



Observatory of the dynamics of interactions between societies and environment in the amazon

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Introduction

Because of its fundamental importance for global environmental issues, the Brazilian Amazon has attracted researchers from around the world for decades. For more than 30 years, different bilateral networks have been structured between European and Brazilian researchers (Duarte et al., 2010, Barlow et al., 2010, Gardner et al., 2013), specializing in specific topics, but there are few exchanges between them. Assuming that public policies need a more integrative vision to support sustainable development of Amazonian societies (Bursztyn et al., 2004), the Odyssea project proposes to build an observatory of social and environmental dynamics in the Amazon, to cross the many results obtained by these networks. The main issue it addresses is adaptation to accelerating environmental changes (Malhi et al., 2008), with the aim of reducing the vulnerability of local populations.

Observatories and information systems have been criticized as too often being conceived as tools for experts, but they are increasingly seen as tools to support participation (see for example Participatory GIS: www.ppgis.net). More than a way to involve stakeholders, such approaches claim to be a new way of producing knowledge, "a cognitive democracy" (Ghorra-Gobin, 1993), a citizen science, capable of "recognizing actual and concrete individuals as the authors of their decision and capable of a critical reflection or mastery of their actions, whatever the time and the situation" (Bouilloud, 2000). Tonneau et al. (2017) consider that territorial observatories contribute to the knowledge society by allowing citizens' knowledge to inform societal choices and reintroduce political debate in processes of deliberative democracy.

At the same time as Odyssea aims at integrating analyses realized in different domains (hydrology, water quality, carbon stock, land use, health, poverty, well-being, etc.), researchers are aware that one of the main challenges will be to start from the demands of local populations, policy makers and development institutions, to propose an observatory that is adapted to their expectations and needs (Lemoisson and Passouant, 2012).

Implementing participatory approach however is always challenging and never neutral, and require reflecting about how to guarantee the legitimacy of the process

(Barnaud, 2013; Cooke & Kothari, 2011). First of all, because of the constitutive ambiguity of “participation”: the concept itself paradoxically implies an external intervention. This is not only a wording, participation is often implemented in a vertical way. Barnaud (2013) warns against “utilitarian” participation, which is not conceived to reinforce local actors, but only to validate the legitimacy of a project, of knowledge building. To counter such deviations, the ideal vision of participation prones that populations should engage in “auto-mobilisation”. However, the fading out of external actors, such as researchers, managers and policy makers, is also an illusion. Risks go from promoting too much endogeneity to imposing unconsciously external views, with no opportunity to voice them. Thus, it is fundamental to promote multi-stakeholder processes and co-construct the legitimacy of the process (Barnaud, 2013; Cornwall and Gaventa, 2001; Edmunds & Wollenberg, 2001; Ribot, 2001).

Participatory processes are often criticized for excessively promoting “localism”, with processes which rarely go beyond the community scale. These have limited impact in space and in time, rarely continuing after the projects end. On the one hand, they fail to create an institutional anchorage. On the other, the complex problems which are discussed within the local participatory process often have causes which are at more global scales and which need to be dealt with at these scales (D’Aquino, 2002;).

Within the Odyssey project, we acknowledge the important literature written around the challenges of participation and consider it is fundamental to situate our practices in relation to the critics addressed to participation. We wish to up-take the double challenge of progressively building a shared legitimacy with the social actors and situating these participative processes at the interface between scales, to enable a dialogue between local specificities and wider institutions which can deal with the problems at higher level. With this perspective, rather than “participatory research”, we prefer referring to social learning. Research on social learning (Leeuwis and Pyburn, 2002) has shown the importance of creating learning situations, in which actors can go beyond their current routines, share their positions, develop unifying ideas, define new common values together and then collectively put them into practice (Coudel et al., 2011; Daré et al., 2010).

Many researchers of the Odyssey collective have a long experience with participatory research. Thus, WP2 – “Interactions between science and society” intends to

promote exchange around our different approaches and build on these processes to involve the stakeholders in the observatory. The objective of deliverable 2.1 is to report on the different participatory activities carried out by the researchers involved in Odyssea and identify how they can progressively contribute to build the observatory. This intermediate report presents the participatory activities carried out in 2016 and 2017. These first two years of the project have been fundamental to enable researchers to share about their past and on-going projects and define the way to go.

This report is organized in 4 parts:

- The first part brings some theoretical elements regarding observatories, participation and social learning
- The second part presents the moments within Odyssea dedicated to the reflection on participation and social learning
- The third part realizes an overview of the different participatory activities carried out in 2016 and 2017 within projects linked to Odyssea
- The fourth part concludes on the perspectives for 2018-2019

The deliverable 2.1 will be finalized with all the participatory activities at the end of 2019. This report is only a partial inventory of activities.

1 **Observatories, participation and social learning**

Participation can be considered as one of the tools mobilized in an observatory (Turkucu and Roche, 2007). Paradoxically, a cross-comparison of different case studies of observatories realized by Turkucu and Roche reveals that a high level of public involvement is often associated with low use of technology (Turkucu and Roche, 2007). This underlines the challenge in associating sophisticated data bases and observation technologies with social demands.

The number of methods of public participation has been skyrocketing in scientific studies and in practice (Holmes & Scoones, 2000; Van Asselt & Rijkens-Klomp, 2002). Gauvin and Abelson (2006) classify these methods according to the three levels of participation of the population:

- **Public communication** allows the policy makers to inform the citizens. These methods do not ensure true public participation, but their role is essential in the process of consultation or public participation. Public communication can be realized through: announcements, published reports, newspaper articles, press releases, press briefings and websites.
- **Public consultation** allows policy makers to solicit public views on public policy issues, but the interaction usually retains a restricted character. The information flows mainly in one direction, that is from the population to the government. Some of the more traditional ways of public consultation include public meetings, opinion polls, public hearings, focus groups, referendums, and stakeholder meetings.
- **Public participation** involves interaction among the citizens and between the citizens and the policy makers, that is to say that there is an exchange of information between the two parties. A certain deliberation is involved in this process (which usually takes place in a group). Both parties may be represented in different proportions, which vary according to the methods used. Deliberative processes help transform the raw opinion of the parties (ie, policy makers and citizens) into informed judgments.

In the case of observatories, in particular "Participatory GIS" seen as information systems coupled to a participative device, Turkucu and Roche (2007) propose a

typology based on three axes: public involvement, data used and interaction with the software:

1. 'Knowledge Transfer' corresponds to public information contexts (one-way communication of factual scientific data);
2. 'Knowledge Collaboration' is characterized by knowledge exchange, in which the public is expected to give its feedback;
3. 'Low interaction' is characterized by a mobilization of scientific data and local knowledge, the public involvement being of communication-reaction type, in particular with methods of the PRA family (Participatory Rural Appraisal) / PRA (Participatory Learning Appraisal), and in this case no software is used.
4. 'Partial Action' refers to when the public is already partially involved in the reflection and implementation. Its direct contribution is expected, by the preponderant role given to local knowledge in reflection and decision.
5. 'High Interaction' assumes high public interaction with technology, accompanied by a 'facilitator'.

Configuring an observatory as a “high interaction” participatory process is inseparable from an approach that places learning at its center: the observatory is a tool that, by allowing debates, must favor the learning process (Tonneau et al., 2017). A learning process assumes that we do not know where we are going, that there is no pre-determined solution, and that actors come together to learn and build what will be the solution (Coudel et al., 2017). This requires a certain state of mind of the actors, in particular accepting to engage in a common perspective with serendipity, that is to say, trusting that the process will enable progressively to build together, without knowing from the beginning what are the objectives and the way to achieve them (Coudel et al., 2016). This group of actors built around an observatory can become a learning community, referring to a group of people who share the same values and visions and who come together to learn from each other's knowledge (Brown et al, 1989). Some authors prefer the term of research community, not restricted to

researchers, when these people explicitly aim at creating new generalizable knowledge (Avenier, 2007).

Encouraging social learning is part of a global shift in the integrative conception of rural development that derives from sustainable development (Van der Ploeg et al., 2000), where a territorial approach replaces sectoral approaches (Scott, 2004). Boucher et al. (2000) consider that this coincides with new social practices, with the greater involvement of civil society associations, looking beyond local networks towards an institutional relation with public bodies. In these governance approaches, development is seen as an interaction between local actors, public actors and private actors, who may have a wide range of interests and references (Allaire, 2006) and are mobilized around complex issues, often considered as public goods, such as water management, integrated management of coastal zones, territorial or regional development, or even climate change. The challenge is to bring people with different interests to participate together in a shared decision-making process (Bacqué et al., 2005). Change and crisis are often mentioned as the main driving factors (Herbert-Cheshire & Higgins, 2003). The aim is to transform social problems into collective projects (Boucher et al., 2000).

Constituting a consultative entity is generally a real challenge, as it often means bringing together people who do not usually meet or who would even prefer not to meet. Some authors suggest overcoming conflict by constructing 'mutual interest' (Scott, 2004), generating knowledge around a 'motivating issue' or a 'disorienting dilemma' (Moore & Brooks, 2000), developing a 'common representation', a 'common identity', 'visioning the future', generally emphasizing a 'discursive and interactive process as a means of identifying priorities and developing strategies for collective action' (Scott, 2004: 51). However, Leeuwis (2000: 940) considers that it is not 'that stakeholders don't have the knowledge to understand the others, but that they are unwilling to understand other points of view'. To avoid negating conflict, Leeuwis (2000) considers that adopting a negotiation approach is the best way to achieve social learning.

Three elements can enhance social learning (Turcotte et al., 2007): the constant effort to formalize learning and knowledge helps increase its 'portability'; the

permanent adaptation of the entity to its environment, through a 'hard struggle' to constantly define its position, enables learning to be more easily received by the enviroing society; and finally, the diversity of actors guarantees the legitimacy of the options that are voiced. However, as Scott (2004) points out, the most serious limit is the danger that experience stays embedded in individuals and does not become institutionalized.

2 Organizing the reflection regarding participatory activities within Odyssea

The first two years of Odyssea have been fundamental to enable researchers to share their views and progressively build common objectives. The two scientific events in 2016 enabled to share postures and methods. In 2017, various activities intended to define together a pilot methodology to involve social actors in building the observatory. Several institutions representing the social actors signed a partnership end of 2017, so we can engage together in research activities in 2018.

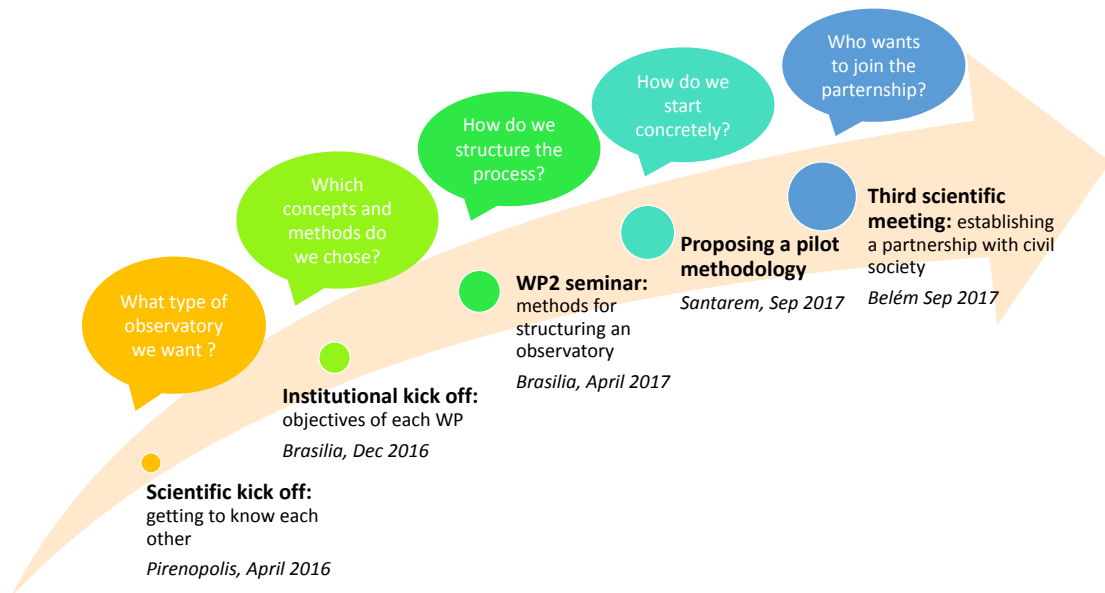


Figure 1. Chronogram of events related to building the observatory within the Odyssea project

2.1 Discovering each others postures and methods (2016)

During the first scientific meeting, held in Pirenópolis in April 2016, the researchers were asked to present, for each area, the main scientific challenges and related projects. Interestingly, one of the strong common features among presentations was the posture of researchers in doing their research: engaging in responsible science, crossing the border between science and policy, promoting transdisciplinarity, etc. This revealed the importance for most researchers of carrying out their research in close interaction with social actors. A reflection on the important principles for an observatory enabled to build a first common vision of what the group aimed at, confirming the importance for all to engage in a strong partnership with society.

Following the kick-off, a group of researchers went together to Santarem. All had been engaged for some time in projects in the region and the objective was to discuss together how to make the links between these projects: Rede Amazonia Sustentavel, which deals with the social and ecological impacts of land use; the Pluph, Glifosato and Chumbo projects, which look at the consequences of environmental conditions on human health; ClimFabiam and Bloom-alert, featuring adaptation to the change of water regimes; and projects linked to the governance of the “citizen territory” and Local Productive Arrangements promoted by this policy.

The researchers involved in Bloom-alert (a project on water quality and cyanobacteria, which followed up on ClimFabiam, about adaptation to changes in the Amazonian floodplains) invited other researchers of the Odyssea group to participate in a participatory activity planned as part of Bloom-alert: a Companion Modelling process to simulate in a participative way (involving the farmers and fishers in a simulation game based on their reality) the evolution of human land use and the adaptation to higher floods. This enabled the group of researchers to discuss in practice their different postures and experiences related to participatory activities and the way they engaged social actors in their research.

After this week of fieldwork, the researchers gathered in Santarem and invited different historical partners (NGOs, farmer unions, managers) to present to them some results from the different past and on-going projects and discuss what could be their demands in relation to an observatory. Preparing this meeting enabled the researchers to formalize the particularities and common points of their different

research projects and how to move forward together. The discussions during the meeting were mainly related to the importance of formalizing a compromise between researchers and local actors, to enable the actors to have access to the scientific results. The actors recognized that several projects presented already had this posture and that it was fundamental to amplify this interaction.

During the second scientific meeting in December 2016, WP2 featured a special session to pursue the reflection on social participation in research. Four proponents were invited to present the way they involved social actors and policy makers in their projects:

- Gina Frausin (Lancaster University): lessons from FoodSeca (change in food and livelihoods related to climate change)
- Stéphanie Nasuti & Louise Cabral (CDS-UNB): lessons from Simbiose (Participatory definition of biodiversity indicators)
- Dalva Mota e Livia Navegantes (Embrapa e UFPA): lessons from AFINS (Social insertion and family farmers in palm oil chains)
- Gustavo Melo (Ambiente Social): lessons from ClimFabiam (Climate Change and Biodiversity in the Amazonian Floodplains)

Discussions focused on the principals behind our participatory practices (What can be the role of researchers as mediators?), the types of social actors engaged in the research (What segments of the population and how to deal with each one? How to involve managers and policy makers?), the best ways to mobilize the populations (through the representatives, via radio, personally, etc), the types of support used during the activities (interest of games? what media for diffusing results?), the way to work at different levels (what interactions between level? What specificities at each level?). The session lasted much more than the initial 2 hours, showing the interest for this subject.

2.2 Making a proposition of common participatory activities (2017)

In April 2017 was held a WP2 workshop with the objective of discussing the guiding principles for the observatory and defining the first steps to engage in the partnership

with social actors. The group decided that it was important to start presenting Odyssea to the institutions and engage in concrete actions. However, since the ethics agreements hadn't been obtained yet, the idea was to work with communities and institutions which were already involved in other projects. We thus decided to build a pilot methodology in Santarem, to work at different levels and on their interrelations.

A small group of researchers made a first proposition of what could become the process to engage social actors in building together an observatory and define what indicators are most relevant to follow the social-environmental changes and support their adaptation. The objective was to test this methodology (as part of on-going projects) and then discuss the lessons at the general scientific seminar to be held at the end of September in Belem.

Frame 1. Activities planned in 2018-2019 to engage social actors within the process to build the observatory (see deliverable 2.2 for more detail)

To organize the interaction between researchers and actors, the Odyssea project chose 5 aggregating sites, where the participatory activities will be concentrated: the Nordeste of Pará (around Belem), Santarem (middle Amazon), Manaus, the BR 163 (which crosses the Mato Grosso to Santarem, with a more precise area around Sinop) and the Amapa state (border with French Guiana). Each site has specific issues, which will be at the heart of discussions between researchers and stakeholders. In each of these site, the activities will be articulated at two levels: at the community level, with the populations themselves, and then within a common pole, with the representatives of different communities. Activities common to these different sites will also be planned to bring together the main representatives of each site. The idea is to discuss with the actors at each level what can be done at this level to adapt to changes and what should rather be done in connection with other levels, to organize a multi-scale perspective on problems that people face and ultimately succeed in thinking about multi-scale governance to address these problems.

In the Santarem site (comprising the townships of Santarem, Belterra and Mojui dos Campos), chosen as a pilot site, the idea is to develop the following activities in 2018-2019:

- Participatory workshops will take place in a dozen communities, chosen according to the issues tackled in this area (and taking advantage of the research and partnerships already undertaken by the researchers involved in Odyssea), in particular: adaptation to the great floods of the Amazon, rural-urban interface, soybean expansion, conservation challenges in the face of large forest fires. By comparing the different changes perceived by the inhabitants of each community and the adaptations already implemented (or wanted), the researchers will identify the common points and the peculiarities of each site, to elaborate information accordingly to the needs.
- In these same communities, depending on the possibilities of the researchers involved and on-going projects, surveys can be conducted regarding the individual perceptions of the inhabitants in the face of changes and adaptations. In total, in the Santarem region, we plan to have approximately 10 surveys per community, amounting to about a hundred surveys in total.
- In parallel, in the city of Santarem, representatives of the different zones of the region will be invited about every 6 months, first to make a zoning of the changes occurring, then to identify the main forms of adaptation, and then, to discuss this adaptation more specifically according to different themes that they have identified as relevant for them. These workshops will be based both on the data of the researchers involved in Odyssea, on the participatory activities developed in the communities, and on the surveys carried out.

In the other sites of the Odyssea project, the modalities for implementing this methodology may vary according to the resources of the teams involved at each location. The ideal would be for each site to have at least one workshop with the representatives and approximately 3 workshops at the community level (with about 30 surveys), to have a transversal vision of perceived changes and adaptations implemented at the different levels. Although these five sites are a selection within a huge Amazonian region, they will nevertheless allow to grasp the main evolutions occurring and to choose with the actors engaged in the process of construction of the observatory what are themes that make sense for them.

In September 2017, three workshops were thus held with actors we were engaged with within different projects related to Odyssea (such as Rede Amazonia Sustentavel, BloomAlert, projeto Glifosato, among others):

- At a local level, we held a workshop in the Lago Grande of Curuai (a district of Santarem), bringing together actors we have been working with for several years, to discuss what are the main environmental changes and what is done to deal with them.
- At the level of the Santarem site, a workshop brought together representatives from different zones, to present our objectives within Odyssea and start discussing the main changes they identify and the challenges associated
- At a regional level, we brought together in Belem representatives from several sites (in particular, Santarem and the Northeast of Pará, but also from Manaus), to discuss the terms of a partnership with them (and sign it) and start identifying the main themes that they would like to contemplate within an observatory of social-environmental changes.

The methodology applied at each level (detailed in deliverable D2.2) proved constructive. This pilot method was presented at Belem at the end of September 2017 to the group of researchers and to the main representatives. It was validated and as soon as the ethical approval is achieved, we will start applying it in Santarem and progressively in other sites.

3 Inventory of participatory activities carried out in projects related to Odyssea

Although no participatory activities were carried out as part of Odyssea in 2016-2017, many participatory activities were done within the projects linked to Odyssea. These processes will enable to support future Odyssea activities, through the partnerships which are progressively strengthened and the trust which comes from them, and also through the experience of working on each site and the ways to engage well with its population. We thus chose, as a first step in thinking future participatory activities, to make an inventory of the different activities carried out by the researchers.

3.1 Framework to analyze the participatory activities

Depending on the choices made when setting up an observatory, different results will be achieved, with different types of action. As we discussed in part 1, the participation method used is decisive. Baqué et al (2005) distinguishes participatory methods by qualifying: the objectives of the approach, the socio-political context (the actors present, notably the role of the state), and the procedural form. According to Gauvin and Abelson (2006), the most frequently cited conditions for successful public consultation and participation are: representativeness, independence, mobilization, influence on policy decisions, information, accessibility of resources and structured modes of decision-making. For Turkucu and Roche (2007), the success or failure of participatory GIS, assessed in terms of learning communities, depends on the ability to integrate local knowledge, often informal, with more evidence-based knowledge and scientific data, as already pointed out by Duncan and Lach (2006).

We have used these different assessments to build the following framework for assessing the participatory activities carried out in our projects and which can become a basis for thinking the mobilization within the observatory. We add a category referring to scale and the potential to become institutionalized.

Table 1. Framework to assess participatory processes and activities

Categories	Types	Possibilities
Participants	Types of actors Representativeness Independence Number	General population / farmers / managers / students / researchers Elected/appointed Socio-political context Restricted/important
Topics covered	Definition Available information Knowledge used Resources	Restricted (water, biodiversity) or broad topic (sustainability, vulnerability, adaptation) Little known / widely explored topic Scientific/local Accessible or not
Process	Time span for mobilization Procedural form	Rapid/lengthly Structured or not
Expected results	Decisions Learning	Possibility to influence or not Central/not considered

For now, this framework is being debated by our group and applying it to our own activities is a way to improve it progressively. However, it's final objective is to help us build relevant processes for building the observatory. Depending on these choices, information systems (and observatories) will be configured differently: for example, either they will justify decisions or they will create a real debate.

3.2 First comparison of activities carried out in 2016 and 2017

We asked the researchers with projects involving social actors to list the different participatory activities they had realized in 2016-2017. This enabled a first view of the diversity of activities carried out among the group of researchers, totalizing 50 activities among 10 projects (see table in appendix 1 for all the details).

Since one of our main challenges within Odyssea is to connect levels of action and bring together various types of actors, we aggregated them according to these categories (see table 1). As expected, most common activities are at a local or municipal level, with the general population. But 7 (out of 10) projects combine this type of activity with workshops with technicians or managers, at the municipal or regional level. A few projects also involve community teachers (as local experts) or university students, as a way to bring a local but more systematic view on the topic. Surprisingly, multi-actor arenas (involving at least two categories, in general representatives of the population with experts and managers) are more common than we had imagined, occurring mainly at a regional level.

Table 2. Number of activities carried out, according to level and participants

	1. general population (farmers, associations)	2: technical agents and managers	3: students and teachers	4: multi-actor	Total by level
1. local (1 or several communities)	12	2	1	1	16
2. municipal (1 or several townships)	11	7	2	2	22
3: regional (wider zone)	1	5	1	5	12
Total by type of actors	24	14	4	8	50

Given the large span of topics dealt with within Odyssea, we wished to analyze how topics were covered according to levels and actors. We grouped the projects according to three topics: those which are more focused on the agricultural strategies (including collective organization related to it), those which deal more with conservation, biodiversity and sociobiodiversity (the later being linked to agriculture, but with a specific entry regarding a type of traditional plant), and those which are more transversal, dealing with vulnerability and adaptation to changes, often linked to health issues.

Figure 2. Types of activities, according to level, participants and topic

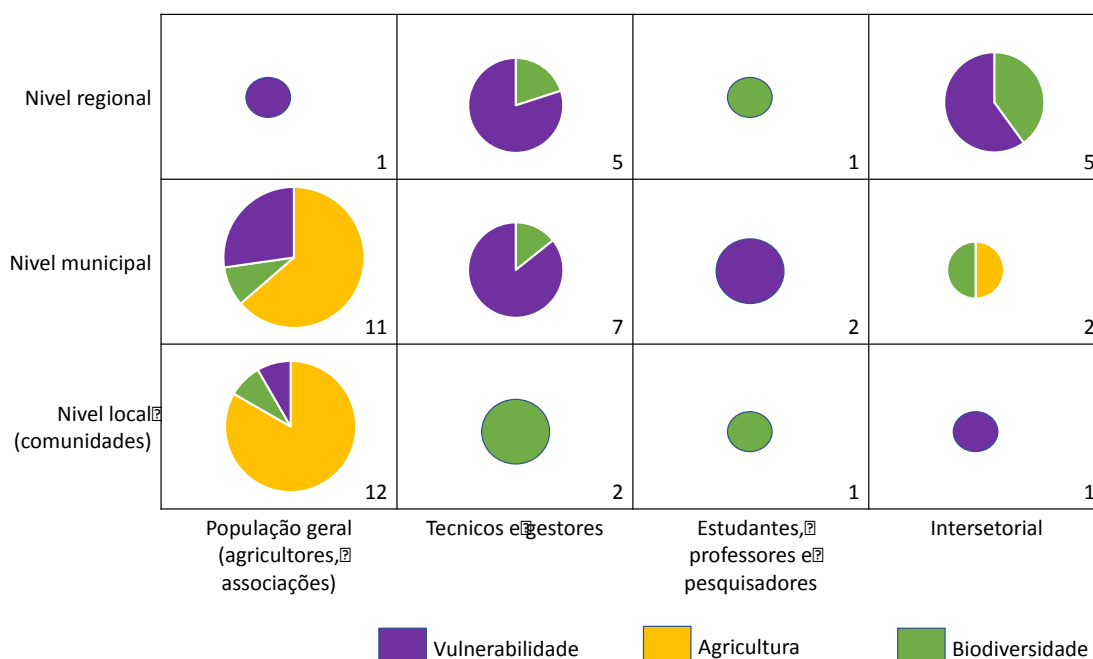


Figure 2 brings to view several interesting points. Agricultural issues are mainly discussed as a grass-root issue, that is, with the general population and at a local and

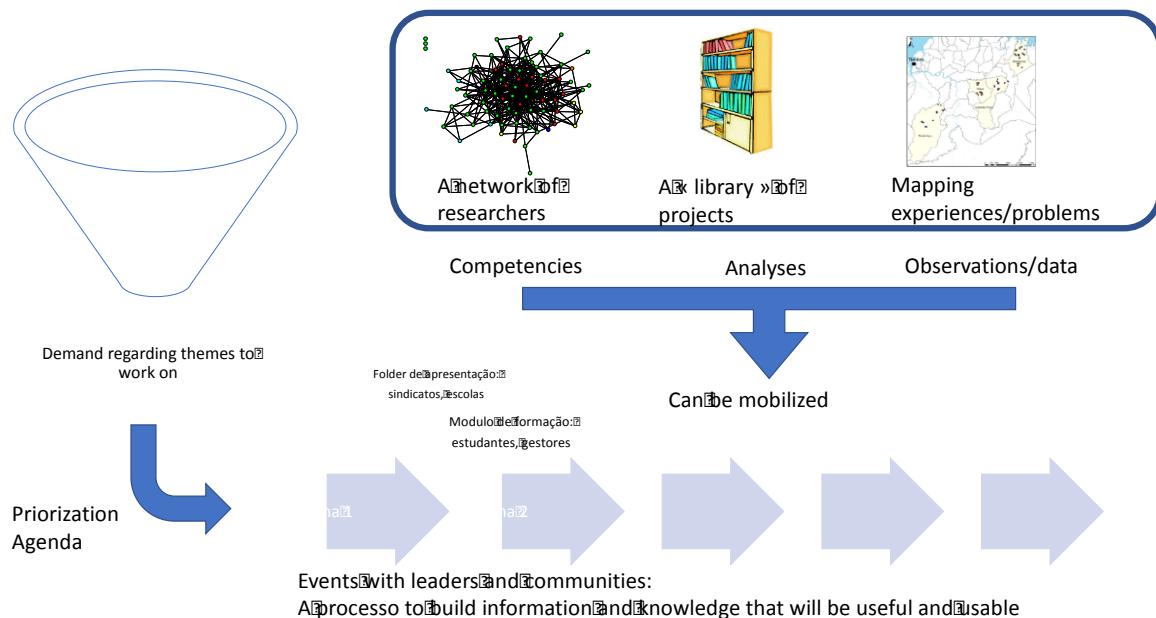
municipal level. In comparison, biodiversity is rather discussed by technicians and managers, with a complement with teachers and students. Vulnerability and adaptation, which are at the heart of Odyssea, have been mainly discussed at a municipal and regional level, by technicians and managers or by intersectoral arenas, revealing that it is an aggregative topic.

This is only a first view on these rich participatory activities, which we consider a first milestone to discuss about postures and methods with the group of researchers involved in these activities.

4 Perspectives for 2018

We had a meeting at the beginning of 2018 to plan out the work within WP2 “interaction between science and society”. The scientific meeting in September 2017, involving representatives of the social actors, was an important milestone to achieve a clearer vision of how the observatory will progressively be configured (Figure 3).

Figure 3. Towards a common vision of the observatory



The strong capital on which the observatory can be build is threefold:

- a network of approximately 100 researchers, with diverse competencies and long-term experience of the Amazon;

- a “library” of projects, past and on-going, which can be consulted for data, processes with actors, knowledge of different areas;
- and new mappings of experiences/problems which can be done specifically depending on the demands of the observatory.

Depending on the demands which will be identified between representatives of social actors, managers and researchers, this capital can be mobilized in a continuous process, in which different themes relating to the interaction between society and environment in the Amazon can be discussed. The objective is to progressively build information, knowledge and analyses which become more widely shared among the different stakeholders, to support action and adaptation.

In this context, participatory activities are fundamental, as they are a way to prioritize the demands and relevant themes, and as a means to develop social learning.

With this perspective, four priorities will orient the activities of WP2 in 2018:

- ***continuing to share postures and methods to carry out participatory activities***: in August 2018, a researcher school will be promoted on the topic: “postures of participatory research”, bringing together researchers and students from the Odyssey project and the INCT Odisseia to discuss their approaches;
- ***giving continuity rapidly to the partnership initiated with the representatives of social actors***: defining the role of the social actors within the governance of the observatory and how the committee will be activated. This is fundamental to define working routines, create a certain institutionalization of the observatory and truly encourage learning conditions.
- ***define with the social actors the priorities regarding the topics*** to be discussed during workshops and initiate some first workshops in Santarem and in the Northeast of Pará. This will enable to start building concrete products for the observatory (what different processes and materials can be build around one topic);
- ***implementing the pilot method to discuss changes and adaptation*** at the level of 10 communities in Santarem (and maybe in other areas): as soon as we have the ethical agreement, we will carry out these activities. The main

challenge will be to improve the framework to compare the results from each community (see deliverable D2.2);

References

- Allaire G (2006) Les compétences collectives dans le développement (une approche institutionnaliste). In Proceedings of Territoires et enjeux du développement régional, Lyon, France.
- Avenier, Marie-José (2007). Repères pour la transformation d'expérience en science avec conscience (Chapitre 6). Eds : Avenier et Schmitt, 2007. La construction des savoirs pour l'action. Paris, L'Harmattan, Savoir & Action.
- Bacqué, M.-H., H. Rey, et al., Eds. (2005). Gestion de proximité et démocratie participative. Recherches. Paris, La Découverte.
- Barnaud, C., 2008, Equité, jeux de pouvoir et légitimité: les dilemmes d'une gestion concertée des ressources renouvelables. Thèse de doctorat en Géographie humaine, économique et régionale, Paris, Université Paris X.
- Barnaud, C. 2013. La participation, une légitimité en question. *Natures Sciences Sociétés* 21(1): 24-34
- Barlow J., Ewers R., Anderson L., Aragão L.E.O.C., Baker T.R., Boyd E., Feldpausch T.R., Gloor E., Hall A., Malhi Y., Milliken W., Mulligan M., Parry L., Pennington T., Peres C.A., Phillips O.L., Roman-Cuesta R.M., Tobias J.A., Gardner T.A., 2010. Using learning networks to understand complex systems: a case study of biological, geophysical and social research in the Amazon. *Biological Reviews*.
- Boucher J, Favreau L, Guindon G and Hurtubise L (2000) Développement local, organisation communautaire et économie sociale. Une recension des écrits. (1990-2000), Université du Québec à Hull.
- Brown, J. S., Collins, A., & Duguid, P. (1989) Situated cognition and the culture of learning. *Educational Researcher*, 18(1), pp32–42.
- Bursztyn, M., Tourrand, J. F., Sayago, D. (2004). Um olhar sobre a Amazônia: das cenas aos cenários. In: Sayago D., Tourrand J-F., Bursztyn M. *Amazônia: cenas e cenários*. Brasília: UnB.
- Cooke, B. and U. Kothari (Ed.), 2001, *Participation: the new tyranny?*, London, New York, Zed Books.
- Cornwall, A. and J. Gaventa, 2001, Bridging the gap: citizenship, participation and accountability, *PLA Notes*, February 2001, 40, 32-36.
- Coudel E., Tonneau J.P., 2010. How can information contribute to innovative learning processes? Insight from a farmer university in Brazil. *Agricultural information worldwide*, 3(2): 56-64.
- Coudel E., Tonneau J.P., Rey-Valette H., 2011. Diverse Approaches to Learning in Rural and Development Studies: Review of the Literature from the Perspective of Action Learning. *Knowledge Management Research and Practice*, 9 (2), 120-135.
- Coudel E, Tonneau J-P., Bousquet F., Caniello M., Chia E., Daré W., Gurung T., Jankowski F., Leal F., Le Page C., Piraux M., Rey-Valette H., Sabourin E., Trébuil G. 2017. Social learning for territorial development. In: Patrick Caron; Elodie Valette; Tom Wassenaar; Geo Coppens d'Eeckenbrugge; Vatché Papazian. (Org.). *Living territories to transform the world*. 1ed.Versailles: Quae, p. 157-162.
- Coudel E., Bonnet M.P., Ferreira J., Gardner T., Melo G., Piraux M. 2016. Le projet ODYSSEA : Penser un observatoire entre capitalisation et adaptabilité.. In: ASRDLF, 2016, Gatineau. *Annales du 53ième colloque de l'ASRDLF 2016*.
- D'Aquino, P., 2002, Le territoire entre espace et pouvoir : pour une planification territoriale

ascendante, *L'espace géographique*, 2002, 1, 2-22.

- Daré W., Venot J.P., 2016. Dynamique des postures des chercheurs-engagés : retours sur la participation dans les politiques de l'eau au Burkina Faso. *Anthropologie et développement*, 44, 149-177.
- Duarte, L.M.G., Sabourin, E., Filho, S.R., Bommel, P., Grosskopf, H.M., Waquil, P., Tourrand, J., Sayago, D., Homen, V.S.F., 2010. Abordagem metodológica das diversas dimensões da sustentabilidade em projetos de uma rede interamericana 75–86.
- Duncan S. L. and D.H. Lach. (2006) Privileged Knowledge and Social Change: Effects on Different Participants of Using Geographic Information Systems Technology in Natural Resource Management. *Pub-Med- in process*, n°2, vol. 38, 2006, pp. 267-85 (published online)
- Edmunds, D. and E. Wollenberg, 2001, A Strategic Approach to Multistakeholder Negotiations, *Development and Change*, 32, 2001, 231-253.
- Gardner T.A., Ferreira J.F., ParryL., BarlowJ., and 95 collaborators of the Sustainable Amazon Network. 2013. A social and ecological assessment of tropical land-uses at multiple scales: the Sustainable Amazon Network. *Philosophical Transactions of the Royal Society (SeriesB)*, 368,20120166.
- Gauvin, F. P. et J. Abelson (2006). Fiche d'information sur la participation publique. Toronto, Conseil Canadien de la Santé.
- Ghora-Gobin C. (1993). Crises de la ville et limites de la connaissance théorique. Pour une conceptualisation de la mise en oeuvre. *Sciences de la société*, 30, p. 171-180.
- Herbert-Cheshire L and Higgins V (2003) From Risky to Responsible: Expert Knowledge and the Governing of Community-led Rural Development. *Journal of Rural Studies* 20(3), 289-302
- Holmes, T., Scoones, I., 2000. Participatory Environmental Policy Processes: Experiences From North and South. *IDS Working Paper 113*. Institute for Development Studies, University of Sussex, Brighton.
- Leeuwis C (2000) Reconceptualizing Participation for Sustainable Rural Development: Towards a Negotiation Approach. *Development and Change* 31(5), 931-959.
- Leeuwis C., Pyburn R., 2002. Wheel-barrow Full of Frogs: Social Learning in Rural Resource Management. Assen (The Netherlands), Uitgeverij Van Gorcum.
- Lemoisson P. et Passouant M. 2012. Un cadre pour la construction collaborative de connaissances lors de la conception d'un observatoire des pratiques territoriales. *Cahiers Agricultures*, 21(1) : 11- 17.
- Malhi Y., Roberts J.T., Betts R.A., Killeen T.J., Li W., Nobre C.A., 2008. Climate change, deforestation and the Fate of the Amazon. *Science*, 319: 169-172.
- Moore A and Brooks R (2000) Learning communities and community development: Describing the process. *International Journal of Adult and Vocational Learning* 1.
- Ribot, J. C., 2001, Integral local development: "accomodating multiple interests" through entrustment and accountable representation, *Int. J. Agricultural Resources, Governance and Ecology*, 1, 3/4, 327-350.
- Scott M (2004) Building institutional capacity in rural Northern Ireland: the role of partnership governance in the LEADER II programme. *Journal of Rural Studies* 20(1), 49-59.
- Tonneau JP, Lemoisson P, Coudel E, Maurel P, Jannoyer M, Bonnal V, Bourgoin J, Cattan P, Chery JP, Piraux M, Lestrelin G (2017). Les observatoires territoriaux - Des outils de la société de la connaissance ? *Rev. Int. Geomat.*, 27 3 (2017) 335-354

- Turcotte M-F, Antonova S and Clegg S (2007) *Managing Learning Societally*. Les cahiers de la CRSDD, Collection Recherche, Vol. 14-2007, Université du Québec, Montréal.
- Turkucu, A. et S. Roche (2007). "Vers une typologie des PPGIS." SAGEO.
- Van Asselt, M.B.A., Rijkens-Klomp, N., 2002. A look in the mirror: reflection on participation in integrated assessment from a methodological perspective. *Global Environmental Change* 12, 167–184.
- Van der Ploeg JD, Renting H, Brunori G, Knickel K, Mannion J, Marsden T, de Roest K, Sevill-Guzman E and Ventura F (2000) Rural Development: From Practices and Policies towards Theory. *Sociologia Ruralis* 40(4), 391-408.

Appendix 1. List of participatory activities carried out within projects linked to Odyssea

Pesquisadores	Organizadores	Projeto	Data	Local	Nível	Público	Participantes	Tema	Objetivo	Metodologia
Nome dos pesquisadores envolvidos	Instituições a frente (podendo ser só a instituição de pesquisa)	Projeto de pesquisa no âmbito de qual desenvolvido	Mês/Ano	Comunidade, Município (Estado)	Área de abrangência dos participantes : Local, municipal, regional	Descrição do público alvejado: jovens, agricultores, mulheres, policy makers, etc	Número (aproximativo) de pessoas	Tipo de assunto tratado, ex: mudança do clima, problemas de saúde, desenvolvimento territorial	Ex: Informação sobre projeto, consulta, construção de resultados, restituição de resultados, etc.	Ex: Apresentação, mapeamento, modelagem, etc.
Gina Frausin Luke Parry	Lancaster University (FIOCRUZ, Universidade Federal do Amazonas (UFAM), Universidade Federal do Pará (UFPA)	FOOD/SEC A Cidades amazônicas e eventos hidroclimáticos extremos: pesquisa para reduzir vulnerabilidade e estabelecer resiliência	27, 28 Outubro/2016	Manaus/Estado do Amazonas	Regional	Comunitários, professores, ACS (Agentes comunitários de saúde), radialista, comerciantes, técnicos, vereadores, pesquisadores	25 a 30	impactos dos “eventos extremos” na saúde e a segurança alimentar	Construção de uma rede cidadã dentro do Projeto “Clima e Saúde” concebido com o objetivo de entender os impactos dos “eventos extremos” na saúde e a segurança alimentar das pessoas na zona urbana e rural de quatro municípios no Estado do Amazonas (Workshop da rede cidadã)	Apresentação dos resultados da pesquisa, troca de experiências e construção de uma rede de apoio e informações entre os habitantes áreas urbanas e rurais dos municípios de Maués, Caapiranga, Ipixuna, Jutai, todos no Estado do Amazonas/ Oficina Rede Cidadã em Manaus
Gina Frausin	Lancaster university, INPA	Malária/Rio Negro	Novembro, Dezembro/2016	Manaus/Estado do Amazonas	Regional	Pesquisadores e representantes de associações	6	impactos dos “eventos extremos” na saúde e a segurança alimentar	Conhecimento sobre as percepções das causas da malária em comunidades indígenas e não indígenas em Santa Isabel do Rio Negro. Disseminação de informações sobre as causas da malária e formas de prevenção e controle na área de estudo.	Construção de um calendário sobre os resultados da pesquisa PRONEX Malária e informações sobre a prevenção e causas da malária
Gina Frausin	Lancaster University	Aliança Guaraná de Maués	30 Outubro e 1,2 de Novembro/2017	Município de Maués/ Estado do Amazonas	Municipal	Comunitários, agricultores, artistas, professores, comerciantes, indígenas	70		Consolidação de uma Aliança entre diferentes atores do município de Maués/Amazonas	Oficina: A dinâmica foi construir a linha do tempo do município de Maués, enfatizando os momentos chave da história do local. A ideia foi identificar o que mudou em cada momento-chave, assim como que fatores positivos ou negativos surgiram desse processo. Os participantes foram divididos em grupos, de acordo aos temas (Educação e Cultura / Avanços Econômicos / Políticas Públicas e Organização Social)

Pesquisadores	Organizadores	Projeto	Data	Local	Nível	Público	Participantes	Tema	Objetivo	Metodologia
Gina Frausin Luke Parry	Lancaster University	FOOD/SEC A Cidades Amazônicas e Eventos Hidroclimáticos Extremos: pesquisa para reduzir vulnerabilidade de e estabelecer resiliência	16,17,18 Novembro/2017	Município de Maués/ Estado do Amazonas	Regional	Comunitários, agricultores, professores, representantes de organizações civis, comerciantes, estudantes, prefeitura e outros	37	impactos dos “eventos extremos” na saúde e a segurança alimentar	Divulgação dos resultados da pesquisa e problemas comuns nos municípios envolvidos. Identificação de problemas e busca de soluções a esses problemas comuns, rede de interação entre as pessoas nos municípios e os pesquisadores. Primeiros passos para a criação do Conselho Municipal de Segurança Alimentar e Nutricional de Maués	Atividades coletivas: Metodologia do café criativo. Duas saídas de campo (Uma na área urbana e outra na área rural do município de Maués/AM)
Gina Frausin Luke Parry	Lancaster University	Projeto de extensão Rural em Maués/AM	Novembro, Dezembro/2017	Comunidade de São Raimundo do Mutuca, Município de Maués/ Estado do Amazonas	Local	Agricultores (Agricultura familiar, produtores de Guaraná, apicultores), representantes da comunidade	30	qualidade de vida e agregação de valor	Melhoria da qualidade de vida dos comunitários aumentando o valor agregado de alguns produtos da agricultura familiar	Visita à comunidade, levantamento de informações sobre atividades produtivas na busca de estratégias para aumentar o valor agregado de dois produtos (Guaraná e mel de abelhas nativas). Pesquisa sobre diversos produtos naturais e desenho de embalagens biodegradáveis e econômicas (baratas)
L Linguet, A Omrane, H Pereira, G Marchand, A Martins, S Noda, S Nasuti, J Anderson , D Costa, S Silva, J-F Faure, H Noda, A-E Laques	UFAM, UG , UnB, IRD, DEMUC, ONG IDESAM	Guyamazon SINBIOSE	déc-15	RDS UATUMA (Amazonas)	Local	DEMUC/SEM A e ONG IDESAM	18 personnes	Co-construction d'indicateur de biodiversité	Première réunion d'information sur les objectifs du projet et premiers échanges sur les indicateurs a construire ensemble	Atelier de travail
A-E Laques, S Nasuti, J.F Faure, A Omrane, C Saito, R Gomes, G Marchand, A Abbas,	UG, UFAM, UnB, IRD, OHM, PNR, ONF, ONG, DEAL	Guyamazon SINBIOSE	déc-16	Frontière Guyane/Br ésil	Regional	ONF, Parc Naturel de Régional de Guyane, DEAL, Association Guyane Energie Climat Observatoire Homme/Milieu	15 personnes - 6 professionnels de la gestion territoriale en Guyane (OHM, PNR, ONF, ONG, DEAL) / Echelle régionale	Co-construction d'indicateur de biodiversité	Réunion de présentation du projet aux gestionnaires du territoire guyanais. Réunions par institutions pour établir une liste d'intérêt commun sur des indicateurs de biodiversité. Séminaires sur : les méthodes de co-construction d'indicateurs.	Atelier de travail

Pesquisadores	Organizadores	Projeto	Data	Local	Nível	Público	Participantes	Tema	Objetivo	Metodologia
Henrique Pereira, Suzy C. P. da Silva, Carlos Saito, Ana Cabral, A-Elisabeth Laques	UFAM, UnB, IRD, Univ Lisboa, RDS UATUMA	Guyamazon SINBIOSE	Aout 2017	RDS UATUMA (Amazonas)	Local		7 personnes - Gestionnaire RDS UATUMA et Président de l'association des communautés de la RDS	Co-construction d'indicateur de biodiversité	Présentation du projet et entretiens sur les usages des ressources naturelles et sur l'usage de la Bolsa Floresta	
Joice Ferreira/Erika Berenguer	ICMBio	RAS	mar-17	Santarém	Regional	Comunitários das UCs, gestores, pesquisadores	30	Manejo de ecossistemas	Uso de resultados para informar tomada de decisão (plano de manejo)	Mapeamentos, apresentações
Joice Ferreira/Erika Berenguer/Jos Barlow	ICMBio/UFOPA	RAS	dez-17	Santarém	Regional	Comunitários, gestores, pesquisadores, estudantes	100	Uso de manejo	Informação e restituição	Apresentação
Joice Ferreira/Erika Berenguer/Jos Barlow	ICMBio	RAS	dez-17	Santarém	Municipal	Gestores	10	Queimadas	Curso	Aula (teórica e prática) e debates
Erika Berenguer	UFOPA	RAS	dez-17	Santarém	Municipal	Comunitários, gestores, pesquisadores, estudantes	30	Queimadas	Participação em debates	Fórum de discussão
Joice Ferreira/Erika Berenguer	Sindicato Rural	RAS	dez-17	Santarém	Municipal	Produtores rurais	5	Mudança de uso da terra	Restituição de resultados	Discussão
Joice Ferreira/Erika Berenguer	RAS	RAS	abr-17	Santarém	Local	Comunidades indígenas	50	Manejo, biodiversidade	Informação sobre projeto	Debate
Danielle Mitja, Eric Delaître, Laurent Demagistri, Izildinha Miranda, Alessio Moreira dos Santos, Jessica Anastacia Medeiros dos Reis, Deurival da Costa Carvalho	IRD, UFRA, UNIFESSPA	Principalmente projeto OPEN SCIENCE AGROPOLIS et Projeto ODYSSEA, sobre a palmeira Babaçu	16 e 17 de junho de 2017	PA-Benfica, Itupiranga (Pará)	Local	Dia 16/06 escolares (ensino fundamental menor e maior). Dia 17/06 adultos, homens e mulheres, agricultores e moradores do PA-Benfica	Dia 16/06 : 108 pessoas Dia 17/06 : 45 pessoas	agrobiodiversidade	Restituição de resultados sobre o projeto babaçu : ecologia dinamica de população da palmeira, sensoriamento remoto, usos	Dia 16/06 : Palestras curtas seguidas de apresentação de material vivo, de imagens de satélites e de jogos educacionais (jogo de computador, jogo de cartas (7 famílias : no país do babaçu), quebra cabeça, memory. Dia 17/06 Palestras seguidas de intercambios com os agricultores e oficinas sobre a fabricação dos produtos oriundos do fruto do babaçu (farinha e óleo), fabricação de cestos e nonhos para galinhas, desenho de dos limites das propriedades com imagens de satélites.

Pesquisadores	Organizadores	Projeto	Data	Local	Nível	Público	Participantes	Tema	Objetivo	Metodologia
Danielle Mitja, Eric Delaître, Laurent Demagistri, Izildinha Miranda, Alessio Moreira dos Santos, Jessica Anastacia Medeiros dos Reis	IRD, UFRA, UNIFESSPA	Principalmente projeto OPEN SCIENCE AGROPOLIS et Projeto ODYSSEA, sobre a palmeira Babaçu	20 e 21 de junho de 2017	UFRA, Belém, (Pará)	Regional	Estudantes, professores e pesquisadores das Universidades e institutos de pesquisa de Belém,	122 pessoas	agrobiodiversidade	Restituição de resultados sobre o projeto babaçu : ecologia dinamica de população da palmeira, sensoriamento remoto, usos	Dia 20/06 de manhã palestras, Dias 20/06 de tarde et 21/06 da manhã mini cursos : 1) detecção de mudanças ambientais por sensoriamento remoto, 2) bases de dados espaciais e representação dos conhecimentos ontologia.
E Roux, P Peiter, V da Cruz Franco, B Van Gastel, V Morel, N Eugenio, A Mendes	França: IRD/ESPACE-DEV, Univ. Artois, EHESP; Brasil: Fiocruz, UNIFAP (Campus Oiapoque)	GAPAM-Sentinela (GUYAMAZON), ODYSSEA (UE), Projeto « Vulnerabilidade » (Labex DRIIHM/OH M-Oyapock); Doutorado Vivian Franco (financiamento CAPES)	20/04/16	Fronteira Guiana francesa – Amapá: localidade de Saint-Georges-de-l'Oyapock (Guiana francesa)	Regional	Profissionais da saúde (prevenção, cuidados), membros de associações (prevenção, promoção da saúde, mediação), pessoas em contato com a população geral (gerentes públicos e eleitos)	11	Problemas de saúde: quais eles são? Quais são as especificidades na fronteira e as adaptações? Quais são os pontos de vista sobre a cooperação transfronteiriça?	Consulta e construção de resultados: Identificação das vulnerabilidades através das práticas diárias e das percepções sobre o acesso aos cuidados e a prevenção, num contexto transfronteiriço. Identificação das necessidades para um planejamento adequado do trabalho de pesquisa.	Grupo focal, mapeamento participativo
E Roux, P Peiter, V da Cruz Franco, B Van Gastel, V Morel, N Eugenio, A Mendes			22/04/16	Fronteira Guiana francesa – Amapá: localidade de Camopi (Guiana francesa)			7			
E Roux, P Peiter, V da Cruz Franco, B Van Gastel, V Morel, N Eugenio, A Mendes			26/04/16	Fronteira Guiana francesa – Amapá: localidade de Oiapoque (Amapá)			9			

Pesquisadores	Organizadores	Projeto	Data	Local	Nível	Público	Participantes	Tema	Objetivo	Metodologia
E Roux, N Dessay, T Cetry, A Pottier, M Gomes, P Peiter, JJ Carvajal, N Eugenio	França: IRD/ESPACE- DEV; Brasil: SVS-AP, Fiocruz, UNIFAP	GAPAM- Sentinela (GUYAMAZ ON), TéléPal (CNES/TOS CA), ODYSSEA (UE)	17/10/17	Fronteira Guiana francesa – Amapá: localidade de Oiapoque (Amapá)	Regional	Profissionais da saúde (prevenção, cuidados), membros de associações (prevenção, promoção da saúde, mediação), pessoas em contato com a população geral (gerentes públicos) dos dois lados da fronteira	35	Problemas de saúde, desenvolvimento territorial: sensibilização aos dados especializados e aos mapas em saúde	Consulta, construção de resultados: sensibilização e capacitação para uma coleta mais sistemática e padronizada das informações geográficas associadas às notificações dos casos (doenças zoonóticas e outras doenças)	Apresentações, grupos de trabalho com restituções orais
E Roux, N Dessay, T Cetry, A Pottier, M Gomes, P Peiter, JJ Carvajal, N Eugenio	França: IRD/ESPACE- DEV; Brasil: SVS-AP, Fiocruz, UNIFAP	GAPAM- Sentinela (GUYAMAZ ON), TéléPal (CNES/TOS CA), ODYSSEA (UE)	18/10/17				31	Problemas de saúde, desenvolvimento territorial: sensibilização aos dados especializados e aos mapas em saúde, capacitação sobre a utilização do GPS e do smartfone para a localização		Apresentações, grupos de trabalho com restituções de mapas
E Roux, N Dessay, T Cetry, A Pottier, M Gomes, P Peiter, JJ Carvajal, N Eugenio	França: IRD/ESPACE- DEV; Brasil: SVS-AP, Fiocruz, UNIFAP	GAPAM- Sentinela (GUYAMAZ ON), TéléPal (CNES/TOS CA), ODYSSEA (UE)	19/10/17				26	Problemas de saúde, desenvolvimento territorial: desenvolvimento de um jogo de cartões tipo « 7 famílias » sobre as doenças zoonóticas	Consulta, construção de resultados: desenvolvimento de estratégias novas de prevenção	Apresentações, grupos de trabalho com restituções orais e escritas

Pesquisadores	Organizadores	Projeto	Data	Local	Nível	Público	Participantes	Tema	Objetivo	Metodologia
José-Joaquín Carvajal (Fiocruz/IOC/L DP)	Brasil: Fiocruz, SVS-AP; França: IRD/ESPACE-DEV	GAPAM-Sentinela (GUYAMAZON); Doutorado José-Joaquín (financiamento CAPES)	12/2015	Tríplice fronteira Colômbia – Perú – Brasil	Regional	Agentes de endemias das Secretarias Municipais de Saúde de Tabatinga e Leticia	9 = 5 (Tabatinga) + 4 (Leticia)	Treinamento dos agentes de endemias para a instalação dos armadilhas (ovitrampas) e a coleta dos espécimes	Coleta padronizada e sistemática de dados ambientais, sócio-demográficos e entomológicos na área transfronteiriça, no âmbito do desenvolvimento de um observatório.	Capacitação, oficina, instalação das armadilhas, coleta dos espécimes.
José-Joaquín Carvajal, Paulo Peiter, Vivian da Cruz Franco (Fiocruz/IOC/L DP)	Brasil: Fiocruz, SVS-AP; França: IRD/ESPACE-DEV	GAPAM-Sentinela (GUYAMAZON); Doutorado José-Joaquín (financiamento CAPES), Doutorado Vivian Franco (financiamento CAPES)	06/2016	Tríplice fronteira Colômbia – Perú – Brasil : Tabatinga (Brasil)	Municipal	Agentes da vigilância em saúde, controle de endemias e agentes comunitários de saúde de Tabatinga-AM	30	Desafios e Possibilidades para a Vigilância e Controle Epidemiológico na zona de fronteira entre o Brasil, Colômbia e Peru	Vigilância e Controle Epidemiológico na zona de fronteira entre o Brasil, Colômbia e Peru	Grupo focal
José-Joaquín Carvajal, Paulo Peiter, Vivian da Cruz Franco (Fiocruz/IOC/L DP)	Brasil: Fiocruz, SVS-AP; França: IRD/ESPACE-DEV	GAPAM-Sentinela (GUYAMAZON); Doutorado José-Joaquín (financiamento CAPES), Doutorado Vivian Franco (financiamento CAPES)	06/2016	Tríplice fronteira Colômbia – Perú – Brasil : Tabatinga (Brasil)	Municipal	Estudantes de graduação em Biologia da Universidade do Estado do Amazonas – UEA	24	Capacitação sobre a aplicação de inquéritos sócio-demográficos	Coleta de dados sobre Conhecimentos, Habilidades, Atitudes, no âmbito do estudo da Dengue e dos vetores da Dengue na tríplice fronteira	Oficina, aplicação de questionários (86)
José-Joaquín Carvajal, Paulo Peiter, Vivian da Cruz Franco (Fiocruz/IOC/L DP), Estudantes de graduação em Biologia da Universidade do Estado do Amazonas – UEA	Brasil: Fiocruz, SVS-AP; França: IRD/ESPACE-DEV	GAPAM-Sentinela (GUYAMAZON); Doutorado José-Joaquín (financiamento CAPES)	06/2016	Tríplice fronteira Colômbia – Perú – Brasil : Tabatinga (Brasil)	Municipal	População geral	86	Coleta de dados sobre Conhecimentos, Habilidades, Atitudes, no âmbito do estudo da Dengue e dos vetores da Dengue na tríplice fronteira	Coleta de dados sobre Conhecimentos, Habilidades, Atitudes, no âmbito do estudo da Dengue e dos vetores da Dengue na tríplice fronteira	Inquérito Conhecimentos – Habilidades – Atitudes

Pesquisadores	Organizadores	Projeto	Data	Local	Nível	Público	Participantes	Tema	Objetivo	Metodologia
José-Joaquín Carvajal (Fiocruz/IOC/L DP)	Brasil: Fiocruz, SVS-AP; França: IRD/ESPACE-DEV	GAPAM-Sentinela Doutorado JJ Carvalho Doutorado V Franco	06/2017	Tríplice fronteira Colombia – Perú – Brasil : Léticia (Colômbia)	Municipal	Estudantes de graduação da Universidad Nacional de Colombia – UNAL	6	Coleta de dados sobre Conhecimentos, Habilidades, Atitudes, no âmbito do estudo da Dengue e dos vetores da Dengue na tríplice fronteira	Coleta de dados sobre Conhecimentos, Habilidades, Atitudes, no âmbito do estudo da Dengue e dos vetores da Dengue na tríplice fronteira	Inquérito Conhecimentos – Habilidades – Atitudes
José-Joaquín Carvajal (Fiocruz/IOC/L DP)	Brasil: Fiocruz, SVS-AP; França: IRD/ESPACE-DEV	GAPAM-Sentinela Doutorado JJ Carvalho Doutorado V Franco	06/2017	Tríplice fronteira Colombia – Perú – Brasil : Léticia (Colômbia)	Municipal	População geral	79	Coleta de dados sobre Conhecimentos, Habilidades, Atitudes, no âmbito do estudo da Dengue e dos vetores da Dengue na tríplice fronteira	Coleta de dados sobre Conhecimentos, Habilidades, Atitudes, no âmbito do estudo da Dengue e dos vetores da Dengue na tríplice fronteira	Inquérito Conhecimentos – Habilidades – Atitudes
José-Joaquín Carvajal (Fiocruz/IOC/L DP)	Brasil: Fiocruz, SVS-AP; França: IRD/ESPACE-DEV	GAPAM-Sentinela Doutorado JJ Carvalho Doutorado V Franco	06/2017	Tríplice fronteira Colombia – Perú – Brasil : Léticia (Colômbia)	Municipal	Agentes da vigilância em saúde, controle de endemias e agentes comunitários de saúde de Léticia, Colômbia	15	Desafios e Possibilidades para a Vigilância e Controle Epidemiológico na zona de fronteira entre o Brasil, Colômbia e Peru	Vigilância e Controle Epidemiológico na zona de fronteira entre o Brasil, Colômbia e Peru	Grupo focal
Marc Piraux, Christophe Le Page, Emilie Coudel, Fagner Freire	Cirad	EcoTera	avril 2016 à décembre 2016 (6 reuniões)	Paragominas	Municipal	lideranças comunitarias e responsavel sindicatos	15	cenarios sobre o lugar da agricultura familiar no desenvolvimento territorial	construção coletiva de cenarios	metodologia de prospectiva
Marc Piraux, Fagner Freire	Cirad	EcoTera	avril 2016 à mars 2017 (9 reuniões)	Paragominas	Local	Agricutores	110	cenarios sobre o lugar da agricultura familiar no desenvolvimento territorial	construção coletiva de cenarios	metodologia de prospectiva

Pesquisadores	Organizadores	Projeto	Data	Local	Nível	Público	Participantes	Tema	Objetivo	Metodologia
Marc Piraux	Cirad, STTR Paragominas	EcoTera	juin-17	Paragominas	Municipal	agricultores e lideranças	120	cenários sobre o lugar da agricultura familiar no desenvolvimento territorial	construção coletiva de cenários	metodologia de prospectiva
Marie-Paule Bonnet, Emilie Coudel, Gustavo Melo, Stéphanie Nasuti, Louise Cavalcante, Beatriz Abreu, Carlos Passos, Vivian Zeideman	Cirad, IRD, UNB, UFPA, Feagle	BloomAlert/Odyssea	avr-16	Lago Grande de Curuai, Santarem	Local	agricultores	20	cenários sobre estratégias em relação a mudança climática	debater das estratégias de adaptação	modelagem de acompanhamento
Marie-Paule Bonnet, Emilie Coudel, Marc Piraux, Tatiana Sa, Joice Ferreira, Frédéric Mertens, Gustavo Melo, Stéphanie Nasuti, Louise Cavalcante, Beatriz Abreu, Carlos Passos, Vivian Zeideman	Cirad, IRD, UNB, UFPA, Embrapa	BloomAlert/Odyssea	avr-16	Santarem	Municipal	ONGs, representantes de populações	10	mudanças globais e adaptações	informação sobre o projeto	apresentações

Pesquisadores	Organizadores	Projeto	Data	Local	Nível	Público	Participantes	Tema	Objetivo	Metodologia
Ricardo Folhes, Marc Piraux, Gustavo Melo, Beatriz Abreu, Louise Cavalcante, Patricia Mesquita, Daniesse Kasanoski, Emilie Coudel	Cirad, IRD, FEAGLE	BloomAlert/Odysea	sept-17	Lago Grande de Curuai, Santarem	Local	agricultores, agentes de saude	10	mudanças globais e adaptações	identificar as grandes mudanças que afetam a região e quais são as adaptações que já ocorrem	tarjetas, mapeamento e debates
Ricardo Folhes, Marc Piraux, Gustavo Melo, Beatriz Abreu, Louise Cavalcante, Patricia Mesquita, Daniesse Kasanoski, Emilie Coudel	Cirad, IRD, STTR Santarem	BloomAlert/Odysea	sept-17	Santarem	Municipal	lideranças comunitarias	20	mudanças globais e adaptações	identificar as grandes mudanças que afetam a região e quais são as adaptações que já ocorrem	tarjetas, mapeamento e debates
Principais organizadores: Livia Navegantes, Joice Ferreira, Emilie Coudel, Marc Piraux (mas 50 pesquisadores presentes)	UFPA, Embrapa, Cirad	Odysea	sept-17	Belem	Regional	representantes de instituições sociais (STTR, cooperativas, populações tradicionais)	15	mudanças globais e adaptações	identificar as grandes mudanças que afetam a região e quais são as adaptações que já ocorrem	tarjetas, debates