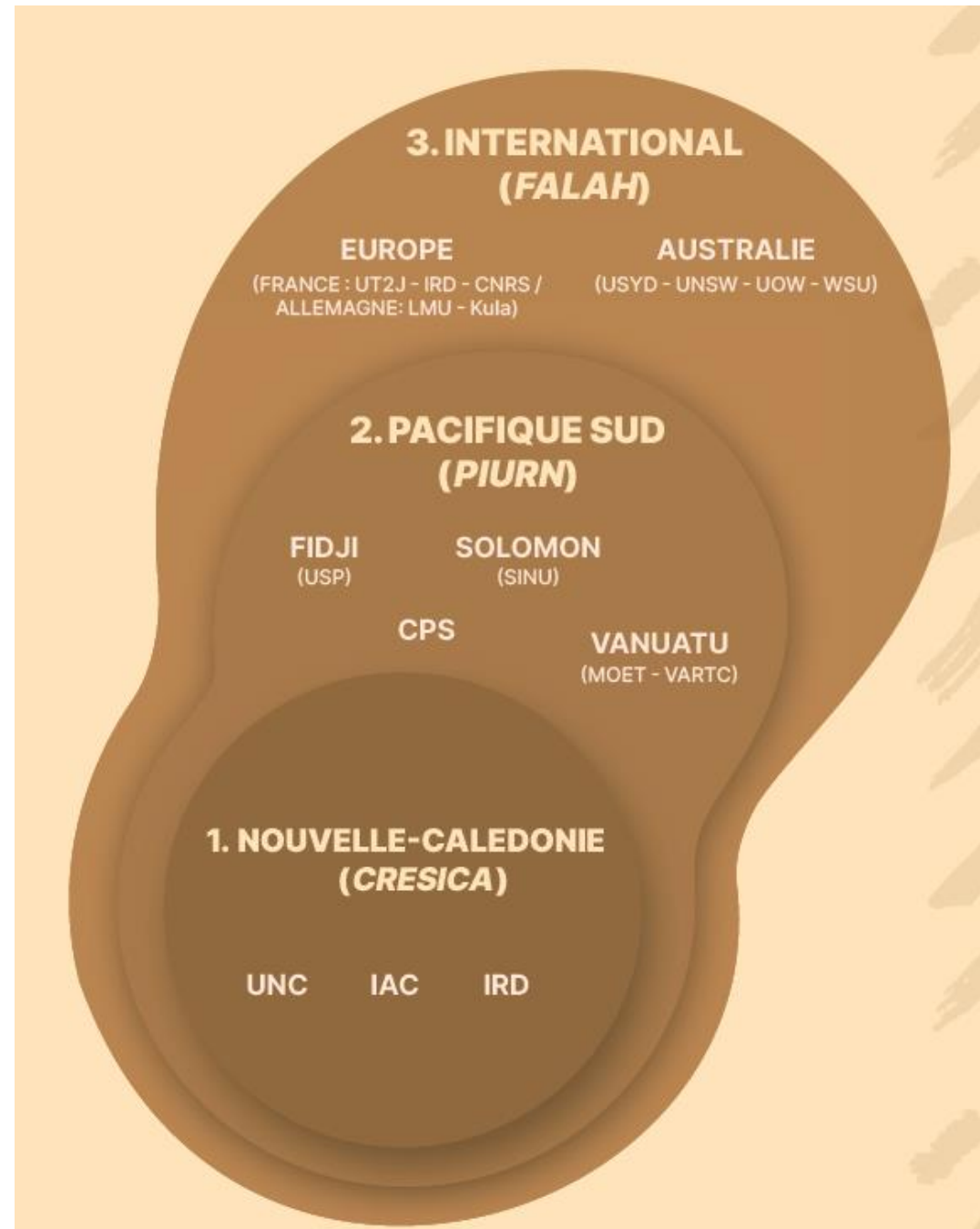


European  
Commission



## 2- Consortium

- 7 pays (2EU, 4PI, 1Aus)
- 3 réseaux
- 16 partenaires
- 95 collaborateurs
- 4 terrains d'application (NC-Fidji-Van-SI-PNG)





# 3- Cadrage administratif et scientifique



**2017-2018** : Chaque partenaire du consortium

- 1 contact administratif
- 1 contact scientifique

➤ Communications distinctes avec rétroplanning:

- ✓ Collecte des informations administratives (PIC, services/laboratoires, équipes et données personnelles, commitment letters, etc...)
- ✓ Support technique d'utilisation de la plateforme SYGMA (nomination du LEAR et LSIGN, signature du GA, etc...)
- ✓ Choix des secondments

**2018-2019** : contenu scientifique

- Questions de recherche : thèmes, transversalités et complémentarités des WP
- Livrables (séminaires, conférences, données pilotes, éthique), etc...



# 4- Construction et rédaction du projet



- Présentiel Europe (M-12)
- Présentiel Pacifique (M-5 avant la soumission) :

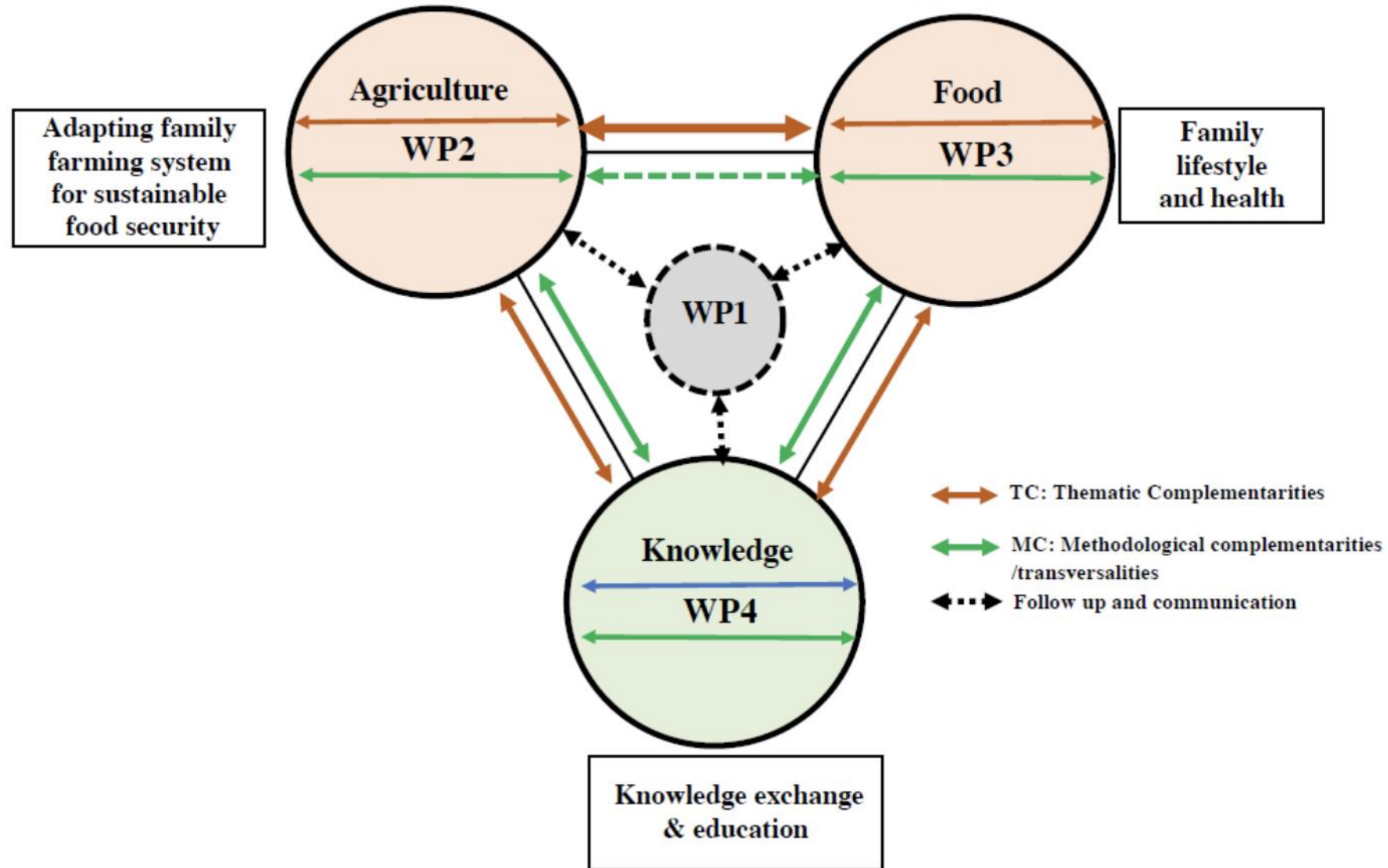
Workshop régional de structuration du projet:  
rencontre des « focal point » de chaque institution partenaire





# 4- Construction et rédaction du projet

Figure 2: FALAH Pacific, methodological approach



Modélisation et rédaction finale du projet



# 5- Soumission et résultats : 2019

- Encodage des secondments
  - Derniers ajustements
  - mise en page et relecture (⚠ contraintes du format du document)
  - Soumission en ligne (⚠ délai de chargement)
- M+3 : Résultats et communication au consortium: **91,8%**
- Préparation du Grant Agreement (partie B1 du projet avec quelques ajustements, commitment letters à jour, etc...)
  - Préparation et signature du consortium agreement



# 6- Pré-démarrage du projet : 2020

## ➤ Phase 0 : Mise en conformité

- Pré-kick off meeting
- Dispositif scientifique opérationnel (articulation cellules et groupes de travail):
  - Pilotage et coordination scientifique
  - Cellules scientifiques (éthique, passerelles, épistémologie et méthodologies, etc.)
  - Groupes de travail (données et plateformes collaboratives, préparation du kick-off, etc.)

## ➤ Phase 1 : Lancement du projet

- Kick off meeting
- Suspension pour cause COVID (Nov 2020-)



*Merci de votre attention*

**Family fArming Lifestyle And Health in the Pacific**

**N°873185**



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10-11/06/2021



# Pacific Islands Universities Research Network PIURN



SOUCHON Mathilde  
PIURN Project Officer  
[mathilde.souchon@usp.ac.fj](mailto:mathilde.souchon@usp.ac.fj)





# Title: PIURN

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Founded in 2013, the network aims to enable closer collaboration among researchers while addressing social priorities, economic growth and environmental challenges in the Pacific Region.

University of New Caledonia and the University of the South Pacific are the co-chairs of the network.

PIURN brings together 14 Members Universities of Pacific Islands Countries and Territories.

## PIURN Vision

Ensuring “A Prosperous Pacific Region where Science Technology and innovation research collaborations address in particular the needs of the people in identified priority areas”.





## Title: PIURN

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PIURN is labelled by the United Nations as a Sustainable Development Goal's Action : **#SDGAction7753**



PIURN collaborative scientific projects are **multidisciplinary** and contribute to **explore concrete solutions to the Pacific Challenges**. PIURN Projects have to bring together **at least 2 Universities from the network**. External partners are invited to collaborate to PIURN Projects.

The network hosts a **biannual Conference**. These conferences highlight the work of the Pacific researchers, showcase the PIURN projects and establish new collaborations.

- 2014 Conference was hosted by the University of New Caledonia
- 2016 Conference was organized by the National University of Samoa, which introduced the theme of **“Addressing the Challenges of Sustainability in the Pacific Islands”**
- The University of French Polynesia hosted the 2018 Conference, on the theme of **“Traditional knowledge, academic knowledge and current universities’ research dynamics in the Pacific region ”**.
- The Solomon Islands National University hosted virtually the 4<sup>th</sup> PIURN Conference, in 2021, exploring the theme of **“Shaping our Tomorrow Today: Research, Innovation and Practice in the Pacific”**



# Title: PIURN



## PIURN & FALAH

4 PIURN Universities are members of the FALAH Consortium

- University of New Caledonia
- The University of the South Pacific
- National University of Vanuatu
- Solomon Islands National University



2 PIURN Universities from Papua New Guinea have joined the FALAH dynamic, thanks to a successful call for projects from the Pacific Fund (French Ministry of Foreign Affairs)

- Divine Word University
- University of Goroka







# Title: PIURN



## PIURN & FALAH

FALAH project falls under PIURN Research Strategic Themes, aligned with the United Nations Sustainable Goals :  
Food Security and Nutrition, Health and Non Communicable Diseases

FALAH project promotes mobility and scientific exchanges, which are the core of research collaboration and cooperation.

The General Assembly of the FALAH project, on Monday, June 27<sup>th</sup>, decided to enforce collective projects and apply to joint call for proposals to secure additional funding to support Pacific to Pacific Mobilities (which are not covered by the EU funding).

PIURN will support and be the interface to secure those extra funding through different sources:

- Pacific Fund
- Embassies
- PIURN Call for Proposals
- Governments
- External Stakeholders



Australian Government  
Australian Research Council



FONDS PACIFIQUE  
Fond de coopération économique, culturelle et technique pour la région



# Title: PIURN

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PIURN & FALAH

## Questions

For more information :

- [mathilde.souchon@usp.ac.fj](mailto:mathilde.souchon@usp.ac.fj)
- [mathilde.souchon@invite.unc.nc](mailto:mathilde.souchon@invite.unc.nc)
- <https://piurn.org>



# Family farming, lifestyle and health in the Pacific

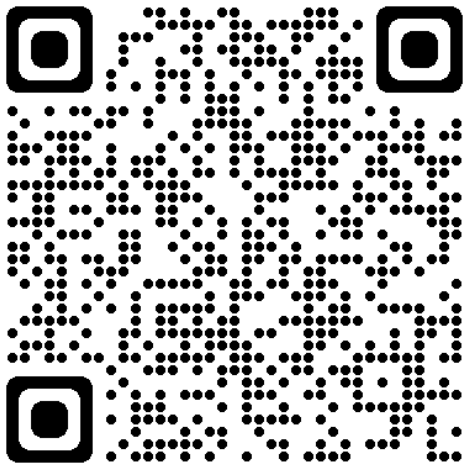
## Fiji scientific event 2022

June 28, 29, 30-2022 – The University of The South Pacific, Suva

Prof Jean-Marie Fotsing - Project Leader, Scientific coordinator

Dr Olivier Galy - Team Leader WP3, Scientific co-coordinator

Marine Martinez – Administrative and financial coordinator



YouTube



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 873185

# Admin and Financial overview of Secondments' implementation

## Marine MARTINEZ (UNC)

Disclaimer: the views expressed in this presentation are purely those of the author and may not in any circumstances be regarded as stating an official position of the Research Executive Agency





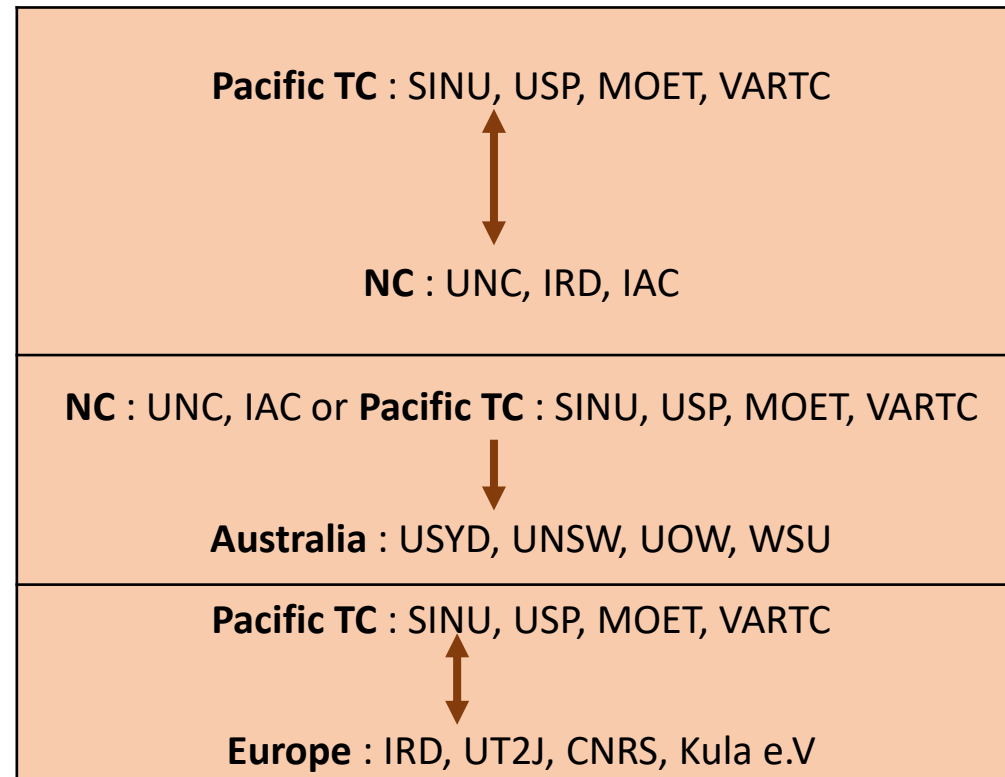


# SECONDMENTS IMPLEMENTATION

## WHAT IS A FALAH SECONDMENT ?

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**Staff of Member state / Associated Country travelling for the purpose of Research on the FALAH project to a Third Country, or vice versa, for the duration of one month**





# SECONDMENTS IMPLEMENTATION

## 1. BEFORE YOUR FIRST SECONDMENT (M-1)

---

### ❑ Provide your personal documents to your Institution Admin Focal Point

- GDPR consent form
- Passport copy
- Email
- CV / diplomas to confirm your status:
  - **Experienced Researcher** : has PhD or > 5years experience in Research,
  - **Early Staged Researcher** : PhD student
- Personal bank details (*if flat rate sent directly to you*)
- Contract / employment certificate for the duration of the project (*can be dealt by your Admin Focal Point*)



# SECONDMENTS IMPLEMENTATION

## 2. BEFORE THE SECONDMENT (M-1)

---

- **Your secondments have been recorded on an Excel Sheet shared with all Admin Focal Points**
- **Your Admin Focal Point will remind you of when a secondment is planned / if you decide to be seconded earlier:**
  - **Confirm your intention on being seconded**
  - X **Reschedule your secondment**



# SECONDMENTS IMPLEMENTATION

## 2. BEFORE THE SECONDMENT (M-1)

RECORD FOR H2020-MSCA-RISE-FALAH

Grant Agreement number: 873185

❑ **Complete part 1 of your Individual Research Plan (IRP) and send it to your Institution Admin Focal Point**

❖ Part 1: to be sent to the secondee's institution + host institution : 1 month prior to the secondment

❖ Make sure the Researcher(s) you'd like to work with will be there while you're being seconded

❖ Your institution's AFP will send the document to the host institution and have it signed to confirm they can host you

FALAH SECONDMENT: SCIENTIFIC REPORT

Individual Research Plan - Part 1 (to be sent 1 month prior to the secondment)						
Beneficiary institution / country name*:		Université de la Nouvelle Calédonie (UNC)		WP*:	WP 2	
Personal information: Name*:		Jean-Marie FOTSING		Seconded to*:		University of South Pacific (USP)
Profile*:		ER -Experienced Researcher				
Profile number:		1				
Month of project*:		from*:	to*:			
M20-May 2022		29/05/2022	03/07/2022			
Missions						
Description and objectives*		Preparation and scientific animation of Fiji event. Exchanges on scientific program and methods regarding fields of research.			Host institution Validation: Name + title*	
Methodology*		Meetings with research partners to exchange on WP 2 and 3.				
Planned actions*	Research	Share method of identification of fields of research in urban areas, use of satellite imaging for agricultural land use. Qualitative and quantitative survey methods				
	Training	Use of satellite image, sharing of data and cross-cutting methods between food and agriculture themes, and multidisciplinary exploitation				
	Education					
					Date + Signature*	





# SECONDMENTS IMPLEMENTATION

## 2. BEFORE THE SECONDMENT (M-1)

### Reminder: Admin Focal Points List

Surname	Name	email	WP	Institution	Country
SIMAR	David	<a href="mailto:d.simar@unsw.edu.au">d.simar@unsw.edu.au</a>	ADMIN	UNSW	Australia
HAWSKLEY	Charles	<a href="mailto:charlesh@uow.edu.au">charlesh@uow.edu.au</a>	ADMIN	UOW	Australia
CAILLAUD	Corinne	<a href="mailto:corinne.caillaud@sydney.edu.au">corinne.caillaud@sydney.edu.au</a>	ADMIN	USYD	Australia
GEORGEOU	Nichole	<a href="mailto:N.Georgeou@westernsydney.edu.au">N.Georgeou@westernsydney.edu.au</a>	ADMIN	WSU	Australia
LAL	Iresh	<a href="mailto:iresh.lal@usp.ac.fj">iresh.lal@usp.ac.fj</a>	ADMIN	USP	Fiji
KUMAR	Sushil	<a href="mailto:sushil.kumar@usp.ac.fj">sushil.kumar@usp.ac.fj</a>	ADMIN	USP	Fiji
IESE	Viliamu	<a href="mailto:viliamu.iese@usp.ac.fj">viliamu.iese@usp.ac.fj</a>	ADMIN	USP	Fiji
SOUCHON	Mathilde	<a href="mailto:mathilde.souchon@usp.ac.fj">mathilde.souchon@usp.ac.fj</a> ; <a href="mailto:mathilde.souchon@invite.unc.nc">mathilde.souchon@invite.unc.nc</a>	ADMIN	USP	Fiji
GAUNDER	Permal	<a href="mailto:permal.gaunder@usp.ac.fj">permal.gaunder@usp.ac.fj</a>	ADMIN	USP	Fiji
DEVI	Anjula	<a href="mailto:anjula.devi@usp.ac.fj">anjula.devi@usp.ac.fj</a>	ADMIN	USP	Fiji
FASI	John	<a href="mailto:john.fasi@sinu.edu.sb">john.fasi@sinu.edu.sb</a>	ADMIN	SINU	Solomon Islands
BUGORO	Hugo	<a href="mailto:hugo.bugoro@sinu.edu.sb">hugo.bugoro@sinu.edu.sb</a>	ADMIN	SINU	Solomon Islands
BARAT	Cecile	<a href="mailto:cecile.Barat@dr14.cnrs.fr">cecile.Barat@dr14.cnrs.fr</a>	ADMIN	CNRS	France
VATONNE	Elodie	<a href="mailto:elodie.vatonne@dr13.cnrs.fr">elodie.vatonne@dr13.cnrs.fr</a>	ADMIN	CNRS	France
ISTOCZAK	Myriam	<a href="mailto:myriam.istoczak@univ-tlse2.fr">myriam.istoczak@univ-tlse2.fr</a>	ADMIN	UT2J	France
			ADMIN	IRD	France/New Caledonia
PASCHT	Arno	<a href="mailto:arno.pascht@ethnologie.lmu.de">arno.pascht@ethnologie.lmu.de</a>	ADMIN	KULA e.V	Germany
			ADMIN	SPC	Fiji
BERTRAND	Solene	<a href="mailto:soleneb@spc.int">soleneb@spc.int</a>	ADMIN	SPC	New Caledonia
BOUARD	S�everine	<a href="mailto:bouard@iac.nc">bouard@iac.nc</a>	ADMIN	IAC	New Caledonia
MARTINEZ	Marine	<a href="mailto:marine.martinez@unc.nc">marine.martinez@unc.nc</a>	ADMIN	UNC	New Caledonia
MWELEUL	Adeline	<a href="mailto:mweleuladeline@gmail.com">mweleuladeline@gmail.com</a>	ADMIN	MOET	Vanuatu
TABIAGA	Steglar	<a href="mailto:steglartabiaga@gmail.com">steglartabiaga@gmail.com</a>	ADMIN	VARTC	Vanuatu
LECHAPT	Michel	<a href="mailto:mlechapt@gmail.com">mlechapt@gmail.com</a>	ADMIN	VARTC	Vanuatu



# SECONDMENTS IMPLEMENTATION

## 2. BEFORE THE SECONDMENT (M-1)

---

### ❑ Organise your secondment

- Book your flight ticket : send it to your institution Admin Focal Point + host institution
- (complete a Mission Order with your flight tickets dates)
- For fund management: see with your Admin Focal Point how your institution will proceed:
  - Transfer the flat rate (pro-rata according to the intended duration) directly to the seconded staff member in advance or via different instalments.
    - ❖ **OPTION CHOSEN BY UNC FOR UNC + USP + MOET + VARTC + SINU :**
      - ✓ **90% after Mission Order completed (flight ticket sent to UNC AFP)**
      - ✓ **10% once back to sending institution (boarding pass sent to UNC AFP)**

OR

- managed centrally by the institution according to the specific needs of the secondment (complying with the flat rate of the consortium agreement)



# SECONDMENTS IMPLEMENTATION

## 2. BEFORE THE SECONDMENT (M-1)

### ❑ Organise your secondment

➤ The flat rates are intended to finance all mobility-related costs of the secondee :

- airfare
- accommodation
- visa
- local transport / shuttles
- insurance
- food
- Etc.

Secondment Type	Flat rate (person.month)
From <b>Pacific TC</b> : SINU, USP, MOET, VARTC To <b>NC</b> : UNC, IRD, IAC  Or  From <b>NC</b> : UNC, IRD, IAC To <b>Pacific</b> : SINU, USP, MOET, VARTC	2400 euros
From <b>NC</b> : UNC, IAC  To <b>Australia</b> : USYD, UNSW, UOW, WSU	4000 euros
From <b>Pacific TC</b> : SINU, USP, MOET, VARTC  To <b>Europe</b> : IRD, UT2J, CNRS, Kula e.V	4000 euros



# SECONDMENTS IMPLEMENTATION

## 3. DURING THE SECONDMENT

---

### Keep evidence of secondment implementation

- **Evidence of travel:** tickets and boarding pass
- **Evidence of accomodation:** hotel reservation, B&B, contract for renting an apartment, etc.
- **Evidence of physical presence in the host premises:**
  - hosting arrangement, lab sheets, time sheets, etc.
  - Paperwork/scientific article produces
  - Library records to show research and innovation activities
  - Exchanges of emails concerning work done, etc.



# SECONDMENTS IMPLEMENTATION

## 4. AT THE END OF THE SECONDMENT – BEFORE RETURNING HOME

- Complete your secondment record and have it signed by the host institution
- Send it to your admin focal point for encoding on the EU platform for the continuous reporting of the project

RECORD FOR H2020-MSCA-RISE-FALAH

Grant Agreement number: 873185

*To fill up, be signed by your host and print during your secondment*  
*And then return to your Admin Focal Point at the end of your secondment*

Beneficiary institution / country name*:		Name*:		GREY CELLS: To be filled by the institution's Admin Focal Point Secondment eligibility check: Staff of the sending organisation : YES Full time dedication to the project: YES Profile : ER/ ESR Profile number: On EU platform (SYGMA)	
SECONDMENT RECORD :					
Month of project:	secondment's dates		WP*	Date and signature of the seconded*:	Name, Date and signature of the hosting institution at the end of the secondment*:
	from*:	to*:			
<b>ADMIN RECORD:</b>					
Individual research plan + Scientific report signed by staff + hosting institution :					
Proof of payment to staff:					
Justification of secondment sent to sending institution :					
RD encoded on SYGMA :					
Researcher's questionnaire done :					





# SECONDMENTS IMPLEMENTATION

## 5. AFTER THE SECONDMENT (M+1)

- ❑ Complete part 2 of your Individual Research plan (scientific report) and sent it to your Admin focal point + host insitution : 1 month after to the secondment at the latest

- Additional report can be attached

RECORD FOR H2020-MSCA-RISE-FALAH

Grant Agreement number: 873185

Reporting year : 2022

### FALAH SECONDMENT: SCIENTIFIC REPORTS

Scientific report (to be sent 1 month after the secondment)			
Beneficiary institution / country name:		CNRS - University of Toulouse UT2J, France	
Personal information:		Name: SERRA-MALLOL Christophe	
Profile :		Month of project:	
Profile number:		from: to:	
		17-18 February 17th April 5th	
<b>Mission</b>			
Description and objectives		<p>Conduct a survey of local politicians in New Caledonia (municipalities, local Congress, Provinces, CESE) to understand their perception of current and future issues of family farming, and prepare the collection materials for the Vanuatu and Salomon survey among family farming members.</p> <p>Participate in FALAH project meetings with project coordinators and associated webinars.</p> <p>Participate in FALAH related project meetings (SPAR, Pacific Food Lab...).</p> <p>Train and support Master and PhD students in research methodology, in particular using qualitative research tools.</p> <p>Participate in writing scientific papers.</p>	
Methodology		Qualitative methodology : individual and collective face-to-face interviews with local politicians.	
Effective actions	Research	From 3rd March to 4th April (New Caledonia)	
	Training	From 18th Feb to 4th April (New Caledonia)	
	Education	Scientific seminar about qualitative methodologies : 30th March (UNC, New-Caledonia)	



# SECONDMENTS IMPLEMENTATION

## RECAP

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### 1. BEFORE YOUR FIRST SECONDMENT (M-1)

- Provide your personal documents to your Institution Admin Focal Point

### 2. BEFORE THE SECONDMENT (M-1)

- Complete part 1 of your Individual Research Plan (IRP) and send it to your Institution Admin Focal Point
- Flat rate will be transferred to your personal bank account / expenses at the charge of your institution
- Organise your secondment

### 3. DURING THE SECONDMENT

- Keep evidence of secondment implementation

### 4. AT THE END OF THE SECONDMENT – BEFORE RETURNING HOME

- Complete your secondment record and have it signed by the host institution
- Send it to your admin focal point for encoding on the EU platform for the continuous reporting of the project

### 5. AFTER THE SECONDMENT (M+1)

- Complete part 2 of your Individual Research plan (scientific report) and send it to your Admin focal point + host institution : 1 month after to the secondment at the latest



# SECONDMENTS IMPLEMENTATION

## NEXT EVENTS

---

Dates	Events	Locations
25-26-27 <sup>th</sup> of October 2022	Seminar with 2 Workshops on WP 2 & 3 + methodological orientation test	UNV, Port Vila, VANUATU
During the week of 21 <sup>st</sup> of November 2022	Workshop on Alimentation & Agriculture	(USYD to be confirmed) Sydney, AUSTRALIA



# CONSORTIUM'S MUTUAL BUDGET

## Importance of secondments

---

- **Depends on how many secondments are performed**
  - EU flat rate was amended by the consortium to meet actual cost of expenses per secondments
  - The rest of the flat rate is mutualised
  - As secondments are implemented, the mutual budget increases
  
- To finance actions validated in the consortium agreement:
  - Administrative / scientific supports' costs
  - Events related expenses
  - Coordination mobilities
  - Research internship cost
  - Field work research expenses
  - Field work Goodies - school equipment
  - Research / data platform
  - Website cost
  
- Can be reviewed by the General Assembly : First GA meeting held on 27th of June 2022 at USP
  - ✓ Validate expenses for 2022: **45 726 euros**
  - ✓ **We need to recover these expenses by implementing secondments (30-40 secondments) = evidence of the scientific research conducted**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 873185

# Thank you for your attention

**Marine MARTINEZ (UNC)**

Disclaimer: the views expressed in this presentation are purely those of the author and may not in any circumstances be regarded as stating an official position of the Research Executive Agency





# **iRecall.24: A digital nutrition app for Pacific Islands The example of New Caledonia**

*Dr Juliana Chen (The University of Sydney)*

*Solène Bertrand (University of New Caledonia & Pacific Community)*





# iRecall.24 – A digital nutrition app for Pacific Islands

## Nutrition transitions

---



**Traditional diet**

Nutrient-dense, plant based

**Western diet**

Energy-dense, nutrient poor



# iRecall.24 – A digital nutrition app for Pacific Islands

## Dietary assessment

- Limited national nutrition surveys – only Fiji 2004
- Limited understanding of how family farming, remote/rural regions impacts nutritional and dietary status
- Need dietary assessment tools
  - Weighed food record
  - Food frequency questionnaires
  - Diet history
  - 24-hour recalls

EXAMPLE

Breakfast					
Food/drink	Description and preparation	Amount served	Amount left	Amount eaten	Code
Mealie meal porridge	Iwiza. Soft, 1 cup meal and 3 cups water	300g			
Milk	Fresh, full cream Clover	300ml			
Bread	Brown	1 x 60g			
Margarine	Rama, soft	10 ml			
Tea	Glenn tea bags	1 cup			
Milk	Fresh full cream	25 ml			
Sugar	White	2 heaped teaspoons			

Please estimate your average food use as best you can, and please answer every question - do not leave ANY lines blank. PLEASE PUT A TICK (✓) ON EVERY LINE

FOODS AND AMOUNTS	AVERAGE USE LAST YEAR								
	Never or less than once/month	1-3 per month	Once a week	2-4 per week	5-6 per week	Once a day	2-3 per day	4-5 per day	6+ per day
MEAT AND FISH (medium serving)									
Beef: roast, steak, mince, stew or casserole									
Beefburgers									
Pork: roast, chops, stew or slices									
Lamb: roast, chops or stew									
Chicken or other poultry eg. turkey									
Bacon									
Ham									
Corned beef, Spam, luncheon meats									
Sausages									
Savoury pies, eg. meat pie, pork pie, pasties, steak & kidney pie, sausage rolls									
Liver, liver paté, liver sausage									
Fried fish in batter, as in fish and chips									
Fish fingers, fish cakes									
Other white fish, fresh or frozen, eg. cod, haddock, plaice, sole, halibut									
Oily fish, fresh or canned, eg. mackerel, kippers, tuna, salmon, sardines, herring									
Shellfish, eg. crab, prawns, mussels									
Fish roe, taramasalata									
	Never or less than once/month	1-3 per month	Once a week	2-4 per week	5-6 per week	Once a day	2-3 per day	4-5 per day	6+ per day





# iRecall.24 – A digital nutrition app for Pacific Islands

## Dietary assessment

- 24-hour recall method





# iRecall.24 – A digital nutrition app for Pacific Islands

## Dietary assessment

### Welcome to Intake24

Intake24 is an open-source self-completed computerised dietary recall system based on multiple-pass 24-hour recall. The online system offers similar data quality to interviewer-led recalls at a significantly lower cost.

[Try a demo »](#) [Watch a video »](#)

<https://intake24.co.uk/>

**Intake24** Log out

**Your Food Intake**

Breakfast	07:30
toast	(?) (?)
butter	(?) (?)
Early snack or drink	(?)
Lunch	(?)
Afternoon snack or drink	(?)
Evening meal	(?)
Late snack or drink	(?)

[+ Add Another Meal](#)

### Breakfast (07:30)

Please list everything that you had for your breakfast with one entry per line. E.g. apple, crisps, yoghurt and coffee would be four separate entries.

**Food**

toast

butter

jam

**Drinks**

orange juice

[Change meal time](#) [Delete this meal](#) [I have finished, continue](#)

**Intake24** Watch tutorial video Log out

**Your Food Intake**

Breakfast	08:00
Toast, white bread	(?) (?)
water	(?) (?)
Early snack or drink	10:30
apple	(?) (?)
crisps	(?) (?)
Lunch	13:00
ham	(?) (?)
bread	(?) (?)
mayonnaise	(?) (?)
tomato	(?) (?)
tea	(?) (?)

[Go back to previous step](#) [Help](#)

Please select the item you had or the closest match.

### ASA24

Automated Self-Administered 24-Hour Dietary Assessment Tool

**My Foods & Drinks**

As you report your meals, snacks, foods, drinks, and dietary supplements, they will appear on this page. Here, you can add more meals or snacks.

Report Meals and Snacks Find Food and Drinks Add Details Review

### My Foods & Drinks

starting Monday, March 30th - 12:00am

**BREAKFAST** Tuesday 11:00am

- Whole wheat pancakes
- Coffee
- Fruit salad

**LUNCH** Tuesday 1:45pm

**SNACK** Tuesday 4:00pm

[HELP](#) [Report a Meal](#) [Review](#)





## iRecall.24 – A digital nutrition app for Pacific Islands

### Aim

*Design and develop a digital tool that could be used to measure the family farming practices, lifestyle and health in Pacific islands – starting off using New Caledonia as a case study*



- Traditional Pacific lifestyle
- French and European influence on food supply – ‘Western’ food impact



# iRecall.24 – A digital nutrition app for Pacific Islands

## Design and development of a food composition database

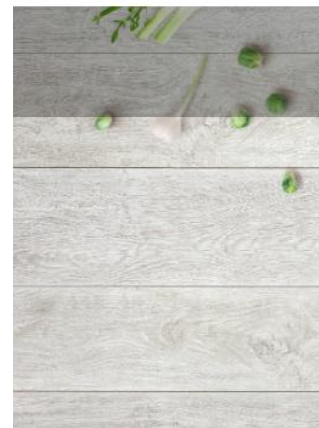


- Fit-for-purpose food composition database for New Caledonia



### The Pacific Islands food composition tables

SECOND EDITION



### PORTIONS ALIMENTAIRES

#### Polynésie française



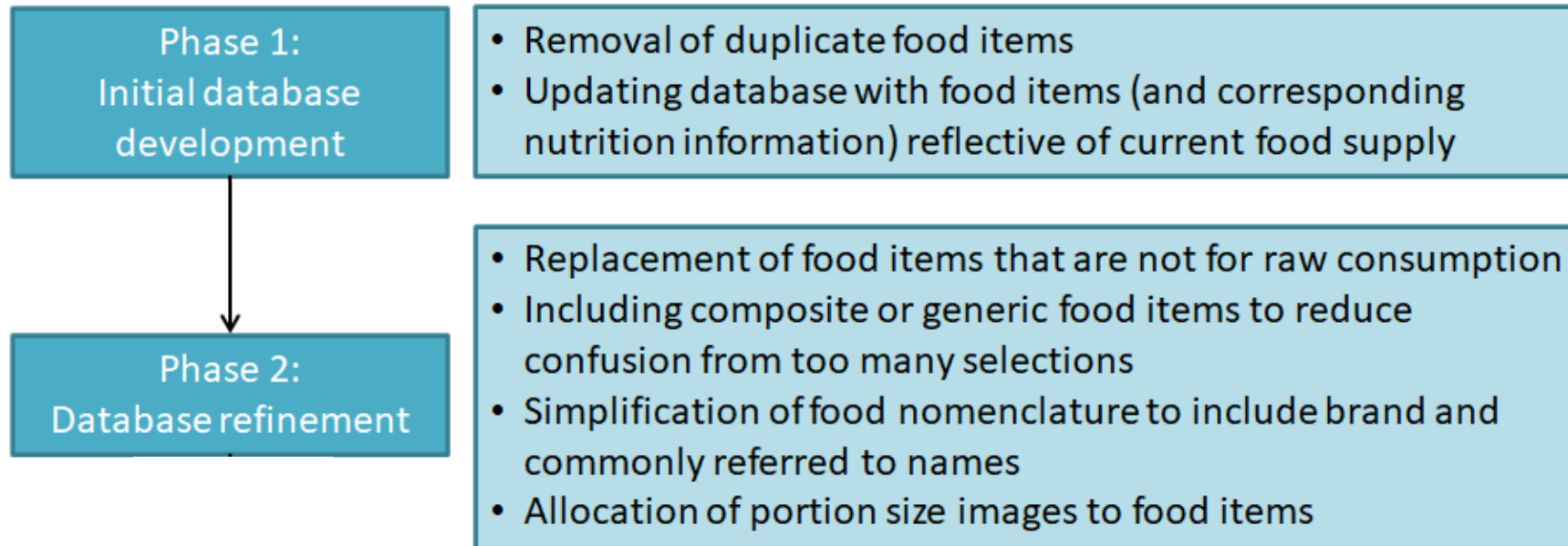


# iRecall.24 – A digital nutrition app for Pacific Islands

## Design and development of a food composition database

---

- Phases in the database development





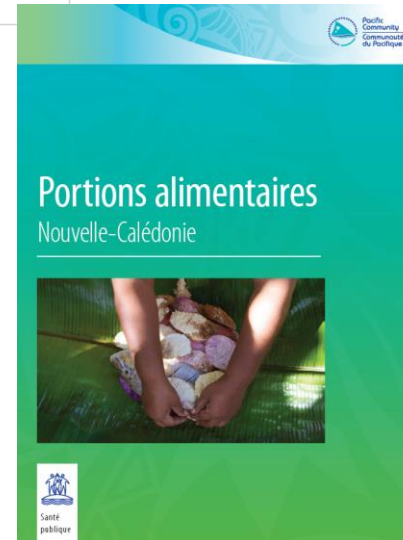
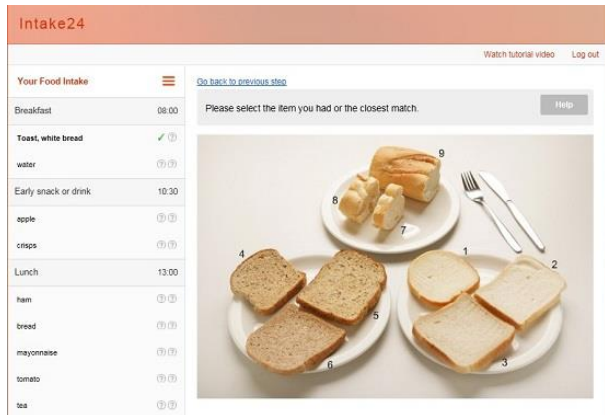
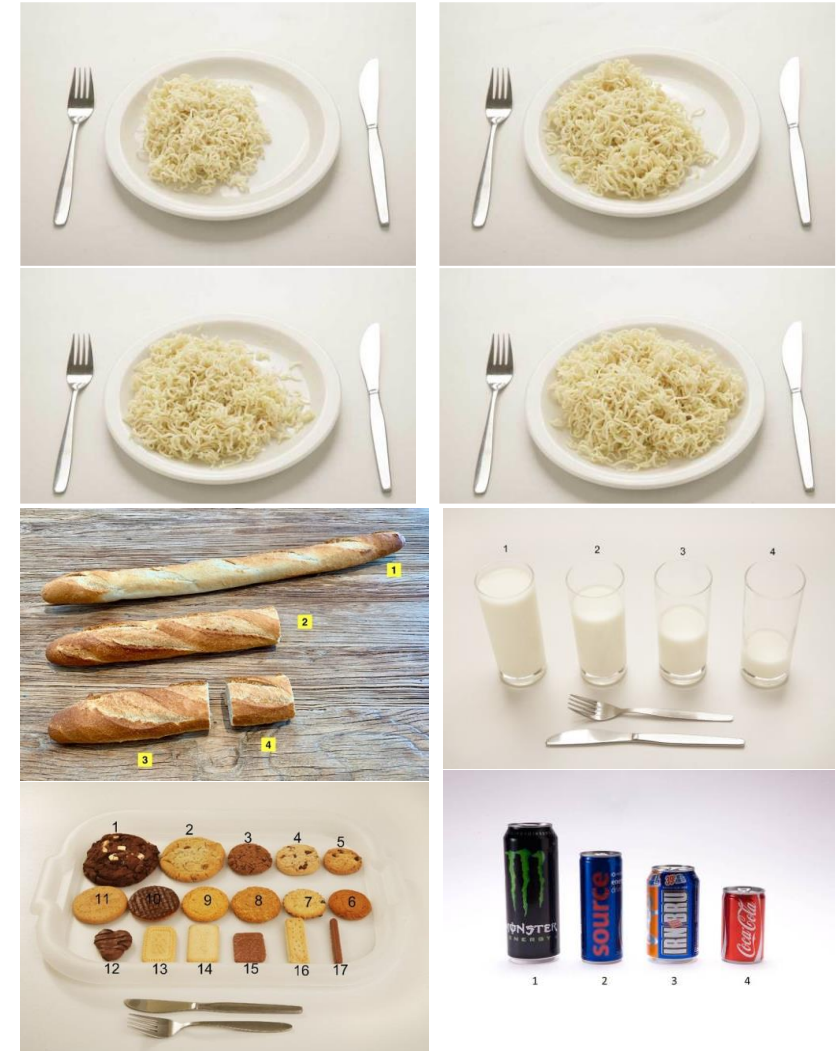


# iRecall.24 – A digital nutrition app for Pacific Islands

## Portion size images

- 615 food items with portion size images

Portion ID	Image ID	Item number in grouped image	Weight (g)
Banana_cooking	91FP_B.jpg		80
Banana_cooking	91FP_D.jpg		160
Banana_cooking	91FP_F.jpg		240
Banana_group	Gban.jpg	1	242
Banana_group	Gban.jpg	2	218
Banana_group	Gban.jpg	3	186
Banana_group	Gban.jpg	4	176
Banana_group	Gban.jpg	5	126
Breadfruit_kaaku	87FP_B.jpg		140
Breadfruit_kaaku	87FP_D.jpg		250
Breadfruit_kaaku	87FP_F.jpg		460

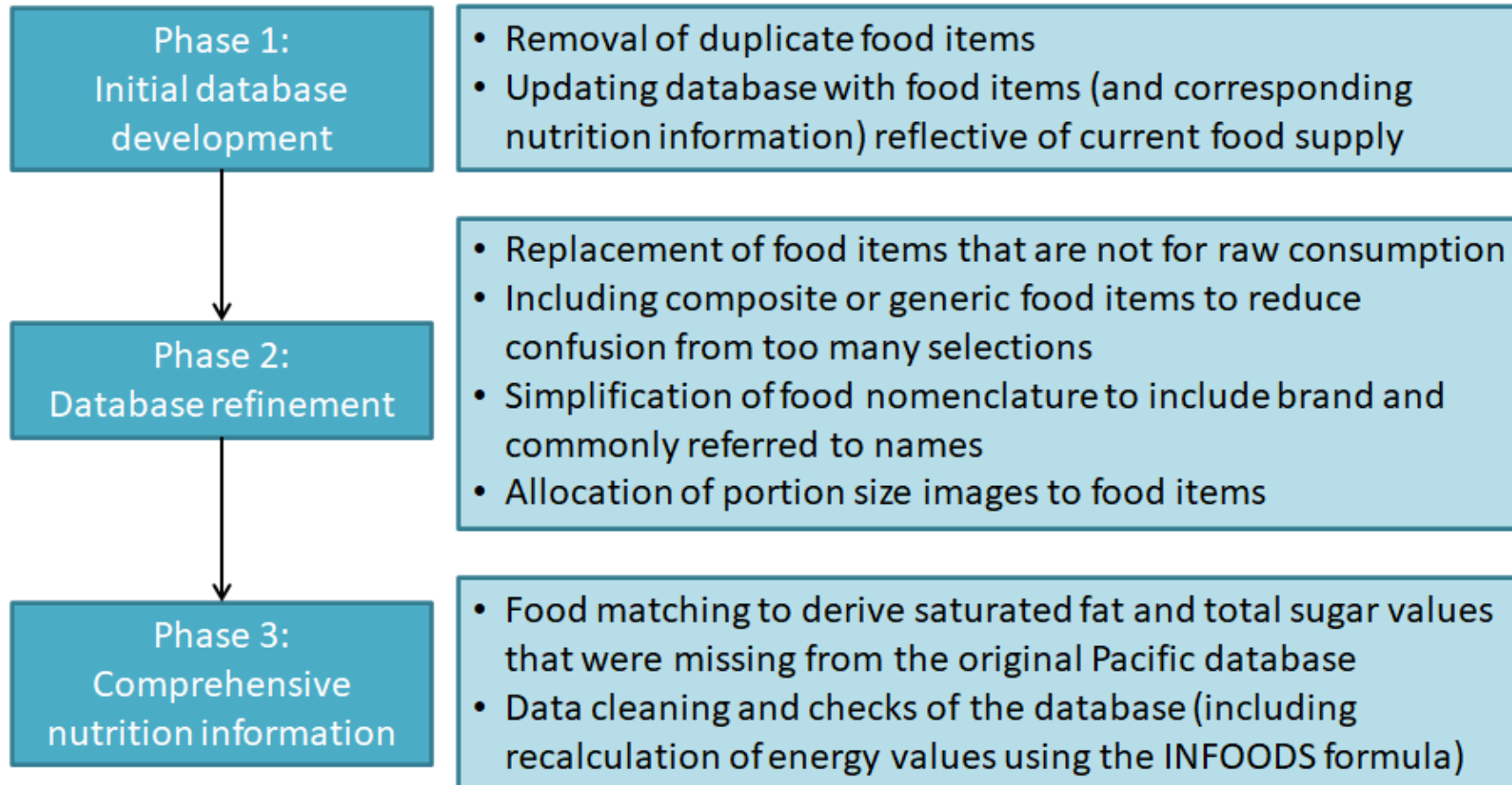




# iRecall.24 – A digital nutrition app for Pacific Islands

## Design and development of a food composition database

- Phases in the database development







# iRecall.24 – A digital nutrition app for Pacific Islands

## Design and development of a food composition database

- Version 1.0 New Caledonian database – 972 food items covering 40 food categories and 25 nutrient values including saturated fat and total sugar

NEW FOOD ID	English food name	CLEANED FRENCH NAME	Alternate names/Synonyms	Category	PORTIONID	Measure (g)	Water (g)	Energy (kcal)	Energy (kJ)	Protein (g)	Total fat (g)	Saturated fat (g)	CHO available (g)	Total sugars (g)	TDF (g)	Cholesterol (mg)	Na (mg)
NC20_PI_SSA001	Arrowroot, Polynesian, flour	Arrow-root Polynésien farine		Starchy staples		100	12	340	1400	0.1	0.2	0.04	84.5	0	0.1	0	2
NC20_PI_SSA004	Banana, cooking, boiled, unsalted	Banane à cuire, bouillie sans sel	Banane plantain/Banane poingo/Banane poingo en Nouvelle Calédonie	Starchy staples	Banana_cooking	100	69	113	465	0.8	0.2	0.09	26.3	0.8	1.2	0	4
NC20_PI_SSA005	Banana, cooking, ripe, fried	Banane à cuire, frite	Banane plantain/Banane poingo	Starchy staples	Banana_cooking	100	35	269	1110	1.5	9.2	1.86	43.9	11.2	2.3	0	3
NC20_PI_SSA006	Banana, cooking, raw	Banane à cuire, crue	Banane plantain/Banane poingo	Starchy staples	Banana_group	100	68	126	520	0.9	0.2	0.09	29.8	0.9	0.7	0	4
NC20_PIAV_SSA089095	Banana, cooking, composite (ami & opine), baked	Banane à cuire, au four	Banane plantain/Banane poingo/Fe'i	Starchy staples	Banana_cooking	100	62	146	605	1.9	0.2	0.1	33.8	10.3	1.3	0	4
NC20_FP_SS087	Breadfruit, cooked in coconut milk	Arbre à pain, cuit au lait de coco	Kaaku/Par/Pin	Starchy staples	Breadfruit_kaaku	100	68	169	695	2.2	9.7	8.2	17.1	6.5	2.3	0	4
NC20_PI_SSA002	Breadfruit, boiled	Arbre à pain, bouilli	Popoi/Par/Pin	Starchy staples	Breadfruit_popoi	100	81	76	313	1.3	0.9	0.13	14.4	4.7	2.5	0	1
NC20_PI_SSA003	Breadfruit, baked	Arbre à pain, au four	Popoi/Par/Pin	Starchy staples	Breadfruit_popoi	100	74	104	429	1.3	0.6	0.09	22.1	7.2	2.5	0	1
NC20_PI_SSA008	Breadfruit, pulp, raw, mature	Arbre à pain, pulpe crue du fruit mûr	Uru/Fruit à pain, cru/Par/Pin	Starchy staples	Breadfruit_uru	100	72	109	450	1.5	0.4	0.08	23.6	11.7	2.5	0	1
NC20_USDA_SS788055	Breadfruit, chips, fried	Frites d'arbre à pain	Frites d'uru/Frites de mei/Par/Pin	Starchy staples	Chips_straight/Chips_thick	100	60	179	737	1.3	4.1	0.59	32.7	13.3	2.9	0	282



# iRecall.24 – A digital nutrition app for Pacific Islands

## iRecall.24 Healthcare Professional platform



Bienvenue M. HCPFR Test

Vous entrez dans une zone sécurisée.  
Merci de ne pas utiliser le bouton PRÉCÉDENT de votre navigateur.

Menu - iRecall.24

- Ajouter un participant
- Données à vérifier

Enregistrement > Visite initiale > iRecall.24

Identification de co

CHERCHEUR (BETA-TEST) M. HCPFR Test

Données à vérifier

00001

Enregistrement

Visite initiale

Page sauvegardée

Identification du participant dans l'étude 98800-00001 - nouméa

Date de la visite 07/09/2020 ≤ 21/09/2020

**DONNÉES DÉMOGRAPHIQUES**

Initiales du participant  première lettre du prénom et première lettre du nom de famille

Identifiant famille

Sexe\*  Masculin  Féminin

Date de naissance\* xx/02/1976 ≤ 21/09/2020

Age à l'enregistrement (années) 44

Age à l'enregistrement (mois) 542

Vous confirmez que le participant est\*  Un adulte  Un enfant

CHERCHEUR (BETA-TEST) M. HCPFR Test

Données à vérifier

00001

Enregistrement

Identification

Consentement

Visite initiale

iRecall.24

**Identification du participant**

Page sauvegardée

**A LIRE**

*Pour prendre en compte vos modifications, n'oubliez pas de cliquer sur "Sauvegarder et Continuer" en bas de page.*

*Les champs sur fond gris sont des champs auto-calculés par le système. Il n'est pas possible de les modifier.*

**INFORMATION GÉNÉRALE**

Ville\* nouméa Code ville\* 98800

Date d'enregistrement dans l'étude 07/09/2020

Identification du participant dans l'étude 98800-00001 Automatiquement remplis après sauvegarde de cette page.

Identification de connexion dans l'APP 00001

**DONNÉES ANTHROPOMÉTRIQUES**

Poids (kg)\* 90 10...300  Déclaration personnelle  Valeur mesurée

Taille (cm)\* 198 50...250  Déclaration personnelle  Valeur mesurée

Tour de taille (cm)\*

**FORME PHYSIQUE - POUR L'ADULTE**

Flexibilité (cm)

Test de marche 6 minutes (m)

Test de Ruffier Dickson

**SANTÉ**

Le participant a-t-il une maladie cardiaque ?  Oui  Non  Ne sait pas

Le participant est-il diabétique ?  Oui  Non  Ne sait pas

Le participant a-t-il de l'asthme ?  Oui  Non  Ne sait pas

Le participant a-t-il des allergies ?  Oui  Non  Ne sait pas

Comment le participant évalue-t-il/elle sa santé ? \*

10:43 am Mon 21 Sep

iRecall.24 Pacific

CONNEXION

Entrez votre identifiant

00001

Powered by bepatient - version 1.8

CONNEXION

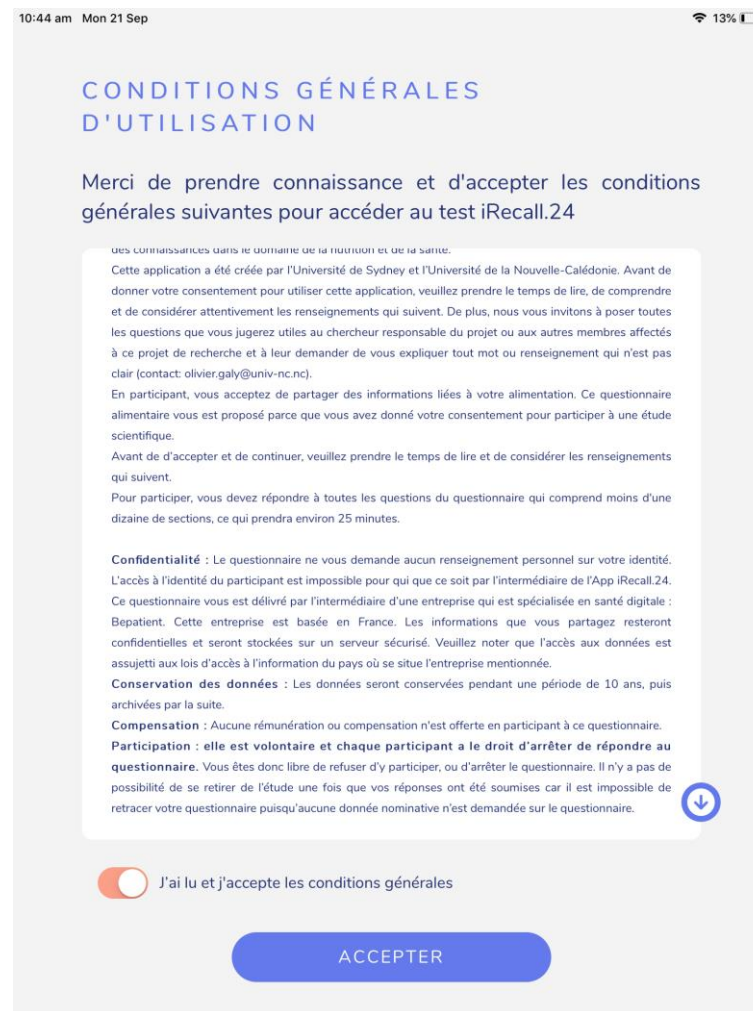
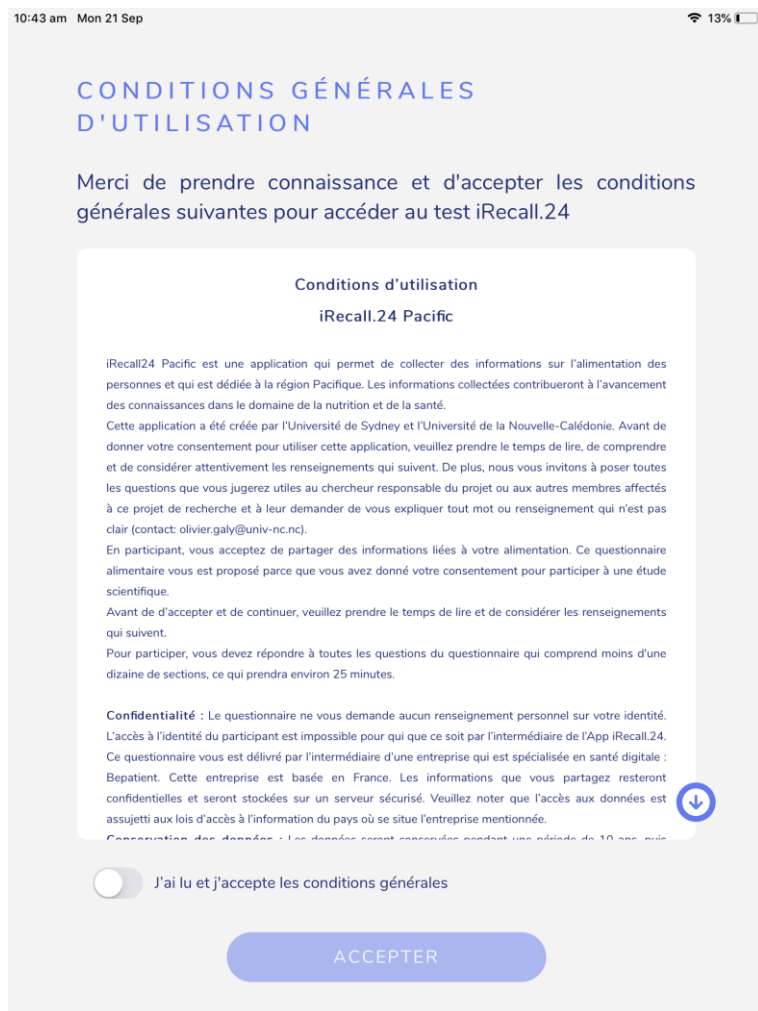
Entrez votre mois et votre année de naissance

02/1976



# iRecall.24 – A digital nutrition app for Pacific Islands

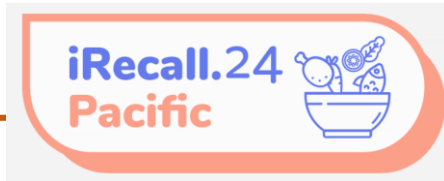
## iRecall.24 Pacific app





# iRecall.24 – A digital nutrition app for Pacific Islands

## iRecall.24 Pacific app



10:44 am Mon 21 Sep 13%

QUEL(S) REPAS AVEZ-VOUS PRIS HIER ?  
DIMANCHE 20 SEPTEMBRE 2020

PETIT DÉJEUNER

GOÛTER DU MATIN

DÉJEUNER / REPAS DU MIDI

GOÛTER

DÎNER / REPAS DU SOIR

SNACK DU SOIR

10:52 am Mon 21 Sep 15%

PETIT DÉJEUNER

Veillez renseigner ce que vous avez mangé en listant les aliment(s) et boisson(s) un par un.

ALIMENT(S)

pain

confiture

pomme

Cliquez ici pour ajouter un aliment

BOISSON(S)

Eau

jus

Cliquez ici pour ajouter une boisson

VALIDER

10:53 am Mon 21 Sep 15%

PETIT DÉJEUNER

Veillez renseigner l'heure de prise de ce repas, ainsi que son contexte.

HEURE

07:30

OÙ AVEZ-VOUS PRIS LE REPAS ?

À la maison

AVEC QUI AVEZ-VOUS MANGÉ ?

Avec un(des) membre(s) de ma famille

APPAREIL(S) ÉLECTRONIQUE(S)

Pendant votre repas, avez-vous regardé la TV ou utilisé un ordinateur... ?

Autre

VALIDER

10:53 am Mon 21 Sep 15%

QUEL(S) REPAS AVEZ-VOUS PRIS HIER ?  
DIMANCHE 20 SEPTEMBRE 2020

PETIT DÉJEUNER

GOÛTER DU MATIN

DÉJEUNER / REPAS DU MIDI

GOÛTER

DÎNER / REPAS DU SOIR

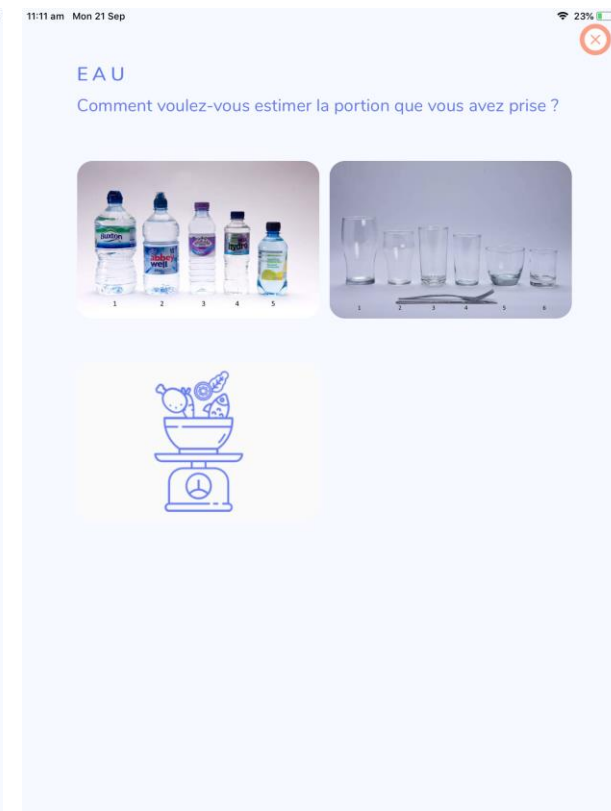
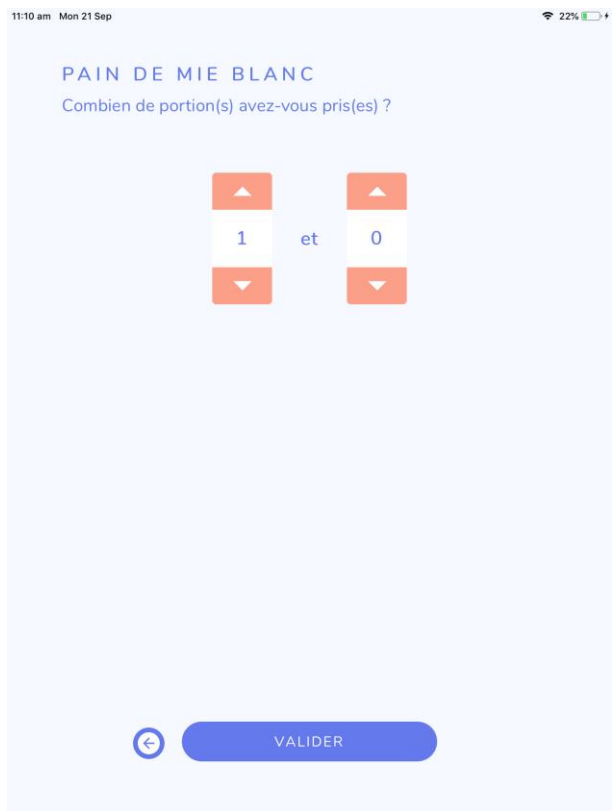
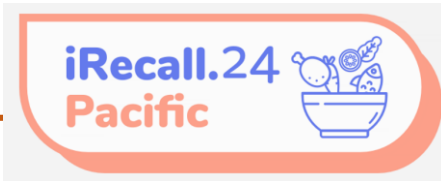
SNACK DU SOIR

Time and context



# iRecall.24 – A digital nutrition app for Pacific Islands

## iRecall.24 Pacific app

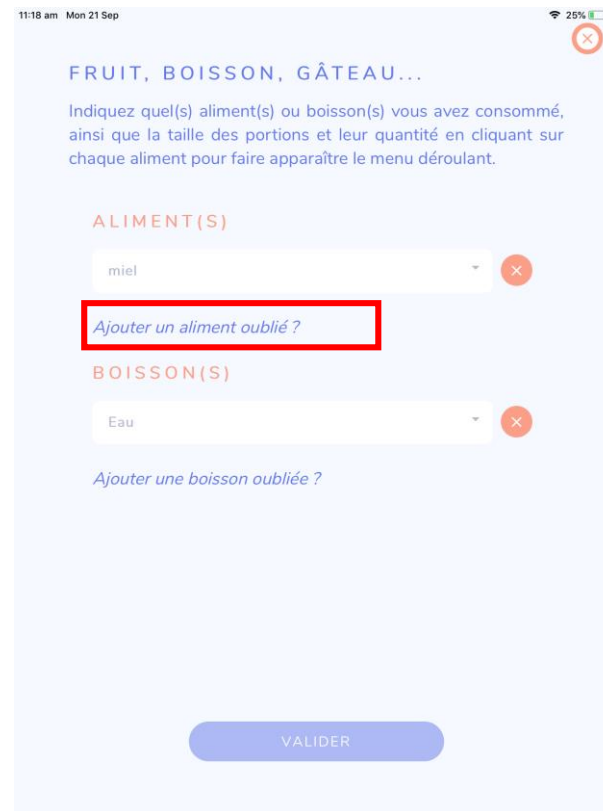
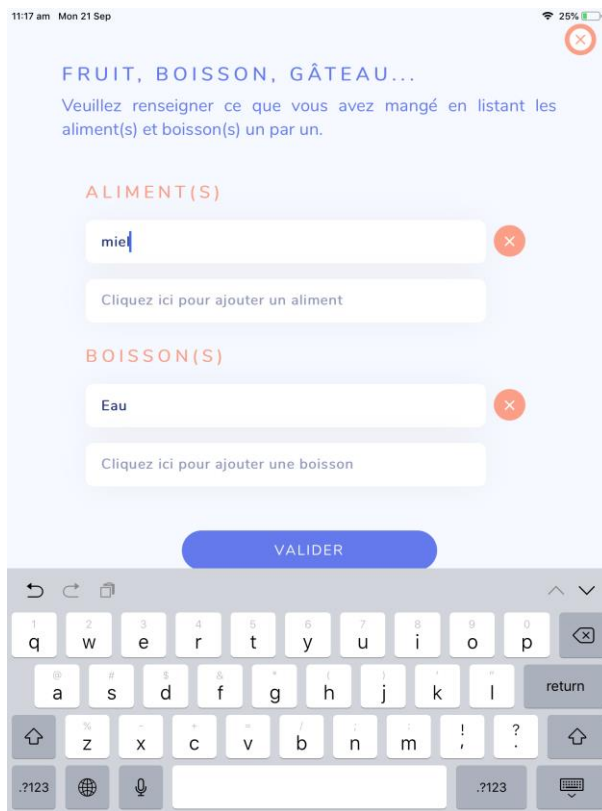
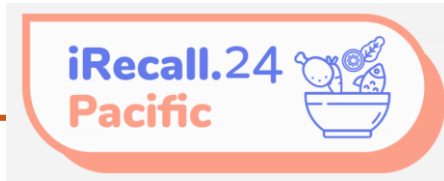






# iRecall.24 – A digital nutrition app for Pacific Islands

## iRecall.24 Pacific app

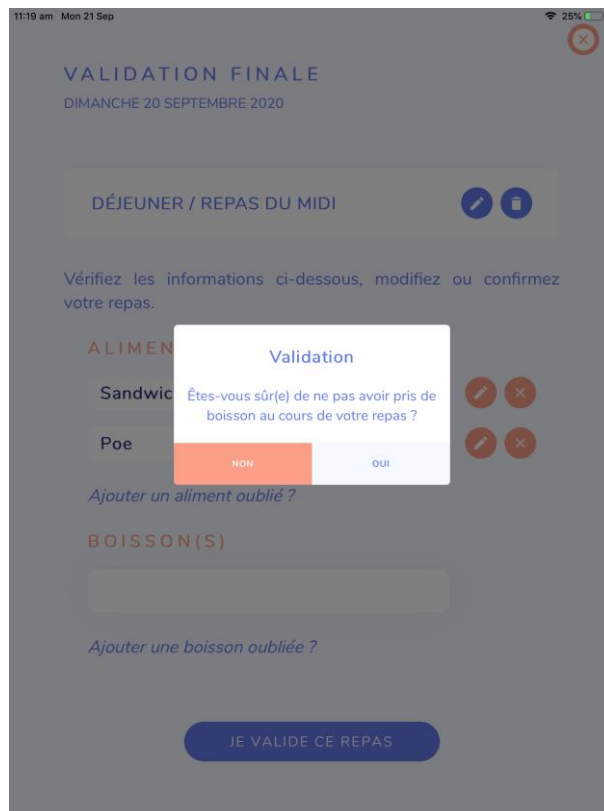
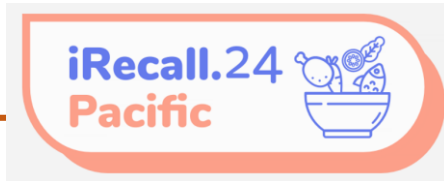


## Forgotten foods



# iRecall.24 – A digital nutrition app for Pacific Islands

## iRecall.24 Pacific app





## iRecall.24 – A digital nutrition app for Pacific Islands

### Alignment with FALAH work package & research questions

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WP2

- 2.1 Gather and summarize knowledge on cropping practices, **consumption**, innovation and the dynamics of family farming
- 2.2 Improve understanding of how family farming functions through ecological, economic, sociological and spatial dimensions and how it adapts to the environment

WP3

- 3.1 Examine the effects of family farming on lifestyle and its impact on the health and well-being
- 3.2 Explore nutrition and physical activity in families practicing family farming
- 3.3 Analyse inter-generational benefit on family farming lifestyle

WP4

- 4.1 Compare traditional family farming practices, its adaptation to the environment and identify best practices to disseminate
- 4.2 Examine the role of school in promoting food education, physical activity, and changing dietary habits
- 4.3 Share new knowledge to develop sustainable intervention strategies that can help people from other regions
- 4.4 Accumulate, cross and share traditional and scientific knowledge on small-scale farming and eating habits to establish production and consumption strategies adapted to the socio-cultural context.



## iRecall.24 – A digital nutrition app for Pacific Islands

### Opportunities and future directions

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- Extend the impact and collaborative opportunities provided by FALAH to have pooled data and greater granularity of understanding of nutrition
- Expand, update and customise the food composition database with The Pacific Islands food composition tables 3<sup>rd</sup> Edition and foods specific to other Pacific Island countries and territories
- Translate and develop further versions of the iRecall.24 app into other local languages
- Data analysis will allow identification of nutrition transitions aspects, food systems, food quality and health outcomes both related to family farming in schools, in communities (social dimensions); in rural and urban areas (spatial dimensions) and with seasonal changes (temporal dimensions)
- Understanding intergenerational nutrition behaviours as they are influenced by family farming production, diet and health outcomes, including obesity
- National nutrition surveys in the Pacific Islands could be administered using iRecall.24 (e.g. Australia & ASA-24)



# iRecall.24 – A digital nutrition app for Pacific Islands

Published paper


**Chen, J.; Bertrand, S.; Galy, O.;**  
Raubenheimer, D.; Allman-Farinelli, M.;

Caillaud, C. The Design and Development of a Food Composition Database for an Electronic Tool to Assess Food Intake in New Caledonian Families. *Nutrients* **2021**, *13*, 1668. <https://doi.org/10.3390/nu13051668>



Article

## The Design and Development of a Food Composition Database for an Electronic Tool to Assess Food Intake in New Caledonian Families

Juliana Chen <sup>1,\*</sup>, Solène Bertrand <sup>2,3</sup>, Olivier Galy <sup>2</sup>, David Raubenheimer <sup>4</sup>, Margaret Allman-Farinelli <sup>1</sup>   
and Corinne Caillaud <sup>5</sup>

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- \* Correspondence: juliana.chen@sydney.edu.au



**Citation:** Chen, J.; Bertrand, S.; Galy, O.; Raubenheimer, D.; Allman-Farinelli, M.; Caillaud, C. The Design and Development of a Food Composition Database for an Electronic Tool to Assess Food Intake in New Caledonian Families. *Nutrients* **2021**, *13*, 1668. <https://doi.org/10.3390/nu13051668>

Academic Editor: Jose Lara

Received: 27 March 2021  
Accepted: 11 May 2021  
Published: 14 May 2021

**Abstract:** The food environment in New Caledonia is undergoing a transition, with movement away from traditional diets towards processed and discretionary foods and beverages. This study aimed to develop an up-to-date food composition database that could be used to analyze food and nutritional intake data of New Caledonian children and adults. Development of this database occurred in three phases: Phase 1, updating and expanding the number of food items to represent current food supply; Phase 2, refining the database items and naming and assigning portion size images for food items; Phase 3, ensuring comprehensive nutrient values for all foods, including saturated fat and total sugar. The final New Caledonian database comprised a total of 972 food items, with 40 associated food categories and 25 nutrient values and 615 items with portion size images. To improve the searchability of the database, the names of 593 food items were shortened and synonyms or alternate spelling were included for 462 foods. Once integrated into a mobile app-based multiple-pass 24-h recall tool, named iRecall.24, this country-specific food composition database would support the assessment of food and nutritional intakes of families in New Caledonia, in a cross-sectional and longitudinal manner, and with translational opportunities for use across the wider Pacific region.

**Keywords:** food composition database; dietary assessment; children; adults; Pacific Islands; Melanesia; Polynesia; mHealth; mobile applications; nutrition transition





# iRecall.24 – A digital nutrition app for Pacific Islands

## Pre-test in NC – Protocol

---

### 1 - Data entry reliability trial

Aim : ensure that the 2 dietitians in charge of collecting data during the pre-test are entering food in the same way

### 2 - Data collection

- Sample (120 participants)
- Information sheet
- Consent form
- Making appointments (2 interviews/ 2 days of recall)
- Satisfaction survey
- Thank you-gifts

### 3 – Data analysis



# iRecall.24 – A digital nutrition app for Pacific Islands

## Pre-test in NC – Updates & way forward

### Phase 1 : Data entry reliability trial

- Three days' of commonly eaten meals in New Caledonia has been assembled, weighed and presented to the 2 dietitians
- The dietitians have entered the information on the iRecall.24 app



Jour 2					
Petit déjeuner	Qté	Déjeuner	Qté	Dîner	Qté
Un café	1 tasse	Salade de pâtes	298g	rouleaux de printemps	290g
6 sao	-	fromage brie	20g	potatoes	103g
Jour 3					
Petit déjeuner	Qté	Déjeuner	Qté	Dîner	Qté
1 petite bouteille de jus	250g	Pâte bolognaise	405	Salade tahitienne et riz	300g
Bol de lait avec corn flakes nature	260g	Une compote	105g	Riz	120g
				Pain	35g
				Un yaourt nature	134g



# iRecall.24 – A digital nutrition app for Pacific Islands

## Pre-test in NC – Updates & way forward



- The app has generated an excel document that we've turned into a database to allow analysis

Identifiant	Jour de co	Repas	ID Aliment / Boisson	Portion	Quantite	ID Image	Nom aliment FR	Poids
00001	09/02/2021	Petit dejeuner	NC20_CQ_CB7113		5	1 Gsli.jpg	Pain de mie, multicereales	37
00001	09/02/2021	Petit dejeuner	NC20_PL_FOP003	C	1	1 703.jpg	Beurre doux	5,3
00001	09/02/2021	Petit dejeuner	NC20_CQ_BT18020		2	1 Gmug.jpg	Thé infusé, non sucré	0
00002	09/02/2021	Petit dejeuner	NC20_CQ_CB7113		4	2 Gsli.jpg	Pain de mie, multicereales	27
00002	09/02/2021	Petit dejeuner	NC20_CQ_BT18020		3	1 Gmug.jpg	Thé infusé, non sucré	0
00001	09/02/2021	Dejeuner / Repas du midi	NC20_CQ_MX25088	B	1	1 rizcantonais_200g.jpg	Riz cantonnais	200
00001	09/02/2021	Dejeuner / Repas du midi	NC20_PL_MIM041		5	1 Gyog.jpg	Yogourt, nature, sans sucre	120
00001	09/02/2021	Dejeuner / Repas du midi	NC20_AU_EA01B10311		5	1 gsoftdrnk.jpg	Eau, robinet	#N/A
00002	09/02/2021	Dejeuner / Repas du midi	NC20_CQ_MX25088	B	1	1 rizcantonais_200g.jpg	Riz cantonnais	200
00002	09/02/2021	Dejeuner / Repas du midi	NC20_PL_MIM041		5	1 Gyog.jpg	Yogourt, nature, sans sucre	120
00002	09/02/2021	Dejeuner / Repas du midi	NC20_NW_EAGEW007		5	1 gsoftdrnk.jpg	Eau	#N/A
00001	09/02/2021	Diner / Repas du soir	NC20_AU_MX02F40226	C	1	1 bami_400g.jpg	Bami goreng, nouilles viande et légumes	400
00001	09/02/2021	Diner / Repas du soir	NC20_PL_FRE012		5	1 Gban.jpg	Banane	126
00002	09/02/2021	Diner / Repas du soir	NC20_AU_MX02F40226	B	1	1 bami_200g.jpg	Bami goreng, nouilles viande et légumes	200
00002	09/02/2021	Diner / Repas du soir	NC20_PL_FRE012		5	1 Gban.jpg	Banane	126
00001	10/02/2021	Petit dejeuner	NC20_AU_CR02C10117		6	6 Gcra.jpg	Biscuit type cracker sao	8
00001	10/02/2021	Petit dejeuner	NC20_CQ_BT18073		2	1 Gmug.jpg	Café, instantané, non sucré	0
00002	10/02/2021	Petit dejeuner	NC20_AU_CR02C10117		6	6 Gcra.jpg	Biscuit type cracker sao	8
00002	10/02/2021	Petit dejeuner	NC20_CQ_BT18073		2	1 Gmug.jpg	Café, instantané, non sucré	0
00001	10/02/2021	Dejeuner / Repas du midi	NC20_FP_MX094	B	1	1 94FP_D.jpg	Salade de pâtes	300
00001	10/02/2021	Dejeuner / Repas du midi	NC20_PL_CHM007	B	1	1 brie_30g.jpg	Brie	30
00001	10/02/2021	Dejeuner / Repas du midi	NC20_AU_EA01B10311		5	1 gsoftdrnk.jpg	Eau, robinet	#N/A
00002	10/02/2021	Dejeuner / Repas du midi	NC20_FP_MX094	B	1	1 94FP_D.jpg	Salade de pâtes	300
00002	10/02/2021	Dejeuner / Repas du midi	NC20_PL_CHM007	B	1	1 brie_30g.jpg	Brie	30
00002	10/02/2021	Dejeuner / Repas du midi	NC20_NW_EAGEW007		5	1 gsoftdrnk.jpg	Eau	#N/A
00001	10/02/2021	Diner / Repas du soir	NC20_CQ_SC25419	A	2	2 20FP.jpg	Rouleau de printemps	70
00001	10/02/2021	Diner / Repas du soir	NC20_PL_CDT043		2	1 129FP.jpg	Sauce barbecue	30
00001	10/02/2021	Diner / Repas du soir	NC20_AU_CS13A12389	A	1	1 chipth1.jpg	Frites de pommes de terre, surgelées, frites	70
00001	10/02/2021	Diner / Repas du soir	NC20_AU_EA01B10311		5	1 gsoftdrnk.jpg	Eau, robinet	#N/A
00002	10/02/2021	Diner / Repas du soir	NC20_CQ_SC25419	A	2	2 20FP.jpg	Rouleau de printemps	70
00002	10/02/2021	Diner / Repas du soir	NC20_PL_CDT043		2	1 129FP.jpg	Sauce barbecue	30
00002	10/02/2021	Diner / Repas du soir	NC20_AU_CS13A12389	B	1	1 chipth2.jpg	Frites de pommes de terre, surgelées, frites	91
00002	10/02/2021	Diner / Repas du soir	NC20_NW_EAGEW007		5	1 gsoftdrnk.jpg	Eau	#N/A

## Next step

- Statistical tests of agreement need to be conducted – % agreement between dietitians



# iRecall.24 – A digital nutrition app for Pacific Islands

## Pre-test in NC – Updates & way forward

### Phase 2: Data collection with participants

- **Timeline** : March to June 2021
- **Final sample** : 121 participants

Had to be adjusted due to weather conditions (cyclone, floodings) an COVID crisis (lockdown) during the pilot study.

URBAN (40)		
URBAN - kanak	10 /10	OK
URBAN - Other oceanian	12 /10	OK
URBAIN - asian	11 /10	OK
URBAIN - european	16 /10	OK
<b>TOTAL</b>	<b>49 /40</b>	<b>OK</b>

Adults sample 81 /80		
RURAL (20)		
RURAL South	2 /10	
RURAL North	10 /10	OK
<b>TOTAL</b>	<b>12 /20</b>	

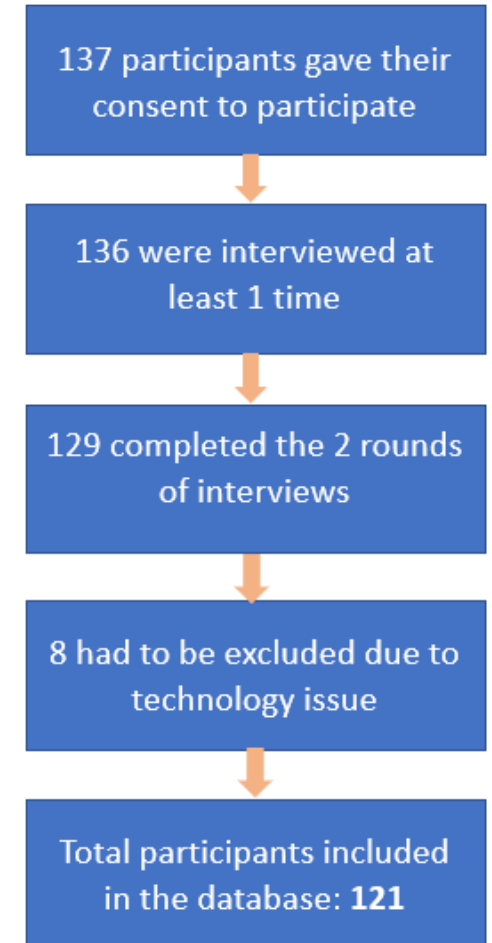
VILLAGE (20)		
VILLAGE -Main island	10 /10	OK
VILLAGE - other islands	10 /10	OK
<b>TOTAL</b>	<b>20 /20</b>	<b>OK</b>

9 - 11 ans (20)		
URBAN	19 /10	OK
RURAL	1 /5	
VILLAGE	0 /5	
<b>TOTAL</b>	<b>20 /20</b>	<b>OK</b>

Children sample 40 /40		
12 - 18 ans (20)		
URBAN	14 /10	OK
RURAL	6 /5	OK
VILLAGE	0 /5	
<b>TOTAL</b>	<b>20 /20</b>	<b>OK</b>







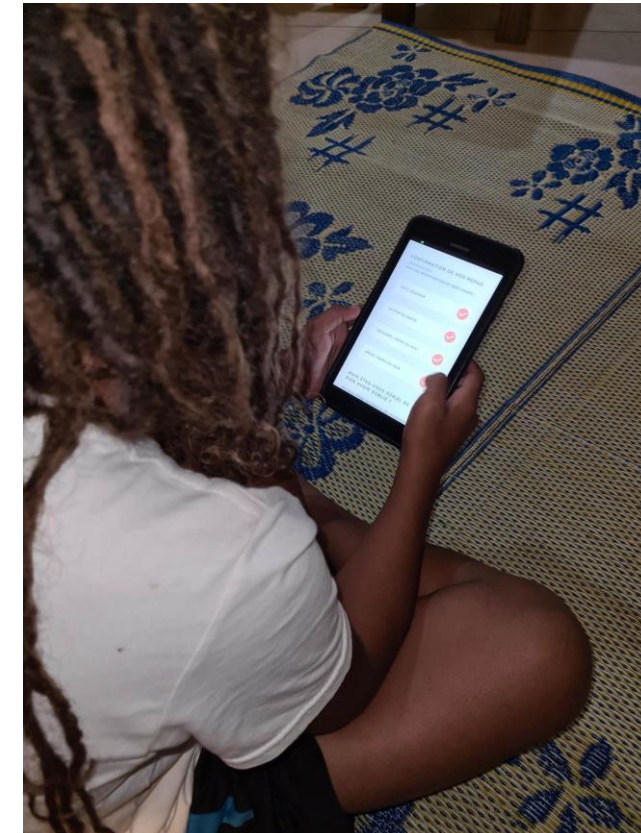
# iRecall.24 – A digital nutrition app for Pacific Islands

## Pre-test in NC – Updates & way forward

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## Phase 2: Data collection with participants

- **2 interviews for each participants :**
  - 1/ Self-administered recall or in-person interview with the dietitian – randomly chosen
  - 2/ The second appointment proceeded the same way, but with the collection methods in reverse order.







# iRecall.24 – A digital nutrition app for Pacific Islands

## Pre-test in NC – Updates & way forward



The app has generated an excel document that we've turned into a database to allow analysis

22327	16/02/2024	3.gouter	17	6 16:30	990	3.A la mai 2.famille	5.Pas d'ec 1.habitue	NC20_PI_1	2	Gcake.jpg	2	9	Adulte	18	34	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	3.gouter	17	6 16:30	990	3.A la mai 2.famille	5.Pas d'ec 1.habitue	NC20_NW4	1	gsoftdrnk	2	9	Adulte	18	34	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	3.gouter	18	6 16:30	990	3.A la mai 2.famille	1.En regai 1.habitue	NC20_PI_1	2	Gcake.jpg	2	9		18			1 2-diet	2
22327	16/02/2024	3.gouter	18	6 16:30	990	3.A la mai 2.famille	1.En regai 1.habitue	NC20_NW4	1	gsoftdrnk	2	9		18			1 2-diet	2
22327	16/02/2024	4.gouter	11	6 10:00	600	7.Au trav 3.seul(e)	5.Pas d'ec 1.habitue	NC20_NW1	4	gsoftdrnk	1	6	Adulte	12	62	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	4.gouter	12	6 10:00	600	7.Au trav 3.seul(e)	2.En utilis 2.moins q	NC20_NW1	4	gsoftdrnk	1	6		12			1 2-diet	2
22327	16/02/2024	4.gouter	17	6 09:00	540	3.A la mai 2.famille	2.En utilis 1.habitue	NC20_NW6	1	gsoftdrnk	2	9	Adulte	18	34	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	4.gouter	17	6 09:00	540	3.A la mai 2.famille	2.En utilis 1.habitue	NC20_CQ_2	1	Gmug.jpg	2	9	Adulte	18	34	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	4.gouter	18	6 09:00	540	3.A la mai 3.seul(e)	2.En utilis 1.habitue	NC20_NW6	1	gsoftdrnk	2	9		18			1 2-diet	2
22327	16/02/2024	4.gouter	18	6 09:00	540	3.A la mai 3.seul(e)	2.En utilis 1.habitue	NC20_CQ_2	1	Gmug.jpg	2	9		18			1 2-diet	2
22327	16/02/2024	5.petit de	11	6 06:30	390	7.Au trav 3.seul(e)	5.Pas d'ec 1.habitue	NC20_CQ_3	3	Gmug.jpg	2	6	Adulte	12	62	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	11	6 06:30	390	7.Au trav 3.seul(e)	5.Pas d'ec 1.habitue	NC20_NW1	5	gsoftdrnk	2	6	Adulte	12	62	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	12	6 06:30	390	3.A la mai 3.seul(e)	5.Pas d'ec 2.moins q	NC20_CQ_2	1	Gmug.jpg	1	6		12			1 2-diet	2
22327	16/02/2024	5.petit de	13	6 05:45	345	3.A la mai 2.famille	5.Pas d'ec 2.moins q	NC20_CQ_A	1	199FP.jpg	3	7	Adulte	14	52	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	13	6 05:45	345	3.A la mai 2.famille	5.Pas d'ec 2.moins q	NC20_NW5	2	gsoftdrnk	3	7	Adulte	14	52	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	13	6 05:45	345	3.A la mai 2.famille	5.Pas d'ec 2.moins q	NC20_CQ_5	1	Gmug.jpg	3	7	Adulte	14	52	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	14	6 05:45	345	3.A la mai 2.famille	5.Pas d'ec 2.moins q	NC20_CQ_A	1	199FP.jpg	3	7		14			1 2-diet	2
22327	16/02/2024	5.petit de	14	6 05:45	345	3.A la mai 2.famille	5.Pas d'ec 2.moins q	NC20_NW5	2	gsoftdrnk	3	7		14			1 2-diet	2
22327	16/02/2024	5.petit de	14	6 05:45	345	3.A la mai 2.famille	5.Pas d'ec 2.moins q	NC20_CQ_5	1	Gmug.jpg	3	7		14			1 2-diet	2
22327	16/02/2024	5.petit de	17	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_PI_2	2	Gban.jpg	5	9	Adulte	18	34	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	17	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_PI_1	5	Gspn.jpg	5	9	Adulte	18	34	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	17	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_PIAA	1	142FP_B.j	5	9	Adulte	18	34	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	17	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_NW6	1	gsoftdrnk	5	9	Adulte	18	34	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	17	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_PI_5	1	Gspn.jpg	5	9	Adulte	18	34	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	18	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_PI_2	2	Gban.jpg	5	9		18			1 2-diet	2
22327	16/02/2024	5.petit de	18	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_PIAA	1	142FP_B.j	5	9		18			1 2-diet	2
22327	16/02/2024	5.petit de	18	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_PI_1	1	Gspn.jpg	5	9		18			1 2-diet	2
22327	16/02/2024	5.petit de	18	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_NW6	1	gsoftdrnk	5	9		18			1 2-diet	2
22327	16/02/2024	5.petit de	18	6 07:30	450	3.A la mai 2.famille	3.En utilis 1.habitue	NC20_PI_5	1	Gspn.jpg	5	9		18			1 2-diet	2
22327	16/02/2024	5.petit de	19	6 07:30	450	3.A la mai 3.seul(e)	5.Pas d'ec 1.habitue	NC20_CQ_E	1	RiceBo5.j	4	10	Enfant 12	21	14	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	19	6 07:30	450	3.A la mai 3.seul(e)	5.Pas d'ec 1.habitue	NC20_AU_4	1	Ghotdrinl	4	10	Enfant 12	21	14	2 5_URBAIN	1 1-particip	1
22327	16/02/2024	5.petit de	19	6 07:30	450	3.A la mai 3.seul(e)	5.Pas d'ec 1.habitue	NC20_PI_1	3	Gspn.jpg	4	10	Enfant 12	21	14	2 5_URBAIN	1 1-particip	1

### Next step

- Statistical tests of agreement between self-administered vs dietitian assisted ('gold standard') – % agreement between 2 methods; Bland Altman plots; correlations

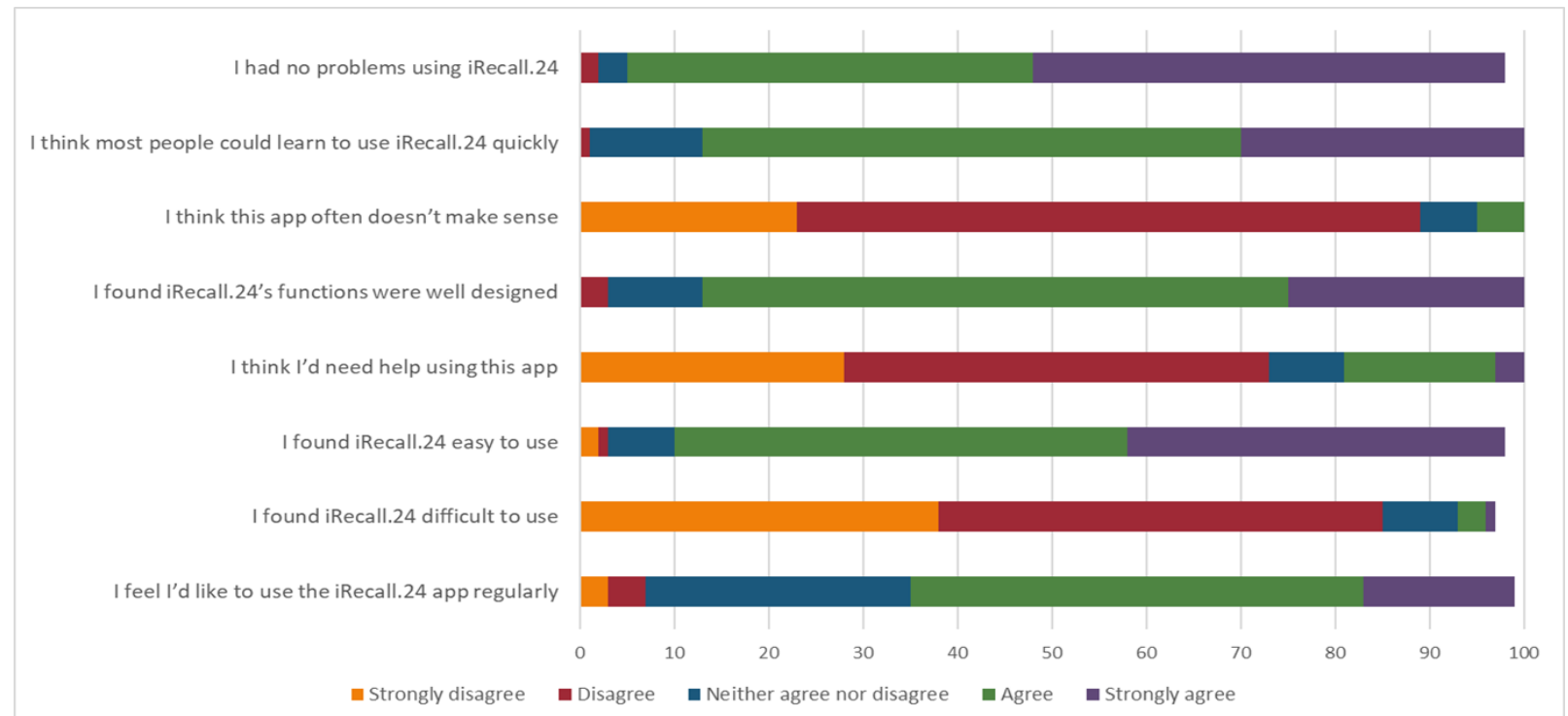


# iRecall.24 – A digital nutrition app for Pacific Islands

## Pre-test in NC – Updates & way forward

### Phase 3 : Satisfaction survey

- All participants completed a questionnaire (paper)
- Data entered and analyzed in Excel

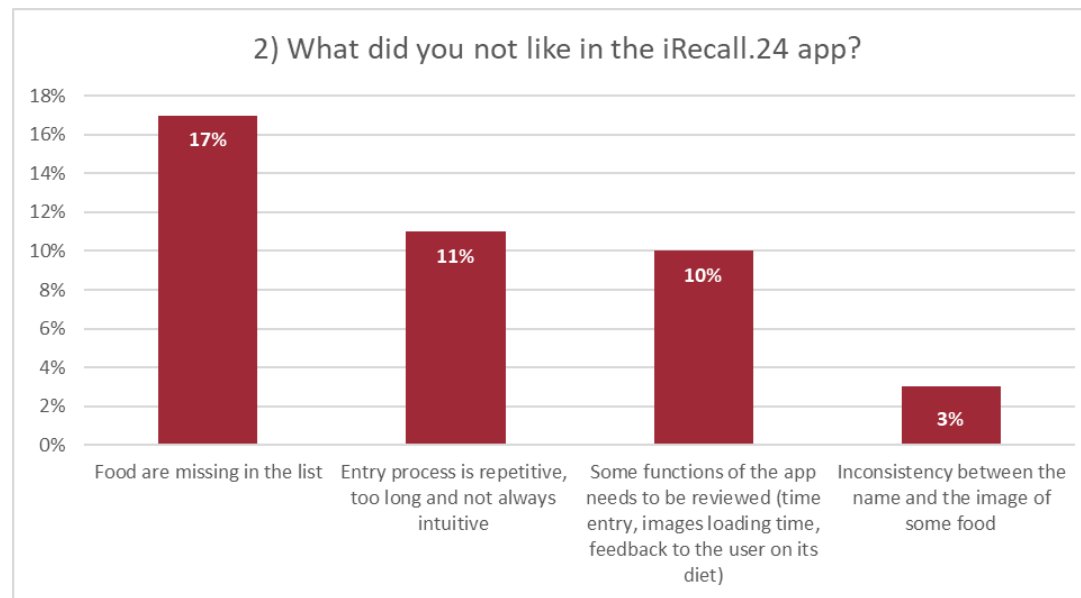
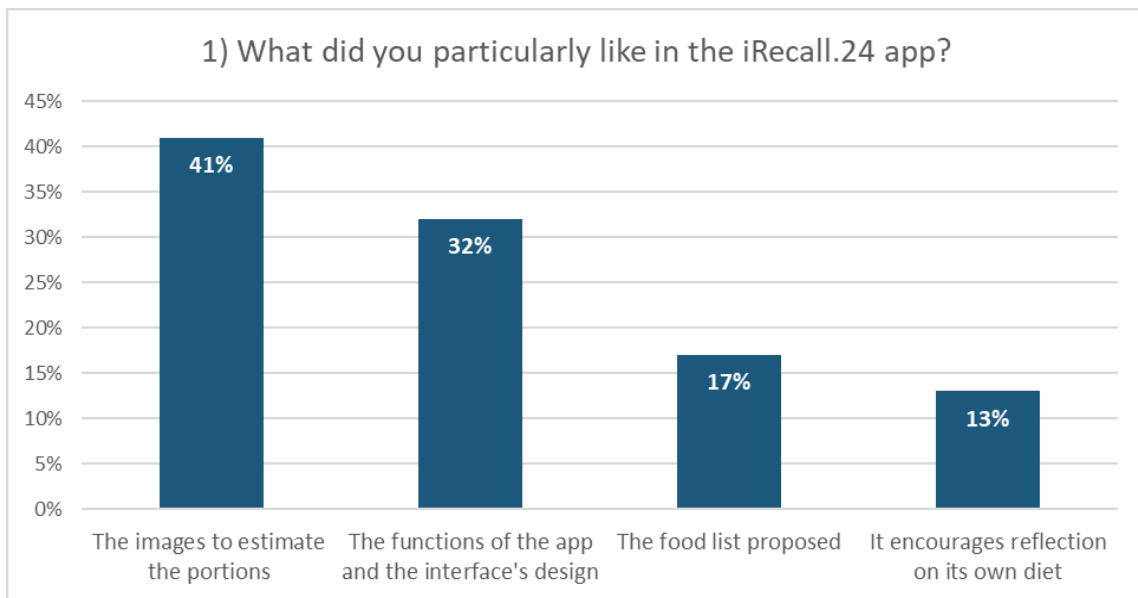




# iRecall.24 – A digital nutrition app for Pacific Islands

## Pre-test in NC – Updates & way forward

### Phase 3 : Satisfaction survey



### 3) What could be improved in iRecall.24?

Add more dishes/ingredients/condiments propositions in the database	31%
Give a feedback to the user on its diet	6%
Add more containers	5%
Merge steps 1 & 2 (enable users to write the name of the food and immediately choose the name from the list and quantity)	5%
Add a presentation of the process and the various entry steps (video/tuto)	4%
Improve the consistency between food and photos	4%
Add more drinks propositions in the list	3%
Make time entry easier	3%



## iRecall.24 – A digital nutrition app for Pacific Islands

### Pre-test in NC – Updates & way forward

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#### **iRecall.24 interface : improvements needed (usability of the app)**

- Entering mealtimes : This function is too sensitive, the numbers scroll by too fast and it's difficult to choose the time you want
- Entering data : There should be a note saying to enter only one food item per line
- Adjustment required to the drop-down menu for choosing foods to make it more readable
- Login : in case of Internet outage, you must start all over again from the beginning (no recording)

# SINU TEAM



Joséphine MAELUA

Assess the school environment influences dietary intake and physical activity level in primary school children in Peri urban and urban setting



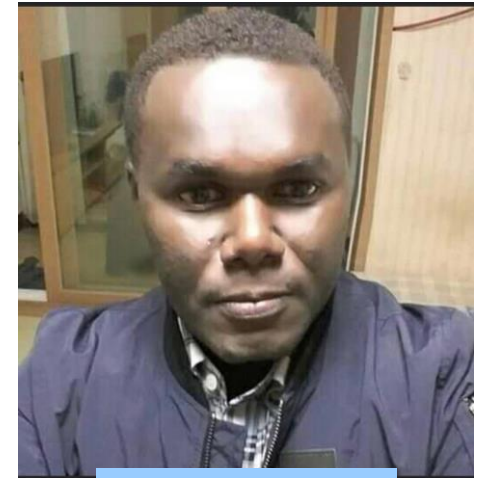
Dr Hugo BUGORO

*Vector Borne Diseases, malaria, climate and environment variabilities, mosquito bionomics, malaria elimination*



Mary TAHU

Assessing mangrove health and productivity to enhance coastal resilience against climate change



Jin DAMUSARU

*Aqua-farming, sustainable agriculture, Climate Change, crop varieties, shifting cultivation*



Dr John FASI

*Invasive species, horticulture and biological control: challenges to livelihoods in communities in SI.*



Leeroy JOSHUA

Improving postharvest horticultural handling practices in the Solomon Islands





## WP2

**How to improve knowledge on Family Farming in the Pacific and its contribution within the Nexus of Agriculture-Food-Health?  
Falah research questions, definitional issues and few methodological tips to embrace FF complexity and diversity**

Séverine Bouard, PhD, Senior Research Fellow,  
IAC - Institute of agronomy of New Caledonia



# Work Package 2

## How to answer to research questions?

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### Inside the work package

WP2

2.1 Gather and summarize knowledge on cropping practices, consumption, innovation and the dynamics of family farming

2.2 Improve understanding of how family farming functions through ecological, economic, sociological and spatial dimensions and how it adapts to the environment

Understanding the properties and interactions between **soil and vegetation** within cultivated systems to **optimise agro-ecological practices & agrobiodiversity**

Analyze the **uses, know-how and practices** of rural households, their **consumption practices of own-grown production** to support the dynamics of rural societies

Improve Food security



## Definitional issue: what is FF?

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- « There is no universally accepted definition of “family farming” ». (Lowder and al., 2014)
- The absence of a standardised and operational definition of family farming in the censuses and the low use of this name in many regions of the world are at the origin of some confusion which implies a necessary proposal for clarification. (Bosc et al., 2018)
- For some authors, there is no confusion or debate around the term itself, except when the context in which family farming operates evolves drastically or if the family farm itself experiences some big changes. However, both conditions are here, which requires an overhaul of the concept of family farming. (Van der Ploeg, 2016).



## Definitional issue: what is FF?

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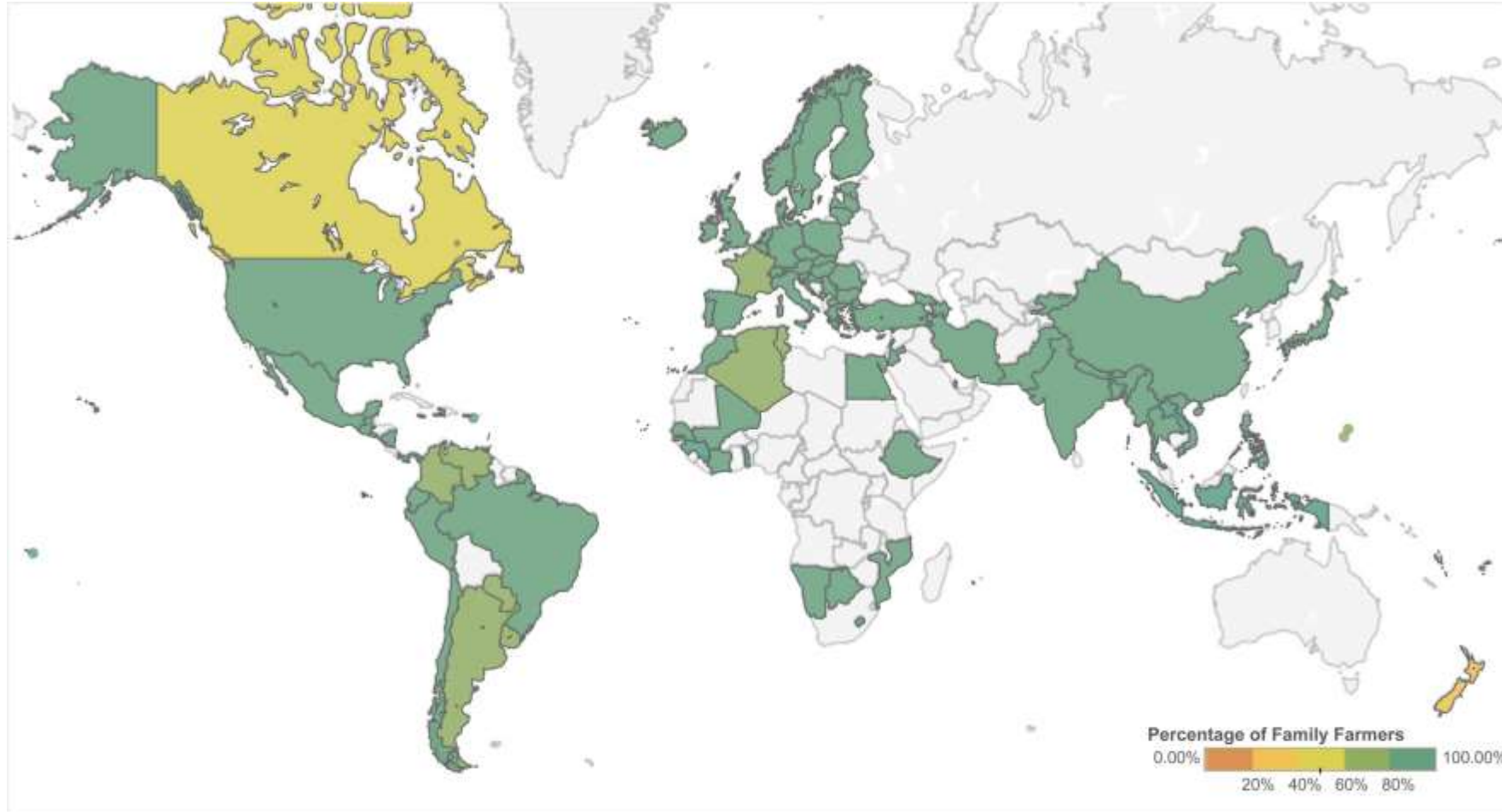
Family farming is “a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family capital and labour, including both women’s and men’s. The family and the farm are linked, co-evolve and combine economic, environmental, social and cultural functions.” »

## FAO : 2 definitions

“A family farm is an agricultural holding which is managed and operated by a household and where farm labour is largely supplied by that household.”



# Few illustrations of the importance of FF



Source: Own calculations.

Figure 1. World map with countries covered and the percent of family farms in each country  
[Benjamin E. Graeub, M. Jahi Chappell, Hannah Wittman, Samuel Ledermann, Rachel BeznerKerr, BarbaraGemmill-Herren, 2016, The State of Family Farms in the World, World Development, 85, 1-15](#)



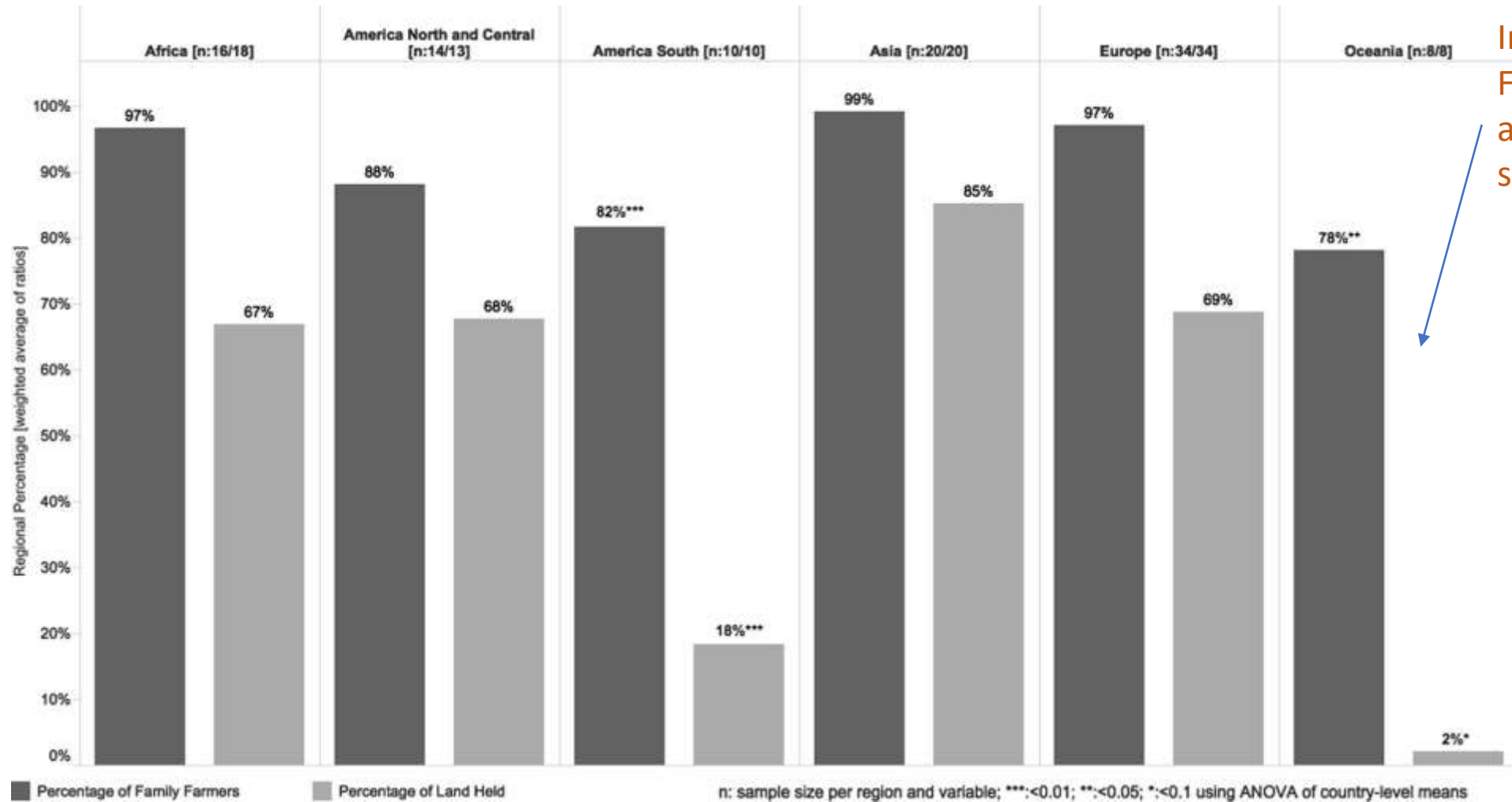


## Few illustrations of the importance of FF



Figure 1. World map with countries covered and the percent of family farms in each country

[Benjamin E.Graeub<sup>a</sup>M. JahiChappell<sup>bc</sup>HannahWittman<sup>d</sup>SamuelLedermann<sup>e</sup>Rachel BeznerKerr<sup>f</sup>BarbaraGemmill-Herren](#), 2016, **The State of Family Farms in the World, World Development, 85, 1-15**



In the Pacific, Family farmers are also smallholders!



Figure 3. Share of family farmers by regional averages.

[Benjamin E.Graeb](#)<sup>a</sup>[M. JahiChappell](#)<sup>bc</sup>[HannahWittman](#)<sup>d</sup>[SamuellLedermann](#)<sup>e</sup>[Rachel BeznerKerr](#)<sup>f</sup>[BarbaraGemmill-Herren](#), 2016, *The State of Family Farms in the World*, *World Development*, 85, 1-15



# But smallholders family farmers doesn't mean weak contribution to world's food!

## Smallholder farms produce one-third of the world's food

The cumulative share of the world's agricultural land, crop production and food supply, broken down by farm size.



Source: Vincent Ricciardi et al. (2018). How much of the world's food do smallholders produce? *Global Food Security*. OurWorldinData.org - Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the author Hannah Ritchie.



# But family farmers doesn't mean weak contribution to world's food!

A recent study (Sarah Lowder, Sanchez, and Bertini, 2019) also estimates the share produced on family farms.

- Definition of a family farm is broad: operated by an individual or group of individuals, where most labor is supplied by the family.
    - they can be of any size – many family farms are large.
    - Family farms produce around 80% of the world's food.
  - Smallholders and Family farmers should not be used interchangeably because they can be very different
  - Increasing the productivity of smallholder farming is a crucial step in countries transitioning from poverty to middle-incomes, for example in Vanuatu
  - No romanticization of a future where most still spend their time working the fields for small returns
- Risk of being trapped in poverty
- This is for all these reasons, that they are at the heart of the Falah project!



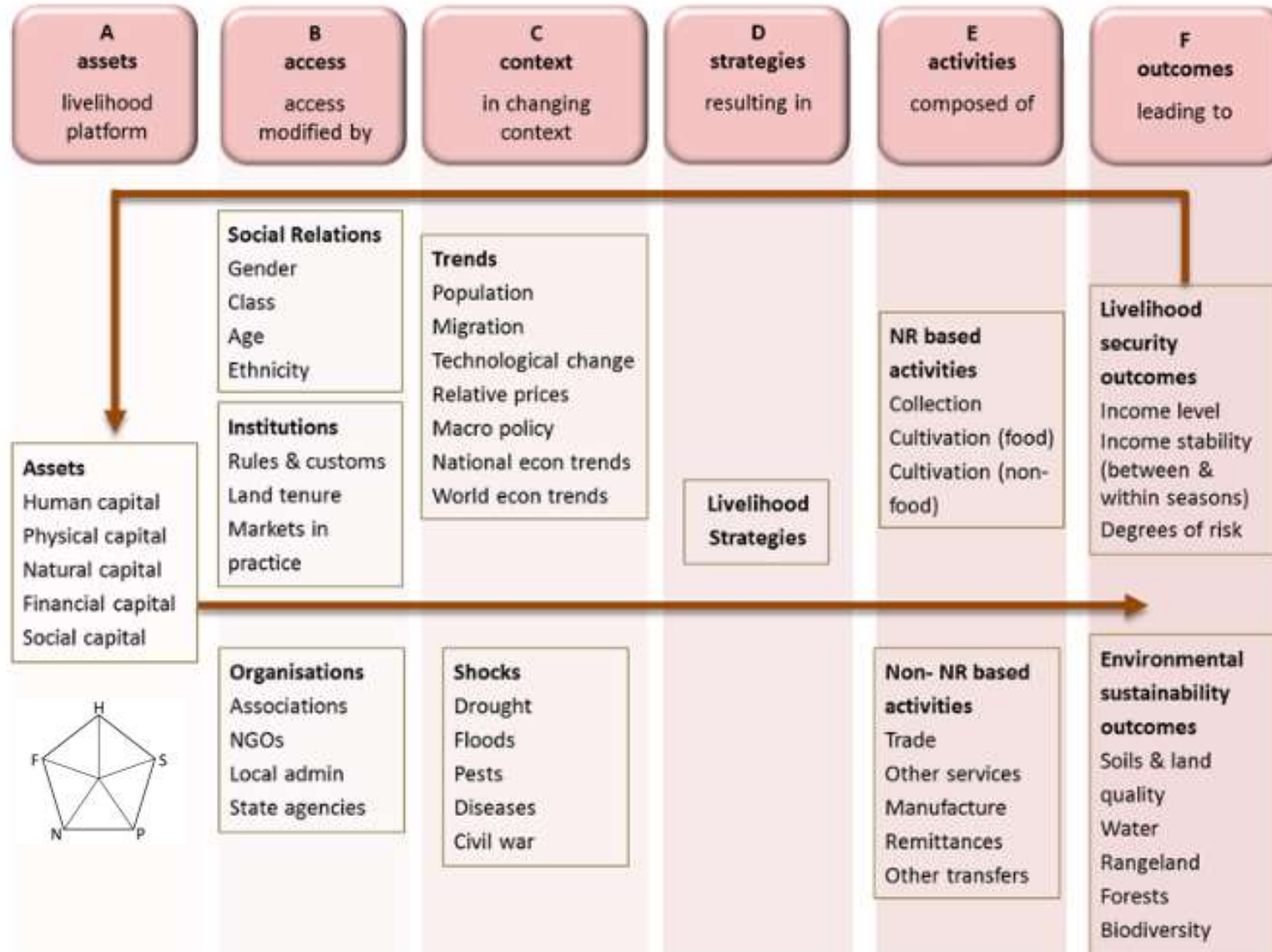
## Family farming in the Pacific

- High level of productivity despite less access to productive resources (inputs and support)
    - In Fiji, 84% of yams, cassava, corn and beans on only 47% of the land (FAO, 2014)
  - But in the Pacific:
    - few data
    - (very) smallholders
    - Narrow, even very narrow market and the place on non-market practices
    - Variable place of cash crops
    - Diversity between the islands...
    - and strong connexions with the Ocean (lagoon gardens, place of fishing activities, etc.)
- Difficulties to embrace all rural activities: opportunities with **livelihoods approach**





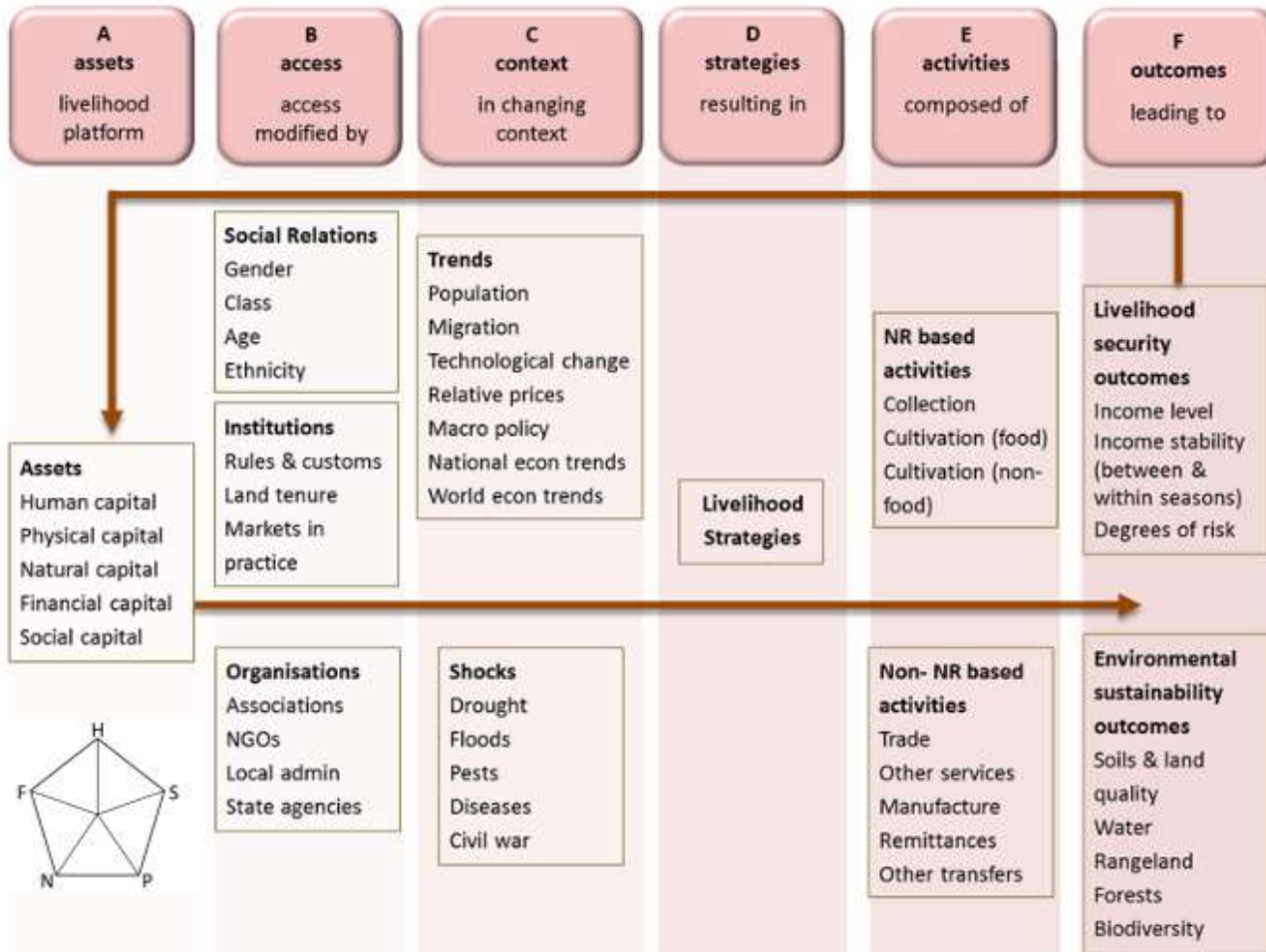
# « Sustainable Rural Livelihoods »



Adapted from Scoones 1996, 1998



# « Sustainable Rural Livelihoods »



- highlights the social relationships that households have with their surroundings, communities and the institutions
- Recognition of the central role of social structures, organisations and institutions  
→ Connexion to public policies
- Non-market dimensions and own consumption of agricultural activities
- Compatibility with crop systems and with the conceptual framework of the agriculture-food-health nexus, at the heart of the transversality of Falah
- Normativity and adaptability needed for comparative perspectives



# Main themes of Falah surveys

---

- Population
  - Demography
  - Activities
  
- Productions
  - Crops
  - Livestock
  - Fishing
  - Hunting
  
- Functions of activities
  - Autoconsumption
  - Gifts & customs (kastom)
  - Sales
  
- Incomes
- And to link with WP3: diet and nutrition questions (24h recall for each members)

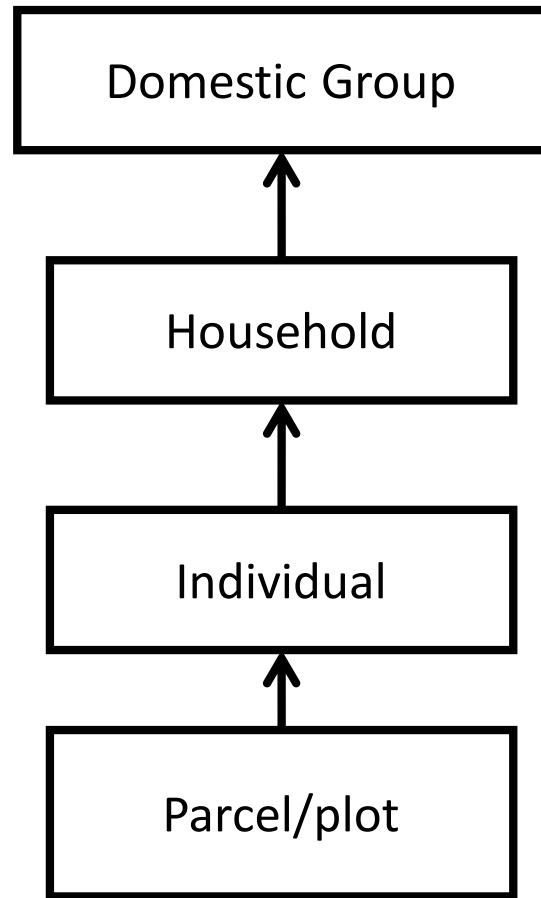


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# Population: the embeddedness of statistical units



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## The problem of the length of a questionnaire?

---

- We often hear that questionnaire should be < 2h00 (or even 30 min)
- 3 conditions to remove this constraint:
  - (i) introduction of the survey in the village or area
  - (ii) explanation and understanding of the purpose of the survey, its end Use and the "interest" of the group to which the respondent belongs
  - (iii) "finesse"/subtlety of the investigator (take a break, make people laugh)



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# The problem of the length of a questionnaire?

---

- We often hear that questionnaire should be < 2h00 (or even 30 min)
- 3 conditions to remove this constraint:
  - (i) introduction of the survey in the village or area
  - (ii) explanation and understanding of the purpose of the survey, its end use and the "interest" of the group to which the respondent belongs (since it was chosen at random)
  - (iii) "finesse"/subtlety of the investigator (take a break, make people laugh)
- The challenge on the field, how to navigate from individual to family scale?...



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# FF in New Caledonia: what does it look like?

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## FF in New Caledonia: what does it look like?

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Crédit photo : IAC





# FF in New Caledonia: what does it look like?

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Crédit photo : IAC





## FF in New Caledonia: what does it look like?

---



Crédit photo : IAC





# FF in New Caledonia: what does it look like?

---

**Crop system in intensification,  
market gardening**



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Thank you for your attention!

# **FALAH Vanuatu: MOET – VARTC Teams First results on Urban and Peri-urban agriculture in Port-Vila and Luganville**

**Adeline Mweleul, Jean-Marie Fotsing**  
MOET - UNC





# Outline



- I. Vanuatu FALAH Teams
  - A. Research Teams: MOET & VARTC
  - B. Research project within FALAH
  
- II. Preliminary explorations
  - A. Local markets in Port-Vila
  - B. Luganville main market





# I . Vanuatu FALAH teams



## A. Research Teams: MoET & VARTC

- ❖ The first team is from the MoET (Ministry of Education and training) teams
- ❖ The second team is from Vanuatu Agricultural Research and Technical Centre (VARTC).



## B. Research project within FALAH

There are three research project within FALAH:

- ❖ Urban and peri-urban agriculture in Vanuatu: issues of development of production and consumption spaces in schools and families in Port-Vila and Luganville
- ❖ Linking family and commercial farming to food security in rural areas in Vanuatu: a case study of Santo and Tanna.
- ❖ Teaching and Learning Mathematics in Vanuatu : Assessing the impact of pedagogical use of sand drawing practices on student attitude , interest and performance

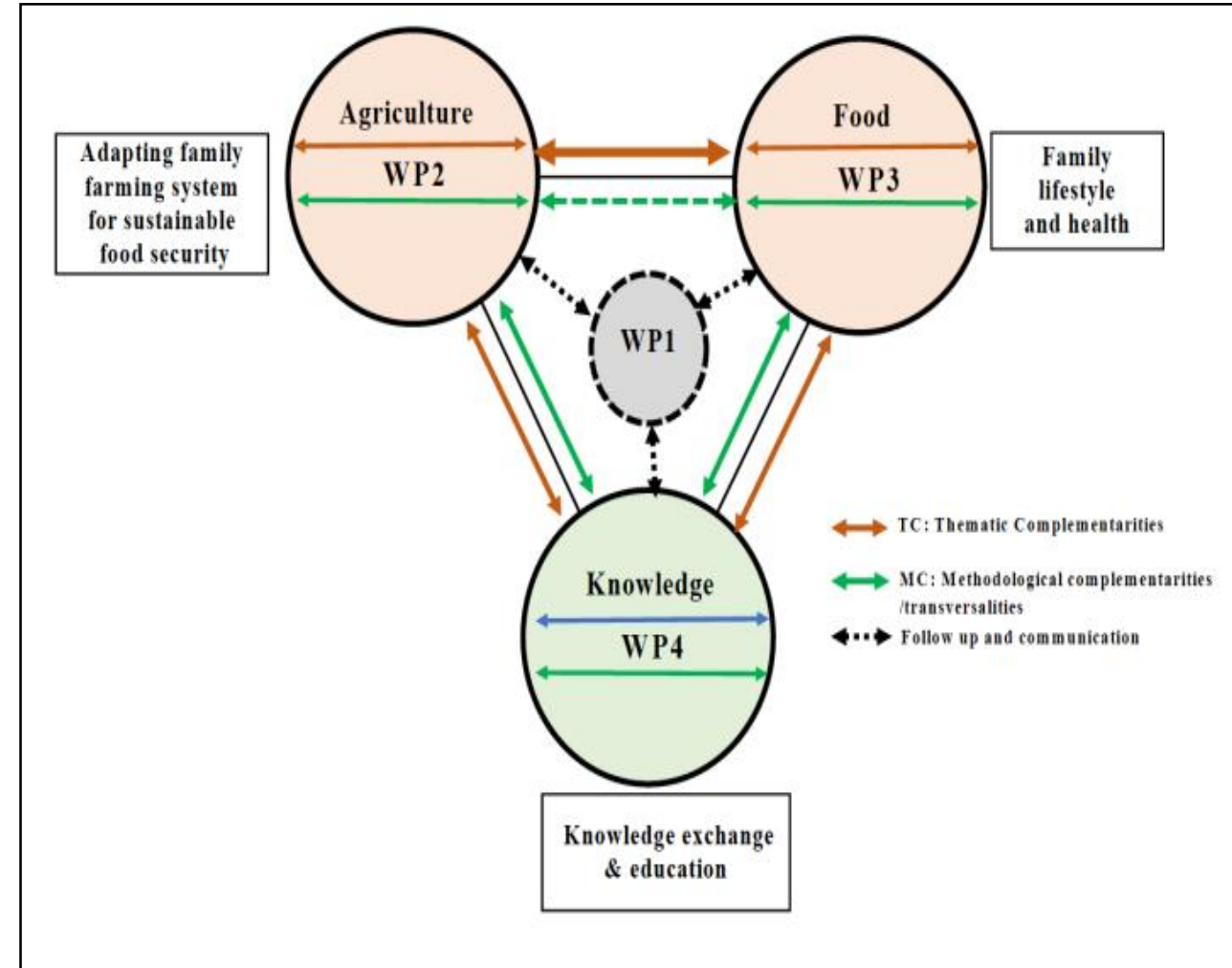
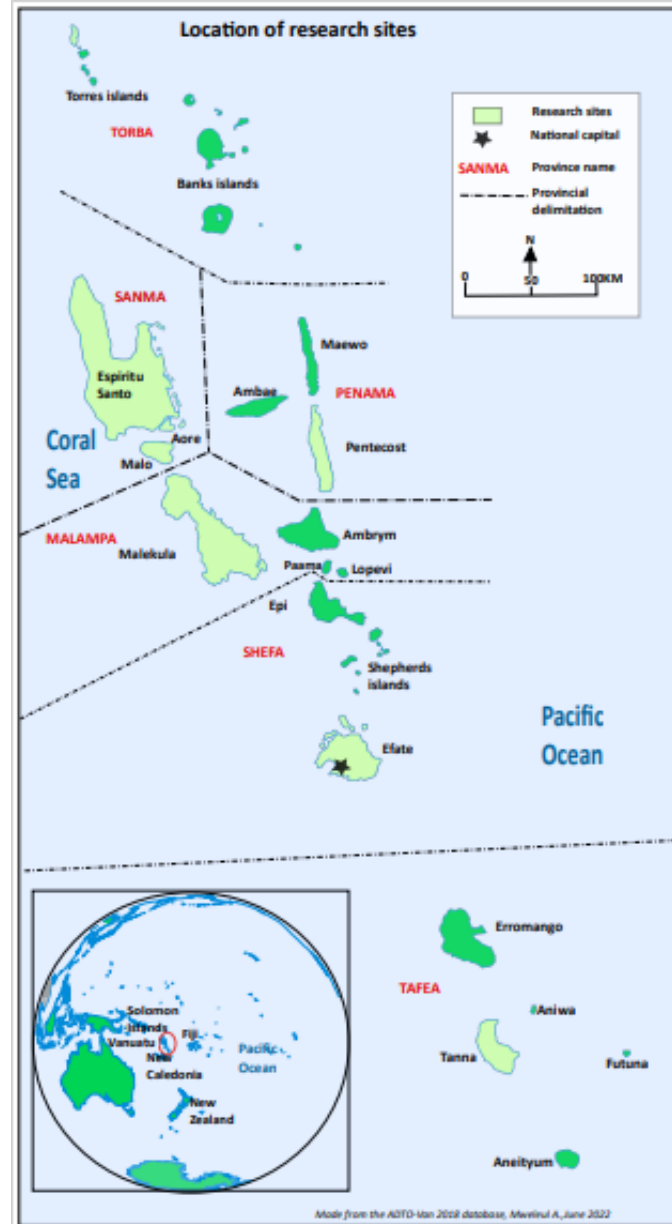


Figure 1: FALAH work package

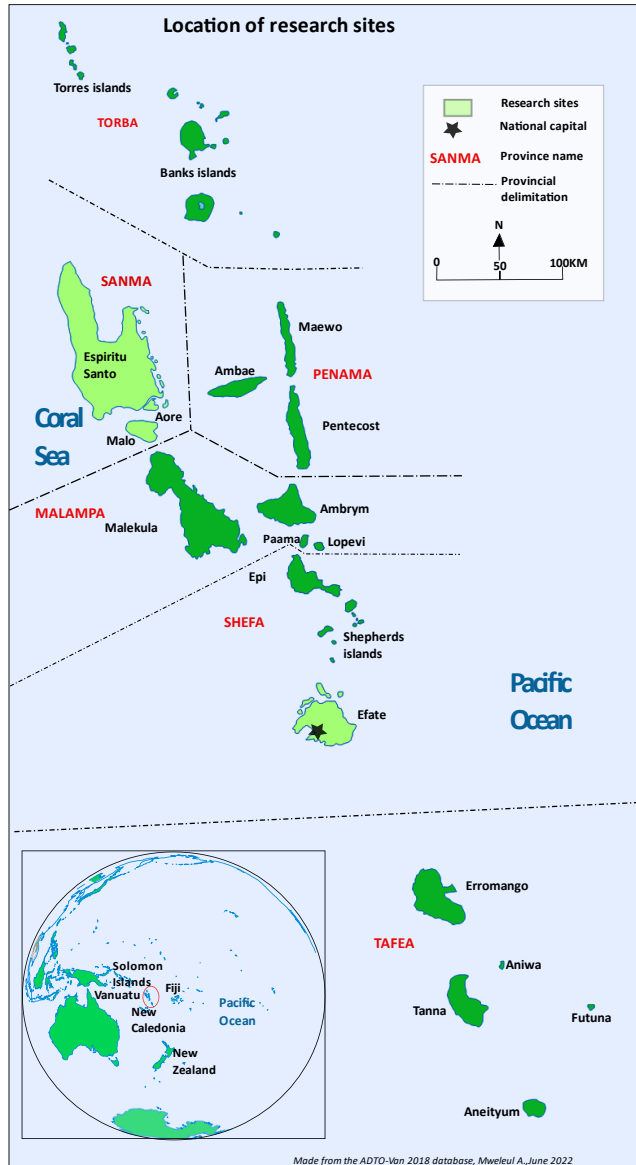


# Initiative fields of research





## II. Preliminary explorations



Contrasts : Work duties

impact of covid 19 Lock down

Flight delay and restrictions on travelling

The research study focuses on the island of Santo in the northern part of the archipelago and the island of Efate, in the Central province.

Main objectives :

- ❖ The delimitation of urban areas via local markets
- ❖ The contribution of urban farming in people's diet and commercialization

Port-Vila is a capital city and Luganville is a small town.





## Methodology used

- ❖ An initial data collection based on an empirical approach conducted in the field in the form of questionnaires and interviews to identify vendors at the municipal market in Luganville, Santo and Port-Vila in Efate , categorize the number of producers and resellers per area and quantify the produce sold.
- ❖ Survey questionnaire – Market vendors
- ❖ A sample of 354 vendors at all Port-Vila mini-local Markets were questioned and more vendors on other selling points at the Port-Vila municipal area has been collected and yet to be analysed
- ❖ A sample of 336 vendors at the Luganville main Market were questioned and more vendors on other selling points at the Luganville municipal area will be collected and yet to be analysed.



## Efate : Research sites



The research study focuses on the island of Efate in the Central part of the archipelago.

This islands is selected according to their total island area (ha), good soil, urban area and the average area of accessible good markets per household.

The area council and road infrastructure allowed the production and the distribution of agricultural products in urban area.



# A. Local markets in Port Vila

Table 1: Local markets informations

Market of	Creation date	Season (CS/RS)	10 main products on sale
<b>Marobe</b>	-	SF	vegetable <sup>1</sup> , root crops <sup>2</sup> , bananas, laplap leaves, nuts <sup>3</sup> , coconuts <sup>4</sup> , handicrafts <sup>5</sup> , pork, chicken, goat
<b>Manples</b>	2010	SF	dry woods, vegetables <sup>1</sup> , root crops <sup>2</sup> , bananas, laplap leaves, nuts <sup>3</sup> , coconuts <sup>4</sup> , handicrafts <sup>5</sup> , papayas, vegetables <sup>6</sup> ,
<b>Anambrou</b>	2017	SF	dry wood, vegetable <sup>1</sup> , root crops <sup>2</sup> , vegetables, bananas, coconuts <sup>4</sup> , papayas
<b>Freshwota Parc</b>	1994	SF	dry wood, vegetable <sup>1</sup> , root crops <sup>2</sup> , vegetables, bananas, laplap leaves, nuts <sup>3</sup> , coconuts <sup>4</sup> , papayas
<b>Freshwota 1</b>	August 2018	SF	vegetable <sup>1</sup> , root crops <sup>2</sup> , vegetables, bananas, nuts <sup>3</sup> , coconuts <sup>4</sup> , papayas
<b>Seaside</b>	06 April 2017	SF	dry woods, vegetable <sup>1</sup> , root crops <sup>2</sup> , vegetables, bananas, nuts <sup>3</sup> , coconuts <sup>4</sup> , papayas

CS= Cool season SF= Rainy season

1-Vegetables: Lettuce, tomatoes,

2-Root crops: yams, taro, Fiji taro, cassava, sweet potatoes,

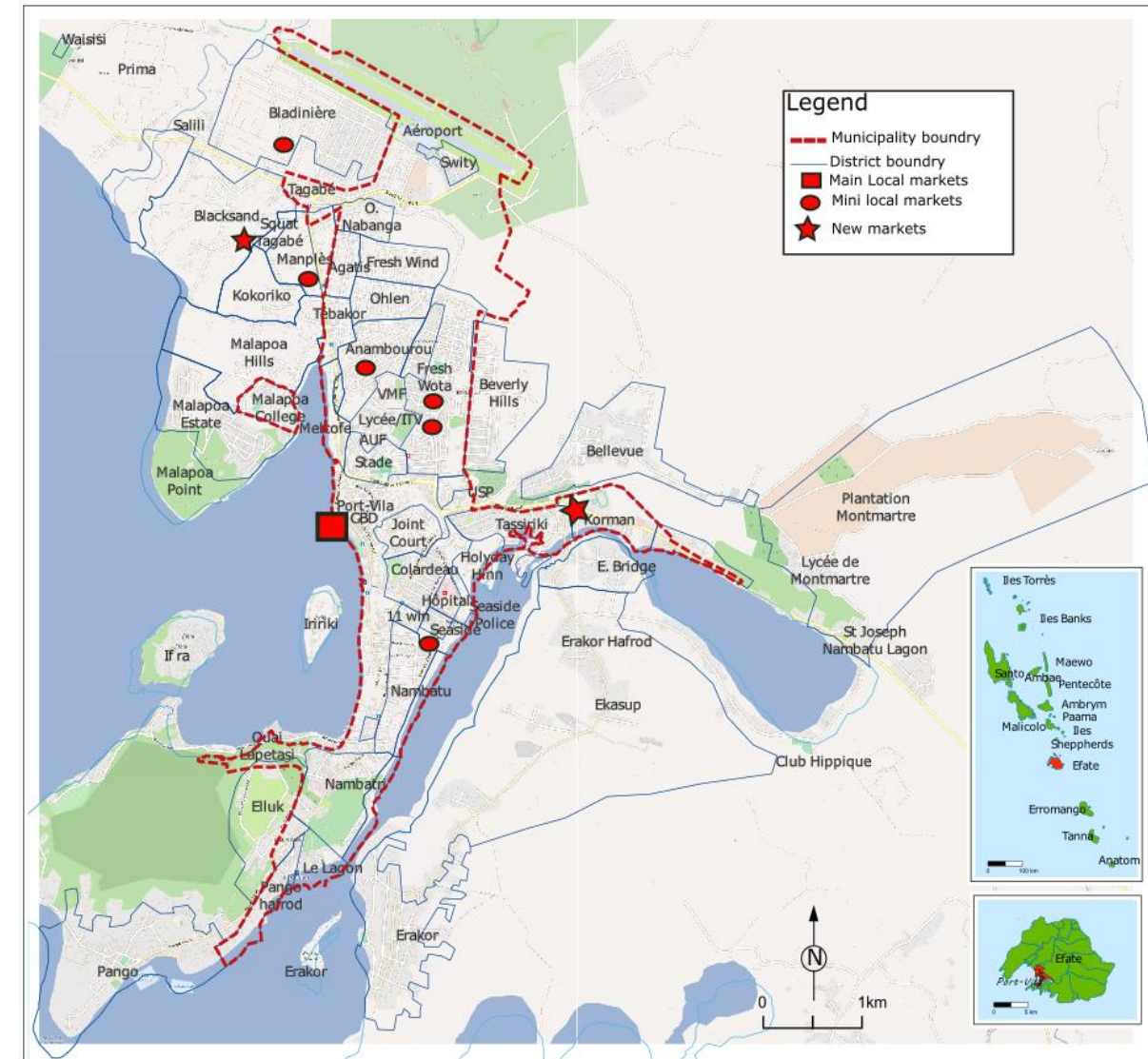
3-Nuts: Nangai, Natapoa, peanuts

4-Coconut: dry and green coconuts

5-Handicrafts: mats, brooms, flowers

6-Vegetables: spring onions, green onions

## Location of local markets





# General information on the markets surveyed



Table 2 :schedule of vendors

Market of	Creation date	Opening hours	Days schedules	Season (CS/RS)	10 main products on sale
<b>Marobe</b>	-	6h-21h	7 /7	CS	vegetable <sup>1</sup> , root crops <sup>2</sup> , bananas, laplap leaves, nuts <sup>3</sup> , coconuts <sup>4</sup> , handicrafts <sup>5</sup> , pork, chicken, goat
<b>Manples</b>	2010	6h-21h	7 /7	CS	dry woods, vegetables <sup>1</sup> , root crops <sup>2</sup> , bananas, laplap leaves, nuts <sup>3</sup> , coconuts <sup>4</sup> , handicrafts <sup>5</sup> , papayas, vegetables <sup>6</sup> ,
<b>Anambrou</b>	2017	6h-20h	7 /7	CS	dry wood, vegetable <sup>1</sup> , root crops 2, vegetables, bananas, coconuts <sup>4</sup> , papayas
<b>Freshwota Parc</b>	1994	6h-21h	7 /7	CS	dry wood, vegetable <sup>1</sup> , root crops <sup>2</sup> , vegetables, bananas, laplap leaves, nuts <sup>3</sup> , coconuts <sup>4</sup> , papayas
<b>Freshwota 1</b>	August 2018	5h-20h	7 /7	CS	vegetable <sup>1</sup> , root crops <sup>2</sup> , vegetables, bananas, nuts <sup>3</sup> , coconuts <sup>4</sup> , papayas
<b>Seaside</b>	06 April 2017	6h-20h	7 /7	CS	dry woods, vegetable <sup>1</sup> , root crops <sup>2</sup> , vegetables, bananas, nuts <sup>3</sup> , coconuts <sup>4</sup> , papayas

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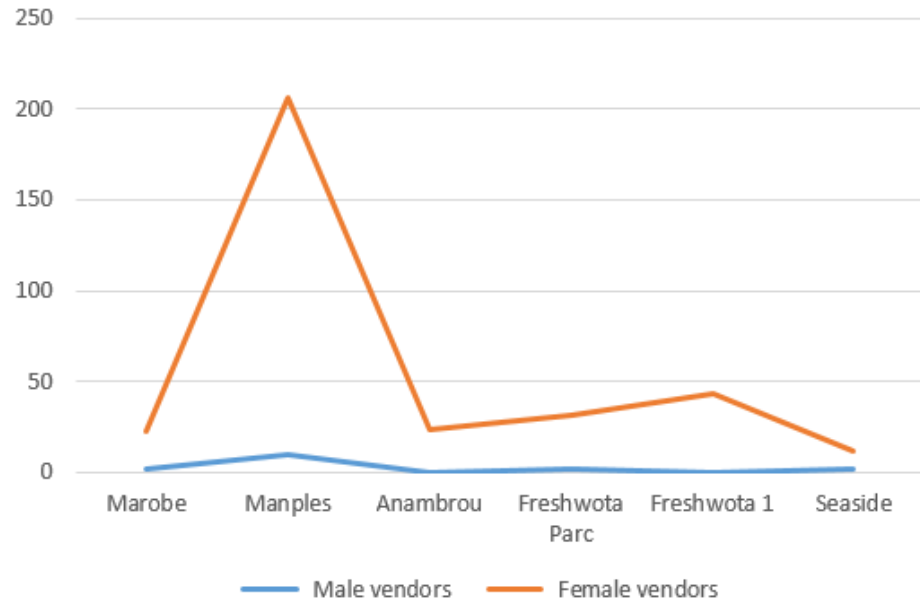
5-Handicrafts: mats, brooms, flowers

6-Vegetables: spring onions, green onions



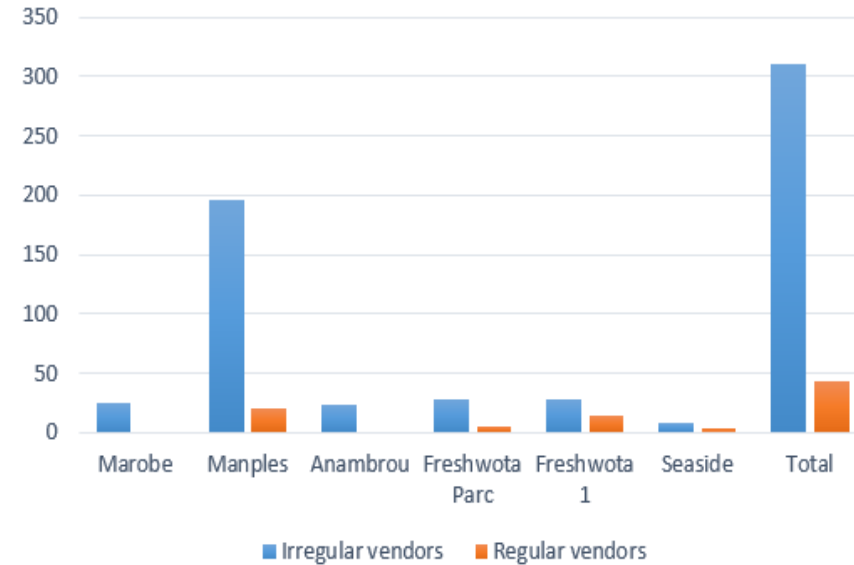


# Port-Vila : Mini local markets survey



Mweleul A., November 2019

Figure 2: categories of vendors



Mweleul A., November 2019

Figure 3 : Temporality of sellers



# Production area and location

Table 3: Production areas in Efate

Area of Production	Teouma	Ragorago	Etas	Eratap	*East Efate	*** other areas	**other areas excluding Efate	other
Effectifs	115	30	14	12	46	25	62	50
%	32.5	8.5	4	3.4	13	7.1	17.5	14.1

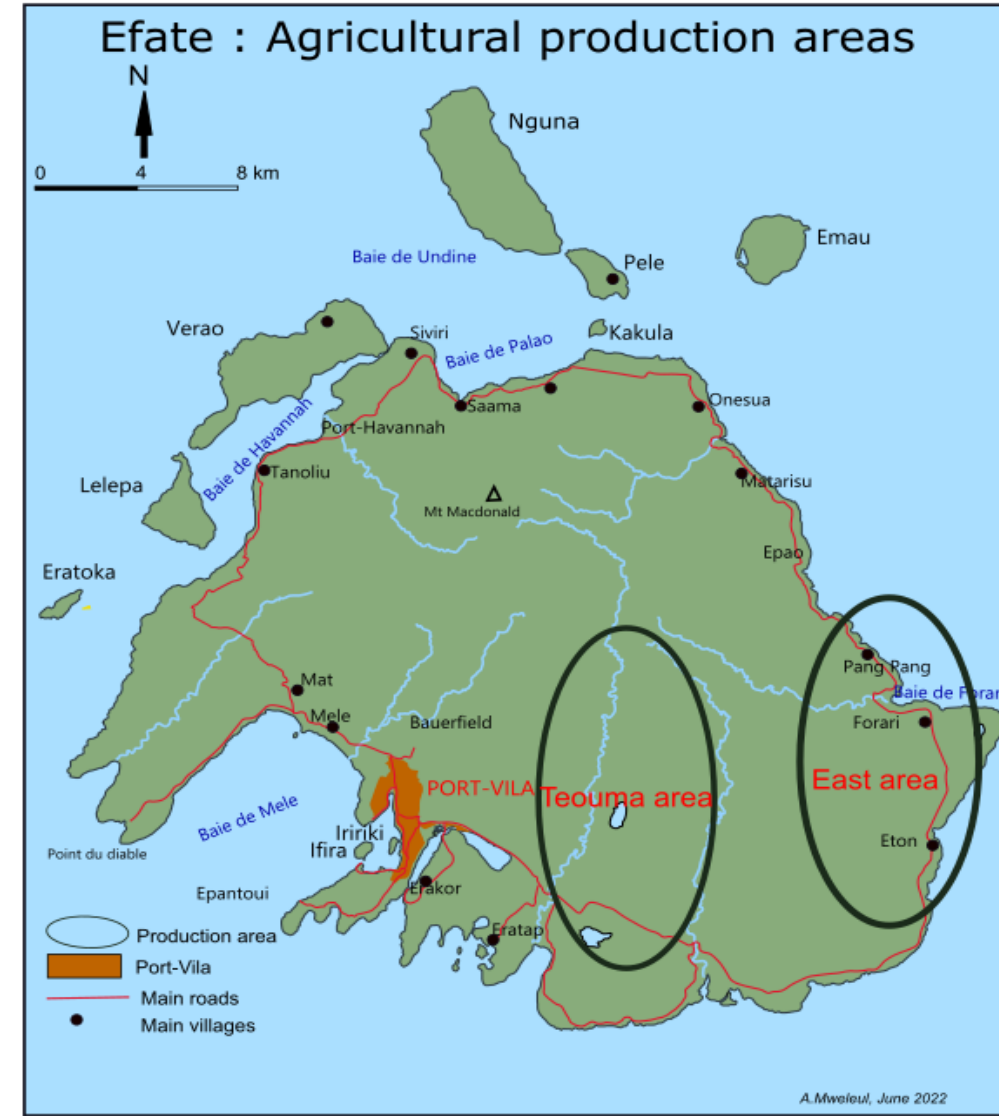
\*East of Efate : Takara, Forari, Pangpang, Moso, Ponagisu, Eton

\*\*2 places of production : Sellers produce on Efate but also buy food products from other islands

\*\*\* Islands outside of Efate : Epi, Tanna, Pentecost, Ambrym, Mallicolo

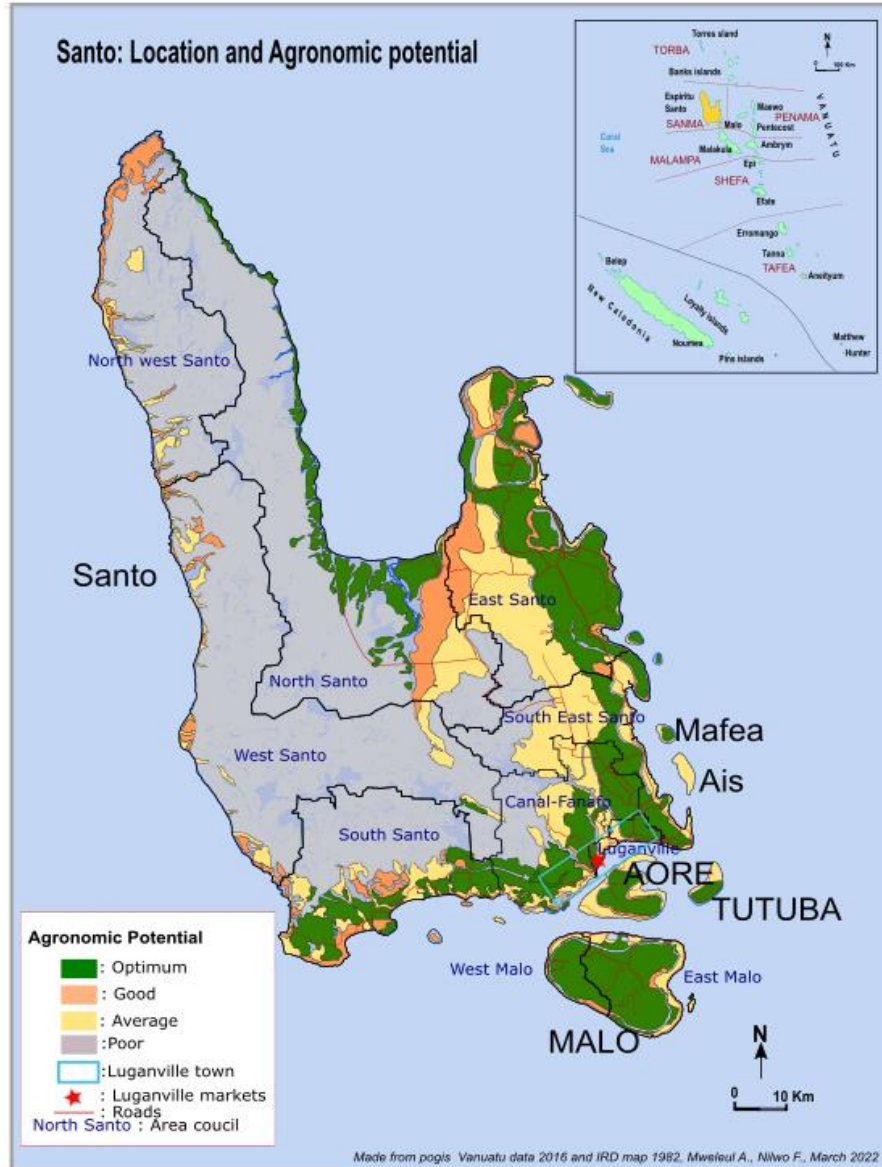
❖ Teouma area is a main suppliers for Por-Vila markets

❖ A large number of vendors in Port-Vila main market come from Teouma

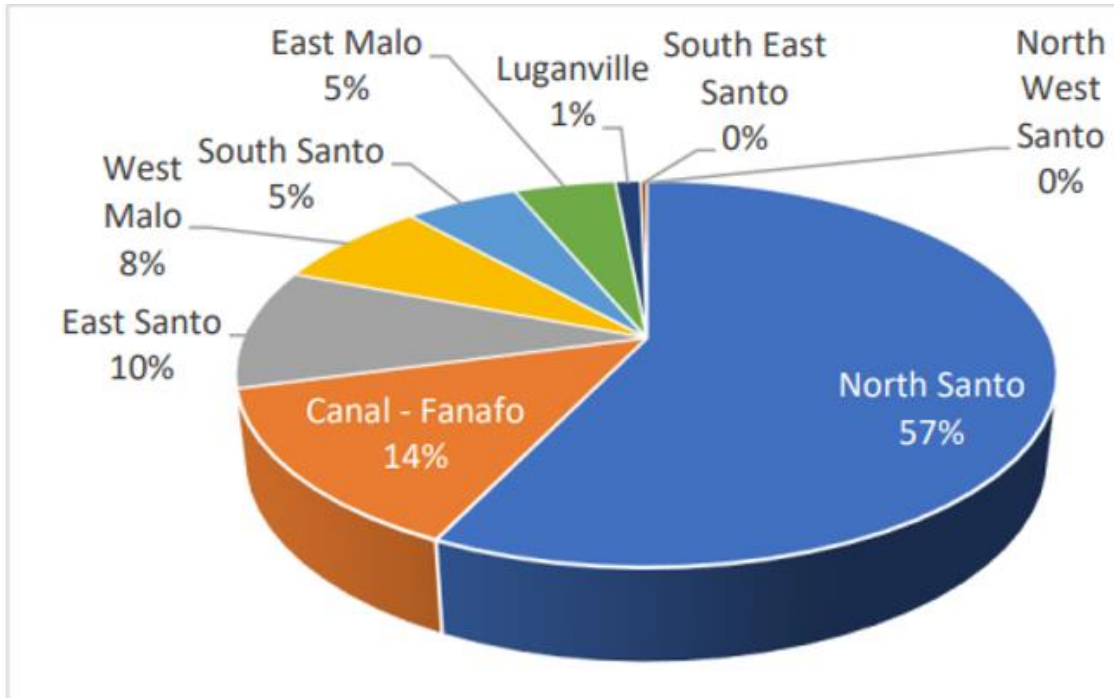




## B. Luganville main market survey

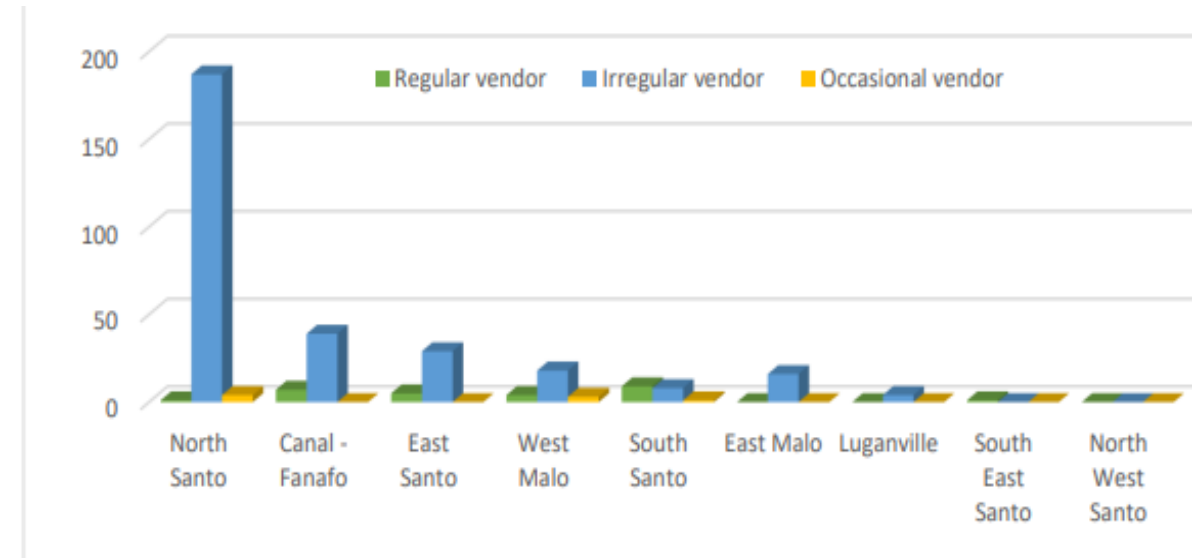


Source: Google Earth Pro, 2017



Source: Nilwo-Rogers, December 2021

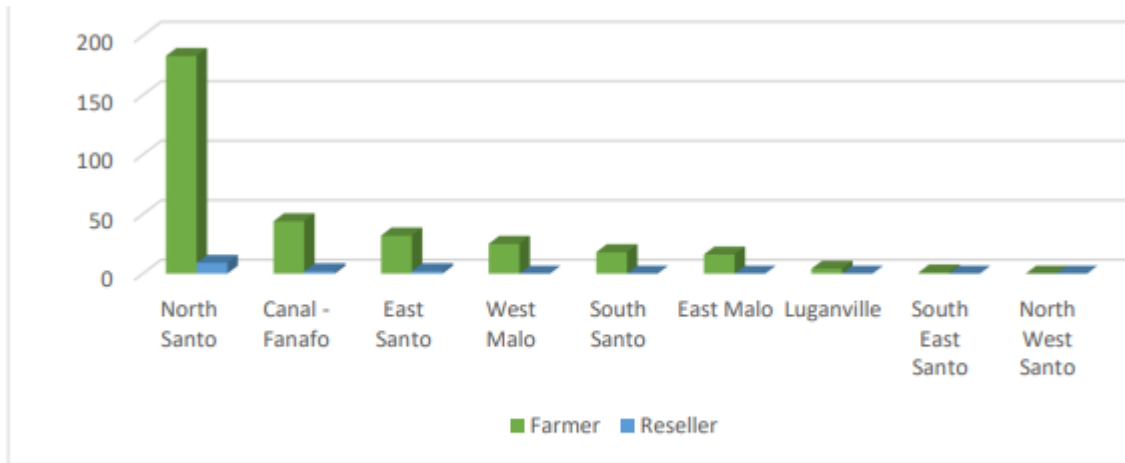
Figure 4: Number of vendors at the main market in Luganville



Source: Nilwo-Rogers, December 2021

Figure 5: Frequency of sales at the Luganville main market per area council





Source: Nihwo-Rogers, December 2021

Figure 6: Number of farmers and reseller at the main Luganville market per area council



## Next survey



- ❖ In dept survey on farming practices, production and consumption, including monitoring the dynamics of agricultural production and quantify productions in selected area councils and villages will be carried out next.
- ❖ The questionnaire for garden parcel, household production, consumption and commercialization.
  
- ❖ Map list
  - a. Location map of Santo and Efate: Drone image of cultivated areas in nearby and further areas
  - b. Small scale location map of nearby villages ▪ Locate and place garden in relation to nearby towns and big settlements
  - c. Small scale location map – infrastructure ▪ Highlight on maps, shops and health centres near villages and households



Thank you for your attention

## Case study in Lifou (New Caledonia): discussions on epistemology and transversalities

Dr. Olivier Galy (UNC)

Scientific co-coordinator

Team leader WP3 (UNC)

Dr. Severine Bouard (IAC)

Team leader WP2 (IAC)







# Data on small Lifou's Family farming

## Context of the study

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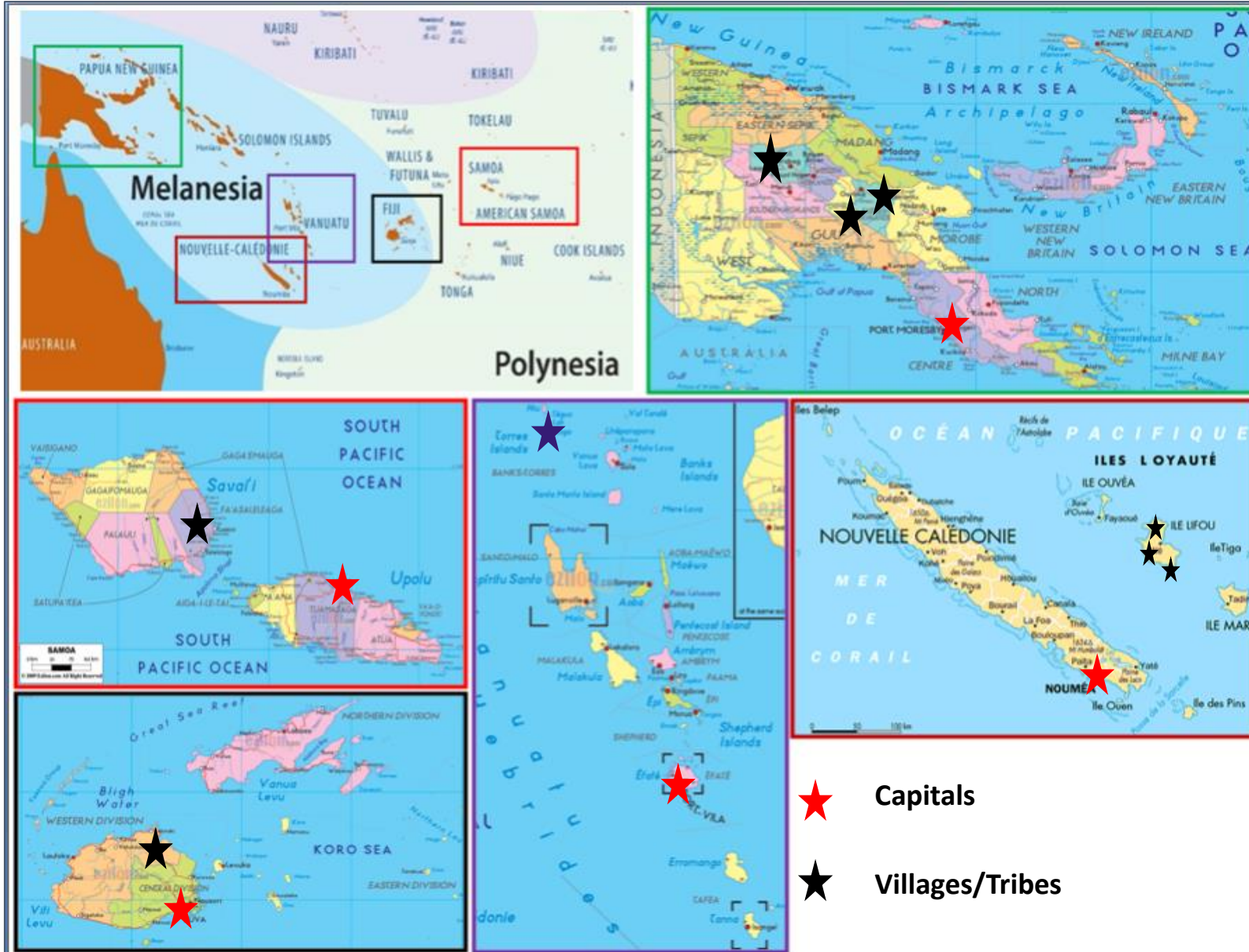


# Addressing threats to traditional food security and diet quality in the rural Pacific





# Context of the study



## NOUVELLE-CALEDONIE

1/ Province/ ILES LOYAUTES (LIFOU)

Districts : GAICA, LOESSI, WETR (16 Tribus)

Families : 40 / participants : 217

## SAMOA

2/ District : FA'ASALELEAGA 2

Families : 27 / participants : 189

## VANUATU

3/ Province : TORBA (BANKS/TORRES)

District : TOGA

Families : 28 / participants : 156

## FIJI

4/ Province : RA

District : TOKAIMALO

Families : 42 / participants : 191

## PAPUA NEW GUINEA

5/ Province : ENGA

District : WAPENAMANDA (4 villages)

6/ Province : EHP

District : GOROKA (8 villages)

7/ Province : SIMBU

District : KARMUI ( 1 Village)

Families : 213 / participants : 212

**Total : Families : 350 / participants : 965**



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CASE STUDY

# Generational issues in linking family farming production, traditional food in diet, physical activity and obesity in Pacific Islands countries and territories: the case of the Melanesian population on Lifou Island [version 1; peer review: awaiting peer review]

Olivier Galy, Stéphane Frayon, Marco Goldin, Paul Zongo, Guillaume Wattelez, Sonny Lameta, Alan Quartermain, Jean Marie Fotsing, Séverine Bouard

## Open Peer Review

### Reviewer Status

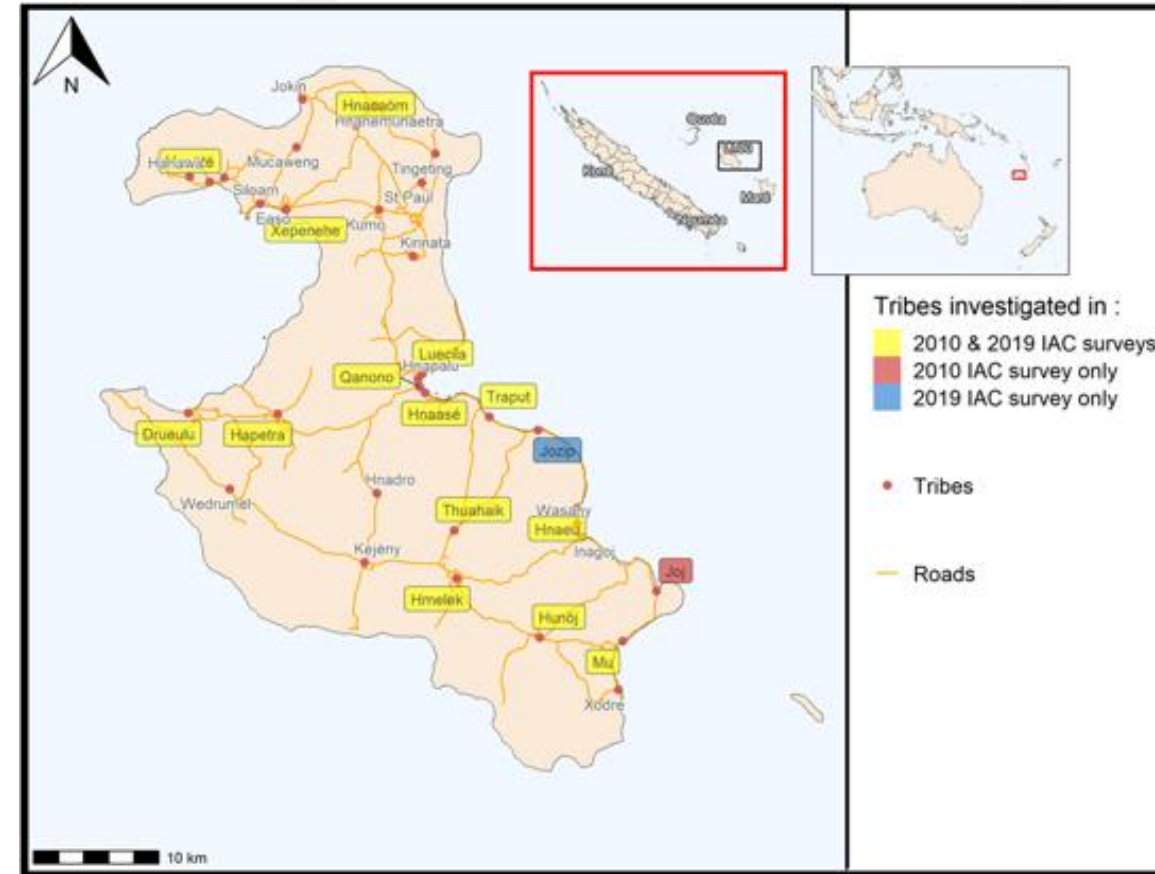
AWAITING PEER REVIEW

### Comments on this article

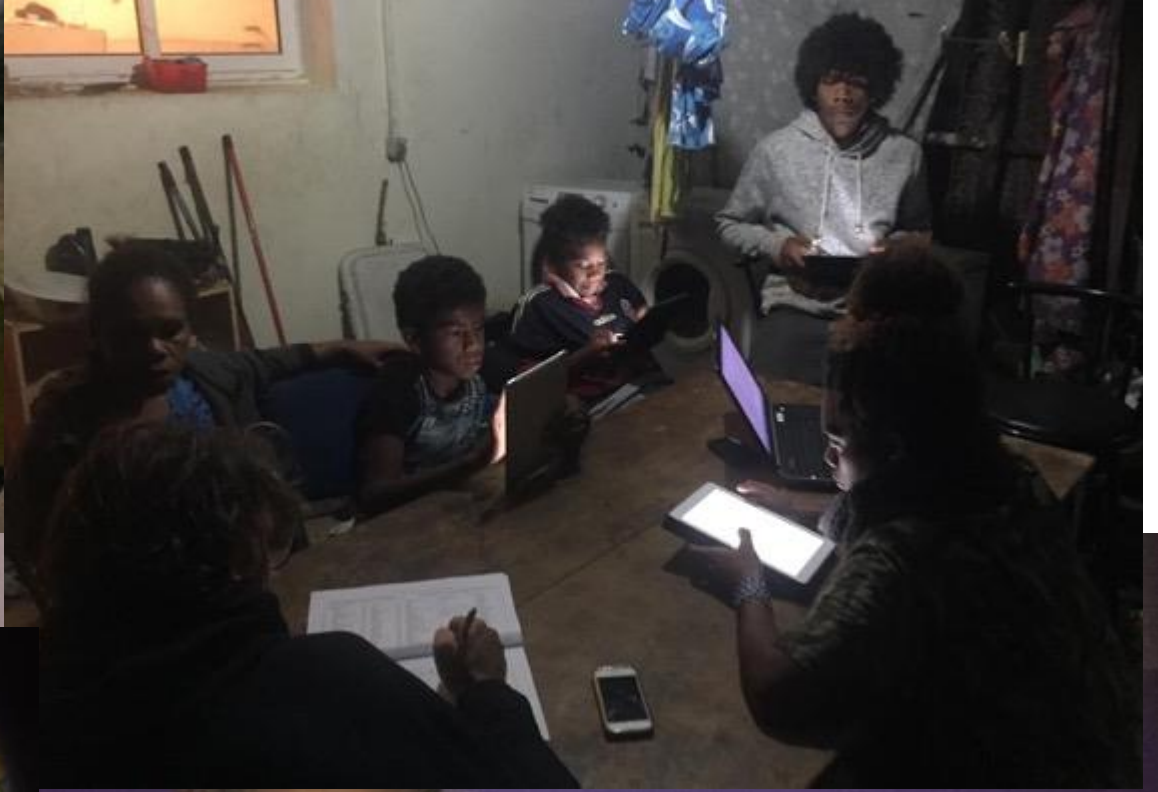
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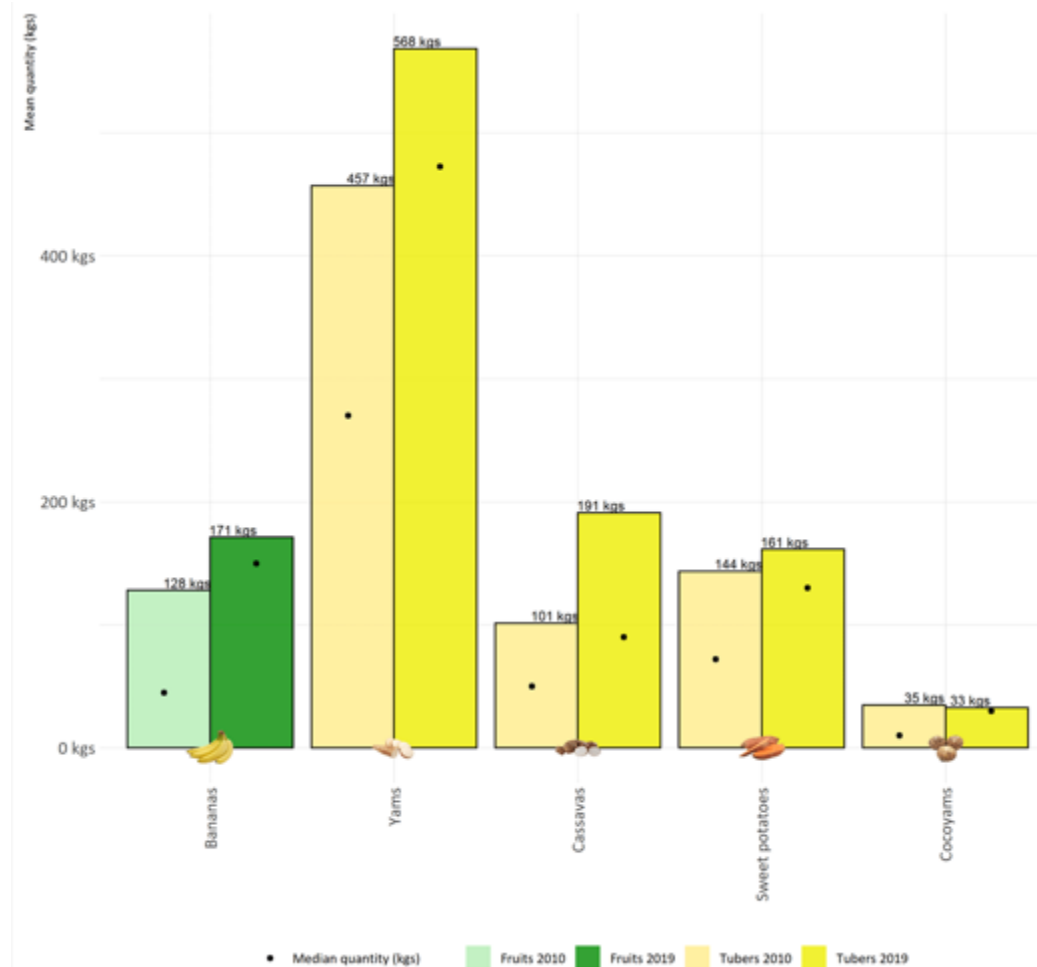


# Data on small Lifou's Family farming

Group	Details of the category	Customary land in Lifou (2010), N = 227 families <sup>1</sup>	Customary land in Lifou (2018), N = 40 families <sup>1</sup>	p-value <sup>2</sup>
Family	Family members (n)	4.86 ± 2.57	5.42 ± 1.08	0.016
	Active members (15 to 65 years old)	2.99 ± 1.73	3.17 ± 1.13	0.21
School level	Diploma			<0.001
	No diploma	642 (58%)	96 (44%)	
	Primary school diploma	224 (20%)	49 (23%)	
	Secondary school diploma	78 (7.1%)	30 (14%)	
	Degrees or higher diploma	159 (14%)	42 (19%)	
Vegetal production	Total (kg/yr)	3 614.72 ± 6 466.26	3 181.28 ± 2 007.46	0.10
	Sold (kg/yr)	227.84 ± 614.02	164.54 ± 444.63	0.012
	Exchange (kg/yr)	769.69 ± 1 317.77	336.46 ± 281.73	0.002
	Consumed (kg/yr)	868.73 ± 1 040.95	1 697.48 ± 895.84	<0.001
Animal production	Total (kg/yr)	217.22 ± 909.40	132.95 ± 196.81	0.71
	Sold (kg/yr)	71.59 ± 863.06	8.40 ± 41.68	0.76
	Exchange (kg/yr)	105.54 ± 182.17	98.70 ± 121.63	0.49
	Consumed (kg/yr)	40.10 ± 98.75	25.85 ± 76.41	0.15
Hunting (without deers)	Total (kg/yr)	274.72 ± 525.69	140.38 ± 296.29	<0.001
	Sold (kg/yr)	18.92 ± 95.15	1.25 ± 7.91	0.046
	Exchange (kg/yr)	142.93 ± 369.42	24.85 ± 71.41	<0.001
	Consumed (kg/yr)	112.86 ± 175.37	114.28 ± 274.98	0.005
Fishing (without river-fishing)	Total (kg/yr)	456.25 ± 662.25	674.28 ± 1 154.46	0.26
	Sold (kg/yr)	88.63 ± 390.33	78.04 ± 364.78	0.083
	Exchange (kg/yr)	98.14 ± 188.13	155.43 ± 347.38	0.077
	Consumed (kg/yr)	268.48 ± 274.36	440.81 ± 668.01	0.98
Gains	Off-farm Gains (XPF/Year)	3 846 028.02 ± 3 046 565.38	4 330 650.00 ± 3 156 317.60	0.25

<sup>1</sup>Mean ± SD

<sup>2</sup>Wilcoxon rank sum test



# Diet, physical activity and health variables in children and parents

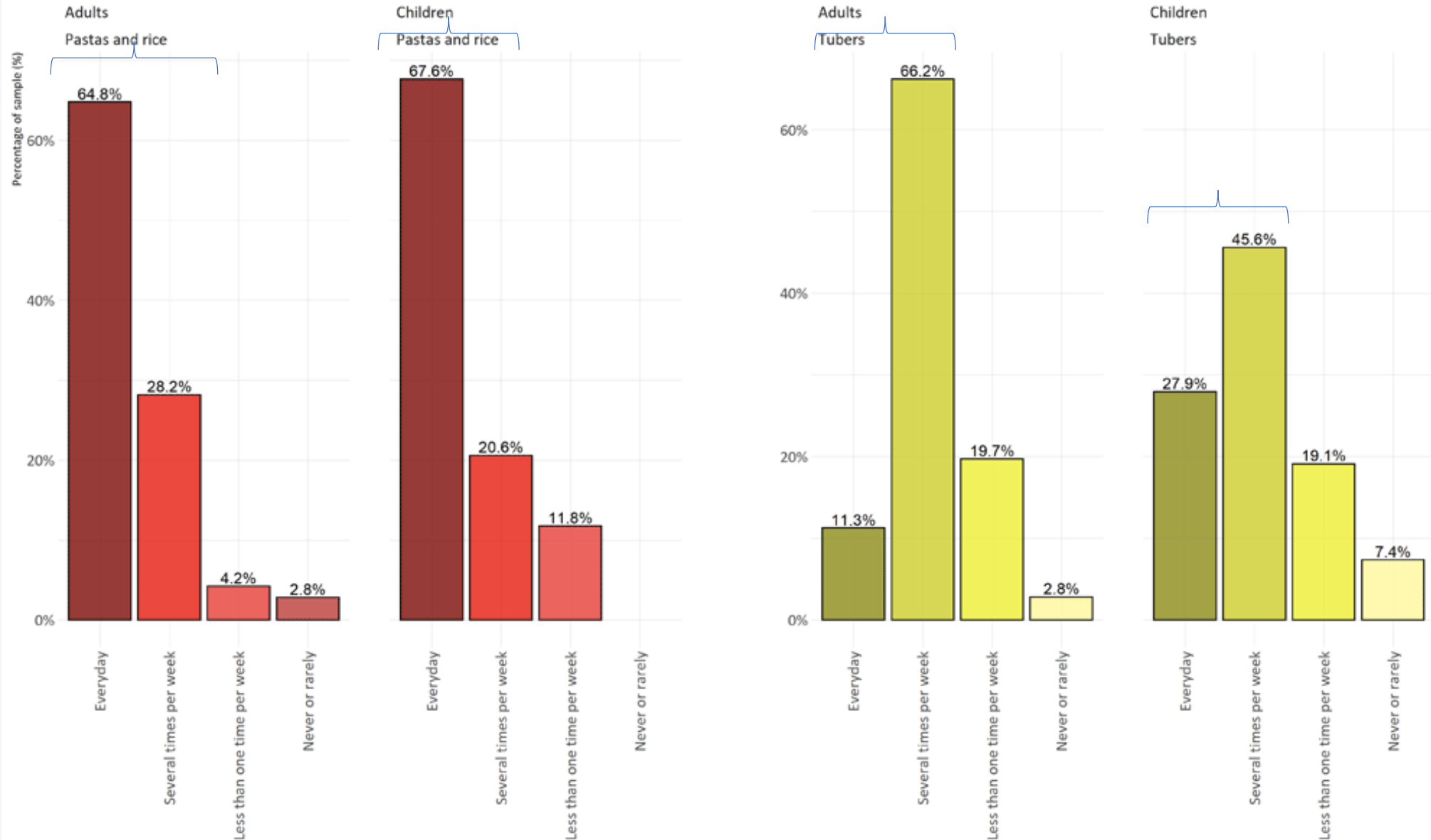
## Traditional food:

- Tubers,
- Fruits & Vegetables,
- Fish
- Water

## Processed food:

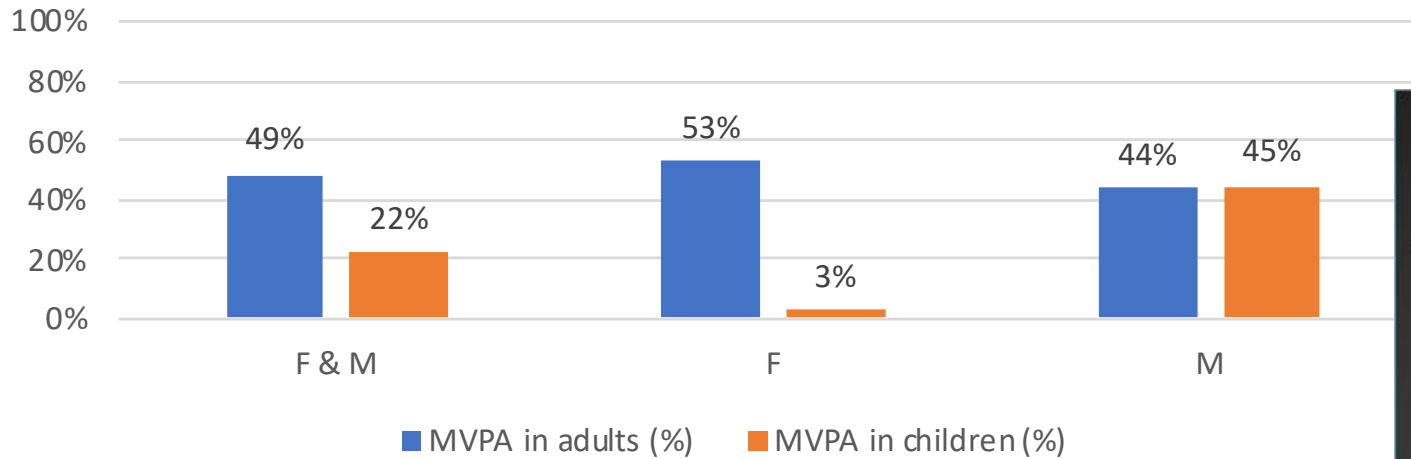
- Limited foods
- Limited beverages

N = 72 adults and 70 children



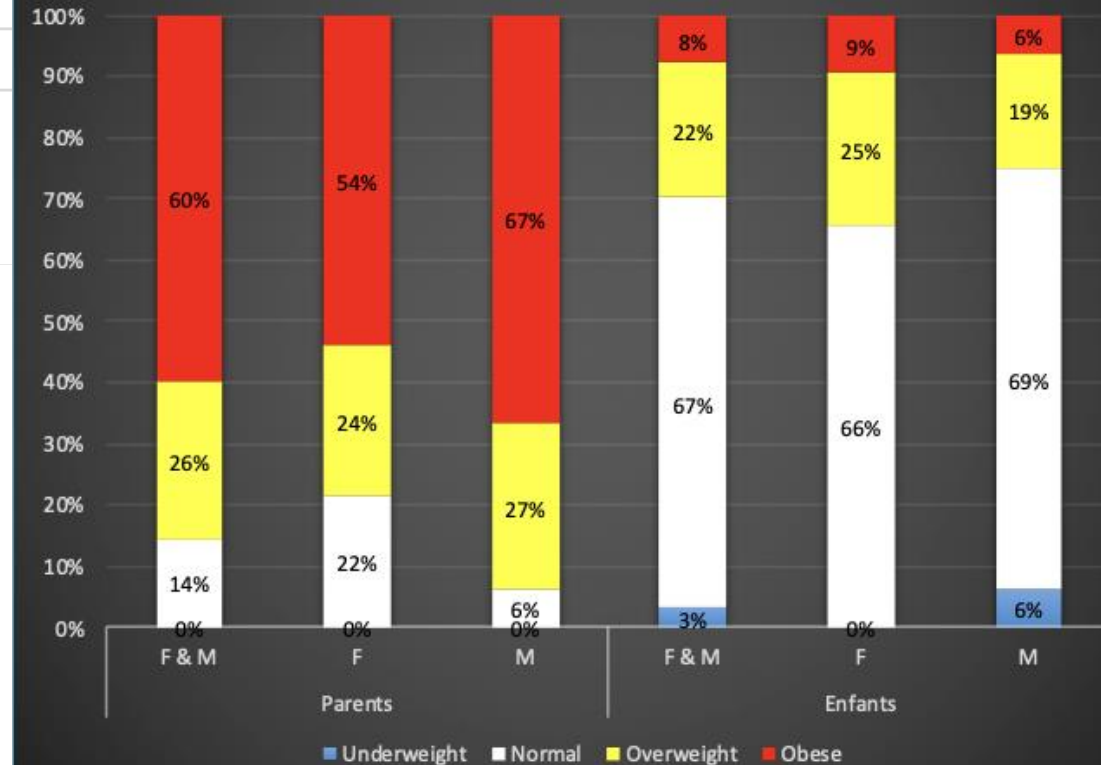
# Diet, physical activity and health variables in children and parents

Percentage of parents and children that meet int. recommendations of 60' of moderate to vigorous physical activity per day



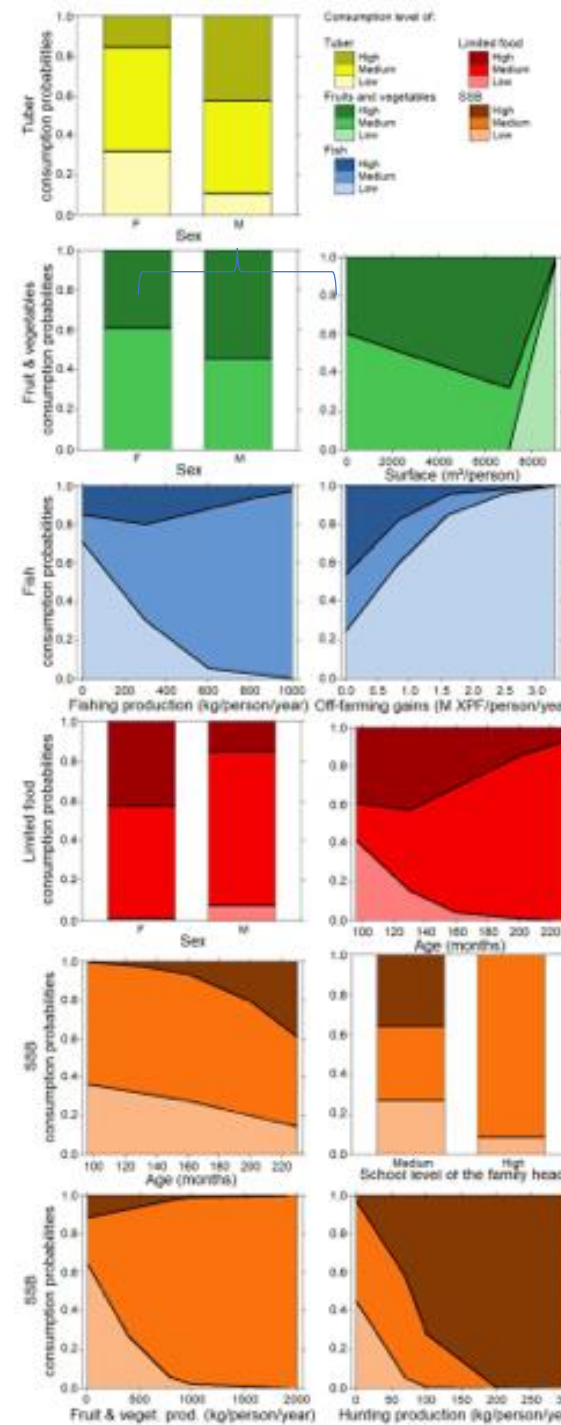
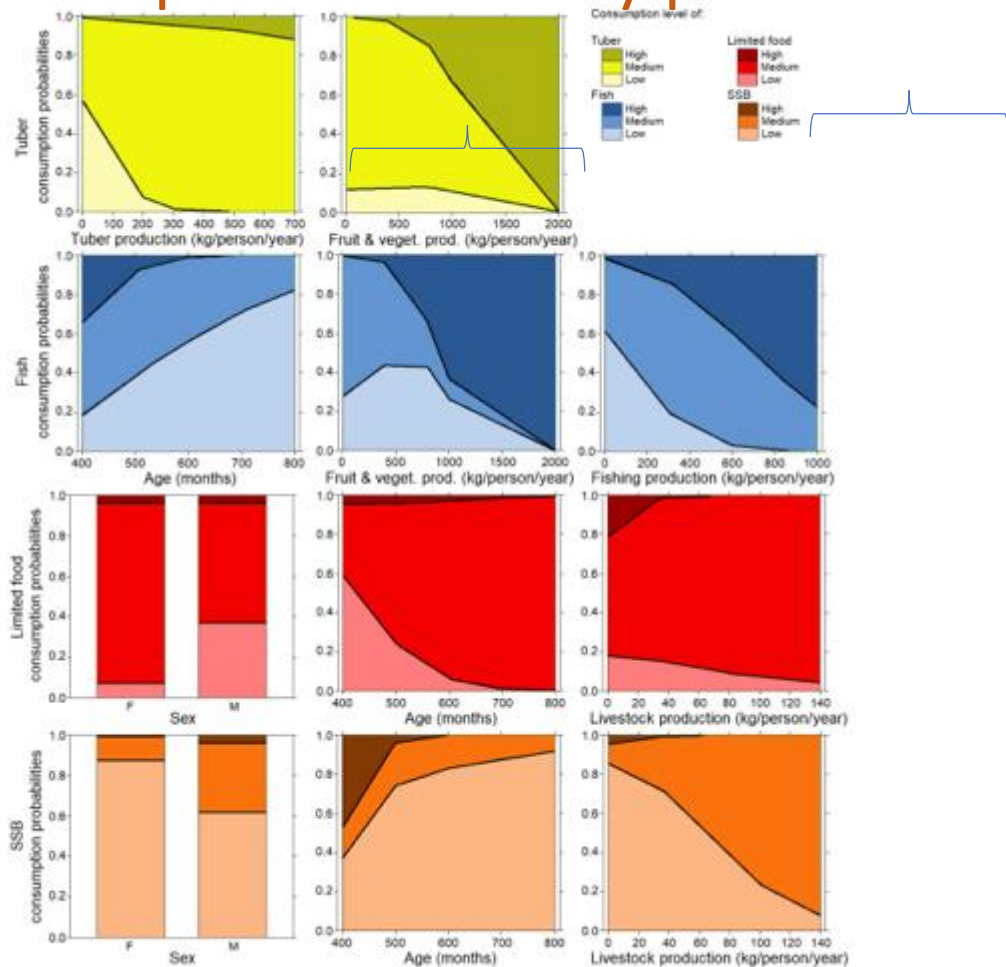
Ov or OB= 86% in adults and 30% in adolescents

## Body composition of parents and adolescents from NC





# Relationships between traditional food consumption and family production in adults



Relationships between traditional food consumption and family production in children

Multinomial analysis consumption of tubers (yellow color), fish (blue color), and limited drinks: sugar- sweetened beverages (SSB) (orange color) and limited foods (red color) explained by agricultural variables (surface production, tuber production, weighted fish, off-farm gains), socioeconomic variables, sex, and age





# Family farming production, diet, physical activity, and obesity

- FF contribute to the economy and food security, to socialization and culture (maintaining customary traditions and donations)
- Both a lower overall fruit and vegetable production and a trend toward reducing exchanges to the benefit of personal consumption
- Kanak families continue to grow yams (min around 400 plants/year) for their symbolic dimension.
- Tubers, which were until recently the basis of the Kanak and Oceanian diet, seems to be decreased when compared to imported products such as pasta or rice

→ Traditional activities are not static, assumption that we are seeing a transition in cultural practices



# Relationships between family farming and traditional diet

## IN ADULTS

- Fishing activities make a large contribution to the traditional diet, with links observed between consumption of tubers and fishing activity.
- High consumption of limited foods, mainly by women and older adults.
- Eating limited foods can also be seen as a way of diversifying menus, sometimes wrongly.



Time dedicated to cooking in working families is decreasing with the spread of wage employment and resources to buy imported food



These factors thus contribute to the co-existence of traditional and modern diets.

## IN CHILDREN

- The consumption of tubers, fruits, and vegetables is greater in boys and increased with the surface of family farming production.
- An intergenerational effect : since fewer children eat tubers several times a week and more than 7% say they never eat them. At the same time, we observed the high consumption of limited food and drinks in both adults and children



The place of boys in family tasks and the nutritional needs of active children.



Juxtaposition of traditional food with highly processed food and drinks that contributes to “food over-abundance for meals”

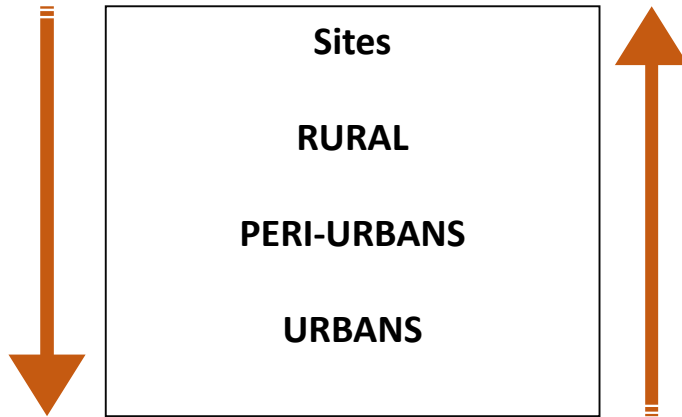
→ A cross-point of malnutrition is observed due to superposition of traditional and processed foods in the daily diet of Lifou Islanders and their consequences on overweight and obesity.



# Transversalities between WP2 and WP3: Methodologies



## Spatial components



## Social components



## Temporal components



# Perspectives & Forthcoming steps

- Perspective for the Lifou's & Nouville case studies:

- Complex connections between Family farming, diet and physical activities
  - Relationships to be clarified between fishing, hunting, etc. and the consumption of sweet and salty products
  - The effects of an oceanian lifestyle seems to be also visible on other territories in New Caledonia, and probably abroad in other Pacific Countries
- This lifestyle is based on both strong Natural and Social Capitals with :
- \*a wide range of activities (farming, animal breeding, hunting and fishing) and
  - \*the place of gardens;
  - \*informal settlement in cities;

All are interested ways for sustainable food systems and health outcomes.





# Thank you for your attention

*This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 873185*



*Disclaimer: the views expressed in this presentation are purely those of the author and may not in any circumstances be regarded as stating an official position of the Research Executive Agency*