AGR/TAC:IAR/92/21
TAC Working Document
(Not for Public Citation)

THE CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

TECHNICAL ADVISORY COMMITTEE

Fifty-Ninth Meeting, IFPRI Hqs., Washington, D.C. (USA), 19-24 October 1992

AN ECOREGIONAL APPROACH TO RESEARCH WITHIN THE CGIAR SYSTEM

Summary of the TAC Concept

(Agenda Item 6)

For Comments

At TAC 58 it was agreed that Dr. Michael Arnold would prepare a draft paper to clarify TAC's concepts on the ecoregional approach to research within the CGIAR System for submission to the Joint Centre Directors/TAC Working Group dealing with this topic. This draft paper was circulated to a reactor panel of selected TAC Members for comments. The attached paper has taken into account the comments received from the panel, and is now distributed to TAC Members for information and further comments.

TAC SECRETARIAT

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

September 1992

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Summary of the TAC Concept

1. Introduction

TAC coined the word "ecoregional" to describe an organizational approach or concept that evolved during its deliberations on "A possible Expansion of the CGIAR". The concept has featured strongly in the Committee's vision of the future, and was incorporated into its paper on "Future Priorities and Strategies".

Since the term was first introduced, however, it has been widely used by others in different senses and in contexts that are not entirely consistent with those for which it was originally intended. Some have concentrated, for example, on the ecosystem as a conceptual framework for research on the conservation and management of natural resources, leading to a more restricted interpretation of the approach. Indeed, the comment has been made that the ecoregional approach is little more than "farming systems research in a new guise", which was certainly not its intended meaning. This short paper traces the origins of the term and summarizes the contexts within which TAC has used it.

2. Origins of the Concept

Essentially, the concept evolved as a consequence of the merging of several different, but closely related, lines of thought. TAC saw the modified goal of the CGIAR, the expansion of research into new areas, the emphasis on sustainable production, and the growing complexity of the problems to be solved, as calling for new ways of organizing international research and new analytical procedures for setting priorities.

In both contexts, TAC recognized the inherent appropriateness of agro-ecological zones for considering research related to the conservation and management of natural resources. In contrast, research related to the socio-economic environment is largely associated with political boundaries, which are not necessarily congruent with agro-ecological zones, and call for recognition of national and regional considerations. Furthermore, there are good arguments for retaining global responsibilities for CGIAR research in areas, such as genetic improvement, which can exploit spillover effects and economies of scale. For research that is organized globally, however, there must be strong linkages to research tailored, more specifically, to meet local needs.

Underlying all these considerations was the recognition that success would continue to be dependent on close working relationships between Centres and national research institutions which, increasingly, would undertake the applied and adaptive research. In this context, TAC was aware of problems in these relationships that had been frequently identified but not always entirely solved. One related to the burden

placed on weak national programmes through collaborative agreements with several different Centres; another, to uncoordinated de-centralization of centre activities, particularly in relation to training and networking.

These were all different, but interrelated, aspects of the debate that gave rise to the concept of an "ecoregional approach". To clarify the strategic implications of the approach, therefore, it is necessary to consider each of its three main aspects and then to outline ways in which TAC saw opportunities for them to be integrated into a coherent System-wide strategy.

3. The Three Aspects of the Ecoregional Approach

3.1. The Agro-ecological Aspect - Sustainable Production

The rationale for linking increased research on sustainable production to the agro-ecosystem has been extensively argued in the series of TAC papers associated with the expansion of the CGIAR and on future priorities and strategies. TAC saw the agro-ecosystem as providing a framework within which productivity research could be more closely linked to production systems, the conservation of natural resources, and the associated socio-economic factors.

In advocating such a strategy, TAC was aware of the contributions to research on sustainable production that have already been made on a commodity basis. Looking to the future, however, TAC saw this approach as becoming increasingly limiting, primarily because research directed towards the improvement of sustainable production systems would have to be multi-commodity in its coverage and move into areas of research on land use and conservation that lie outside those normally dealt with in commodity production research.

This view was re-inforced by the broader coverage implied by the goal of food self-reliance instead of food self-sufficiency, and by the need to define, more clearly, the international dimension of research on the conservation and management of natural resources. In these respects, TAC has given some preliminary views, but much remains to be worked out by the Centres, themselves, in the light of evolving experience.

3.2. The Global Aspect - Economies of Scale and Spillover Effects

The global mandates of many of the CGIAR Centres have enabled them to exploit both economies of scale and spillover effects, which have been particularly important in their work related to genetic resources. In its vision of the future, TAC saw research on the conservation and use of genetic resources as an essential component of CGIAR activities for many years to come. These areas of research, and the associated opportunities for exploiting biotechnological innovations, are ones that can clearly benefit from the economies of scale inherent in a global approach. TAC therefore saw "global commodity activities", concentrating on the genetic component of increased productivity, as being a continuing and vitally important aspect of any future CGIAR

strategy. The Committee saw this research as gradually becoming more strategic in nature, but with strong linkages to the applied and adaptive research that is essential to meet more specific needs.

TAC saw the integration of continued research on genetic improvement with increased research on the conservation and management of natural resources as one of the organizational challenges facing international agricultural research in the future. The challenge has become especially important because increased productivity, as a means of arresting environmental degradation, has sometimes been under-emphasized in the international debate on environmental concerns. TAC has therefore seen "global commodity activities" as having strong linkages to the proposed agro-ecological framework for research on the conservation and management of natural resources, even though the operational implications of such integration have not yet been fully explored.

Likewise, there would be opportunities for inputs into the ecoregional approach from other global activities, both by CGIAR Centres, such as IFPRI, IBPGR, ICRAF and IIMI, and by other international institutions, outside the immediate framework of the CGIAR. Indeed, it would be important to keep under review all possible mechanisms for exploiting the potential spillover effects that could arise from any aspect of the work.

3.3. The Regional Aspect - Partnership with National Programmes

Of the many topics that have occupied the attention of TAC and the CGIAR over the past decade there are few that have featured so strongly as the relations between the CGIAR centres and national research systems. These relationships assume even greater importance in the broad context of sustainability, where integration of all its aspects at the national level is the pre-requisite for success. The element that is important for clarifying the ecoregional concept, however, is whether CGIAR Centres should seek to forge closer linkages with national programmes on a global or regional basis.

During its wide canvassing of opinions on the expansion of the CGIAR and on future priorities and strategies, TAC was frequently exposed to the view that the CGIAR should become more "regional" in its relationships with national research systems. There were many considerations lying behind assertions of this type, which have also been discussed in TAC background papers. Only the salient points are mentioned here.

In considering this aspect, TAC saw advantages in building stronger relations with national research systems on a regional basis, but using the term "regional" to mean a group of countries falling within any convenient geographical area and not necessarily congruent with regions defined on the basis of inter-governmental agreements. Indeed, in conformity with the declared apolitical nature of CGIAR activities, TAC saw advantages in not aligning them closely with regional organizations formed for purely political reasons, but to build associations with loosely defined regions of neighbouring countries that share a common agro-ecosystem.

The main advantages that TAC saw in developing stronger relations with national research systems on a regional, rather than a global, basis included the following:

- the logistical advantages of working within a confined region;
- the regional character of many socio-economic problems;
- greater efficiency in networking;
- greater opportunities for responding to national needs and priorities; and
- the need to harmonize CGIAR activities at the national level.

4. TAC's Synthesis

In attempting to combine these three main aspects of a future CGIAR strategy, TAC also saw that national priorities might be more easily supported through CGIAR research with an agro-ecological focus, than through research with a commodity focus. It is important that national systems should be able to draw from Centres what they want, rather than what is available to them in terms of more restricted Centre mandates.

Hence, the combination of an agro-ecological focus and strengthening the relationships with national research systems on a regional basis, led TAC to the concept of "agro-ecological research, regionally defined". Bearing in mind that the concept included the integration of global activities, TAC saw this as becoming an important, perhaps the most important, mechanism for the interchange with national programmes of ideas, products and services.

It soon became apparent, however, that long phrases used to describe the concept were cumbersome and that a new word was needed. Several were invented and considered, but the term "ecoregion" was finally chosen as an abbreviation of "agro-ecological zone, regionally defined". The adjective "ecoregional" was then applied to activities and approaches that stemmed from this basic concept. Hence, "ecoregional activities", were seen as being directed towards the solution of problems within the framework of a broadly defined agro-ecosystem, but strongly linked to global activities, and closely associated with national research systems on a regional basis.

It is both the delineation of different responsibilities in these respects, and the integration of the different activities through an "ecoregional approach" that TAC has seen as a key strategic direction for the future. Moreover, TAC was aware that, in the past, there has been a tendency for CGIAR approaches to become something of a "role model" for national and regional programmes. The Committee saw in the ecoregional approach important elements that might well influence the future conduct of research by those national and regional research institutions that the CGIAR seeks to serve.

5. Operational Implications and Further Elaboration

TAC recognized that there would be many operational implications in attempting to implement an ecoregional approach based on these principles. For example, the integration of agro-ecological research with global commodity research would imply considerable extension of the types of inter-centre collaboration that are already evident in some CGIAR activities. Likewise, the evolution of "global commodity activities" would imply the gradual phasing out of the few remaining regional commodity mandates, at least insofar as these mandates relate to genetic improvement. Much also remains to be explored in the detailed relationships between Centres and national research systems in these respects and in the types of network or consortium that might be most appropriate.

In its paper on Future Priorities and Strategies, TAC outlined some of the ways in which the ecoregional approach might be implemented and some of the options for allocating responsibilities among existing CGIAR institutions. TAC considered, however, that it had taken the discussion far enough for a start to be made. Future development of the ideas, and further exploration of their general feasibility, should properly rest with Centre boards and managements and could be reflected in the forthcoming medium-term programmes and budgets.

It was against this background that TAC proposed an inter-centre activity review (or study) of the ecoregional approach, to elucidate what was already being undertaken in this context, to consider further possibilities, and to explore the operational implications. The Committee welcomed the Centre Directors' preference for the study to be be conducted under the guidance of a joint Centre Directors/TAC Working Group and looks forward to making further inputs into this important debate.