

INTERNATIONAL APPROACHES ABOUT AGRICULTURAL DEVELOPMENT

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Abstract:

More then US\$600 million in grants since 1999 was according for support research for development and capacity-building programmes in entire world. Many of these programmes have had an impact on small-scale agriculture throughout the developing world. Through its support to the global agricultural research system, many programmes succeeded in drawing attention to the priority concerns of poor rural people. It has also furthered understanding of the difficulties faced by people who live in resource-poor areas and who produce traditional crops and commodities under difficult rainfall conditions.

In the general context, many of these programmes are often confounded with Governments policies, which is not the same thing. For a good delimitation of these we consider it is important to make some notes about the meaning of each one. In these conditions, the programmes for developing in any area represent financial support and guidelines for development of any domains. Instead, the policies included new strategic objectives, allocation modalities and implementation procedures. These ones seam to be a kind of grant proposals which have for every country specific regional or international, and depends on the nature of the potential innovation and impact.

INTRODUCTION

This paper's target is based on researchers already involved in natural resource management (NRM). It assumes some familiarity with the often complex and chaotic reality of NRM projects and tries to provide a systematic treatment of all the issues that may need to be considered.

This paper will also show the interest to implementers of NRM projects, as many of the elements and strategies are common to research and implementation. Here we'll find dates about improving the effectiveness of research and development (R&D) in NRM, so that livelihood and environmental outcomes are enhanced.

Only one document reported data on both the adoption of technology and sustainable benefits to the small-scale, resource poor farmer. However, in light of the world impacting Plan of Actions (i.e. 1979 World Conference on Agrarian Reform and Rural Development held in Rome, Italy; 1991 Plan of Action for Peoples' Participation report of the Twenty-sixth Session held in Rome, Italy; 1992 Agenda 21 document a product of the United Nations Conference on Environment and Development held in Brazil; and the 1996 Plan of Action for Global Partnership in Agricultural Research held in Washington, D.C.) all of the documents should have indicated this type of

essential data, and should be striving for a development which would be both productive and sustainable to the farmer.

The results of this study suggested that the impending need for improved global food production as we move into the 21st century through the more than one million small-scale, resource poor farmer participants within the projects of this study may not be met due to the low amount of evidence in the implemented project reports of adoption of the technology, and the inadequate reporting of benefits essential to the small-scale, resource poor farmer.

Our study's approaches came from speciality literature, where is in a very well way described how can be thought of as a "new way of doing business" for R&D in natural resource management, but builds on approaches in the agricultural, conservation and governance fields.

MATERIALS AND METHODS

The International Agricultural Approach, represent the dominate approach for the last years, and it is found in government organizations responsible for agriculture in almost every country. This approach assumes that the technology and information are available which are not being used by farmers. The purpose is to help farmers increase their production, through planned programs administered by the government.

The flow of communication is basically one of classical technology transfer from government to rural people. This approach is based upon the top-down model of communication which suggest that ideas and messages are developed centrally by government or researchers who know what is best (i.e. Ministry of Agriculture, Research Station) and are channelled to the target population (farming population). Farmers are passive recipients of generated technology. This approach has been based upon the idea that the ministry knows what scientific agriculture (research knowledge) has to offer to agricultural production. The farmer, on the other hand does not have this type of knowledge. Generally changes in program planning are controlled by government and usually made on a national basis with some freedom for local adaptation.

Development and dissemination of sustainable agricultural technologies directly relevant to some groups and institutional target is a major objective of the programmes and policies. Improved farming systems require that technology focus on conservation and, where feasible, on upgrading the natural resources used by rural people. The researches must be addressing to the challenge of developing technologies and institutional arrangements that provide income opportunities and better nutrition for rural people without mining their natural resource base.

The rapid changes triggered by globalization from the last years, all over the world, following the sustainable development goals (SDGs) pledge, and the new challenges and opportunities posed by emergent technologies and associated products (and the policies that influence their markets) call for further and deeper exploration of fresh, innovative options for addressing rural areas.

Drawing on the success of past investments in multi-location, international agricultural research, national strategy is to support initiatives in adaptive research and related capacity building. We found this research on global and regional level also, based on three related core principles:

- The local institutional and technological problems faced by rural people in marginal, resource-poor areas are similar, although local specificities are distinct. They can best be addressed through multi-location research with a community participatory approach and through sharing knowledge across the areas.
- Many research and development issues require human and capital resource mobilization beyond the capacity of local and national organizations. For example, networks of national research systems linked to international agricultural research centres have proved to be better equipped and generally more effective in addressing a common set of problems.
- Cross-country and cross-regional learning is essential to reap the benefits of replicable practical innovations, building on the rich diversity of local knowledge and practices in rural communities.

As we can see, the issues are increasingly in the area of organizational and institutional development in non-agricultural areas, and they include rural finance, market linkages and policy development. They involve mobilization and strengthening of the institutional capacities of both national and civil society organizations to address national and local issues and to support partnership formation, establishment of policy-dialogue platforms.

There is now widespread recognition that the sustained improvement of the wellbeing of rural people in developing countries will require a different kind of research. It will have to give more emphasis to management of risks, reduction of dependence on agricultural inputs, avoidance of long-term depletion of productive potential, and more careful control of environmental externalities.

It is argued that research needs to reinvent itself. There is need for an NRM approach that embraces multiple scales of interaction and response, embraces a high frequency of non-linearity, uncertainty, and time lags, and involves multiple stakeholders with often contrasting objectives and activities. The approach has to have an impact on real-world problems. We

need an approach that can make a contribution to complex issues and address the multiple factors that have so far limited the solution of major problems. We also need an approach that is better able to address issues in their social and institutional context.

One of the good policies for development of the agricultural domain, beside NRM is “The Integrated Natural Resources Management” (INRM). This policy is “an approach that integrates research on different types of natural resources into stakeholder-driven processes of adaptive management and innovation to improve livelihoods, agro-ecosystem resilience, agricultural productivity and environmental services at community, ecoregional and global scales of intervention and impact” (Thomas, 2002).

There is an evolution in thinking and practice, where new tools and elements are added to existing approaches thus giving rise to ‘new’ approaches. So, for example, from the farming systems approach emerged participatory technology development and farmer participatory research. The main shift was from an approach directed by an external actor towards greater ‘participation’ and empowerment of rural dwellers. We also see similar (but differently named) approaches emerging in different sectors (fig.1). For example, much of the recent thinking on INRM emerged in the agricultural field, while the ecosystem approach, with many of the same elements, emerged from the conservation field.

In this figure more attention is given to ecosystem functions bringing in approaches and thinking from ecology. Human wellbeing is central to the approach with a focus on poverty alleviation and understanding of the livelihood strategies of the rural communities.

Placing people at the centre requires a switch in thinking and hypothesis development. A focus on production, human wellbeing and the environment inevitably requires an analysis of the trade-offs involved as it is unlikely that any proposed solution or intervention can satisfy the demands of all interested parties.

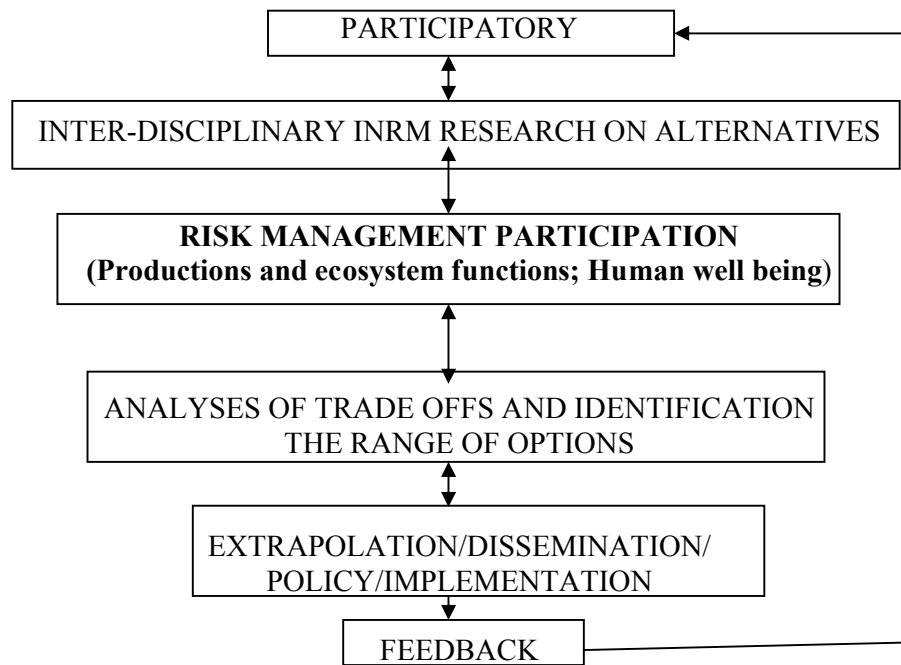


Fig.1. The INRM research process
(source: Thomas, 2002, Harwood and Kassam, 2003)

Given the complexity of NRM systems, after the specialists in domain, a key feature will be having clarity of objectives, understanding of tradeoff sand consequences of alternative types of intervention, monitoring of outcomes and making corrections to the past course of action.

The key to successful INRM research is to focus on the critical factors and their interactions within each capital asset that are limiting sustainable productivity. Collaborative work among stakeholders, development workers and scientists must identify and focus on the smaller, and hopefully manageable, set of variables that must be tackled to accomplish the project's goals (Harwood and Kassam, 2003).

Policies enable or constrain change by affecting the incentives, capacities and resources of different stakeholders. They also legitimize actions that stakeholders might otherwise consider illegal. Where policies are not enabling, they can become objects of action in the research and development. Policies especially important to NRM include: decentralization and devolution of governance and resource management; clear land and resource tenure; clear vision of rural dwellers' access to resources and benefits from them; clear division of roles and responsibilities among organisations; reduction of perverse incentives created by taxes and

regulations and citizens' rights to organise, lobby and participate in decisions that affect them.

Governance, and the policies guiding it, describes how groups make rules and decisions. The different actors in government or civil society organizations shape how NRM decisions are made and may themselves be the facilitators of NRM. Governance ideally accommodates multiple interests, protects the interests of disadvantaged groups, seeks to maintain public goods, encourages accountability and transparency of decision makers to their constituencies; allows for appeals processes and mediation; and is conducive to the collective action required for NRM. Institutionalising NRM through government can create larger-scale impacts and longer-term processes for change.

Resources such as forests, rangelands, wetlands and water are frequently shared, and the impacts of their management are usually felt on larger populations. Collective decision-making and self-governance are therefore necessary to represent the interests of the different groups involved, as well as to co-ordinate knowledge, skills, actions, influence and resources. Strong collective action can create the social energy necessary to catalyse change. Local capacities for collective action and self-governance are essential to NRM and occur through organisations such as villages, user groups or farmer associations. The self-governance function of these organisations is complementary to governance by the state, and can be especially important in remote areas where government has little presence. Local organisations support people to act locally using local knowledge and responding to local needs.

They also represent local interests in interactions with other stakeholders. But, a realistic assessment should be made of local organisational capacities and their potential for strengthening (table 1).

So, we will see from the table that it is easier to work with existing strong local organisations than to strengthen weak ones or build new ones from scratch.

Table 1

Capacities and interests of local organisations and their adapts capacity

Capacity to adapt to external and internal changes	Competence of local organisations
- Maintain flexibility in structure and operations of the organisation. - Create resources to identify and respond to short-term opportunities or threats. - Avoid long-term commitments. - Ensure that members can carry out multiple functions. - Use strategic planning that is forward thinking. - Create options that can be expanded or reduced in implementation. - Anticipate risks and create contingency plans.	- Improve the organization's access to information and capacity development through improved communication and networking. - Use strategic planning exercises to identify gaps in knowledge and sources for acquiring information and skills. - Learn how to write proposals and to whom to send them. - Enhance business skills and economic analysis to develop competence in financial management, analyses of opportunities and risks, use of credit, investment, local markets, international green markets, price changes, taxes, and government budgeting. - Enhance skills in conservation and assessing sustainability. - Develop an understanding of how harvesting times, places, quantities or means affect natural resource benefits into the future. - Develop land use plans together with other stakeholders to identify conservation areas and critical resources.

CONCLUSIONS

Research for development' (RD) or 'Integrated Natural Resource Management' (INRM) is slogans that need translation into reality. Learning is no longer seen as exclusively for research, but should be fostered as part of all innovation systems. The research process has to become more embedded in the development process, with work on a wider set of issues in different ways than in the past.

Some of examples of this new approach include:

- going beyond technology development to do research on *processes and approach development* (scaling up, local organisational development, participatory policy formulation processes, management of partnerships, watershed management approach, institutional change processes);
- research on *methods* (participatory technology development, facilitation methods, participatory mapping of local ancestral domains, multivariate trade off analyses incorporating different perspectives); and

- research on *policies, social aspects and institutions* (such as, impacts and critique for improving the functioning of market chains; developing methods and processes that improve community-based NRM, with participatory by-law analysis, formulation and implementation mechanisms; communication mechanisms for rural villages; and, social networking so as to foster dissemination of technologies, incorporation of local knowledge and strategies).

While concrete products are still considered necessary, equal and in fact in some cases more weight is now attached to outcomes such as empowerment, capacity building, organisational strengthening and policy reforms. These outcomes are considered central to sustainability and effectiveness of development programmes. They represent a more pragmatic yet far reaching understanding of how change takes place. Yet none of these outcomes can be achieved through rules of thumb or fixed activity menus. They require serious attention to the context, and demand a high level of sensitivity, and skill to negotiate ‘process’ rather than merely technology dimensions. A heightened attention to process represents a substantive shift in attention from sheer magnitude of change to its quality manifest in participation, ownership, innovation and eventual sustainability.

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