

REPORT

NARRATIVE

*Learning forum on evaluating the contribution
of climate change adaptation to poverty
reduction*

Dakar, Novotel 25-29 October, 2010

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I. INTRODUCTION

The CCAA programme, funded by IDRC and DFID, gathered a selected number of its project teams for a feedback and learning forum on the contributions of climate change and adaptation projects to poverty reduction. The goal was to contribute to thinking, in the scientific and technical community, on ways of evaluating adaptation and documenting the contribution it makes to development and poverty reduction. To meet this goal, the programme brought together its project teams working on these issues to find ways of teasing out points of convergence in their experiences and harnessing evidence to put across their points of view. The programme worked with scientific editors to facilitate discussions at the forum so as to ensure that the resulting body of knowledge will be documented and published accordingly. These are the reasons why the CCAA programme organised this forum from 25 to 29 October, 2010 at the Novotel in Dakar.

Workshop goal: allow CCAA projects that have worked with poor and marginalised groups to contribute to the wider debate on the contributions of adaptation to development and poverty reduction.

Specific objectives

- Enable selected CCAA project teams to reflect, through discussions about their own experiences, on the contributions of adaptation measures to improving the lives of the poor
- Provide concrete examples showing the mechanisms through which adaptation measures or initiatives can contribute to improving the lives of the poor
- Formulate recommendations on how to best document and evaluate these contributions.

Forum outputs:

- One synthesis paper edited by scientific editors from the contributions of participants who will be contributing authors
- Outlines for up to four scientific articles that would be prepared by groups of participants after the workshop
- A workshop report prepared by the facilitators.

II. OPENING SESSION

Monday, 25 October 2010

The workshop was opened on Monday morning by Mrs. Kathryn Toure, Regional Director of IDRC, following an address by Mr. Ivan Biot of DFID, who talked about the context in which the workshop was taking place, following the Copenhagen Summit this year, the controversy referred to as «Climate Gate», and the importance of providing reliable data and evidence on adaptation. Mrs. Toure reminded the participants that IDRC this year celebrated its 40th year of support to development research across the world. She pointed out that adaptation is not an end in itself and that the way adaptation brings real changes to people's conditions of living is what really matters.

After the opening addresses, workshop objectives and expectations were presented respectively by the facilitators and participants, followed by background presentations from the CCAA team.

Presentations on the background

Mrs. Fatima Denton, Head of the CCAA team, gave a presentation on the CCAA programme and its learning forums, pointing to their relevance and the need for collective and cross-cutting lessons. Using the example of a project in Malawi which mainstreams adaptation in a learning process, she noted that it is the local communities that take adaptation measures for themselves. The CCAA programme has formed a research community. The learning forums aim to harness and build on the results obtained, so that lessons learnt can be summarized in usable forms that raise the profile of efforts on the ground. Mrs. Denton added that, given the importance of creating these forums for exchanges on methodologies, other forums will follow on the linkages between participatory action research and policy making and on gender. The mobilization of funding for adaptation will also continue. But efforts must be made to know which adaptation projects are good, to devote time to the debate on vulnerability, in both physical and social terms, and to look at adaptation from the institutional angle, so as to identify how viable institutions for adaptation can be established. To conclude, Mrs. Denton noted that efforts should be made to ensure discussions on vulnerability and adaptation are addressed in an exhaustive manner, particularly when it comes to mainstreaming the human dimension.

Mrs. Nathalie Beaulieu, programme officer, gave a summary of the background paper with the aim of indicating how to address gaps in the current body of knowledge and build consensus around some working definitions for the learning forum. She pointed out some of the overlaps in the concepts of adaptation and development and between vulnerability and poverty. The literature review, conducted prior to the forum, showed there is general agreement at present that poverty is multi-dimensional and is not related only to monetary aspects. The causal mechanisms are very complex to allow for direct assessments of

adaptation initiatives on measures of poverty and vulnerability. A study by Eriksen et al. (2007) defines the interface between vulnerability and climate change as the various processes that lead to failure to secure the four dimensions of a basic living standard. There are several approaches for calculating measures of vulnerability that identify the biggest climate-related hazards, the most vulnerable persons, and vulnerability factors. But their utility in assessing vulnerability over time is limited. Among the gaps identified in this regard are:

- The lack of practical tools for identifying whether adaptation is happening;
- Uncertainties about criteria to evaluate the potential contribution of adaptive measures to poverty reduction;
- Insufficient knowledge of the conditions necessary for adaptation to contribute to poverty reduction, mechanisms that work, and constraints in different contexts.

The CCAA Programme seeks to address these gaps by testing evaluation tools, such as contribution analysis, using examples from CCAA projects and exploring other methods of evaluation. The programme is going to share the lessons learned from this exercise with other development agencies that are placing a growing emphasis on adaptation in their strategies, with developing countries and their agencies mainstreaming adaptation in their poverty reduction programmes, as well as with the development practitioners involved in these initiatives.

The background paper gives some definitions for:

- Adaptation, defined as initiatives and measures to reduce the vulnerability of natural and human systems to actual or expected climate change effects (GIEC 2007);
- Human development, which is based on 3 major criteria: life expectancy, level of education and standard of living;
- The relationship between adaptation and development, which is not always a causal relationship, for some forms of adaptation can be harmful to the most vulnerable groups,
- Adaptive capacity, defined as the whole of capabilities, resources and institutions of a country or region to implement effective adaptation measures;
- Vulnerability, where various definitions were reviewed, but that is considered for this forum to be the susceptibility to become poor or poorer as a result of climate stresses or shocks;
- Poverty, defined as a level of insufficient well-being, a state of capability deprivation, or according to the OECD definition, the lack of opportunity to earn an income and meet material needs; maintain health and a basic education; speak up for oneself and have rights; maintain a sense of social and cultural affiliation.

In the discussions that followed these two presentations, the participants debated about the proposed definition of adaptation and how to reconcile the human and technical dimensions of adaptation in their interventions.

Contribution analysis

Mrs. Tricia Wind, a member of the IDRC evaluation unit in Ottawa, gave the next presentation on contribution analysis.

To begin, she pointed out the difference between attribution and contribution, noting that attribution analysis is about proving causality, while contribution analysis deals with influence. Projects have limited control over outcomes, given that several actors and factors come into play and influence the way these outcomes are achieved. Mrs. Wind then went ahead to explain the difference between the control, influence and interest dimensions in projects.

She looked at the stages of contribution analysis, based on the article by J. Mayne (2008), as follows:

- Stage 1: Set out the attribution problem to be assessed
- Stage 2: Develop a cause-and-effect diagram
- Stage 3: Gather existing evidence
- Stage 4: Assemble and assess the contribution stories and challenges
- Stage 5: Seek out additional evidence
- Stage 6: Revise the contribution story

After this presentation, the participants debated and discussed the issues raised. Some wanted to know whether contribution analysis can be done at mid-term. The answer was yes, this exercise can be done throughout the project cycle. Others wanted to know if the community should take part in the cause-and-effect diagram. The answer was that this can be useful to establish a consensus. Knowing that causal diagrams can become quite detailed and cluttered, care should be taken to highlight what are the key questions, factors, or causal pathways that need to be probed in a contribution analysis - you cannot investigate every aspect.

III. SESSION 2: project presentations

The second session on project presentations began towards the end of the morning on Monday, the 25th. In the invitation letter sent to the participants, they were requested to prepare their presentations to answer the following questions:

1. How can you tell that adaptation is taking place or that stakeholders are more likely to adapt to future climate changes?
2. What tools have you used to evaluate or document adaptation processes?
3. How can you tell (or anticipate) that adaptation action is benefiting the poor, likely to benefit the poor in the future and/or likely to prevent some groups from becoming poor/poorer in the future?

4. What tools have you used to evaluate or document the effects of your activities on at-risk groups?
- The «Adaptation to the impacts of sea level rise in the Nile Delta coastal zone» project in Egypt looked at vulnerability among the different categories of people in the Delta zone. It has elaborated a composite measure of vulnerability and conducted an analytical survey on households in the project area. The project makes use of monitoring and evaluation strategies that enable it to keep close watch over, and to report on the outcomes and indicators for capacity building, sensitization and participatory work, as well as for vulnerability mitigation and the quality of multi-stakeholder debate processes.
 - The «Support Fund for Local Adaptation Strategies» project, administered by IED, provides support to pilot initiatives in three countries, namely Burkina Faso, Mali and Senegal. The example presented from this project was on the improvement of livestock feeding in Burkina Faso. To address the low productivity of pastureland, the project encourages forage crop cultivation, grass cutting and preservation, the refurbishment of haylofts and capacity building. This has contributed to increase the production of forage crops, milk, the weight of cattle and their market prices. And these changes have, in turn, brought about improvements in income, capacity and leadership. To ensure these trends are sustained over time, the local pastoralists are re-injecting money to pursue the production of forage. The project team, in response to the four questions above, indicated that: 1) the improvements in income and in the leadership, administrative and management capacities of local organisations are elements that indicate adaptation is taking place; 2) the tools used to evaluate or document adaptation processes do include the grid for identifying experiences, the grid for describing adaptation experiences, the SWOT and the analytical grid for adaptation strategies; 3) the fact that local communities now enjoy increased income and capacity levels are indicators that adaptation action is benefitting the poor; and 4) the tools used to evaluate the impacts of project activities on at-risk groups include monitoring and evaluation data sheets, grids for mapping the situation of reference in project areas and the evaluation data sheet used by the communities.
 - The «Community based adaptation to Climate Change» project, administered by ACTS in Kenya, helps communities in 8 countries to share the lessons learnt in adaptation. The project presented the cases of the Oyola and Wakesi villages that are tormented by floods, highlighting the actions that have been taken so far, such as: capacity building; the use of community based flood management strategies; the establishment of an early warning system and drought management strategies via the transfer of cattle to the most secure areas; and the sinking of wells. The monitoring and evaluation tools used in the project include participatory videos.

Project presentations continued on Monday afternoon.

- The “Altering the climate of poverty under climate change” project in DRC, Central African Republic and Congo works to mitigate vulnerability to climate change among farmers and herders. The project has offered options for adaptation through:
 - Technologies such as resistant varieties of cattle;
 - Diversification of livelihoods
 - Knowledge creation
 - Governance

The project has been pursuing Action Research through a participatory process for identifying, prioritizing and adopting strategies. The project team’s answers to the four questions above were that:

- 1) the participatory nature of the process for analysing, prioritizing and selecting strategic options is an indicator that adaptation is taking place, or that stakeholders are more likely to adapt to future climate changes;
 - 2) participatory monitoring and evaluation of performance and impact are some of the tools used by the project to evaluate or document evaluation processes;
 - 3) the improvements seen in food security and income at the community level tell that adaptation action is benefitting the poor; and
 - 4) community based monitoring of the behaviour of actors and the elaboration of impact indicator milestones help in documenting the effects of activities on at-risk groups.
- The «adapting fishing policies to climate change» project targets fishing policy authorities, such as national directors for fishing, with the goal of integrating climate change in their problem analysis framework. The hypothesis is that there is a “political poverty” due to the poor involvement of actors from the fishing sector and the division of actors concerned. The project has been using strategies for adaptation, such as reducing fishing effort, preventing illegal fishing and prohibiting foreign fishing vessels. These strategies have contributed to raise awareness among directors for fishing and to streamline policies.

The project uses the Vision-Action-Partnership (VAP) tool to plan initiatives. For monitoring and evaluation, it follows the progress markers that were designed during the vision harmonization exercise and gives partners an active role in research, results validation and story gathering activities.

- The project on «Vulnerability and adaptation to climate change: Agricultural systems in Madagascar» supports the construction of small dams to help communities affected by trends of declining rainfall and pockets of drought. It uses participatory action research (PAR) tools, especially participatory analysis (PA), as well as visioning

exercises, participatory activity planning and execution, participatory monitoring and evaluation (PME), and documentary films. The project team has learned that dams constructed with local materials do not last long.

This series of project presentations were followed by discussions.

The participants wanted to know for how long the project in Madagascar had been running and who funded the dams. The communities provided funding for the dams, with a small portion coming from the project, the team members said.

In the case of the project in Egypt, the participants wanted to know the results of the mapping on vulnerability in the community and its environment. The project team's response was that the exercise had enabled the project to gain knowledge of physical and social vulnerability in the community.

As concerns the IED project, the participants were eager to know whether or not there was contradiction between grass cutting and the low level of productivity. The project team's response was that forage crop farming was meant precisely to bridge this gap. The project team added that it was using knowledge and experience sharing by the herders' union as a strategy to scale up its efforts.

The discussions focused also on vulnerability and the adaptation process. And in this regard, the participants were told that the important thing was to know the institutional changes made to accommodate the practices farmers have put in place. The discussions let the participants also to see that there was some difficulty in evaluating the impacts of adaptation actions in the case of the project on fishing policy.

- The project presentations resumed with the Project on «Adapting to climate change in two rural communities in Morocco», which looked at what access communities have to mechanisms for adaptation to climate change. The analysis had suggested that surface water availability was on a downward trend, agricultural and animal farming systems were changing, the ratio of non-farming income was on the rise, and labour diversification was on an upward trend. But the project found that the local farmers had no access to the majority of mechanisms for adaptation, and that the policies for mitigating the effects of climate change were not really benefitting the local communities. The project provides other alternatives for adaptation beside irrigation.
- The Enhancing Adaptation to Climate Change among Pastoralists in Northern Kenya project works with two groups: livestock owners and former pastoralists. The owners, who are the more privileged of the two groups, are getting fewer in number while the former pastoralists, now suffering from poverty, are on the rise. The project's activities consist in helping actors identify their problems and encouraging dialogue between them and government services. The project has been instrumental in building the skills of community members in the areas it covers, and ensuring that government provides facilities in those communities. These efforts have contributed to bring in district

agencies and to include project-related research findings in local development planning efforts. This is being felt through the actions taken to reinforce natural resource management (NRM) practices. But there are some mechanisms and constraints, such as conflicts, boundaries and the unfair trade of livestock, which form barriers to mobility.

In the discussions following these presentations, the participants wanted to know how the project in Morocco handled the failure to address the needs of the poor in adaptation policies and how the IED project was evaluating its impacts. The answers were that the IED project did an initial situation analysis which indicated the effects to look out for eventually. As concerns the project in Morocco, another participant mentioned that adaptation strategies are conducted by the communities with or without the intervention of projects.

Tuesday, 26 October 2010

The day opened with the evaluation committee's feedback on proceedings the day before. The committee, while appreciative of time management and simultaneous translation services, remarked that the project presentations made thus far had failed to fully address the four questions they were asked and that the 10-minute slot for presentations was too short.

The committee recommended also that break periods should be shorter, so as to make up for the time lost in-between presentations. After the committee's feedback, the participants discussed about adaptation indicators, the nature of the presentations made, and the methodologies for impact analysis. The CCAA team used the occasion to further explain how participants should use contribution analysis in this workshop, underlining that contribution analysis is meant to help capitalize on the lessons learnt from projects, not to evaluate the impact of projects or the programme.

The facilitator then called on the project teams to resume their presentations. But before this, he distributed cards to the participants and explained that the cards should be used to write down how the presentations address the four questions asked at the beginning. Break-out groups were formed to brainstorm on the issue.

- The Community-based adaptation in Africa project in Zimbabwe works with communities facing drought and water depletion. It makes use of socio-economic and vulnerability survey tools. As water availability is a problem in the communities covered, the project has been running activities to raise awareness of CC as well as to build capacity for resilience. The project also offers adaptation options such as use of water pumps and early crop varieties. Yet the team still wonders if the current situation represents a case of adaptation. The tools it has used include theatre, video, the Most Significant Change (MSC) technique, case studies and testimonies. The poor communities covered are replicating techniques and diversifying livelihoods in response to adaptation. In the same vein, they are sinking new wells to increase water availability.

- The Infoclim project in Senegal presented its system for collecting, processing and sharing information on CC based on observatories. In answer to question 1 on whether adaptation is taking place, the project indicated that rural community members consult the observatory for information. Further, the regional council has issued an order to support the process. On question 2 about tools, the project has been using progress markers. But on question 3 about benefits for the poor, the project team just indicated that this one of the outcomes the project expects to achieve. Finally, the tools the project uses to evaluate its effects are those of PAR (observing, taking note, analyzing, recommending).

In the discussions that followed the presentations, the participants asked two questions respectively on the Infoclim project in Senegal and the Community Based Adaptation project in Zimbabwe. Regarding the Infoclim project, the participants wanted to know the outcomes of the socio-economic study mentioned in the presentation. The project officer said that the study was available for consultation¹. On the Zimbabwe project, the question was about the actions taken to increase water availability. These measures especially included the sinking of new wells and the development of other projects.

- The project on «partnership for adaptation of vulnerable groups to climate change-induced soil salinization in Senegal» addresses the problem of soil salinization by implementing strategies for the development of saline soil. It has built dykes, stocked fish in water areas and cultivated village nurseries. The project has also reintroduced local species of rice and promoted vegetable gardening and beekeeping initiatives. To secure sustainability, the project encourages individual and collective initiatives that replicate the same techniques, as is the case with the construction of small dykes.
- The «Urban-Rural Interdependence and the Impact of Climate Change in Malawi and Tanzania» project addresses drought, flood and landslide related issues. It conducts activities to raise awareness of the effects of climate change, soil and water conservation, organic fertilization, as well as trial fields. To do so, the project uses tools such as PAR and study trips. It has helped local farmers to develop their own action plans.
- The project for New Land, New Life West of Lake Nasser – Aswan in Egypt covers an area that has one of the biggest fresh water reservoirs in the world. It includes a community resettlement scheme run by government. The project has done a mapping of communities, household spending patterns, infrastructure levels, sources of potable water and conditions of hygiene. It has also led activities to build the capacities of communities and promote adaptive agricultural practices. The project has succeeded to reduce post harvest crop losses, increase production and cut down malnutrition levels.

- The Managing Risk, Reducing Vulnerability and Enhancing Productivity under a Changing Climate in Ethiopia project works with communities in the management of natural resources. It has introduced new varieties of trees and established a rainfall monitoring system. Participatory action research (PAR) is the approach used by the project team. The communities display a high level of motivation to solve their problems, but the project cautions them that adaptation is a long and difficult social process. The team's answers to the four questions were as follows: 1) the beginning of resettlement initiatives, the use of new farming practices and the high level of motivation in the communities are the signs that adaptation is taking place. 2) The tools used by the project are those in PAR, including participatory analysis and questionnaire-based surveys. 3) The project conducts a range of different activities that are gender responsive and address the needs of vulnerable groups. 4) The project team is planning to carry out field visits, interviews with communities on the ground and exchange visits.

At the end of the project presentations, the participants went over the four questions that project teams had been asked to address and then engaged in a general discussion. They noted, from the answers provided to the first question, that the time period set aside for projects does not allow them to evaluate the effects of adaptation initiatives. And this is coupled with the low level of understanding of climate change issues in many project teams. One participant even remarked that the project teams had failed to highlight the cultural aspect in their presentations. The discussions focused also on the overlaps between vulnerability and poverty, the underlying question being: are all the communities living in poverty also vulnerable?

Other participants seemed to wonder whether the communities covered by the projects had succeeded to evaluate the effectiveness of adaptation techniques and to master them. They concluded that the three pillars of adaptation are:

- Participation
- Motivation, and
- Local solutions

The participants observed that the project presentations responded fairly well to the first question asked by the facilitators in the run-up to the workshop, as well as to the second question, but not to the last two. Some participants were of the view that adaptation should be seen as a process and not as a one-off initiative. All the projects showed the importance of innovations and of mobilizing communities for change. But questions remained on the sustainability of such innovations. The participants looked also at the relations with government structures and the level of decision making that projects should be aiming at. On the whole, they noted that CCAA projects have the opportunity to influence policies. Project teams need to venture out of their comfort zones and think of the answers they would give to policy and decision makers if these latter asked them for their opinion on means of intervention.

3.1 Discussions on the dimensions of poverty

The next open discussion session on the dimensions on poverty was based on information from the cards the participants filled out at the end of project presentations. The session was a brainstorming exercise in plenary, meant to tease out what dimensions of poverty had been proposed. However, the debate went in circles as participants and organisers discussed if vulnerability should or not be one of these dimension. Indeed, there is a relationship between vulnerability and poverty. However, vulnerability can manifest itself with respect to all aspects of poverty and it would be difficult to define it as a dimension of it. Finally, the four dimensions proposed were the economic, health, organisational/human, and environmental dimensions.

3.2 Elaboration of causal diagrams or diagrams of theories of change

On Tuesday afternoon, 26th October, Tricia Wind gave a presentation on causal diagrams or diagrams of the theory of change. She outlined the six elements in a causal diagram as being:

- The **highest order result** expected
- The **outcomes** or **preconditions** required to achieve this result
- The **activities** or **causal mechanisms** that will lead one set of outcomes to move to higher order outcomes
- **Assumptions** and **risks**
- Other critical **external influences**

There is no prescribed format for the diagrams.

The participants then formed break-out groups. Four such groups were formed according to the four dimensions of poverty identified earlier. This initial phase of work lasted only one hour and a half.

In plenary, the four groups gave feedback presentations on their work for comments. On the whole, the comments were questions for clarification on the content of the diagrams, or remarks that were not intended to question the structure of the diagrams. The group working on the environmental dimension of poverty was the only one to which the participants recommended that they should include access to resources, policies and organizational procedures in their diagram.

Wednesday, 27 October 2010

Feedback on Tuesday's proceedings showed that the day had been productive. The project presentations were of a better standard. The flexible nature of the agenda made it possible to slightly reorganize the sessions. The proceedings unfolded smoothly on the whole. The diagrams were sometimes difficult to read. And, the participants got bogged down in

conceptual discussions on poverty and vulnerability that took the session beyond the set time limit. An important issue emerging from these discussions is the question of instances of mal-adaptation that could exacerbate poverty. For instance, there can be cases where strategies to cope with climate change may in-fact leave people worse off than they were before.

After these preliminaries, one of the facilitators presented the plan for the day. Tricia Wind gave feedback on the diagrams presented the previous day. She explained that it is useful to connect the elements on the diagram, for example, the effects and the mechanisms, and to take account of the cross-cutting issues raised by the participants. She suggested two questions to help the break-out groups rework their diagrams: what unexpected things happened when adaptation was taking place? What are the differences between the projects? She explained also that dots could be used to connect elements where one was not sure of the relation between them and to indicate the sections where there was need to gather evidence.

Following this presentation, the participants resumed group work to refine their diagrams. The four groups then presented their revised diagrams. The method used to present the diagrams was the *gallery walk* technique where groups exposed their work in the room and the participants moved around from one display to another to learn about what had been done. On each diagram, the project teams indicated the portions where they would gather evidence. The participants made comments and asked several questions on each piece of work. After the four presentations, Katharine Vincent, the scientific editor, and Nathalie Beaulieu issued important tips to help participants prepare the following session on collecting evidence.

In the afternoon, the team of resource persons and facilitators prepared an integrated diagram outline, using the diagrams of the four groups. The participants were given a free afternoon.

IV. SESSION 4: collecting evidence

Thursday, 28 October

The proceedings of the day began with feedback from the evaluation committee, which remarked that some incidents of non-compliance with the agenda had been observed due to delays caused by the participants themselves.

Nathalie Beaulieu presented the outline of the integrated diagram prepared the day before in an attempt to link the policy dimensions and the major impact areas. After the presentation ended, the participants gave some feedback, appreciating the work and expressing their views on the interrelationships between research and policy, access to resources, and the role of adaptation in climate change. The presenter explained that the diagram is a work in progress that does not include hypotheses and risks, and hence does not go into the detailed aspects of activities.

The groups then went into the session on collecting evidence. The facilitators explained the methodology for the session as being the «Maquis Mondial» (Global Maquis), an African

version of the experience sharing tool called «World café». Four «tables» were set up, each with a village chief and a secretary/rapporteur. Each table dealt with one dimension of poverty addressed by the cause-and-effect diagram. The participants at each table discussed and shared their project's potential contributions to that dimension for about half an hour and then moved on to another table. The village chief led the discussions around the table and summarized the main ideas at the end of the discussion. The secretary was to report in plenary the results of the various summaries.

On Thursday afternoon, the rapporteurs gave feedback on the outcomes of the “maquis mondial” sessions held in the morning. There were four tables altogether:

- The participants at the first table talked about natural resources (related to the environmental dimension). Their discussions focused on innovative ways of enhancing the preservation of resources by using biological rest techniques or retention dams, ensuring progress in technologies through the use of improved seeds, diversifying agricultural activities and, by so doing, widening sources of income, as well as by building multi-stakeholder partnerships that are based on closer collaboration with the technical services of the State.
- The table on community empowerment (related to the organizational/human dimension) examined ways of improving the communities' capacities to adapt to climate change. The projects that took part in the discussions at this table put the emphasis on establishing groups, networking them and building their capacities for management, negotiation and interactions with external partners.
- The table on the economic dimension indicated that the pathways to addressing the effects of climate change on food security and income are to improve natural resource management, reduce the sensitivity of current production systems to climate change and develop alternative sources of income and food.
- Lastly, the table on food security, disease control and nutrition improvement presented the mechanisms used to build adaptation capacities in this area, such as capacity enhancement, empowerment, income generation, resource mobilization and community organizing (cf. annexes).

After the four reports were presented, the participants opened a discussion based on the series of questions below:

- Where can the evidence that is lacking be found?
- There have been several reports on success stories: what about cases of failure?
- There is need to differentiate between coping capacity and resilience over the long term
- How can empirical evidence be documented?
- What other conceptual issues need to be addressed?

To discuss these issues, the participants worked in pairs. The main points they raised were:

- Some examples do not link adequately with CC.
- Certain linkages on the diagram are real, but not well explained.
- Provision should always be made for alternative options (plan B).
- There is need for qualitative as well as quantitative data.
- Reliable data on the weather conditions at the local level is required.
- Given that the community is not a homogeneous group, is it not necessary to target specific groups?
- At what level should we situate adaptation?
- Cultural perceptions and poverty.

Friday, 29 October 2010

The day began with an Internet session. Participants were asked to gather the documentation they had produced during the workshop and send it to the scientific editors and facilitators.

Thereafter, the evaluation committee gave feedback on the proceedings of the previous day. Apparently, the participants did appreciate the global maquis approach, for it gave them the opportunity to discuss with one another. But there was a small problem with time management.

The facilitator then presented the plan for the day. It was to begin with a discussion on evaluation methodologies. Then, emerging themes for writing scientific articles would be identified. Finally, the scientific editors would advise the participants on how to develop outlines for the scientific articles. After the lunch break, conclusions would be drawn and the day's proceedings brought to a close.

V. SESSION 5: Suggestions of important issues for evaluation of adaptation to climate change

Three groups were formed to study how to better evaluate the interrelationships between adaptation to climate change and poverty. The first group looked at ways to formulate recommendations for decision makers, the second group for researchers and the third for grassroots communities.

The groups gave feedback on their work after the coffee break.

- The group working on decision makers indicated that the authorities place more emphasis on poverty alleviation than on adaptation to climate change. In Senegal, for example, there is a national action plan on adaptation in Senegal, but this has not translated into concrete actions on the ground. There is no link between poverty

reduction strategy papers (PRSP) and national action plans for adaptation (NAPA), although it is necessary to have a framework that articulates these policies. At the local level, the local development plans (LDP) do not include issues relating to adaptation. To ensure that decision makers pay more attention to adaptation, there is need to provide them with the right information and to sensitize them to vulnerability-related aspects. The language used by researchers and project teams should also be adapted to the concerns of policy makers, who are interested in finding quick responses to the concrete concerns of the population. The information given to policy and decision makers has to be relevant to them and easy for them to understand and use.

- The group that worked in relation to researchers issued the following four recommendations:
 - Take a multidisciplinary and multi-institutional approach;
 - Define clearly the adaptation objectives related to a given dimension of poverty;
 - Adopt the methodology adapted to these objectives;
 - Involve public agencies so that they can continue to disseminate the outcomes.

- The last group that worked on NGOs and community-based organizations indicated that there is a clear link between adaptation and poverty. Adaptation cannot be separated from the goals of poverty reduction. The theory of change and contribution analysis are good tools. The group recommended as follows:
 - Adaptation cannot be separated from the goals of poverty reduction;
 - Adaptation needs to be coupled with development to have an impact over the long term;
 - Adaptation actions should be on the same wavelength with climate change.

In the general discussions that followed, the participants affirmed that institutions always want to differentiate between development projects and adaptation projects. But in the least developed countries (LDCs), adaptation is equal to development. The level to which our populations depend on natural resources is such that any change in climate has a direct impact on their development. Seeing climate change as a development issue can make it possible to tackle this issue in more effective ways.

During the discussions the participants were told that OECD had issued a resolution on the mainstreaming of adaptation issues in PRSPs, that guides had even been produced to that effect and that some organizations, such as DANIDA and ADB, were taking this mainstreaming issue seriously. But the question was, even if attention is paid to this mainstreaming aspect, how can it be evaluated? Standard impact assessments are difficult to apply in this case. Other methods, such as contribution analysis, Most Significant Change and Outcome Mapping allow us to take a better approach to this issue. The interrelationships

between adaptation and poverty are so broad that one cannot address them within the framework of one project or with one actor. Evaluation in this regard should be conceived in a more holistic manner. The government makes it possible to make that necessary move up to the next level. That is why it is necessary to improve the evaluation capacities of our decision and policy makers.

Evaluation should include the number of alternatives that are provided to communities to improve their adaptive capacities. In Morocco, for example, the focus has often been on drought-related issues, such that when floods hit the country, it had no response plan to fall back on. As one participant said, it is necessary to also evaluate behaviour change accordingly when evaluating impact. A clear distinction needs to be made between evaluating project impact and evaluating the relevance of actions for adaptation to climate change. Capacity building for teams that evaluate climate change actions has to be seen as a necessity. Learning in the field of adaptation involves institutional changes. In Morocco, for example, efforts have been made to develop a vision for the long term (Towards a Green Morocco or *Le Maroc vert*), set up institutions (such as the High Council for Water in Morocco) and promote technological progress.

Which scientific articles for documenting and sharing our ideas

At the end of this session, cards were distributed to the participants for them to write down the emerging themes that could be the subject of jointly-authored scientific articles. These would be themes on which researchers want to produce articles in a collaborative manner. It is in this regard that the following list of topics was proposed:

- Comparative study on salinity prevention projects in Senegal and Egypt;
- Adaptation to climate change and sustainability of natural resources: the case of water irrigation in Morocco;
- Interrelationship/differentiation between adaptation and poverty reduction;
- The authorities' perceptions on climate change;
- Linkages between risk management strategies and food security;
- Adaptation to climate change: effects of cultivation methods on water retention;
- Rainwater harvesting as a strategy for adaptation to climate change and poverty reduction in the Sine-Saloum region;
- Adaptation to climate change: the role of local knowledge;
- Impact of food security on poverty reduction in the Lake Victoria and Lake Nasser regions;
- Community leadership in implementation of strategies for adaptation to climate change;
- Prospects for adaptation to climate change in the Horn of Africa.

These topics were then grouped together under the following 3 broad theme areas:

- Natural resource preservation and management
- Adaptation vs. development, human dimension, food security

- Policies and management in the context of adaptation, leadership, local knowledge

Three groups were formed to try and see how to effect the mainstreaming of these theme areas, design a road map and share roles.

Thereafter, the scientific editors briefly reminded the participants that it is important for them to develop an outline before writing an article. Katharine Vincent hammered on the need for the authors of articles to adopt a simple writing style and remain focused on one main idea per article. She distributed a sheet with a series of tips for elaborating plans. Then, she informed the participants that they could also get access to a CD-ROM, entitled «Writing for change», which is a tool for writing general, scientific and advocacy documents. A few samples of the tool were distributed to the project teams present.

VI. SESSION 6: Workshop lessons and next steps

After the lunch break, the participants drew lessons and conclusions from the forum and outlined next steps. Then, they did a general evaluation of the forum before proceeding to its closure.

Key lessons and learnings identified by the participants

The participants wrote down on the cards the key lessons and learnings they had gathered from the workshop. And these were as follows:

- With a few improvements, the IDRC-CCAA projects could be proper examples of how communities are adapting to climate change and poverty alleviation
- Sharing a wide range of different experiences in adaptation is an indispensable aspect of the mutual learning process
- There are linkages between adaptation to climate change, development and poverty reduction
- There is a difference between contribution analysis and attribution analysis
- There are several experiences to share between projects
- Stories on change can be a powerful approach for communicating what CCAA backed projects are achieving on the ground
- Cause-and-effect diagrams are useful
- The global maquis is brilliant (for enhancing experience sharing between projects).

Conclusions and next steps

At this point, Nathalie Beaulieu, IDRC Programme Manager, gave a presentation to share the conclusions of the workshop and next steps.

She went over the 3 objectives of the workshop, and then showed that the workshop had made it possible to improve our understanding and gather data on how climate change affects the

different dimensions of poverty and how adaptation initiatives could change the situation. With regard to the outcomes of the workshop, four cause-and-effect diagrams on the four dimensions of poverty and one general diagram that attempts to pull them together were produced. The discussions that led to the production of these diagrams were almost as important as the diagrams themselves.

After presenting the ways by which climate change affects poverty (reduction in incomes, food insecurity, the quality and availability of natural resources, migration and conflicts), she listed some of the interventions and pathways by which to make adaptation a reality (improving the management of natural resources; reducing the sensitivity of agricultural production systems; developing alternative sources of income; designing multi-sectoral plans, depending on the anticipated climate changes; putting in place adaptation mechanisms at the grassroots community level ...).

Next, the presentation put forward a certain number of recommendations made to the participants during the workshop, including: (i) enhance the mainstreaming of adaptation to climate change in poverty reduction strategies; (ii) see climate change as a development problem, not only as an environmental issue; (iii) see to it that adaptation programmes express clear objectives for development and poverty reduction. The cause-effect relationships identified and analysed during the workshop could help programmes identify the parameters to evaluate. And finally, it is important to distinguish between project evaluation and the evaluation of progress in adaptation when it comes to poverty reduction and the level of mastery of technical options. Mrs. Beaulieu ended her presentation with the next steps.

The scientific editors will produce a first version of the synthesis document and the facilitators will prepare the workshop report and methodological guide. The participants, on their part, will propose plans on the articles identified to enable the CCAA programme to choose four that will get support for publication. Finally, the French version of the background document will be circulated for comments from participants before it is finalized.

She informed the participants that a page will be created on the Africa Adapt platform where they can access the documents of the forum.

As recommended by the participants, the programme is going to explore the possibility of preparing a policy paper based on the recommendations of the workshop.

General workshop evaluation

One participant, chosen to evaluate the workshop, proposed a grid on a flip chart with sections for time management, facilitation, content of sessions and exchanges between participants. He asked each participant to indicate on the flip chart what they had liked and not liked.

Overall, the participants considered that time management was not quite good, that facilitation and discussions had been fairly good, and that the content of the sessions was good. Time

management suffered because the morning and post-break sessions began behind schedule. Some participants said that they would have liked the facilitation to be more cheerful.

Closure of the forum

For the closing session, the facilitator asked the youngest female participant and the most elderly male participant to speak on behalf of the participants. The two of them thanked IDRC for organizing the forum and welcomed the opportunity they had been given to learn from others and share their experience. They said that they had learned a lot from one another on climate change and the initiatives supported by various projects. The youngest female participant recommended that there should be more women attending forums in the future and engaging in related exchanges.

Finally, it was Mr. Mbareck Diop, Board Chairman of the CCAA Programme, who closed the workshop after commending the participants for the results of forum. He stated that the outcomes of the workshop would be shared with Board Members during the meeting in Addis Ababa in November 2010. Mr. Diop suggested that policy papers should be prepared using the results of the forum, so as to make sure that decision and policy makers become more conversant with the challenges of climate change and the manner in which it affects poverty in our countries. He asked all the participants to maintain the network that was beginning to take shape at the workshop.

ANNEXES

**List of projects and participants of the Learning Forum/Liste des projets et participants
du forum d'apprentissage**
Evaluating the contribution of climate change adaptation to poverty reduction
**Evaluer comment l'adaptation aux changements climatiques contribue à la réduction
de la pauvreté**

Participants from CCAA Participatory Action Research projects/Participants des projets de
recherche action participative ACCA

N. project/Projet	Title/Titre	Designated participant/Participant désigné
105678	Partenariat pour l'adaptation des populations vulnérables à la salinisation des sols induite par les changements climatiques au Sénégal	El Hadj Faye ISRA, Dakar hadjfaye@yahoo.fr
		Gilbert Sène Caritas, Kaolack Sene.sgs@gmail.com
104795	InfoClim : Plateforme pour l'adaptation des communautés vulnérables aux changements climatiques	Deguene Pouye Centre de Suivi Ecologique (CSE) Dakar (Sénégal) pouyed@yahoo.fr
		Amadou Sall Centre de Suivi Ecologique (CSE) Dakar (Sénégal) amadou.sall@cse.sn
104835	Transformation du climat de pauvreté dans le contexte des changements climatiques : les forêts du bassin du Congo (Afrique subsaharienne)	Martial Gapia Université de Bangui République Centrafricaine gapiamartialss@yahoo.fr
		Bele Youssofa CIFOR Yaoundé, Cameroun b.youssofa@cgiar.org
105518	Fonds d'appui pour les stratégies d'adaptation locales	Cheikh Tidiane Sall IED-Afrique Chargé de programme FSSA cheikh_tidiane_sall@yahoo.fr
		Mamadou Fall IED-Afrique Assistant de Programme FSSA madoufall@gmail.com
104682	Adaptation des politiques de pêche aux changements climatiques à l'aide des savoirs scientifiques et de connaissances endogènes (Afrique de l'Ouest)	Cheikh Gueye ENDA Tiers-Monde Dakar, Sénégal cheikh@enda.sn
		André Bihibindi REPAO Dakar, Sénégal abay.andre@gmail.com
		Dieudonné Bakanova REPAO Dakar, Sénégal bakanovadieudonne@yahoo.fr

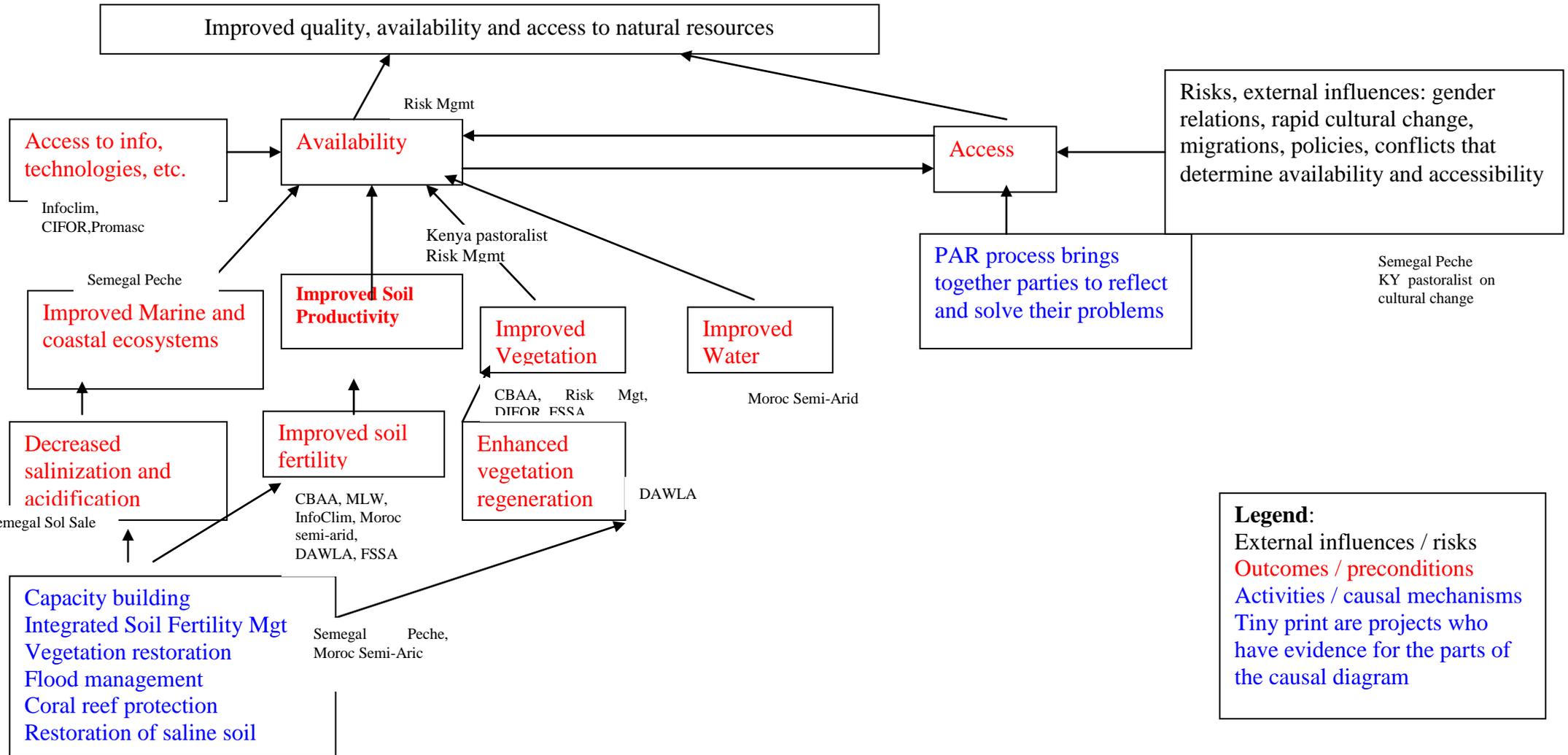
104143	Vulnérabilité et adaptation aux changements climatiques des systèmes agraires à Madagascar	Nosy Alianzy Laboratoire des radio-isotopes, École supérieure des sciences agronomiques, Université d'Antananarivo, Madagascar. alinoty@gmail.com
		Rivo Rabarijohn Laboratoire des radio-isotopes, École supérieure des sciences agronomiques, Université d'Antananarivo, Madagascar. rrabarijohn@yahoo.fr
105515	Adaptation to the Impacts of Sea Level Rise in the Nile Delta Coastal Zone (Egypt)	Mohamed Abd rabo University of Alexandria mabdrabo@hotmail.com
104153	Adaptation aux changements climatiques dans deux collectivités rurales du Maroc (en plaine et en montagne)	Dr El Houssine EL MZOURI INRA, Settat, Maroc elmzouri@yahoo.fr
		Mr Mohamed BOUGHLALA INRA, Settat, Maroc boughlalam@yahoo.fr
104270-012	New Land, New Life West of Lake Nasser – Aswan Component of Water, Health and Climate Change Adaptation in Africa	Ahmed Farouk Near East Foundation Egypt afarouk@nefdev.org
104898	Community Based Adaptation to Climate Change in Africa	Charles Tonui Research/Project Assistant African Centre for Technology Studies (ACTS) P.O Box 45917-00100 Nairobi c.tonui@acts.or.ke
		Shepard Zvigadza ZERO Regional Environment Organisation (ZERO) Zimbabwe szvigadza@gmail.com ; shepard@zeroregional.com
105836	Urban-Rural Interdependence and the Impact of Climate Change in Malawi and Tanzania	Dr Emma Liwenga Institute of Resource Assessment (IRA) University of Dar es Salaam, Dar es Salaam, Tanzania liwenga99@yahoo.com
		Dr. Felistus Chipungu Ministry of Agriculture Bvumbwe Research Station PO Box 5748, Limbe, Malawi Malawi felichipungu@yahoo.com
104752	Enhancing Adaptation to Climate Change among Pastoralists in Northern Kenya	Eric Kisiangani Practical Action, Nairobi, Kenya eric.kisiangani@practicalaction.or.ke
104146	Managing Risk, Reducing Vulnerability and Enhancing Productivity under a Changing Climate	Habtamu Admassu Ayana Ethiopian Institute of Agricultural Research habtamu.admassu@gmail.com

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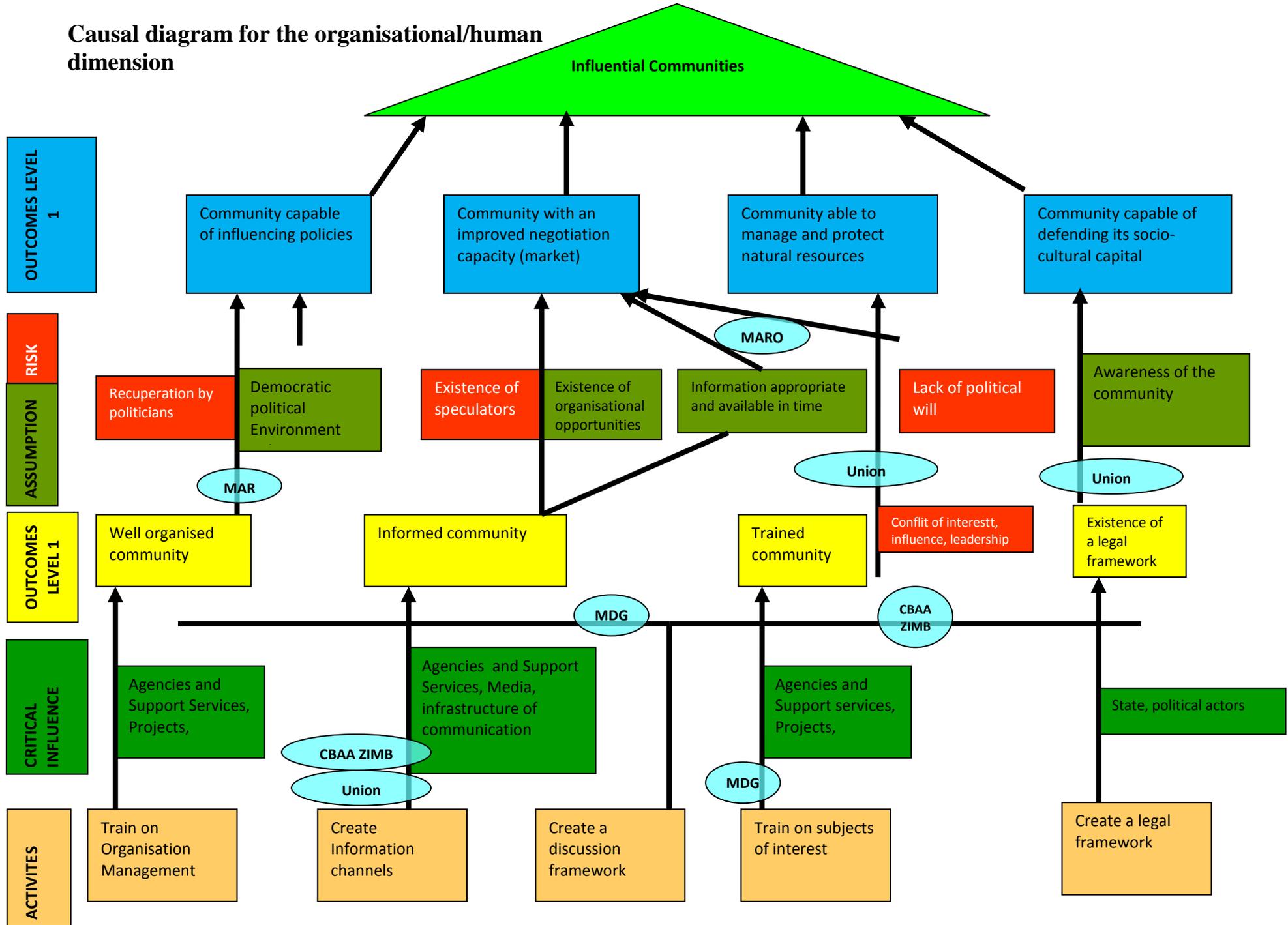
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Causal diagram for the Environmental dimension

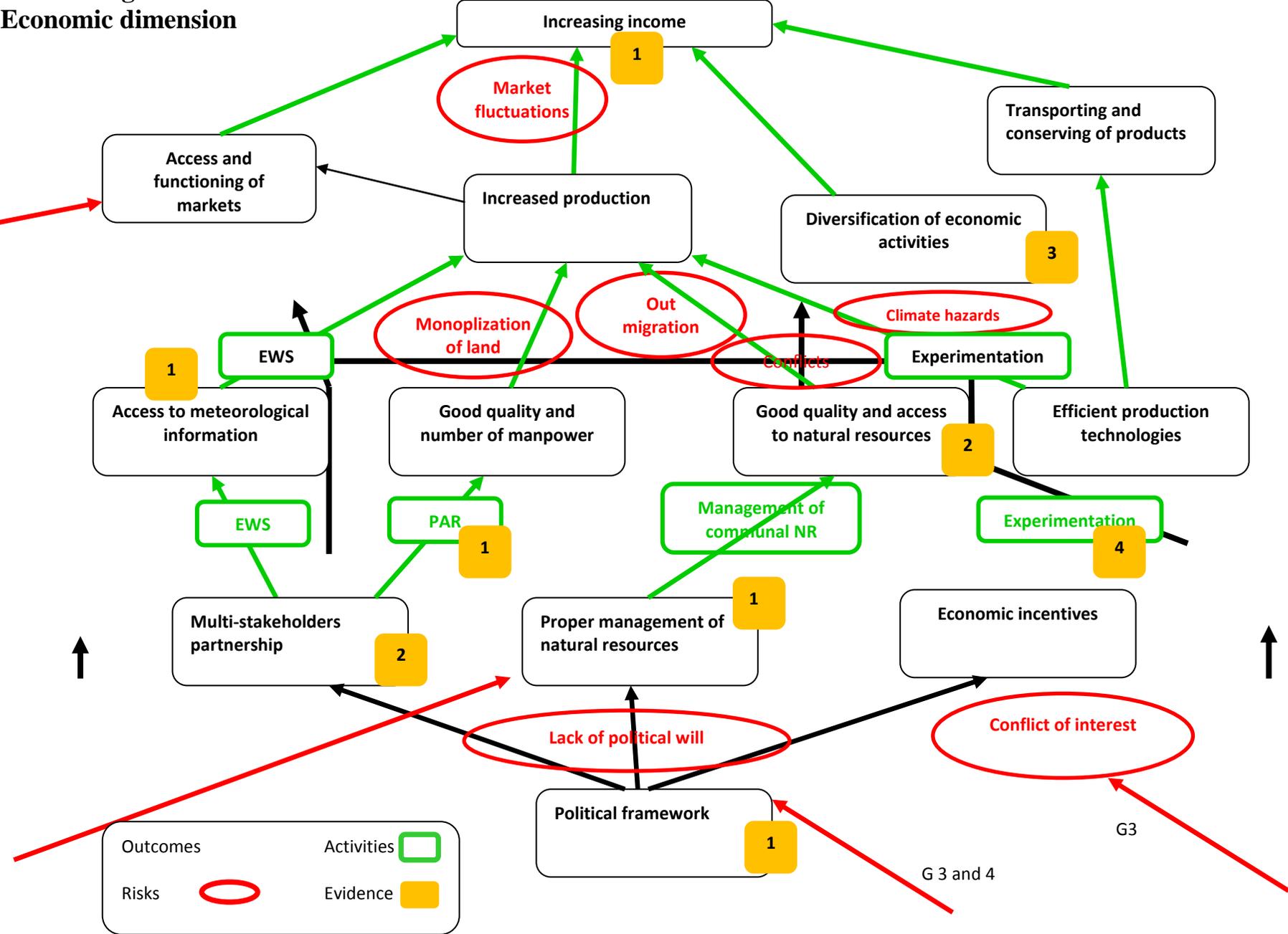


Legend:
 External influences / risks
 Outcomes / preconditions
 Activities / causal mechanisms
 Tiny print are projects who have evidence for the parts of the causal diagram

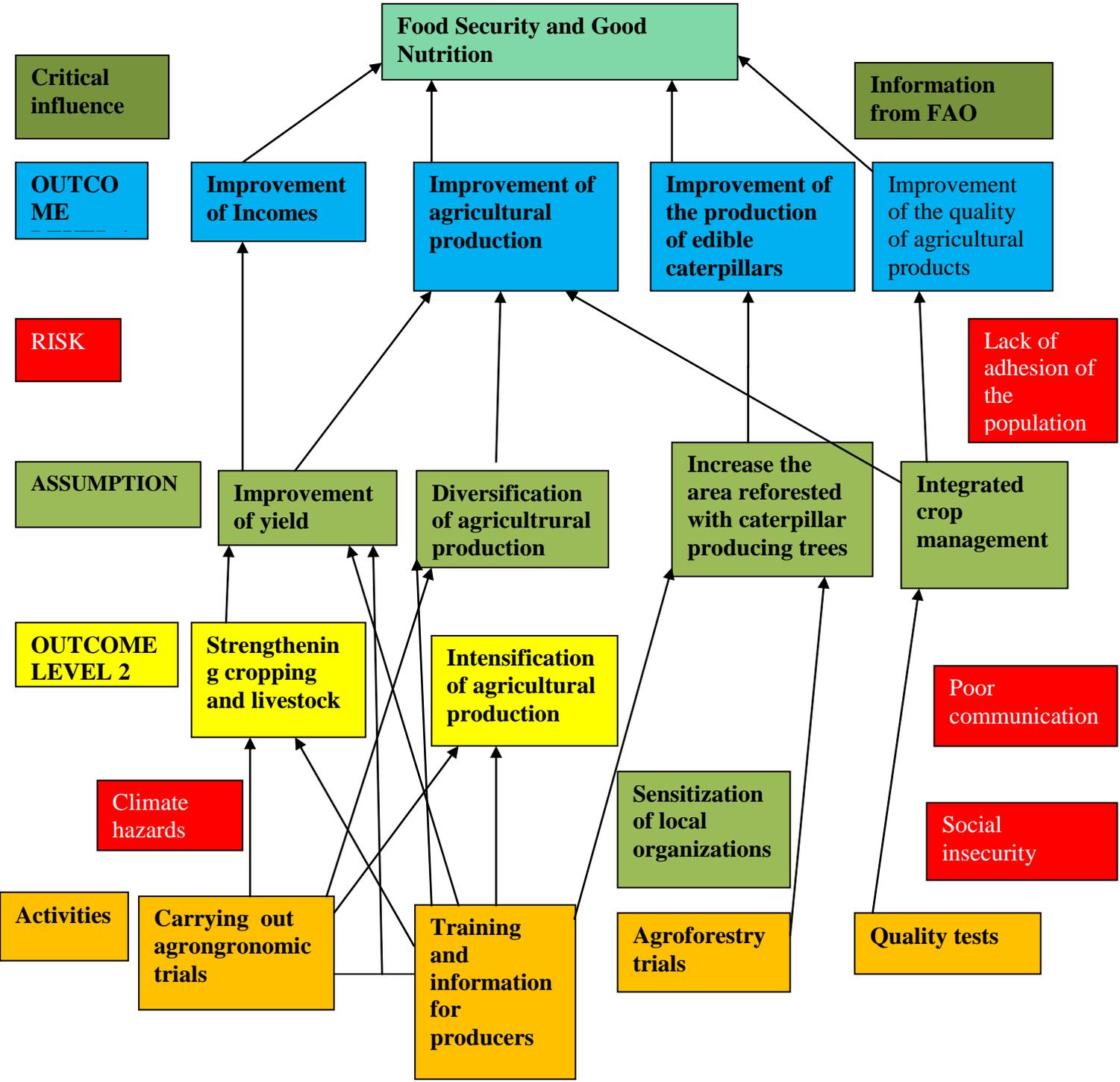
Causal diagram for the organisational/human dimension



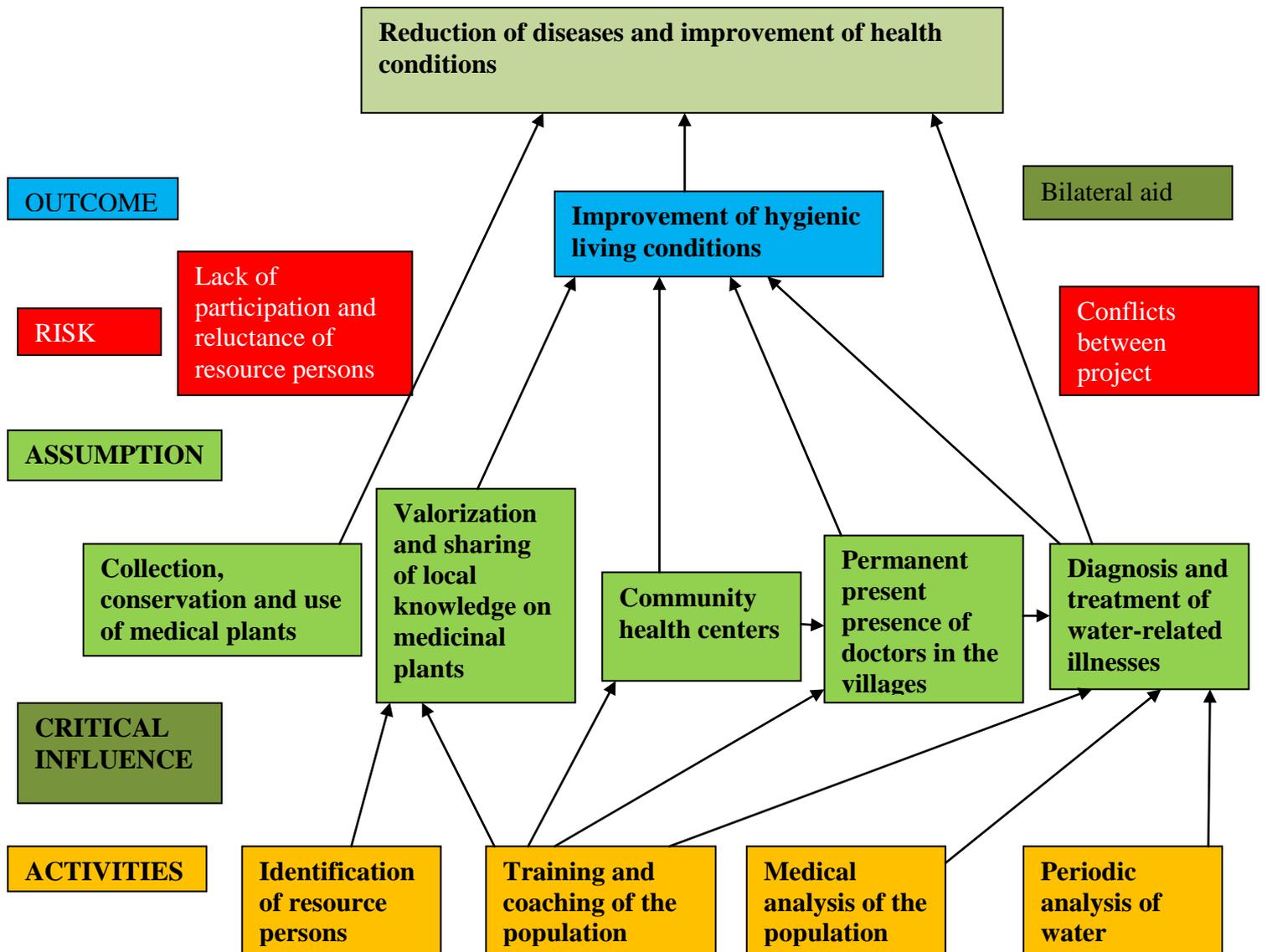
Causal diagram for the Economic dimension



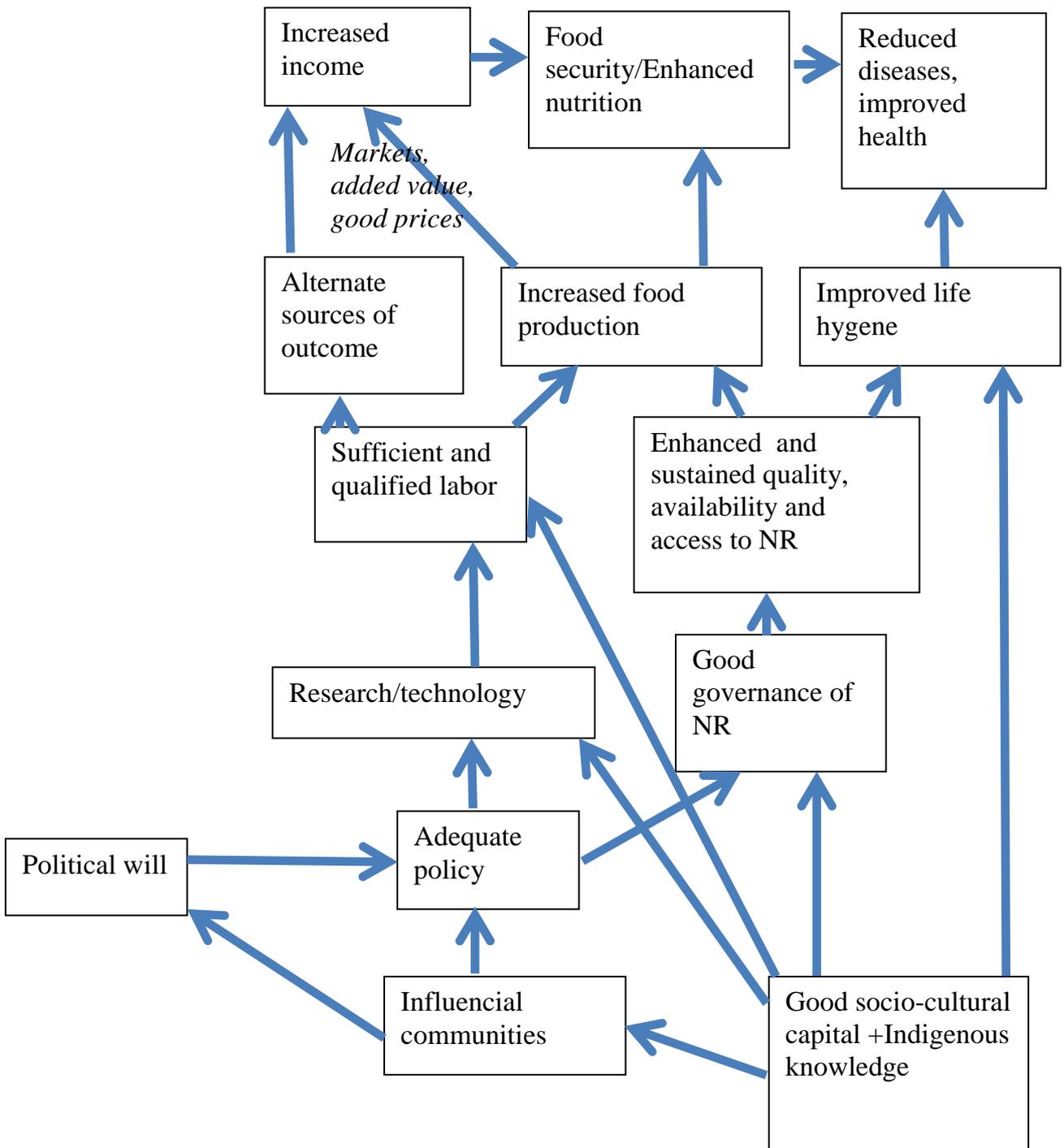
Causal diagram for Food Security and Good Nutrition, as part of the Health dimension



Causal diagram for Reduction of Diseases and Improvement of Health Conditions, as part of the Health dimension



Draft of a unified causal diagram



Examples collected during the World Café

(Tables prepared by scientific editors from notes of the secretaries)

Examples collected for the Environmental dimension

Project	Aspect of Dimension	Evidence to support contribution to poverty reduction
FSSA, Burkina Faso, Mali	Improved soil fertility	Promote soil fertilisation through composting – make fertiliser packs. Big pits are dug in which the compost is put and crops can be grown (also reduces water need due to increased humidity and reduced evapo-transpiration). Small barriers also introduced to prevent soil erosion by water.
	Improved vegetation	Vegetation has regenerated reflecting improvements in soil fertility.
CBAA Zimbabwe, Kenya	Improved soil fertility	New sources of firewood found to prevent bare land. Farming mango trees conserves the soil (Kenya)
	Improved soil productivity	Managed drainage so that now wetlands can be farmed (drainage)(Kenya)
	Improved vegetation	In conjunction with training and specialist expertise from Kenya Agricultural Research Institute, nursery plots for grafting indigenous mangoes with high yield varieties. 15 seedlings were then provided to each village, and farmers trained in Farmer Field Schools (Kenya).
	Improved water	Dropped boreholes and rehabilitating dams to improve ground and surface water availability, thus saving the time women spend travelling to fetch water (Zimbabwe)
Adaptation to climate change in two rural communities in Morocco (in the plain and mountain)	Improved water	Changed practices from water-intensive watermelon farming; now inter-cropping legumes and olives (and planning to change that in the future to cactus, which is even more water efficient but a bit further from the norm and thus requires attitudes to come around to this idea) with drip irrigation. Can also do this in autumn when evapotranspiration is lower (double benefit). Also promoting aquaculture of spirulina using low technology but high productivity (and water resource efficient) covered containers.
	Enhanced vegetation regeneration	Intercropping improves diversity and biomass available.
	Improved soil fertility	Changed soil management techniques to include intercropping legumes (peas) with olives. Legumes have good economic returns and are nitrogen fixing so are better for the soil. With watermelons the land is likely to be productive for 10 years, with intercropping it is likely to be good for another 50 years.
PROMASC	Decreased salinisation and acidification	Project built dykes (contributing to some that have been there since 2000) to prevent saline intrusion.
	Improved soil fertility	Project has replanted vegetation, thus breaking the vicious cycle of decline caused by exposed ground, increased erosion. Now soil supports bee-keeping, vegetables, rice farming, and horticulture
	Access to info, technologies etc	Undertook research to determine which of 6 indigenous rice varieties could flourish in each area based on its soil type and profile

Project	Aspect of Dimension	Evidence to support contribution to poverty reduction
FSSA, Burkina Faso (Diawla site)	Enhanced vegetation regeneration	Addressed absence of forage for livestock by introducing new varieties which have increased the productivity of cows (milk and market price – from 200,000-350,000CFA), and increased availability of manure to fertilise the soil and encourage greater vegetation regeneration.
	Improved soil fertility	Better ground cover and resource management contributes to soil fertility
CoFCCA	Access to info, technologies etc	Have raised awareness on the use of NTFPs and farming which is more sustainable in the climate (alternates between heavy rain and prolonged drought). Distributed 10,000 cassava plants in DRC and 4,000 in CAR; encouraged use of nyetum vegetable, and production of mushrooms
	Improved vegetation	Project encouraged economic focus on NTFPs (such as through replanting of caterpillar trees in CAR and DRC) rather than low productivity agriculture on the forest margins, which are now regenerating.
InfoClim:	Access to info, technologies etc	Observatory, setting up of local climate change committees, can take questions from the local level and feed them higher up (regional level, to scientists) in order to find information.
	Improved soil fertility	Farming techniques and crop choice are more in line with what the climate can support as a result of improved information.

Examples collected on the Economic dimension

Project	Aspect of Dimension	Evidence to support contribution to poverty reduction
ACCA Madagascar	Proper management of natural resources	Construction of traditional dams (using local materials) facilitated production of 200 hectares of rice. Concrete dam was constructed at high cost but soon destroyed – farmers rebuilt increasing the cultivable area for the benefit of about 60 households.
	Efficient production technologies	Trialled quick-maturing rice varieties
	Diversification of economic activities	Trialled pepper, coffee, and vanilla production
(CBAA) Zimbabwe, Kenya	Increased production through proper management of natural resources	Communities are establishing small gardens around the wells and are earning more money from selling tomatoes. Use the water for drinking also (Zimbabwe). Managing existing drainage canals to increase land available for cultivation (Kenya)
	Efficient production technologies	Keeping small livestock that do not need a lot of water (Zimbabwe); Improvement of mango (graft existing trees with high value mango) (Kenya)
	Multi-stakeholder partnership	Linking of communities with Kenya Agriculture Research Institute
	Good quality and quantity of manpower	Capacity building on CCA to integrate it into existing plans. Workshops to enhance the capacities to appreciate variability and drought. Capacity building in planting techniques (KARI organised farmer field schools) (Kenya)
	Diversification of economic activities	Cassava, maize, sweet potato, improve sorghum (Kenya).
Morocco plains and mountain communities	Efficient production technologies	Producing spirulina in low technology covered containers (water efficient) – generates €140 per kilo – better than watermelon which predominated previously. Intercropping of olives and legumes uses less water
	Good quality and quantity of manpower	Training on the economic returns that exist regarding different uses of water : 1 m ³ of water produces €1.20 of spirulina
	Diversification of economic activities	Natural remedies, including Kefir
	Political framework	100% subsidies available for resource-efficient drip irrigation for farmers with less than 5 hectares of land. Community Development Plans, provided by the Department of Agriculture, led to a Regional Development Plan which can now support introduction of projects.
PROMASC	Proper management of natural resources	Anti-salt dams were implemented which allowed recharge of groundwater resources, improvement of soil quality, and improved availability of water
	Diversification of economic activities	Market gardening, beekeeping, fruit growing, freshwater fisheries (enabled by the dam).
	Efficient production technologies	Assessing most appropriate indigenous rice crops as appropriate to the soil profile in different locations
FSSA, pilot project in Senegal	Efficient production technologies	Introduced improved seeds (quick-maturing) with cultivation techniques; producers are also work with technical services to adopt new technology (.e.g biodiversity funding), in Mali, Burkina Timiss and also in the Zitenga.

	Increased income through increased production	Livestock production increased through support to fodder crops (invested some of its 1.5 mn CFA income in this)
	Diversification of economic activities	Introduced poultry
	Experimentation	New cooking technologies introduced to encourage energy saving: Niet home (most improved) and Spain cooker
	Political will	Rural council is now increasingly aware of the need to support adaptation and has pledged support to reforestation and revegetation
Agricultural Innovation in Malawi and Tanzania	Multi-stakeholder partnerships (role of PAR)	The project formed communities. The researchers involved the Ministry and the extension at the district level, and the irrigation department
	Diversification of economic activities	We are looking at crop diversification as well as specific varieties for specific areas. For example, early
	Efficient production technologies	Introduction of early maturing maize, soil management techniques, like manuring to take through the maize through dry spells. In Tanzania they are looking at methods of plowing the land. Deep plowing retains more water. Some of the key players. Growing vegetables using water resources to increase income. Used treadal pumps for irrigations.
	Good quality and quantity of manpower	Men and women groups were trained on irrigation and crop production.
GHA, Ethiopia	Efficient production technologies	Introduced short cycle maize (which can then be grown in the same year as a high protein variety), sorghum
	Diversification of economic activities	Introduction of new crops: cassava, new sorghum varieties, sweet potato, tef (eragrostis), high nutritional value crops; also diversification into other income-generating activities such as wool and poultry using new poultry breeds.
Adaptation of pastoralists in Northern Kenya	Multi-stakeholder partnerships	Built the capacity of the Ministry of Agriculture and Department of Livestock to implement community plans and advising communities on appropriate stocking rates.
	Proper management of natural resources	Helping communities to manage pastures for dry season. Setting aside standing pasture to leave it to regenerate. Strengthening the breeding of goats and selection for milk, meat and income generation.
CoFCCA	Proper management of natural resources	Provided caterpillar trees in an attempt to regenerate land that had been overcultivated in the past, hives for beekeeping.
	Quality and quantity of manpower	Training provided for new economic activities: Nietum (leafy green vegetable, liana), forest vegetable leaves, domesticating mushroom and caterpillar trees (DRC and CAR)
	Diversification of economic activities	NTFPs including nietum, forest vegetable leaves, beekeeping, mushrooms.
	Multi-stakeholder partnership	Research centres, ICRA, Ministry of Water and Forests, universities, institutions working in communities
APECCAO	Quality and quantity of manpower	Participatory problem analysis and awareness raising on climate change impacts (oysters struggle to form shells) – aware community is empowered to act.
	Proper management of natural resources	Following training on climate change impacts, women decided to close oyster fishery for 12 months to allow regeneration – leading to better subsequent harvests and increased market value (bigger size) – allowing increased revenues and money to be put to community use (mosques, schools, creation of microfinance initiative for women, etc.)

InfoClim	Multi-stakeholder partnership	Improved relationship and 2-way communication channel between scientists and farmers through exchange fora. Also linked communities with regional agro-meteorological and statistical services.
	Access to meteorological information	Prior to Infoclim rainfall was monitored in a rudimentary way – Infoclim installed 4 proper rain gauges and so there is now more valid information on how much rain has fallen to determine if it is sufficient to start planting.
Sea Level Rise in Nile Delta	Quality and quantity of manpower (enabled by PAR)	PAR is attempting to understand multiple causes of vulnerability (sea level rise, salinisation from the Aswan High Dam but also demographic change, inadequacy of desert resettlement policies) in an attempt to break out of the cycle and promote sustainable adaptation.

Examples collected for the health dimension

Project	Aspect of Dimension	Evidence to support contribution to poverty reduction
rural communities in Morocco (in the plain and mountain)	Improvement of incomes	Change in the cropping system has taken place, with melons being replaced by beans and peas to better manage water and provide higher value crops.
	Improvement of agricultural production	
	Diversification of agricultural production	
	Training and information for producers	
InfoClim:	Improved agricultural production	Community able to monitor climate change and make decisions regarding what crops to plant by using improved seeds that are adapted to given climatic conditions. Improved sorghum, millet and cowpeas are being used giving higher production levels due to more than one harvest and adapted seeds.
	Improved incomes	
	Improved yields	
	Training and information for producers	
FSSA, Senegal	Improvement of the quality of agricultural products	Increased availability of better quality of forage materials
	Improvement of incomes	Improvement of the quality of cattle due to improved feed. Revenue of people has been improved and diversified.
ACCA- Madagascar	Improvement of agricultural production	Dams used to manage water through the use of local knowledge. Rice production using water from the dams has increased production, giving more than one harvest in a season.
	Diversification of agricultural production	Clove production is an important source of revenue is susceptible to cyclones. Production was diversified to include cyclone resistant crops (coffee, black pepper, vanilla, horticultural crops).
PROMASC	Improvement of agricultural production	Producers are able to cultivate vegetables due to the collection and use of rain water.
	Training and information for producers	

Examples collected by table for the organizational/human dimension

Project	Aspect of Dimension	Evidence to support contribution to poverty reduction
ACCA Madagascar	Existence of markets; reducing influence of speculators	Cooperatives are being assisted by project to negotiate and market their produce, hence bypassing speculators.
	Training in organizational management	Informal community reflection group transformed into formal association dealing with institutional and organizational issues linked to CAA.
CBAA, Zimbabwe, Kenya	Community capable of managing and protecting their natural resources	Communities collectively managing water resources, rehabilitating dams, creating community wells
	Community well organized	Community taking ownership and initiative
Morocco plain and mountain	Community capable of influencing policies	Community influenced government to include climate change into regional agricultural plan Community plan used at higher level for regional planning, to reflect preoccupations of the communities Funding obtained at national and regional levels to support community development initiatives
PROMASC	Existence of markets; reducing influence of speculators	Community in Gossas now, as a group, engages directly in marketing their products, thereby eliminating middlemen and generating more income.
FSSA Senegal	Community capable of managing and protecting their natural resources	Cooperative is using energy-saving options which have been earmarked for use by other communities at the national level.
FSSA	Community capable of managing and protecting their natural resources	Communities managing conflict related to natural resources management
Sea Level Rise in the Nile Delta	Training in organizational management	Enhance capacities of local community organization
Malawi and Tanzania	Train on themes of interest	Capacity building; use of learning plots to develop capacities, training of population in the use of meteorology data
GHA, Ethiopia	Community capable of managing and protecting their natural resources	Use of local resources to address problems of soil degradation and reclaim otherwise abandoned land Mobilization of communities to divert flood water for use in agriculture.
Adaptation of pastoralists in Northern Kenya	Community capable of managing and protecting their natural resources	Capacities built for development and implementation of participatory management plans Established grazing committees Mobilized resources (seeds) from the government
CoFCCA	Community having a better capacity to	Producers are linked to markets

Project	Aspect of Dimension	Evidence to support contribution to poverty reduction
APPECCAO	negotiate (markets) Community capable of managing and protecting their natural resources	Local polity dialogue committees set up to bring together all actors in fisheries sector at each site.
InfoClim:	Community capable of managing and protecting their natural resources	Climate information system for improved management of farm activities is being managed by local climate change community.