

# Meta-analysis of Reviews and Evaluation of Ecoregional Programs

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## 1. Aim, method and organization of the analysis

The aim of this report is to summarize the main lessons related to the organization and management of ecoregional programs arising from reviews and evaluations of these programs. The report is based on a desk study of the following types of documents: multi-program reviews of ecoregional initiatives, reviews and evaluations carried out or commissioned by the CGIAR centers, reports of workshops or other meetings on ecoregional programs, and reviews and evaluations commissioned by the Ecoregional Fund to Support Methodological Initiatives. We also had access to some complementary documents, such as reports of meetings, and to information on the web pages of the programs or the Centers that lead them<sup>1</sup>.

During our analysis, it became clear that most of the reviews and evaluations coincided in identifying a few key strengths and weaknesses common to ecoregional programs. We therefore decided to conduct our analysis by asking what could be done to respond to these through organization and management. Since, however, organization and management make sense only if related to strategies and objectives, it was necessary to identify a reference point for these first.

One candidate for such a reference point was "the ecoregional approach" as defined by the programs. However, under this heading we found considerable differences in strategy and objectives between programs. The second candidate, which is the one we selected, was the new CGIAR "vision and strategy" (TAC, 2000). We assumed that, in the future, the ecoregional programs implemented or led by CGIAR Centers would need to respond to this.

During our study we did *not* have an opportunity to visit any of the ecoregional programs; this is a serious limitation that the reader should keep in mind.

Neither of the authors has worked within the CGIAR system<sup>2</sup>, and therefore ours is an outsider's view with all the advantages and disadvantages of that perspective.

## 2. Major challenges facing ecoregional initiatives

Our analysis of the reviews and evaluations available to us suggests three major challenges facing the ecoregional programs: (a) delivery of NRM research outputs that will make a real impact on program objectives, (b) integration of biophysical and socioeconomic and policy research, and (c) design and management of effective partnerships.

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<sup>1</sup> In the case of IVC, their review report dates back to 1996, and changes have been implemented since. EPHTA preferred not to provide any documentation for this analysis, so we do not know if any of our results apply to this program.

<sup>2</sup> However, the senior author of this report participated in 1999 and 2000 in a review of CIP's NRM program (to which CONDESAN is related), and in the evaluations of methodological research projects implemented by CIAT and CIP within the overall framework of their ecoregional programs.

## **2.1 Delivery of NRM research products**

The CGIAR system adopted an ecoregional approach because it needed to link the goals of improving natural resource management and increasing agricultural production and productivity. Ecoregional programs were supposed to work at the intersection of these two issues. More recently, the CGIAR (TAC, 2000) has emphasized poverty reduction as the central element of its goal and mission, and has made an explicit link between that new emphasis and regional approaches to research. In the new CGIAR strategy, regional approaches are justified in terms of their potential to help address the causes of poverty and food insecurity.

This fits with the most important of the recommendations of the systemwide review of ecoregional programs, that "the CGIAR and its members adopt a revised framework for NRM research comprising three elements: (a) research should be organized around major problems or opportunities of international relevance, (b) it should use holistic system approaches that combine the human and technical elements to address the problems on multiple scales, and (c) it should provide for its progress to be measured against specific performance indicators" (TAC, 1999; xxii).

In addition, the same CGIAR policy document defines five strategic choices for the CGIAR's research agenda, at least two of which are directly relevant to ecoregional initiatives (TAC, 2000): sustainable production systems through integrated natural resource management, and socioeconomic and policy research.

How well prepared are the ecoregional programs to follow this strategy? The following are some conclusions reached by the reviews and evaluations to which we had access:

- Ecoregional research has tended to over-emphasize characterization of agroecoregions and the development of new methods and tools, at the expense of focusing on strategic problems and opportunities and delivering scientific and technological results<sup>1</sup>
- The "human dimension" (i.e. socioeconomic and policy research) is underrepresented in the research programs of the ecoregional initiatives, to the extent that several of them are almost exclusively dedicated to working on biophysical issues<sup>2</sup>

A related issue is whether the programs strike an appropriate balance between upstream and downstream goals, or, in other words, between international research aimed at strategic products and results, and application-oriented development work.

The work of some of the ecoregional programs shows that it is possible to strike this balance when the following conditions are met:

- The programs are designed with a clear focus on well-defined NRM problems and opportunities of international significance, related to sustainable agricultural production, food security and poverty alleviation.

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<sup>1</sup> Workshop participants stressed that characterization of sites is very important in order to lay the foundations for effective scaling up and scaling out of research methods and tools. In addition, the novel research methods evolving from the ERPs are important advances in themselves.

<sup>2</sup> During the workshop, it was noted that few reviews and evaluations are completely up-to-date. Early work by the programs, by necessity, concentrated on biophysical issues, while more recent work has concentrated more on socioeconomic and policy research.

- Effective partnerships are in place, involving international and national research and development organizations.
- The programs include appropriate and explicit strategies for ensuring application of research results

Another important condition that would facilitate balance is the ability to extrapolate results. Yet there are few clear-cut success stories in this area. Part of the problem is that benchmark sites have sometimes been selected using poorly defined technical criteria.<sup>1</sup> An added difficulty is that the methods and tools used to support extrapolation tend to be quite demanding of scientific knowledge, technical skills and sophisticated institutional environments.

## **2.2 Integration of biophysical, social and policy research**

In all definitions, a fundamental characteristic of the ecoregional approach is that it should integrate biophysical and socioeconomic and policy research. In fact, in TAC's original formulation, the "regional" part of the "ecoregional" concept was intended to represent the socioeconomic and institutional dimensions associated with geopolitical areas (TAC, 1999; Kürschner, 1999).

Yet many reviews, including that of TAC (1999), conclude that the policy and socioeconomic dimensions of most ecoregional programs need considerable strengthening. Continuing weaknesses in this area will severely undermine the programs' impact.

## **2.3 Partnerships**

Most of the reviews conclude that partnership-building has been the strong point of the ecoregional programs. The formula of ecoregional research consortia has no doubt resulted in a much larger, broader and deeper involvement of non-CGIAR organizations in the activities promoted by CGIAR Centers.

There is some evidence in the reviews and evaluations to suggest that partnerships that developed *before* the ecoregional programs were launched tend to perform better than those that formed for the explicit purpose of obtaining funding for such a program. While we do not have enough evidence to reach a definitive conclusion, the RWC and CONDESAN cases do suggest that strong partnerships are the product of relatively long processes of institutional experimentation and trust-building.

Most reviews emphasize the high transaction costs of consortia-based ecoregional research. These costs are probably inherent in all collaborative research endeavors, especially when they involve a broad range of partners, who may have different interests and may respond to different sets of incentives.

Lastly, the whole CGIAR system has recently had difficulties in defining its policies and taking decisions about its organization, governance and management. This uncertain institutional context has inevitably affected the ecoregional programmes.

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<sup>1</sup> Practical criteria, such as existing infrastructure or partnerships, are often considered just as important as technical criteria in selecting benchmark sites.

### **3. Management and organization options**

#### **3.1 Governance**

In most cases, ecoregional programs are governed through a system of steering committees and of coordination or facilitation units, often operating at different levels (consortia, countries, benchmark sites, etc). The major achievement of this approach has been to bring on board a large number of partners, all of whom are involved to some degree in decision-making.

These different partners bring different capacities to a consortium, but current governance arrangements are often organized on the false assumption of equality of contributions. The governance systems of ecoregional programs need to establish clear criteria, procedures and bodies, to take care of what should be four distinct stages in decision-making: consultation, decision-making (about priorities and objectives and the resources allocated to them), follow-up by management, and monitoring and evaluation of the results. Different partners in ecoregional consortia should play different roles at each of these stages, with well-defined rights and duties, and with procedures and criteria to ensure accountability.

#### **3.2 Planning and priority setting**

Following on from Section 2.1, the key question with respect to planning and priority setting is how to ensure that ecoregional programs focus on major problems and opportunities. Three principles can be discerned.

First, prioritization should follow clear criteria: (a) the importance of the NRM research problem in terms of sustainable increases in agricultural productivity, food security, poverty alleviation, and environmental protection, (b) the likelihood that an investment in strategic research will produce solutions to the problem, taking into account national research capacities, (c) the potential for producing international public goods with wide spillovers across national boundaries, (d) the potential for applied R&D to have an impact in the short to medium term. Second, a strong socioeconomic and policy research component is needed to ensure adherence to these criteria. The work of this component needs to be closely integrated with that on biophysical problems. This implies a careful review of the institutions and disciplines represented in the planning process and in program implementation. Third, clear and frank application of the criteria in the planning and priority setting procedure probably requires that it be open to the participation of stakeholders outside those who are permanent partners in the program. Outsiders may be in a better position to ask the hard questions about relevance and potential impacts.

#### **3.3 Monitoring and evaluation**

All the major reviews agree that ecoregional initiatives often lack an effective monitoring and evaluation system. As stated by the TAC review (1999: 23), "most programs spend considerable resources and time in characterization and planning, less in monitoring, and practically none in evaluation."

Hence our recommendation here is straightforward: ecoregional programs should establish monitoring and evaluation systems that meet the standards applied to the rest of the CGIAR. This includes establishing indicators that measure progress towards objectives.<sup>1</sup>

Specifically:

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<sup>1</sup> It was noted during the workshop that new methods of monitoring and evaluation need to be developed to assess the complexity of results and impact of ERPs (see 'Lessons Learned')

(a) All External Program and Management Reviews (EPMRs) of CGIAR Centers that lead Ecoregional Programs should include specific sections reviewing such programs.

(b) Lead Centers should consider organizing Internally Commissioned External Reviews (ICERs) of their ecoregional programs. This is especially important for those Centers whose ecoregional programs have not been reviewed for more than five years.

(c) TAC should provide a set of guidelines for the review of complex, multi-actor programs in which CGIAR Centers have a major stake.

### **3.4 Funding**

There are two separate issues concerning the funding of ecoregional programs: (a) the amount and continuity of funding, and (b) transparency and accountability in financial management.

All the reviews agree that the levels and continuity of funding for ecoregional programs have been way below initial expectations. We are not aware of any signs that this will change in the foreseeable future. The shortage of funds reflects the overall financial situation of the CGIAR. However, some reviews also observe that the programs' lack of clear objectives and of systems for assessing impact have not helped.

The consequences of the shortage are aggravated by the fact that the ecoregional consortia have often not adjusted their operations accordingly. They have maintained the same goals, number of benchmark sites, number of projects, and so on. One effect is that the share of financial resources going to the coordination units sometimes appears disproportionate to the funding going to field-level operations.

Equally worrisome is that many reviews and evaluations have been unable to understand or even describe how funds flow, who contributes and gets what, or even which resources belong to the ecoregional initiative as opposed to other projects and programs of the convening Centers. This leads to inefficiency, complicates the monitoring and evaluation of costs and benefits and probably discourages donors from making greater commitments. It is also a frequently mentioned source of friction among participants in the consortia, and in particular between the Center and national programs.

The TAC systemwide review (TAC, 1999) mentions competitive grant funds as a funding mechanism that could be used more frequently by ecoregional programs. A well-designed and managed competitive fund requires that clear criteria of eligibility and merit be established to guide the allocation of resources. These need to be derived from the program's objectives. Competitive funds lead to project-based, performance-oriented contracts of a kind that could be highly conducive to greater impact. They could also allow the participation of a broader range of R&D organizations in the activities of the consortia, without having to incorporate everyone as a permanent member. And they could facilitate the task-specific participation of peer reviewers external to the consortium, both during the selection of projects and during their monitoring and evaluation.

### **3.5 Division of tasks**

A recurrent problem for many ecoregional programs is confusion in the contributions to be made by each partner, as well as in responsibilities and the allocation of funds to carry them out. There is little doubt that a significant part of the problem of high transaction costs has to do with this lack of clarity. Once again, a system of project-based contracts between the consortium and ad-hoc task forces would go a long way in helping to solve this problem.

One issue that merits special attention is the role of the CGIAR Centers. The systemwide review (TAC, 1999) argues that there are no clear reasons why the role of convener should remain the exclusive responsibility of the

Centers. The continued evolution and strengthening of the ecoregional consortia may require a well-planned process of 'devolution' of responsibilities, so that the Center becomes just one more partner in the system.

### **3.6 Integration**

In our terms of reference, the issue of integration involves two separate questions: integration of upstream (strategic research) and downstream (applied R&D) objectives, and integration of disciplines.

Integration of upstream and downstream objectives should follow from the revised conceptual framework for ecoregional research proposed by the systemwide review (TAC, 1999). This stated that ecoregional research should be organized around major problems and opportunities that are of national or international relevance, and that can be defined from the perspective of food security, sustainable agricultural production and/or poverty alleviation. The involvement of new partners, such as NGOs and private companies in all aspects of ecoregional programs is seen as vital. We believe that if this is taken care of, the second dimension of integration (multidisciplinarity) will follow. It may be that this integration is not yet happening today to the extent that it should, despite advances in multidisciplinarity in the CGIAR centers. Some ecoregional programs do not include enough researchers and other stakeholders with the interest, the perspective and the expertise to pursue "the human dimension". Competitive funds are likely to be a good mechanism for ensuring the integration of upstream and downstream objectives.

### **3.7 Utilization of results**

To improve the utilization of results of ecoregional research, it is essential that such research be results-oriented! However, many applied R&D organizations in developing countries face significant internal weaknesses or operate in a socioeconomic or policy environment that constrains their ability to take advantage of research results. Ecoregional programs could take two approaches to improving the utilization of results. Firstly, they could seek to implement the new elements in the CGIAR vision and strategy, especially the greater involvement of applied R&D organizations. Secondly, they could invest more in developing the capacities of national and local partners.

### **3.8 Communication**

Communication is almost always rated poorly in the reviews and evaluations. Some programs do not publish their results in international peer-reviewed journals. Another problem is there is sometimes little or no communication between staff of different ecoregional programs who are working on the same or similar projects, even when funded by the same donor. Most importantly, with the exception of a few programs, there appears to be little communication or systematic dialogue with decision-makers who hold the keys to the large-scale dissemination of research results.

Improving communication will require that specific staff and financial resources be devoted to this task, as it is unrealistic to expect researchers to have the time to do it.

## **4. Conclusions and Recommendations**

The three main conclusions of the existing reviews and evaluations of ecoregional programs are that:

1. Ecoregional programs have made major advances in improving interaction and networking between national programs and CGIAR Centers. This is a major contribution to the agricultural knowledge and information systems of the regions where it has occurred.

2. Few ecoregional programs have yet documented convincing evidence of impact. It is possible that some programs have placed too much emphasis on characterization, necessary though this is in the early stages of research.
3. Most programs could go further in integrating the biophysical and social sciences. Research on socioeconomic and policy issues remains weak in nearly all programs.

The following are some recommendations that flow from our own analysis:

1. Each ecoregional program should issue a formal statement of its goals. This will improve the programs' ability to focus on major NRM research problems and opportunities and to generate relevant scientific and technological results.
2. Each program should also commit itself to improving the integration of biophysical research with socioeconomic and policy research.
3. TAC should commission an in-depth study on the strategies and methods that are most effective in building and sustaining ecoregional consortia.
4. ISNAR should develop guidelines for improving the integration of upstream and downstream objectives in research planning and priority setting. Such guidelines should consider the key question of how to bring in new applied R&D partners.
5. The CGIAR should issue guidelines to improve transparency, accountability, effectiveness and efficiency in the allocation of responsibilities and resources in ecoregional consortia. In developing these guidelines, the CGIAR should consider new institutions and funding mechanisms, including project-based contract systems, ad-hoc task forces and competitive funds.
6. Each program should put in place a formal monitoring and evaluation system. TAC should assist the programs by issuing guidelines on monitoring and evaluation in ecoregional consortia.
7. Ecoregional programs that have not been reviewed for several years should urgently organize a formal review and evaluation process.
8. All programs should take urgently needed steps to improve the communication of their results.

## References

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