FACCE-MACSUR

WP6.3-4 Strategies for engagement on adaptation and mitigation with national and EU policy makers and with the agro-food chain sector

Responsible: P. P. Roggero[1] *(P62). Partners involved: Ruiz-Ramos[2] (P24), M. Smith[3] (P47), Stewart[4] (P150), Verhagen[5] (P195), Roggero et al.[1] (P62), Kozyra[6] (P125).

[1] Università di Sassari, Nucleo Ricerca Desertificazione, viale Italia 39 – 07100 Sassari, Italy
[2] Technical University of Madrid, Madrid, Spain
[3] Scottish Rural College, Edinburgh, Scotland, UK
[4] The James Hutton Institute, Dundee, DD2 5PH, Scotland UK
[5] Wageningen UR, Wageningen, The Netherlands
[6] Institute of Soil Science and Plant Cultivation - State Research Institute, Poland

*pproggero@uniss.it

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Abstract/Executive summary

A process for the strategic mapping of national and EU policy makers to be engaged in an interactive and iterative process of learning was designed, based on literature review and specific experience of some participants. In this first intermediate version, we propose a stakeholder mapping process design which will ideally lead to setting the boundaries of context-sensitive systems of interest for pilot actions or interdisciplinary case studies. The mapping exercise will be tested by participants

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Introduction

The need for "*strategies that involve different ways of knowing*" to develop and assist policies and practices associated with climate change adaptation is clearly highlighted by the Intergovernmental Panel on Climate Change (Pachauri and Reisinger, 2007).

The stakeholder engagement strategy of MACSUR is a crucial step in designing effective interactions with relevant and key stakeholders the outputs of which will contribute to the (re)shaping EU agriculture adaptation policy. The aims approaches and outputs of MACSUR will potentially be seriously undervalued if they are not performed and delivered in an arena whereby relevance to stakeholders is captured, discussed and acted upon. Indeed, experience in other agri-environment studies have taught us that there is an increasing need for participatory approaches to support the development of, for example, sustainable farming systems, based on the active involvement of stakeholders in the definition of research objectives and priorities (Steyaert and Jiggins, 2007). In essence, we cannot operate in a bubble if we are to address the consequences of climate change on agriculture.

Worryingly, a recent study encompassing a wealth of European Framework Programmes R&D projects across 1998-2010 concluded that there was "*relative lack of attention to socio-ethical aspects and stakeholder participation*" (Rodríguez et al., 2013). Indeed, there are many experiences of failures to reach any significant improvement at the local and global scale around complex agri-environment issues, e.g. soil erosion etc. This largely falls down due to a combination of subjective behaviours and preconceptions clouding the issues and driving assumptions both on the part of the scientists and the stakeholders, and these are reinforced by insufficient iterative engagement using common frames of reference, language and terms.

For such broad reaching issues as those associated with climate change uncertainties and the consequences for agriculture and food security, this situation cannot be allowed to continue if we (the MACSUR consortium) are to fully deliver on the aim of developing a pan-European capability in the development, use and interpretation of models to perform risk assessments of the impacts of climate change on European agriculture.

The last WPs of each MACSUR theme is devoted to cross-cutting pilot case studies where the crop, livestock and trade modelling exercises would provide the necessary insights to support strategic decisions at different levels. It is unlikely that the modelling exercise alone will be sufficient to engage policy makers in identifying strategies for adaptation, which are both complex and context sensitive.

The development of sound participatory research approaches to engagement is therefore strategic. This relies on the acceptance that there is a fundamental distinction between well-defined technical and "hard" objective problem for targeted science and the complexity of "wicked" issues (Collins and Ison, 2009) which impacts on the methodological implications of dealing with the complexity, uncertainties, interdependencies and controversies that characterize the biophysical and socio-economic dimensions associated with climate change and agriculture. On accepting this, we seek to establish an engagement strategy that is able to set goals as well as seek them; defined as a purposeful system (Bawden and Ison, 1992). Taking this approach means that we will be able to change the goals (where appropriate), i.e. to take on board the stakeholders views, experience, aims etc, and reword, rework and even, where appropriate, redirect the science. For MACSUR this means that engagement needs to work like a continuous feedback mechanism and, where strong and consistent messages are being delivered back, then the science needs, at least in part, to focus upon these.

The purpose is to move from a scientific community seeking fixed targets to be delivered to clients, to a scientific community of service providers that consider client's needs in a context sensitive manner (Ison, 2010). Within this framework, the engagement process is most effective by engaging stakeholders around specific issues and contexts, ideally addressing "socio-technical objects" around which the group can deconstruct and re-construct the issues (Toderi et al., 2007).

This need to be considered within several temporal frameworks: the project duration and the timelines that are appropriate to the stakeholder. For example, modelling over decades may be considered to be too long by some industrial stakeholders, whilst those in policy and government may see that as too short a timescale for potential remedial and legislative action. Consequently, the stakeholders expectations need to managed and possibly assuaged.

The engagement process will not deliver a universal panacea for the problems of climate change agriculture and food security _but_ will form a mechanism to ensure that the significant agri/environ-modelling that MACSUR represents will be highlighted as cutting edge, evidence-based and appropriate. Furthermore, the engagement should be facilitated in a manner that encompasses the stakeholder needs, levels of understanding, preconceptions and beliefs etc, and seek to harmonise the scientists and stakeholders aims without resorting to sectorial demonizing; otherwise known as the "*point and blame*" approach.

To ensure delivery on this engagement and the establishment of a vibrant, iterative system with all appropriate stakeholders (policy, government, industry NGO, public etc) we have developed a draft strategy that, for conciseness, we have made in bullet point format.

Hypotheses
- The impact of MACSUR on climate change adaptation and mitigation policies in EU will very much depend on our capacity to engage all sectors including policy-makers and agro-food chain sector actors around themes that are of relevant interest for all.
- How do we translate the MACSUR focus on uncertainty assessment into something interesting for our policy makers or agro-food industries? In essence, how do we engender, capture and grow buy-in at the stakeholder level?
- A possible strategy is to design a process around issues that can be effectively addressed combining research tools and social learning processes.

Strategy

A strategy, or approach, to integrate science in EU climate change adaptation and mitigation policies starts with the needs and interests of public and private sector policy makers. Successful engagement of public and private sector policy makers is a crucial element of the approach.
The specific objectives of this section are:
- To develop effective processes to engage interactively with researchers, policy makers, the agro-food industry managers, and other stakeholders at different levels as a part of a learning process
- To manage an open process of facilitated interaction, by focussing on topics for which MACSUR tools are powerful and display the options and potential chances

offered to stakeholders for supporting a purposeful learning process among stakeholders and policy makers.
- To disseminate MACSUR results and employ an interactive approach to their usefulness and effectiveness in addressing the core issues of the project.

The methodology for developing the engagement strategy relies on literature review and on previous experiences gained by some of the participants when engaging policy makers and agri-food industry managers in participatory processes around agro-environmental and/or integrated catchment management issues (Ison et al., 2011; Roggero et al., 2006; Toderi et al., 2007).

The key targeted stakeholders to be engaged are policy makers and managers of the agri-food industry, but the hypothesis is that a stakeholder mapping process is a strategic approach in addressing priorities from different (wider) perspectives. Hence the engagement strategy is designed for a wider range of stakeholders than just policy makers and agri-food industry managers.

The expected results at this stage are a checklist of "what" and "how" about the engagement strategy and a tentative timeline schedule for implementation. A list of references is also provided for further insights.

Approaches

The proposed approach encompasses the following steps:

First we need to identify the needs and interest, within the adaptation and mitigation domain, of the stakeholders. Second is the prioritization of these needs and interests. Thirdl is the identification of actions needed and the roles of the different stakeholders in this.

1. **Identify the boundaries of the System Of Interest (SOI).**

At the start, the system boundaries are set amongst researchers through an open discussion around the issue at stake, in relation to the project objectives. This is a dynamic process that will shape boundaries according to the stakeholders involved and the quality of the engagement and dialogical process among them. The initial step is to identify what elements of the system of interest are inside and what others are contextual, i.e. those elements of the issue that influence the system of interest but are not considered in the analytical domain at stake. For instance, if we consider the adaptation to climate change of the dairy system in a given district, then the local forage cropping system, local climate and livestock farmers are all inside the system of interest, as well as local, national or EU policy makers, while the global commodity market dynamics influencing the costs of feed supplementation is contextual. This means that in the stakeholder mapping exercise, the feed suppliers are NOT engaged at a first step, whilst farmers and policy makers **are** part of the preliminary mapping exercise.
One option is therefore to build the stakeholder engagement process around regional pilot studies (C6.1-2) and to identify the related core issues, that will become the focus (socio-technical object) of the engagement strategy. For example,
- The new CAP has relevant financial resources targeted to agro-climatic-environmental measures.
- MACSUR will provide climatic scenarios, impact assessments and tools to see "*what if…*" in the context of specific farming systems.

- Identify, by "within-MACSUR" engagement (cross WPs), what the consortium think is worthwhile to communicate. This will identify what the group feels is good, or interesting enough, to share with stakeholders.
- Pilot studies will address such issues in a specific context (e.g. district) or for a specific agro-food chain (eg dairy system, thereby ensuring crossover with LiveM and TradeM).
- The CAP measures can become the object of discussion (socio-technical object).
- The stakeholders mapping exercise will be an iterative process to be developed around the specific issue/context that set dynamic boundaries.

2. **Identify stakeholders and stake-holding** – **A step-wise dynamic and iterative process**[1]

For the preliminary identification of stakeholders by the researchers' team it is possible to follow one of the many methods available, e.g. http://bpmgeek.com/blog/what-catwoe-analysis & http://www.stakeholdermap.com.

The following are useful questions to support this process:
- Which are the priorities in the specific system of interest?
- Who are the stakeholders (eg actors, customers, owners): is their interest direct/indirect, active/passive; are they aware or unaware of climate change and the consequences for agriculture and the potential benefits to be had from the MACSUR modelling.
- What are the stakes? Why are they important or relevant? How do they match with MACSUR's intentions and plans?

The mapping exercise is also dynamic, as new engaged stakeholders will provide further ideas about who else could be effectively engaged in the ongoing learning process seeking improved practice at different levels.

3. **Identify stakeholders and stake-holding - Building the stakeholder map**
After the mapping from the researchers' point of view, the mapped stakeholders should be asked to mention all stakeholders who influence, or are affected by, the issue at stake, to state their presumed main interest and to quantify the influence each stakeholder exerts on the issue (Lienert et al., 2013). This process can be designed in different ways by engaging stakeholders with different approaches, for example:
- Organize a semi-structured interview, or a focus group, with critical questions or a checklist around the issue. The way the interview is constructed is critical. Leading questions (i.e. questions containing the possible answer) must be avoided and replaced by open questions (i.e. questions that leave respondents the freedom to reveal their point of view around the issue (eg climate change) by speaking of their business (e.g. the farming business and the climatic constraints they freely declare to perceive).
- Organize an interactive workshop in which model outputs, or the dynamic use of modelling tools, can be used by researchers to support a reflexive process between stakeholders around the issues – best through interdisciplinary teams including experts in social sciences. (NB - This represents hands-on experiences that has previously been shown to be very effective). Interactive workshops can include group discussions that should never exceed 25-30 people at a time, possibly representing several contrasting perspectives. The skills of the facilitator and the visualization of the statements emerging during the workshop are crucial in mapping stakeholders and stake holdings.
- Both stakeholders and issues can be clustered through a participatory process (e.g. during the workshops) on the basis of the role played by the different actors and the kind of interests shown during the mapping exercises. Stakeholders can be

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[1] http://www.agronomy.it/index.php/agro/article/view/ija.2006.727

scored according to their perceived influence or on how much they are likely to be affected by the decisions to be undertaken around the issue (e.g. climate adaptation investments at district scale). The results of these two scores can be plotted in a XY scatter diagram to show the balance between "influence on" and "being affected by" for each category of stakeholders and the number (Lienert et al., 2013).

- Build a preliminary and dynamic priority versus stakeholder matrix by scoring the weights given to each priority by the different stakeholders (see below).

SHs	SH1	SH2	SH3	SHn	Median
Priorities					
Priority 1	9	2	5	9	7.0
Priority 2	2	5	5	1	3.5
Priority 3	9	9	9	8	9.0
...	...	...	...	...	...

- Benchmark the process by making the matrix before and after the stakeholder engagement process, to understand the progress made and the distance between the researcher's and stakeholders' perceptions.
- The roles of some stakeholders can be different in the same SOI. For example, a researcher can see him/herself as an observer (i.e. just limiting his/her role to that of a knowledge provider and leaving others the stakeholders' engagement) or an insider (i.e. playing the role of service provider in an action research process). This has implications not only for the impact of the research outcomes on policy making, but also to the researching process (e.g. modeling choices for scenario development)
- Iterations: invite the preliminarily identified stakeholders to identify other stakeholders: who's missing that is relevant?
- Identify the interdependencies among stakeholders.
- Systematically reiterate the process.
- In this process, the role of the researchers and the task of the research must be transparent.

The core of the stakeholder engagement strategy is the identification of a specific case study and the scale/level of investigation, whether it is at local, district regional or pan-European scale; the wider the scale, the greater the inference, but also the greater the complexity of the analysis. One of the most relevant success factors is to identify a key "socio-technical object" around which to trigger the discussion. This may not necessarily be "climate change", which can be the background topic. For instance, in the case of the dairy system, the technical object can be the production costs for the farmers, which links to the feeding system and the interdependency of the dairy farm from the price of the feed commodity in the global market. Around this topic, the issue (profitability of dairy farms under changing climate) can be de-constructed by identifying the main components of the cropping and feeding systems in different dairy districts in Europe and how these contribute to the economic results of the business. Around such kind of topics, both farmers and policy makers can easily express their views from different perspectives.

Researchers can trigger and engender the discussion by facilitating the construction of the system's boundaries and by addressing (e.g. with outputs from modelling exercises) the uncertainties of on-farm or off-farm forage and feed productions associated with climate crisis both at local or global scales.

Timeline

The above mentioned actions must be re-iterated at least twice to get a reliable, in-depth picture of the stakeholders and stake-holding processes at the various levels. We suggest that by Dec 2013 those involved in task 6.3 will complete a first iteration of the stakeholder engagement exercise. By June 2014 a revised version of the stakeholder map at the different case studies will be delivered as a project deliverable.
Task leader's team (P62) will provide assistance on request.

Closing remarks

The combination of qualitative and quantitative approaches can provide insights into stakeholder processes to address strategic decisions at different levels to face scenarios of future uncertainties.

The implementation of the first iteration of the stakeholder engagement strategy will offer the necessary elements required for (any) re-designing of the strategy according to the specific feedback from the involved MACSUR research teams. The proposed stakeholder mapping strategy is therefore a first attempt to trigger a process which would ideally be linked particularly with cross-theme pilot studies.

The identification of specific socio-technical objects and contexts, either districts and/or farming systems, will be strategic in mapping stakeholders and stake-holdings in order to engage policy makers or industry managers in an effective learning process.

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