



## FAMILY FARMING LIFESTYLE AND HEALTH IN THE PACIFIC

### **GRANT AGREEMENT NUMBER 873185**

### **DELIVERABLE D.10**

Title: Report on second seminar + 2 workshops on WP 2 & 3 at

Nouméa: Methodological synchronisation applied to FALAH research fields (complementarities and transversalities

between WPs)

Work package: WP2: family farming & WP3: food, lifestyle and health

Deliverable due date: M 31

Actual submission date: M 32

Start date of project: 1st of October 2020

**Duration**: 63 months

Organisation name: University of New-Caledonia

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Nature: Public

| Project co-funded by the European Commission within the Horizon 2020 Programme (2014-2020) |   |   |
|--|---|---|
| Dissemination Level  |   |   |
| PU   | Public  | Х |
| PP   | Restricted to other programme participants (including the Commission Services)        |   |
| RE   | Restricted to a group specified by the consortium (including the Commission Services) |   |
| СО   | Confidential, only for members of the consortium (including the Commission Services)  |   |

N.B: the powerpoint and online presentations of this deliverable are available on the FALAH website: <a href="https://falah.unc.nc/fr/falah-events-presentation">https://falah.unc.nc/fr/falah-events-presentation</a>

### **General introduction**

Following on from the Sydney seminar in November 2022, this seminar on methodological synchronization applied to FALAH research fields aims to establish or develop complementarities and transversalities between disciplines (between WP2 and WP3). The FALAH seminar and workshop was held in Noumea from 28<sup>th</sup> to 30<sup>th</sup> March 2023 at the University of New Caledonia. The Noumea seminar is the 4<sup>th</sup> scientific event of the FALAH Program since the resumption of activities in May 2022 when international borders reopened after the Covid-19 health crisis.

For the resumption of activities, the scientific coordinators, Professor FOTSING and Doctor GALY decided to carry out the "March FALAH month" in New Caledonia. Therefore, they travelled to the three provinces to discuss with local partners and actors from the Loyalty Islands Province and the North Province. These tours also gave the opportunity to select the speakers to participate in the round table of the second day of the seminar on 29<sup>th</sup> March, 2023.

To mark this fourth scientific event, the New Caledonian partners in the FALAH project (UNC, IAC, IRD) carried out the March "FALAH month in New Caledonia", with courtesy visits to the three provinces: Province des îles, Province Nord and Province Sud. One of the aims of these visits was to select stakeholders in the field with different levels of involvement in agriculture and health and invite representatives to be take part of the round table discussion during the event.

The "FALAH month in NC" was also marked by two training sessions for partners and PhD students involved in the project: Redcap and Mysurvey solution, followed by a training in scientific writing. The Noumea seminar, like those that preceded it, was held over a period of three days. The first two days were devoted to presentations, followed by a series of questions and answers and a round table discussion showcasing stakeholders working in the fields of application. The third day was devoted to a field trip in the urban and suburban areas of the Noumea conurbation.



Photo 1: Visit at province des îles (Laura Boula school at Lifou)



Photo 2: Visit at province Nord (IAC, Pouembout)



Photo 3: Visit at province Nord (Campus de Baco)



Photo 4: Visit at province Nord (Campus de Baco)

The seminar was divided into several sessions of oral presentations and discussions among the participants. Scientific exchanges were supplemented by a field trip in the Grand Nouméa conurbation to visit places selected for their interests in connection with the themes of the FALAH project (see agenda).

Two weeks prior to the seminar, two training sessions were organized for the benefit of member partners and doctoral students.

- 1. Training on Redcap and Mysurvey solutions was carried out by Guillaume WATTELEZ and Jonas BROUILLON with FALAH doctoral students and researchers. The training's main objective is to get and overview on the process to build a relevant survey using digital tools (Photo 3).
- 2. The following week, Dr David SIMAR (UNSW) delivered the second training to PhD students and other interested participants. The training module embarked participants in the scientific writing arena in developing their writing skills (Photo 4).



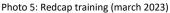




Photo 6: Training on scientific writing (march 2023)

### Communication on the seminar

The Administrative coordination of the FALAH Project (Marine MARTINEZ) created a TEAMS link for the seminar. The link was shared with the whole consortium including offshore participants as well as through the University of New Caledonia publication network and on the FALAH website. In addition, Jeffrey FULLER; communication advisor had covered the seminar, the round table and the trip field. Kim JANDOT, journalist for NC 1ère presided the round table discussion.

All communications can be accessed through these links:

https://falah.unc.nc/fr/programme-workshop-noumea-2023

https://falah.unc.nc/fr/seminaire-noumea-2023-jour-3

https://falah.unc.nc/fr/table-ronde-noumea-2023

https://falah.unc.nc/fr/formation-redcap-et-my-survey

https://unc.nc/falah-repenser-la-sante-dans-le-pacifique/

# METHODOLOGICAL SYNCHRONISATION APPLIED TO FALAH RESEARCH FIELDS (Complementarities and transversalities between WP2 and WP3)

### Lay out of the seminar

During the three days seminar, the consortium covered the complementarities and transversalities between WP2 and WP3 which is to provide researchers with shared tools that take into account the specific aspects of the various disciplines involved in either agriculture WP2 or food and lifestyles WP3. These methods should lead to the introduction of a common questionnaire for collecting data in the fields of application. The sessions were rich with scientific presentations of research and achievements from scientific partners. Discussions with other participants was possible to question or elaborated more on the different topics.

# First day: Tuesday 28th March 2023

## Opening of the seminar

Professor Catherine RIS, President of the University of New Caledonia officially opened the seminar and welcomed the thirty or so FALAH participants and partners from the Pacific Islands (Vanuatu, Fiji, and Papua New Guinea), Australia, Germany and New Caledonia.

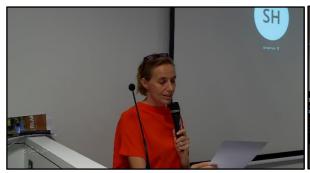




Photo 7: Prof C RIS (Opening ceremony)

Photo 8: Seminar participants (UNC Amphi 80)

The scientific coordinators namely Professor Jean-Marie FOTSING and Doctor Olivier GALY, presented the preparations done for the seminar, the implementation of the project and emphasized on their visits to the three provinces of New Caledonia to reintroduce the project to different stakeholders.



Photo 9: Prof JM FOTSING (workshop programme presentation)



Photo 10: Dr. O GALY (Scientific co-coordinator)

### The seminar and workshop are divided into four different sessions, completed by a field trip:

- Session 1: Work Packages 2 & 3 related to WP4
- Session 2: Work Package 2
- Session 3: Tool and transversalities
- Session 4: Round table
- Field trip on peri-urban areas

## Reminder of the forthcoming events

- Mid-Term Meeting (program):
  - 1. Round table introduction
  - 2. Coordinator's/Work package leader's report
  - 3. Meeting between seconded staff members and the REA Representative
  - 4. Open discussion
- > 1st FALAH Conference in Vanuatu on 20-22 June 2023
- ➤ PIURN conference on 4-6 July 2023
- Workshop in Sydney, Australia (UOW-UNSW) on 3-5 October 2023

### Funding opportunities and other information

### **AUF: Funding for three projects**

- "Strengthening NUV-SINU scientific and partnership dynamics in the fields of food, health, climate change and education in support of FALAH project activities (2022-2025) », an amount of 10 000 €.
- RedCap FALAH, Developing Resilience through Capacity Development on FALAH in PICs: Solomon Islands & Vanuatu, an amount of 10 000 €.
- AFC FALAH-PIURN: Targeted research-training actions to support the scientific dynamics and strengthen the skills of the PIURN partners of the FALAH project (2022-0225)", an amount of 20 000 €.

### CNRS: 2 PhD students' scholarship

- One student will be supervised by Dr Arno BANOS and Dr Sophie CAILLON (CNRS CEFE and CNRS Le Havre)
- One other student will be supervised by Dr Christophe SERRA MALLOL (CNRS/UT2J)

**RERIPA CHANCES-Pacific PROJECT:** climate change and the future of coastal communities: transformation of sociality, livelihoods and lifestyle in the South Pacific - IAC, UNC, USP, SINU, UNV, USYDNEY, MOET (350 000 €, submitted)

**FALAH internship opportunity:** Strengths and Weaknesses of Family Farming, Food and Health in Pacific Island Countries. Application areas Papua New Guinea, Fiji, Solomon Islands, Vanuatu, New Caledonia.

### Secondments overview

The SINU team was on a one-month secondment at the University of Graz in Austria from the 12<sup>th</sup> November till 21<sup>st</sup> December 2022. Matthias KOWASCH welcomed the teams.

### Session 1: Work Packages 2 & 3 related to WP4

### 1.1 - Sustainable food in schools in New Caledonia, approach and model



Photo 11: G. LEVIONNOIS (Pacific Food Lab, Noumea)

Gabriel LEVIONNOIS, chef and manager of Pacific Food Lab with his collaborators, presented the various projects and experiences set up in school canteens in New Caledonia to promote a healthy and balanced diet among children in schools.

#### **Questions and Answers**

Q: C CAILLAUD (USYD): Do you work only with primary school students in your programs?

A: G LEVIONNOIS (PFL): We are doing our programs wherever there is a demand by a teacher or other. Primary schools are easier because the children have not established bad habits. Chefs in secondary: students don't have a good relationship with food, in terms of taste and portions, and it's harder.

Q: F THOMAS (USP): In your presentation you tell that 20% of the local production are eaten in a canteen but what are the 80% left use for (local produces)? The waist of food is it use for biofuel?

A: G LEVIONNOIS (PFL): I don't know the exact answers but 70% are used in the town. Projects ongoing for biofuel transformation, but there is no project on the management of the waste of food, there is a little black market where people take the food with them for their home.

### 1.2 - Engage with children, parents in school and communities

Australian collaborators led by Professor C CAILLAUD (USYD) presented the experimental protocol of the "Engage project".

The aims of the project are to:

- 1) determine adolescents' priorities for health wellbeing, specifically diet and physical activities
- 2) establish how digital technologies could be leverages to help (ado) teenagers achieved health and wellbeing outcomes



Photo 12: C CAILLAUD and team (USYD)



Picture 13: team presentation (Amphi 80 at the University)

They presented the timeline and methods of the project, including the content of their questionnaire used. The workshop will be co-designed by students, teachers and researchers: Innovative resources will be used (group activities: map, booklet, pens, storytelling cards, stickers, work sheet, audio recorded). This new version of the scenario was updated following the comments of the workshop that took place in Vanuatu in June 2022.

The co-design workshop will take part in 3 phases:

- Phase 1: Scenario
- Phase 2: Health information is disclosed in the booklet
- Phase 3: Future context; Climate prompt is disclosed in the booklet

Researcher does not want to guide to much the choice of the children.

### **Questions, Answers & Comments**

Q: SBOUARD (IAC): Did the University of Sydney test the method?

A: C CAILLAUD (USYD): We did not test this method yet

Q: S BOUARD (IAC): Is it possible to switch from drawing to writing as older students may not be interested in drawings?

A: K AMON (USYD): We don't need details, drawing or writing will be acceptable as long as it is explained and understandable.

A: R FORSYTH (USYD): The drawing will be in a big table and it will be a group of children that will participate.

C: C SABINOT (IRD): The two methods of drawing and writing are very interesting but I think it will be good to choose one. If you do the drawing you will need a short interview to understand the drawing.

A: C CAILLAUD (USYD): Yes, before each workshop we will start recording.

A: R FORSYTH (USYD): We trying to balance to not tell them what to do, with the sticker for a better understanding.

Q: C SABINOT (IRD): You could test with one group the writing and with another the drawing?

A: R FORSYTH (USYD): I had the idea of a journey or something.

Q: G LEVIONNOIS (PFL): I am interested to implement this project in NC, in a neutral place like Uma studio. When will you start the project? Is it possible to start the project and it will influence strike away?

A: C CAILLAUD (USYD): If we have in mind to pass by influencer we could have a campaign that would advocate to something and include the project straight away in order to have a fast approach on teenagers. We hope to make children and teenager to meet for doing activities.

Q: G LEVIONNOIS (PFL): Did the parents would be able to use all that to educate their child?

A: C CAILLAUD (USYD): This project starts with the kids, but we can have a loop where we can educate the parent. But the project doesn't have this aspect yet. It could be a different seminar. At the end of the project we are going to relay on the school and we could also include the parents at this moment.

A: R FORSYTH (USYD): The project was to provide education to young people that's why we have a guide line. This idea is with the results that we could provide to school would be an education tool for them.

A: CCAILLAUD (USYD): All school who had volunteers next year would have the instruction and the material that will be collect here can be share. We have in mind had the end of the project to feed back to the school where we can invite the parents.

C: GLEVIONNOIS (PFL): The space where the project will happen should be outside the school and do the project there in a third place, a place where that is design for the workshop. We have designed a place name "Huma kitchen studio" where we are able to co create with the children and teenagers with the adult. You can come to their if you want.

C: O GALY (UNC): In our group we test different situation for restitution with student, with and without teachers and parents. In the communities, in term of discussion it is not an institutional place at home, it depends on the country, the roots of the communities. It's probably not the same in different country. At home or in town, association it will be different, the place gives different answers.

Q: C CAILLAUD (USYD): Is it about the restitution or the initial Workshop?

A: O GALY (UNC): I didn't do workshop with children but I did restitution. But I think it's the same place, same answers.

Q: C CAILLAUD (USYD): Let's assume it is going to happen in a school setting, the restitution instead would be an exhibition of the kid's production in a third place. And then we can see who ever can attempt and see the production of the children. Is their children at the restitution?

A: O GALY (UNC): Yes, there will be children at the restitution. We can start with that and in the future, there will be other opportunities.

C: G LEVIONNOIS (PFL): There is in New-Caledonia a lot of places that would be happy to host your workshop.

C: C CAILLAUD (USYD): This is interesting, maybe we should avoid the classroom.

## 1.3 - Traditional knowledge, practice and resilience in Pacific islands

Dr Olivier GALY presented the team involved in the data collection of the SPAR project which is attached to WP4 of the FALAH program. The participants in the project followed one another to present the surveys carried out in the two university campuses of the UNC in Nouville in Noumea in the South Province and in Baco in the North Province.

The researchers involved in the project are:

- Olivier GALY, Isaake TUIKALEPA and Waixen WAIKATA (University of New-Caledonia)
- Catherine SABINOT (Development Research Institute)
- Séverine BOUARD (New-Caledonian Agronomic Institute)
- Adeline MWELEUL (Ministry of education and training)
- Francis THOMAS (University of South Pacific)
- Hugo BUGORO (At the end of the year with Solomon Islands National University)

The project wants to measure the existence and transfer of traditional knowledge in New-Caledonia and Vanuatu students in a post pandemic context.



Photo 14: SPAR Team (UNC & MOET/VARTC)

#### **Questions, Answers & Comments**

Q: C CAILLAUD (USYD): What was the situation in the Pacific especially at USP during COVID 19 lockdown? Was it consistent – in person teaching or on and off depending on the transmission?

A: F THOMAS (USP): 2 waves of COVID and USP went in to lock down, students made the adjustments and more challenging for students outside of Fiji and even in Fiji, a lot of communities where internet access is not reliable. Extensions given to students and setting up special centers with hotspots during the  $2^{nd}$  wave. Facing the true economic impact of COVID nowadays.

C: O GALY (UNC): Concerning NC and specifically UNC, 3 lockdowns between 3 to 4 weeks lockdowns. During 2 years period some students did returned or not to campus. The survey addresses the mobility of students during the lockdown.

Q: C CAILLAUD (USYD): When analyzing the data, do you want to analyze the campus or the state of the campus?

A: OGALY (UNC): There is a lot of data which can address different research questions, we can focus on the campus but it is not our main focus. The campus only provides the participants between 18 to 30 years of age.

The next stage of the research is to move to the families, as there is a lot to learn on the kind of practices related to COVID or not for the transmission of traditional knowledge

C: PMETSAN (MOET): Commenting on the questionnaire and tool with regards to COVID, it would be interesting to include the topic on natural disasters or cyclone in the questionnaire. Cyclones have major pressures on families on traditional knowledge, in terms of agriculture when there is a disaster all the planting materials are being destroyed. So how do we study the exchanges of knowledge and materials between tribes from non-affected areas to affected areas.

C: F ROGERS (MOET): The case of Tropical Cyclone Harold in 2020 combined with COVID 19 lockdown, there were no external nor international aid that came into Vanuatu. Non-affected area provided food crops and planting materials to affected area under the coordination of the agriculture department.

Q: F ROGERS (MOET): How can we tap into the SPAR questionnaire to look at how students in that particular age group could survive a natural disaster and how they gained the traditional knowledge to sustain themselves and become more resilient?

A: C SABINOT (IRD): In the qualitative questionnaire, COVID related questions are available but it is not necessary to have exactly the same questions for each country but choose the suitable questions for example. COVID and cyclone questions to help participant describe their adaptive measures. There is a program on climate change and local knowledge which describes the vulnerability of population.

C: FTHOMAS (USP): COVID can't be looked in isolation but synergizes with natural disasters so we can combine COVID with almost anything. A natural disaster is bound to shape social organization and the transmission of knowledge and the practices. When looking at a natural or human made disaster, we can tailor the questionnaires accordingly.

Q: C CAILLAUD (USYD): In this era of new technology, do we know if with new technologies the way traditional knowledge is transmitted has change? Is it quicker, going through the same steps or has it changed anything?

A: C SABINOT (IRD): Local knowledge are knowledge of today combined with the knowledge from parents and the ancestors and with what you can learn from media or/and at school.

A: C SABINOT (IRD): What we want to better understand is how the knowledge is built, transmitted and the future of the knowledge. This question will be included in the questionnaire but no collection for now.

C: O GALY (UNC): FALAH provides many opportunities; SPAR is step one dedicated to COVID 19, post COVID and what happened. We build tool all together and in parallel we need to think about natural disaster and see a possibility of new approach for other types of questionnaires by building tools for climate questionnaires especially cyclones which affects Vanuatu a lot.

# Second day: Wednesday 29th March 2023

### Session 2: Work Package 2 - family farming

# 2.1 - Fishing activities and small scales fisheries in Family farming: insights from NC, Vanuatu, Fiji. Part 1

The researchers involved in the project are:

- Séverine BOUARD (New-Caledonian Agronomic Institute)
- Catherine SABINOT (Development Research Institute)
- Pascal DUMAS (Development research institute)
- Chloé FAURE
- Francis THOMAS (University of South Pacific)
- Christophe SAND (IRD)



Picture 15: F THOMAS (USP)



Picture 16: S BOUARD (I) & C SABINOT (r)



Picture 17: C SAND (I), P DUMAS (c) & L MAGIA (r) more in dept discussion about their presentation

### **Questions, Answers & Comments**

Q: O GALY (UNC): Does Fiji and Vanuatu have similar studies and results?

A: F THOMAS (USP): SPC project, integrating fisheries in Vanuatu secondary curriculum. Unfortunately, the research skills may not have been implemented in schools. May be interested to see Van schools did implement it.

Q: J BROUILLON (IAC): Replication may not be possible if fishers' profile as similar in other countries (more prof fishers in other countries?)

A: C SABINOT (IRD) with P Metsan (MOET): Ask children when they have food at sea: difference between shellfish and fish

C: J PRASAD (USP): Group of students in north of Fiji: how fishing activities contributes to livelihoods and food security. Finds how fishers how affected. Data on 500 fishers – analysis currently made by PACE-SP.

A: F THOMAS (USP): Climate change and agriculture mainly done at PACE.

No comprehensive survey on fishing.

C: P METSAN (MOET): *Methods transfer for school from fishermen: use of tablets. Only fin fish no info on invertebrates.* 

A: C SABINOT (IRD): Not much funds and staff so methods have to be adjusted.

C: V Vailea SAULALA (CUP): In Tonga 3 mains economic activities: agriculture, fishery and tourism. May be interesting to see if Volcano eruption affect the fishery industry, as volcano ashes helped agriculture industry.

C: O GALY (UNC): reminds the that all tools are aimed to be used and adapted to all islands. Need to appropriate all tools to their own fields.

C: P Metsan (MOET): Natural disaster in Vanuatu: fishing activity mainly done by made, knowledge transferred from fathers to son / nephews. Human workforce going to NZ may affect survey the population.

A: S BOUARD (IAC): Surveyor have to understand who does the work to appreciate knowledge transfer.

C: C SABINOT (IRD) and F ROGERS (MOET): Migration of workforce: women less likely to migrate and men send money and hence lessen the agriculture production (FF) for consumption. Impact of migration has huge impact on FF, even more when climatic disaster happens: longer migrations: change the social and diet system.

RERIPA project might be able to do a qualitative analysis on this topic.

C: V Vailea SAULALA (CUP): Understand Vanuatu situation as seasonal workers has positive impact on economic impact but negative social impact. Tonga will not stop this dynamic.

### **Questions, Answers & Comments - Christophe SAND**

Q: FTHOMAS (USP): What's fascinating is that I'm only aware of one species of family of shellfish that became extinct. That would be extirpation on extinction locally extinct. And that would be the two large species of tridacna *hippopus hippopus* and tridacna dragons can you think of other examples of local species' extinction? Other than those two recruiters?

A: C SAND (GNC): No, we have been in New Caledonia we have been looking more at changes in proportions in numbers through time, but not really kind of clear example about the hippopus hippopus. The tridacna is very clear when you go from those big dry tridacna, the rolling ones.

But probably contrary to what is on land, where basically once you burn everything, or once you kill every single bird, that's it.

In the oceans, especially the time where people have no masks and couldn't really dive to every single shell.

The natural protection of the reef on some areas made it that getting to totalistic extirpation or disappearance of species was probably naturally more difficult to achieve. But apart from that, the other community answered the question.

C: P DUMAS (IRD): I can just give you an example. This large cluster has literally disappeared from many places around the Pacific including probably New Caledonia.

Thank you.

### Questions, Answers & Comments - Pascal DUMAS and Francis THOMAS

Q: C CAILLAUD (USYD): I was wondering too. Point interesting. The chart you showed where you mentioned for each country's type of regulation. What is the source of this?

A: P DUMAS (IRD): It was the 1 of 8 study from 2008. I guess I can find it's written in the figure I don't know why they didn't include New-Caledonia.

C: C SABINOT (IRD): To stay on this subject, SPC has a new website with all the rules they know regarding fisheries, in the country.

C: C SAND (GNC): I wanted to be really quick. I didn't add that. Of course, people very early on, realized that there was a shortage of shellfish if they obviously too much. So everywhere around the Pacific, people care to not over exploit the beach moving on. What archaeology shows is that area with the lagoon is only one kilometer wide. People if they had always to live, the exploit what they are just in front of them. They wouldn't have emptied the lagoon very quickly. So instead of having a fixed habitat and moving around, in terms of collecting the fishes and shellfish, they did it the other way around. So, they were kind of moving their households so you don't have any fixed kind of village-based thing for a long time. And so, this was giving the natural landscape lagoon, time to recover. And so, in terms of the archaeology, and kind of complete disappearance of some of the shellfish species. It's the people who adapt their own everyday living ways to allow the recovery of the after environment.

A: C SABINOT (IRD): I think to something also, most of the time people decide to have a taboo zone or a reserve for social function, and not for the preservation of the biodiversity. And even if it can be good for the biodiversity, the first thing is to be sure to have a lot of beachfront shellfish or a seashore for after the cyclone. And it's very important to have this in mind when you walk in management. Now the trick is a concept with the bad definition.

### **Session 3: Tools and Transversalities**

### 3.1 - For a better use of digital tools in real life conditions



Photo 18: G. WATTELEZ (I) & J. BROUILLON (r)

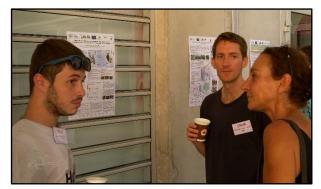


Photo 19: J. BROUILLON (I), G. WATTELEZ (c) & S BLAISE (r) in more discussions

### **Questions, Answers & Comments**

Q: C SABINOT (IRD): Yesterday we talk about the SPAR project on knowledge and I think the questionnaire is on Google Form. So is it plan to transfer it to REDCap or MySurveySolution? This is a question for you but maybe for colleagues also. And thank you this could be a good idea to change the interface.

A: O GALY (UNC): First we have to switch we were not really ready to start with RedCap but I think that in the future our next steps will be better to move into switch to RedCap of course.

Q: F ROGERS (MOET): Thank you, Jonas and Guillaume for the presentation. And thank you for the training. It was really helpful for us and we were proud to be part of the training. I have a particular question. I know that all these tools, you have software's even the national admin in the university or this PC, but one question is that when we have a scenario where we want to develop a questionnaire but it's not related to the FALAH project, do we have the right to use or create a questionnaire using REDCap and my survey? But it's not really linked with our PhD research or even FALAH project we have the right to use those two tools and develop our questionnaire which is related to education or something else?

A: G WATTELEZ (UNC): Yes, thank you for your question. To be able to use REDCap for instance, so your organization or university has to be in a consortium then so when you work in the project like FALAH that is led by the University of New-Caledonia, which is in the consortium, it is good but if you want to use REDCap for another project, outside of the University, you don't have right to do this, but if your current university or your organization is in the consortium, it's okay.

A: J BROUILLON (IAC): On MySurveySolution, everybody can create the questionnaire on MySurveySolution. But you also need a server to conduct a survey for the data.

A: J BROUILLON (IAC): So, we are going to have or server at the Agronomic Institute's so I don't know maybe we can have a collaboration if you conduct agricultural survey to construct a survey database but you can also maybe ask to the South Pacific Community. They provide server, sometimes we have to pay or sometimes it's free, but so can ask for that at the South Pacific Community or at the Agronomic Institute. and maybe we can share with you a server.

Q: V Vailea SAULALA (CUP): Thank you for the presentation, guys, thank you so much. My question is almost aligned with the previous one is the technical bottom that's all. I know Thomas has in descending order right now, but moving forward, especially after the Vanuatu conference Thomas will be in. We haven't received any apps like RedCap. But the multifile for example, the language system. So, we are you guys have to modify those tools, instead of the French but Tonga native language which are very conscious. And also, there are some questions that we need to ask blank blank blank in what she has mentioned, because of our culture. This question maybe once a bit, can it be as flexible?

A: J BROUILLON (IAC): I think that is the goal. The goal is to adapt questionnaires for each country to be the nearest to the people. So yes, this is the goal to have a shared tool but other tools on the desk.

A: G WATTELEZ (UNC): This is not a technical issue; this is mainly an administrative issue. Has we show at the start, for designing a questionnaire this is not only digitalizing, this is the think about parties such concern and the targeted population. What we want to catch and I think this is not a technical issue this is more a motive question.

C: F ROGERS (MOET): I think I will add on what you just said in answering your question: there's an option in the tool itself that's called languages. So actually, you can translate your question in your vernacular language or in your first language, and then insert it in the tool. You have the different options of languages so if you want the question to be in English, you click on the English tab, and you have the English question and it pops up, or you can click on the Tonga language tab and then the questions pop up in vernacular.

A: G WATTELEZ (UNC): It is not an automatic translation; you will have to provide the translation.

A: J BROUILLON (IAC): If you know little RedCap you can do your research but you can also add some columns and the different question on the questionnaire. You can share suggestion to us and we will be able to take account of your income. I think that next week we will send the image to everybody to

share the first questionnaire and invite everybody to make suggestion it's a different questionnaire to adapt to their country.

Q: Unknow: Will there be another training?

A: J BROUILLON (IAC): For the moment we don't have plane the next training.

C: Olivier GALY (UNC): On November we spoke about the program for March 2023, with all the training to go on the field next this is why we initially planned this training session. And it was the same for Dr. SIMAR, who was there last week but we plan to do something with Tonga, I think it will be the case. First, we need to identify all your needs and see how we can manage it that. In June we will be on the field in Vanuatu, the place to move to the next step. Any other questions before we move to the next presentation? Thank you so much.

### 3.2 - Contributions of satellite images and spatialized data







Photo 21: Amphi 80 at the University

### **Questions, Answers & Comments**

Q: P WELBY (UNC): About the practical ethical and legal aspects of using drones particularly designed over places where people lived. It was my understanding that there are some restrictions.

A: JM FOTSING (UNC): Basically, there is city regulation about the using of drone make it fly not over certain institutions, that's the first thing and there are places where you should not fly and take images or when you write an application. The authorities, they give you the right to fly with drone that's what we did in Vanuatu and we wrote the application and they gave us the right to fly. With the drone when you come into a Protected Area Defense you cannot take pictures. If Pascal DUMAS was here, he will answer the question about law in New-Caledonia.

C: M DESPINOY (IRD): Easier to mobilize. So, if you want to follow my particular field and evolution of the field during one month, for example, they can have a lot of information, it's easy to add fields. So, the University has drone, with nature spectra drone. It's a new generation of measuring, we can access a lot of sense of nuisance with drones, because there's been more and smaller and we can have a good mix of spectrum on the LIDAR. Awesome, so it's given you very precise information on the fields.

A: JM FOTSING (UNC): When we only use land satellite and spectral scanner that go to 80 pixels. We could see images but only at what we need to see and we only use those images. And not with the drone, the space you caught and the opportunity to introduce the data in a geographic information system is not easy. It gives you more technical work compared to the result you will receive and the

scientific application. So, there is no need to have satellites that gave us free data every week and we can use it for our thematic application and let's because we are informal settlement are going for more spaces. To me and for land use and land planed we work on small scale and I put them in regard of the general originals state. For example, in a city where we show example of the cultivate area in the urban area, where will he get the theory of relativity? So the use of tools will plan to build the city they have to know.

C: V V SAULALA (CUP): I'm interesting about the transformation from five years to 10 years, but I didn't get which our source and we can extract some evidence like if we have villages at the top of the eastern side, western side of Charlottesville. We have all the islands if we want to have features because at the end of the day, the reason why we do it on satellite, the vertical image is from the centerline but I saw you guys have present household, which is our horizontal image. So, you use your phone I think he doesn't. I don't know maybe it's the latest technology of Lincoln, like watching the movie. It's come down in economy call through your house, but in real life about this education purpose, we can use it so at the end of the day, we want the satellite image whether in we use our phone, in whatever virtual image follows our research. It's an evidence for our research, whether it's on Vanuatu, New-Caledonia, in Tonga we need images. Interesting about the transformation of how we inhabit villages, and also mentation. From time to time. It's like evolution so it was so but that didn't get the source we'd like for myself is the time the team you want to do, at 10 years before and then like from let's say this 2023. So the past 20 in 2013 and 2015 and 2017 2019. Can I extend the source that I can share that satellite image of this village A, village B, village C.

A: M DESPINOY (IRD): If I listen your question is about how can you get images on your village another. Okay, so there's two categories of images, satellite, not drones, that satellite imagery is for some of them you have to pay for things but it's a different price. I mean for educational price is very low for example, and for private is very high. And you have also satellite that are free, free made from satellites, but they are often not at one-meter solution. So, normally, the metric or metric data are 1 meter. For educational, educational spreadsheet, you will have around maybe \$10 per square kilometers. So, you can choose, for example, the past that we have, you want to observe it make a polygon and buy the pixel inside for you. You don't need to buy all the image in a row. So, it's quite cheaper. If you want to follow this polygon Street for example, you have to buy just the pixel inside of this polygon. So, it's quite cheap. So, and you can buy it on the net. It's simply that you have plenty of sellers.

C: JM FOTSING (UNC): Access to image will have no insight to participate to the produce communication. We at the University of New-Caledonia, we have an agreement for scientific use and we can buy images for cheaper prices. So, when you will become a FALAH member because now you not have images for sample. So, I was telling Corinne that now we are ready to call for presentation to do what we did here but in other area of the FALAH project.

A: M DESPINOY (IRD): There is a link on the net, there is also private compagnies. Here we have some companies who can buy or give you some data so you buy these data but I listened your last question.

Q: V V SAULALA (CUP): Because we are doing this so follow up culture and we're talking about the financial sample in this issue with a follow on pay for that. So, we can access to the satellite image for each University is responsible for that.

A: JM FOTSING (UNC): When you have a project like FALAH, ... In New-Caledonia we start to work with IAC. So, we have that inclination, the confidence that our partners have solid projects. That's why I start by saying that going over will be the fish anything in sight, or you don't want to buy images and keep them though you want to take the kids and start using them. That's why people should train. Also

depending on GIS, the perfect information systems collected have been paid to play and keep it without losing heat is the one good place because many places in basketball last.

C: VV SAULALA (CUP): Beyond our meeting next week. So please hold our University in. Thank you so much.

A: M DESPINOY (IRD): Just found this load of detail. I mean archive data old days that are free now. For example, the sports world heritage sites for brain from Google on the old sports majorly I mean 10 meters, square resolution five meters, 2.5 meters, so are free now and for the next generation of played, the old played which is one-meter square resolution and submitters also should be also free in the next years. So, it's there's no presentation of his data. You know, the spirit is to share pages.

### 3.3 - Languages from the garden to the fork

### **Questions, Answers & Comments**

Q: F. WACALIE (UNC) and P. WELBY (UNC): The question is about whether there are words in an outline, which is a body and movement and physical negativity, and whether there's a reflection of the changes in our modern society? The word for sport, mostly used the French word that they tell them it is used because their activities that have been introduced. The second question has to do with whether or not there are words for the body movements, or the air or water for different environments, spaces? You can always take a theme on its own. In posing the French categorization, like for example the food or alimentation, in the langue we have different way of classification.

A: R FORSYTH (USYD): I want to actually have a question for you. Just is this characteristic of the kanak language is very, different words to verbs used for PDA according to what is eaten and in some of the languages some of the languages of the North for example, you have a fun phenomenon like the word for drink is different depending on whether though, what is drunk is hot or cold and I just we would be really interested in knowing more about the way the languages that you work with are through undergrad, other varieties. So, if you have any reflections on that now or later, we'd be very happy to hear about it.

Q: G WATTALEZ (UNC): About living language so, have you observed some evolution about this kind of topic or observation in a way?

A: F. WACALIE (UNC): The evolution of the word, there is an evolution that is more negative, because I was talking about the generic word and the specific word. Nowadays we use more the generic term. The new generation don't do anymore the difference with the classifiers, they have tendentice to use the generic classifiers. I direct you to the article of Anne-Laure DOTTE.

C: P. WELBY (UNC): I will recommend "living and eating in ranger's country » it is more about food culture. They talk about how different people make different choice for talk about food that had been introduce.

Q: Isaake TUIKALEPA (UNC): Do you have data with the research you had done on the creole but also in New-Caledonia with the Tayo who is construct with 2 or 3 kanak languages, French and later the creole. What strategy this society use to construct the Tayo compare to the different vision the world this society have?

A: P. WELBY (UNC): The Tayo language is from Saint-Louis, it's often neglected.

A: F. WACALIE (UNC): I didn't work on the Tayo but I guide you to the work of Sabine ERARD who is the reference linguist but it would be very interesting.

#### Session 4: Tools and Transversalities 2

### 4.1 - Complementarities of quantitative, qualitative and spatialized methods





Photo 22: JM. FOTSING

Photo 23: Amphi 80 at the University

### **Questions, Answers & Comments**

Q: RFORSYTH (USYD): just the way he talks about perceptions and representations. And you mentioned what happen in a social context, but I think it's important to emphasize that many making between people and collective you know, we know about collective language and meanings of all these practices that we're studying in all different ways, isn't it? So, it's not just how individuals understand how we phrase a question. It's how the whole community would understand that is important.

A: JM FOTSING (UNC): I need an hour changing to be efficient you can ask FALAH members, because at the end we have to show that our results suites so the different methods that are used, if that's what we're expecting, when we have to publish, that's why we have open research so where we can publish our articles so it shouldn't be affray.

We need to being proud of our networks instead of shipping network, discipline and saying we will only draw map and so on. Know sometimes we just should be adapted to another approach.

C: O GALY (UNC): From our perspective in terms of quantitative approach, first if we want to do research in these kinds of sites. But first we have to identify your common language to answer to this question, for example, here, it will be French in the questionnaires, we asked to the community on which the participant belong to. So, that address in a community in which recognize themselves as an individual. We had this situation, not in New Caledonia because we never work most of the time at first in school and later in the family, but it was a case in Vanuatu. So, we adjust our questionnaire in schools for schools to and we asked to the children. What language does they speak at home? It was one of the questions we had in our questionnaire. And the second one: From what land are you native? Because it's an archipelago in Vanuatu with a lot of island.

In New Caledonia, you can speak about diporas and people coming from each region from New Caledonia. But we address and find solution at our level with these different questions and it's more adapted to the situation of Vanuatu and when tomorrow, tomorrow we will work in this kind of settlement, I think that and that's what we did in our survey Guillaume we have this kind of because we did it last week with Guillaume and Jonas. We spoke about that and the community, to ask them on which participants belong to the language and the origin of the participants.

It was a question we had last week, do we keep up this question or not? We're actually on this response. From a quantitative point of view.

C: JM FOTSING (UNC): This is why with this project did we bring together small island participants to be able to compare. And we think of doing this when we went to Vanuatu to see the informants center, we see that the people were settle in different areas, according to the island. Why he says that would be better to have this in New-Caledonia. We are so close to replace, when there we have this result and we saw that association people that are in relation with the administration instead, they told us that people from Lifou to Noumea and so on, close to the places we have houses.

Q: C SABINOT (IRD): It is quite difficult because you ask what kind of tools we will use, maybe will have to think of the question we would like to address about this for example and then decide which kind of tools would be use for this.

A: JM FOTSING (UNC): Bring the question to the fisheries and see what people work in land, garden and using technique and how they will go on survey because fishing, they will very early in the morning. In other contexts of reactivity, what is the effect on land cultivation? So that's, that's what I wanted to do. What I am asking for more specialists that nobody should say that on geography we don't work like that.

A project that won't come, all thematic, they want to take the country's agricultural farm to the market with the field.

We need to integrated system that will bring into school cultivated land and the canteen instead of waiting for crops that will become distance moving from an island to another one is very expensive.

C: C SABINOT (IRD): Many ideas, but I think that we need to decide who will be involved in this program. The sign and to address how to better describe justification between activities.

So, we need to do this. From all what we have discussed during the two days for this observation was 50 observations but also semi structured interviews and questionaries. But he developed a question that had together because we've had to priories which question is, wait I don't have a sharp answer but I think that it's the beginning of work.

A: JM FOTSING (UNC): Yes, it is to begin of work with addressing the new questions that are already in the project and were moving to mid-term, we are already in term of research and will we have to show results.

### 4.2 - Discussions: transversalities and methodological synchronisations





Photos 24 et 25

# 4.3 - How to publish in an open access journal? Presentation by the editor of the Open Research Europe Journal



Photo 26: R. FISHER presentation

# 5 - Round table - Gardening and eating: what is at stake for my health, my family, my island and the planet?

The aim of the round table was to give a voice to local players with varying levels of involvement in agriculture, food, lifestyles, training and so on.

It was chaired by a journalist from NC 1ère, with participants from the three provinces of New Caledonia, as well as traditional leaders, members of parliament and a representative from Wallis and Futuna.



Photo 27: Panel guests and coordinators

# Third day: Thursday 30th March

The aim of the field trip was both to showcase the activities carried out by students in connection with FALAH and to appreciate the place of agriculture in the urban and peri-urban areas of Noumea and the Grand Noumea conurbation.

On the UNC university campus, there are beehives whose honey harvest was distributed to all the participants. There are experimental plots of farmland being cultivated near the university halls of residence as part of the student vegetable gardens (JPE1).

At Apogoti in Dumbea, there are plots belonging to the Association Partage en Herbe and the FALAH plots belonging to the Experimental Pedagogical Gardens (JPE2).

A visit to the cultivated plots integrated into the urban dynamics in Paita, particularly in the low-lying wetlands unsuitable for cultivation and the dedicated agricultural areas.

A visit to farming plots integrated into informal settlements on the Nouville hills.

### Visit of the Apogoti gardens



Photos 28-32: Apogoti site visit

# Visit of Paita gardens















Photos 33-39: Paita site visit