

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH
TECHNICAL ADVISORY COMMITTEE

**Regional Approach to Research
for the CGIAR and its Partners**

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TABLE OF CONTENTS

	Page
Summary	1
1. Introduction	1
2. The Nature of CGIAR Research and the Plank 4 of the New CGIAR Strategy	2
3. Advantages of a Regional Approach to Research for NARS and the CGIAR	5
3.1 Reasons to go from a National to a Regional Approach	5
3.2 Reasons to go from a Global-Ecoregional Approach to a Regional Approach	6
4. Risks and Limitations of a Regional Research Approach	10
5. Towards a Regional Approach to Research	12
5.1 Roles of TAC, GFAR and CGIAR Centres	13
5.2 Regional Consultation Processes Underway: Some Emerging Lessons	14
6. Next Steps	17
Acknowledgement	19
References	20

Regional Approach to Research for the CGIAR and its Partners

Summary

This document is about Plank 4 of the new CGIAR vision and strategy that calls for the adoption, in collaboration with national and regional partners, of a regional approach to research planning, priority setting and implementation. Given the poverty and impact focus of international public goods research, both NARS and the CGIAR have advantages in pursuing a regional approach as a component of their respective activities. For the NARS in the region, this means seeking at the regional level advantages that they could not derive solely from a national-level approach, thus complementing and supplementing the national approach. For the CGIAR, this means seeking complementary gains that it could not achieve exclusively through a global or ecoregional approach. These mutual advantages open the door for partnerships in regional research between NARS and their regional organizations, and the CGIAR. The paper highlights the advantages as well as risks and limitations of a regional approach to research. Since ICW'00, all regional and sub-regional organizations and CGIAR Centres have taken action to facilitate regional consultation processes that could eventually lead to establishing a regional approach to research for the CGIAR and NARS. The paper notes some emerging lessons, and the next steps. TAC, in collaboration with GFAR, national and regional institutions and CGIAR Centres, has taken steps to implement the Group's decision for piloting an experimental bottom-up, priority setting approach in the Central America and the Caribbean sub-region.

1. Introduction

In 2000, the CGIAR adopted a new vision and strategy. It defined its vision as “A food secure world for all”. Its overall goal was defined as “to reduce poverty, hunger malnutrition by sustainably increasing the productivity of resources in agriculture, forestry and fisheries”. Its mission was defined as “to achieve sustainable food security and reduce poverty in developing countries through scientific research and research-related activities in the fields of agriculture, livestock, forestry, fisheries, policy and natural resources management”.

To implement the new vision, CGIAR endorsed the idea of developing a two-pronged approach for the future in support of research and research-related activities to contribute both to the reduction of poverty and to improving food security and natural resources management. This entails supporting research to address the needs of the poor in the more favoured environments to ensure food security and prevent future poverty, while at the same time tackling the more complex problems of poverty in the marginal and “hard”¹ areas. This strategy entails clearer targeting of the needs of people and how they will benefit from the research supported by the

¹ Hard areas are those where poverty is extensive and either increasing or not declining. Such areas may not necessarily be inherently marginal in natural resource endowment or in biophysical and social potentials.

CGIAR and its partners. The focus of the CGIAR is on the rural and urban poor, including farmers, fishermen, forest dwellers and on-farm workers and poor urban consumers.

To implement the new vision, an integrated strategy of seven nested Planks was endorsed (TAC 2000). Plank 1 (People and Poverty Focus) calls for the CGIAR research agenda to be focused on people and the reduction of poverty, hunger and malnutrition in the developing world. Plank 4 (Regional Approach to Research) calls for the adoption by the CGIAR, in collaboration with its national and regional partners, of a regional approach to research planning, priority setting and implementation in order to address the heterogeneous nature of the causes of poverty and food insecurity in different regions² and integrate these priorities with global priorities in international agricultural research.

This paper provides an elaboration of the rationale for a regional approach to research for the CGIAR and NARS. Section 2 describes the nature of CGIAR research and the Plank 4 of the new CGIAR strategy. Section 3 highlights the advantages of a regional approach to research for the CGIAR and NARS. Risks and challenges of the regional approach are presented in section 4. Section 5 describes the action underway in the developing regions towards a regional approach to research. The paper ends with section 6 on the next steps.

2. The Nature of CGIAR Research and the Plank 4 of the New CGIAR Strategy

The CGIAR's business is to conduct international public goods (IPG) research that is consistent with its goals and where it has a comparative advantage. IPG that are of interest to the CGIAR are those which benefit many countries and would not attract private sector investments. Past CGIAR research shows that spillovers across country borders from agricultural research can be large (Pinstrup-Andersen 2000; Dalrymple 2001), and no single country may be able to capture enough of the benefits to fully recover the costs needed to produce such goods. Also, an international approach to the creation of IPG is more cost effective than national approaches.

While the term IPG was not mentioned in the early years of the CGIAR, it did feature as a key character of CGIAR research during the 1989/90 debate on the expansion of the CGIAR System. Since then it has become an important criterion for judging the appropriateness of research activities for the CGIAR. IPG research in the CGIAR by definition must have a strong focus on strategic research³ (mission oriented basic research). Knowledge gained from such research with advanced institutions forms the basis, through applied research with national partners, for generating products (generally referred to as "technologies") that have the potential of wide applicability across and within nations. Through adaptive research, in partnership with local extension groups, farmers and post-production stakeholders in the private sector, such products are converted into national and local public goods. However, few such IPG agricultural and NRM proto-technologies can be immediately used by farmers because they usually need to

² A region comprises a number of nations.

³ Strategic research is defined here as mission oriented basic research that aims to discover and generate IPG knowledge about the principles and processes underlying a phenomenon; applied research aims to apply such knowledge to generate IPG proto-technologies and know how that has wide applicability potential; adaptive research aims at generating production technologies and practices suited to national and local situations.

be adapted to a range of local conditions and this requires a counterpart national or regional R&D capability (Rosenberg 1982). Where this capability is lacking or weak, or there is some other limiting factor, as in many developing nations, IPG may not be adopted or remain under-utilized.

It was in the 1990s that the CGIAR formally incorporated poverty alleviation and sustainable food security into its mission. This marked an increasing recognition of the importance of the “context”, both physical and socio-cultural, and of the variability and diversity of sociological contexts, in addressing rural poverty through improved agricultural productivity. Poverty can be defined narrowly in terms of income poverty or it can be defined broadly in terms of economic and social deprivation. Poverty alleviation as a development process is normally mediated through economic growth and diversification of the productive sectors of national economies in which wealth is created mainly through the private sector (including the farmers) and distributed as widely as possible through social services. When the CGIAR claims to be engaged in poverty reduction through agricultural research on food commodities, its contributions are essentially towards raising incomes of producers and generating rural employment. It also “raises” real incomes of poor consumers through reduced price for food, leading to increase in access to cheaper food by a greater proportion of the poor. This is especially important for the poor who spend a large portion of their meagre income on food. This role of agricultural technology in reducing rural and urban *income* poverty has been well documented (IFAD 2000).⁴

In addition to incorporating a poverty focus into its mission, the CGIAR introduced a project-based research management system to improve the impact of its research. Poverty and food security issues are generally conditioned by the national and regional political and investment environment and cannot be addressed directly through IPG research. The CGIAR therefore must reconcile the divide or gap that exists across the three elements of its research strategy - the IPG nature, the poverty focus and the impact orientation – if it is to remain an effective player in the international agricultural research system. To achieve such a reconciliation, the CGIAR must get the context of its research right; it must generate the most critical IPG; and it must have impact on income poverty and NRM. In the new CGIAR strategy, it is the regional approach to research envisaged by Plank 4 that has the potential to facilitate the needed reconciliation and partnership linkages across the research-to-development continuum.

In justifying the need for a regional approach to research planning, priority setting and implementation in the CGIAR (Plank 4, TAC 2000), TAC stated the following:

“The causes and appropriate means of reducing poverty and improving food security depend on the heterogeneous regional, social and institutional contexts

⁴ However, in many circumstances, rural economic growth and social development is led and sustained, not by agriculture, but by non-agricultural sectors which provide the markets for additional biological production and alternative employment opportunities for rural people (Bunting 1984, 1992; Bonte-Friedheim and Kassam 1994). Effective demand for surplus goods and services from the agricultural and rural sector can only exist when the urban population has money to purchase them at prices acceptable to both producers and consumers. If this population is not only proportionately small but also poor, the market is inevitable limited. Rural and non-rural development, in practice, are two sides of the same coin: the one does not progress without the other.

within which poverty exists. Contributing through research to reducing poverty will depend on identifying researchable issues, and developing appropriate technologies and positive institutional and social environments in the regions where the poor live. Thus, the CGIAR should adopt a regional approach to research planning, priority setting and research implementation to complement its global approach to priority setting in order to increase the effectiveness with which it addresses the heterogeneous nature of poverty in different geographic regions. This will be particularly important where comprehensive development efforts are needed in order for agricultural innovations to have an impact on poverty. The present priorities of the CGIAR have been determined more on the basis of commodity and activity than on reducing poverty and improving food security. Social science concepts and methodologies can assist in setting and pursuing the research priorities that will have most impact on poverty and food security, and in customizing the resulting technologies to particular situations.”

Priority setting for regional research starts with a participatory poverty mapping for the region; understanding the location of poverty, the nature of poverty, and the determinants of poverty; and identifying possible strategies to escape poverty. The objective is to clearly identify the potential role and also the limits of agricultural technology in attacking poverty. Analysis of the linkage between technology and poverty has shown that there are many direct and indirect channels through which technology can help reduce poverty (De Janvry and Sadoulet 2001). But, while agriculture research is a necessary condition for reducing income poverty, it is not a sufficient condition (Bunting 1984, 1992; Bonte-Friedheim and Kassam 1994). A host of other factors play a role in promoting or constraining changes in productivity and biological output of production systems. Thus, the definition of the constraints or problems and what possible technological solutions might be relevant can be made more effectively through a bottom-up planning process in which the CGIAR and regional stakeholders including policy and development planners are “jointly” engaged. This would increase the relevance and probability of success of CGIAR research. Also, the emphasis on people is germane to the argument that region-specific perspectives will be apt to reflect better the context specificity, highlighting cultural diversities even when physical parameters are similar. Social structures and institutions vary by region even when functionally they perform similar tasks. Therefore, priority setting must shift from the diffuse global commodity focus to producers of commodities and to a diversity of producers and social institutions by region. Thus, a focus on people and poverty gains in sharpness and clarity in a regional setting rather than at a global level.

A regional approach to research is not completely new for the CGIAR and its partners. The CGIAR has sustained extensive and highly fruitful collaboration with NARS in basically every region of the world. However, such collaboration is not part of a comprehensive approach to poverty reduction. The renewed attention to a regional approach, with region defined in a geopolitical sense, would increase the possibility of integrating the regional and national research plans into national and regional development plans and comprehensive poverty reduction strategies, and improve the impact of agricultural research conducted by the CGIAR and NARS.

3. Advantages of a Regional Approach to Research for NARS and the CGIAR

Both NARS and the CGIAR have advantages in pursuing a regional approach as a component of their respective activities. For the NARS, this means seeking at the regional level advantages that they could not derive solely from a national-level approach, thus complementing and supplementing the national approach. For the CGIAR, this means seeking complementary gains that could not be achieved exclusively through a global or ecoregional approach. These mutual advantages open the door for partnerships in regional research between NARS and their regional organizations, and the CGIAR. At the regional level, research opportunities can be identified that satisfy both the NARS' objectives and the CGIAR's own objectives. It is identification of these win-win opportunities that provide the basis for a regional cooperative research programme between NARS and CGIAR.

3.1 Reasons to go from a National to a Regional Approach

Achieve economies of scale in research:

Research in particular activities typically involves high startup costs and critical levels in the size of teams and laboratory and field investments. Small and poor countries have difficulties in achieving these economies of scale, particularly in the many dimensions where agricultural research needs to be sustained. A logical response to this difficulty is to seek a regional division of labour, locating particular research activities in particular countries and exchanging results, or organizing research as a regional network. In both cases, regional coordination is necessary to achieve economies of scale.

Internalize the international externalities of investment in research and development:

It is well known that countries tend to under-invest in agricultural research. The most powerful explanation of this tendency is that research creates positive international externalities that the investing country cannot capture. Externalities are larger relative to direct benefits if the country is smaller and other countries are more similar, allowing them to derive gains from that country's research. Central America is a good illustration of this situation. Cooperation to plan investment at the regional level and internalize regionally a larger share of the externalities is a logical approach to reducing under-investment in research.

Elevate the game to maintain longer term continuity:

A difficulty in securing high returns from investment in research and rural development is the discontinuity in programmes implied by short duration political and funding cycles. Where government bureaucracies are not strong enough to maintain continuity, short term political cycles (including changes in leadership) can imply sharp discontinuities in priorities, budget allocations, and teams in command. This is detrimental to research that requires long maturation periods, as well as to rural development initiatives that seek long-term environmental objectives or the development of social capital. Defining research priorities at the regional level serves as a

commitment device to strengthen political will to elevate research priorities and rural development initiatives above short term political and funding cycles.

Give coherence to donor-driven projects:

In poor countries, the development agenda is often set by international donors' projects. This results in a multiplicity of projects with insufficient coordination and continuity. These projects are donor-driven as opposed to being driven by a comprehensive development framework that gives them consistency. Central America is a living example of this problem, for instance for projects offered in response to natural disasters. A regional development framework, including regional agricultural research priorities, would:

- Give coherence to donor-driven projects in relation to national and regional objectives.
- Provide an objective basis for countries to negotiate projects.
- Allow the shifting investments from a project-driven approach to a strategy-driven approach.

Provide accountability and resilience to capture:

All projects are exposed to capture by local elites and political interests. A regional approach helps create greater visibility and accountability to the use of funds. More impartial external audits can be used to track use of funds and impact achieved.

Thus, in the light of the above reasons, it can be concluded that elevating the game of agricultural research from a national to a regional approach has many advantages for NARS and the CGIAR. At the regional level, research priorities need to be established as part of a shared comprehensive development framework. This framework needs to be widely owned by stakeholders in the region. To achieve this, it has to be developed through inclusive consultations and dialogue with regional stakeholders. Because this involves more than agricultural research, the appropriate institutional mechanisms to conduct these consultations needs to be clearly defined, and certainly beyond regional agricultural interests. In addition, securing a meaningful participation for poor stakeholders requires sufficient prior investments in their empowerment.

3.2. Reasons to go from a Global-Ecoregional Approach to a Regional Approach

Principles of a regional approach: coordination, participation, and partnership:

Most of the CGIAR's programmes are defined on a global basis, either by commodities, activities, or ecoregions. Only WARDA is defined explicitly at the regional level, but confined to only one commodity, rice. Most Centres have regional activities, but they are not part of comprehensive development approaches for the corresponding region. In particular, there is little coordination with a regional poverty reduction strategy, even though poverty reduction is the central goal for the CGIAR's actions in the region.

Lack of a coordinated regional approach is not problematic in regions where the determinants of adaptation and adoption of newly released technologies are in place. In this case, the release of technology is sufficient to secure its subsequent diffusion and adoption, even

by poor farmers. This is not the case in “hard” areas where the complementary conditions for adoption are not in place. In these areas, this is typically due to:

- (i) Lack of assets held by the rural poor;
- (ii) Market failures that prevent the poor from engaging in transactions to sell products, acquire inputs, and buy consumer goods;
- (iii) Institutional gaps, whereby access to essential services such as credit and insurance is missing, and organizations for collective action are not present;
- (iv) Public goods deficits, such as the provision of health, education, infrastructure, and information;
- (v) Policies that are biased against agriculture and more specifically against smallholders.

If these determinants of adoption are not put in place, technological innovations have no chance of impacting on poverty. Since the CGIAR has no or little comparative advantage to invest in putting these conditions in place, partnerships with regional development agents that have this capacity are essential. Otherwise, the CGIAR can simply write off the region as one where it cannot have impact. It is this coordination with development agents in “hard” areas that gives its most fundamental meaning to a regional approach. Coordination is thus the first guiding principle for a regional approach.

Involving more stakeholders in the regional priority setting exercise is fundamental for this purpose. Only through their participation will there be shared ownership of the regional approach. A second guiding principle for a regional approach is thus the importance of a broad participation of stakeholders involved in the struggle against poverty.

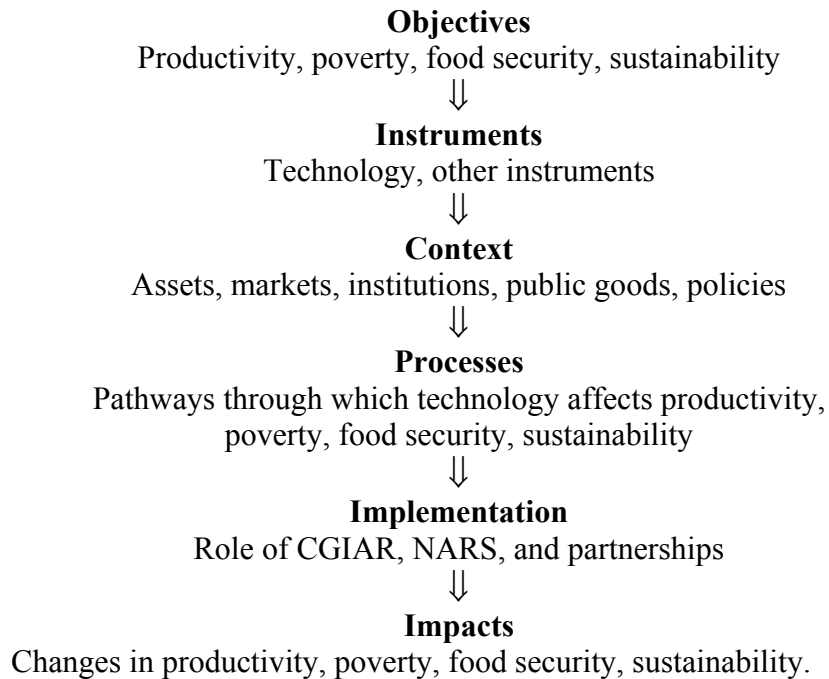
Finally, a regional approach allows identification of areas of win-win between the NARS of the region and the CGIAR. Even if objectives are not coincident since the NARS have broader economic and political objectives than the CGIAR, which is principally motivated by poverty, food security, and sustainable resource use, there are ample opportunities for win-win research initiatives. It is the identification of these win-win opportunities, while capitalizing on the unique comparative advantages of NARS and the CGIAR in research, that provides the third guiding principle for a regional approach: partnerships between CGIAR and NARS in the region.

Heterogeneity and local information:

Regions are heterogeneous and, within regions, poverty is itself highly heterogeneous. As a result, a regional approach will differ across regions according to the specificity of the region and, within the region, it will have to deliver instruments for poverty reduction that cater to the heterogeneity of poverty.

The information needed for priority setting is highly imperfect, and largely available at the local level. Mobilizing this information requires participation of stakeholders.

A logical scheme to achieve impacts via investments in agricultural research is as follows:



What are the advantages of a regional approach for the CGIAR in each of these steps?

(i) **Objectives:** The generic objectives of poverty reduction, increased food security, and improved natural resource management for sustainability may be the same across regions, but the specific forms that each of these objectives take at the regional level differ widely. In regions like Latin America, poverty is mainly urban. In Africa, most poverty is associated with smallholder farming. In South Asia, poverty is mainly rural, and the landless figure prominently among the rural poor. The dimensions of poverty also vary across regions, with income poverty being compounded with other region-specific dimensions. In Asia, the qualitative dimension of food diets is an important dimension of poverty. In the CWANA, chronic income poverty is not as prevalent as vulnerability and exposure to transitory poverty and dislocation. The objectives of research consequently need to be adapted to the heterogeneity of poverty. Because information about the nature of poverty, and what research can do to reduce poverty, is local, formulating research objectives needs to be done through local participation of stakeholders. Hence, a regional approach is necessary to adapt the research priorities to the objectives sought through research for the region.

(ii) **Instruments:** Agricultural technology is only one instrument among a panoply of tools that can be used to attack poverty. If the CGIAR works alone, it needs to take these other instruments as given. In regions where these other instruments are not in place (e.g., infrastructure, health, education, organizations, agrarian institutions, policies favorable to agriculture), the role of technology will be severely limited. This has been the case for “hard” areas like sub-Saharan Africa and Central America. If the CGIAR works in conjunction with the other development agents in the region, it can seek coordination in delivering technology that can capitalize on complementarities between instruments. A regional approach thus allows to

greatly enhance the likelihood that technology be effective for poverty reduction. At the same time, it allows the CGIAR to disengage itself from rural development, and to confine itself in the activities where it has unique comparative advantage, namely agricultural research that cannot be done alone by NARS in the region.

(iii) **Context:** The likelihood that assets and technology improve livelihoods depends on the quality of the context where they are used. This context is characterized by:

- How markets work.
- How complete and effective are the institutions in support of economic activity in the region.
- Whether public goods and services are complementary to public investments and provide the dimensions of welfare that cannot be achieved through income.
- Whether policies are supportive of agriculture and of economic activity in rural areas.

As mentioned above, a regional approach allows to endogenize as instruments the dimensions of context that would otherwise limit adoption.

(iv) **Processes:** There are many pathways through which technology can help reduce income poverty, including direct effects on the income and consumption levels of poor adopting smallholders. Also included are indirect effects through employment creation in agriculture and higher wages, lower prices of food for consumers and farm household net buyers, linkages between agriculture and other sectors of economic activity, and overall economic growth effects (for instance through improved foreign exchange earnings created by agricultural exports). These effects are highly complex, and not yet fully understood. They are certainly highly specific to each region, and maximizing the poverty reduction effect of technology through these pathways requires defining a research strategy at the regional level.

New approaches to technology generation allow to better customize research outcomes to the heterogeneity of poverty. These new approaches include precision farming, scenario assessment (crop simulation models, decision support systems, response farming to weather forecasts), biotechnology, and integrated natural resource management. Hence, advances in agricultural research make the payoffs from a regional approach higher by allowing cheaper customization of research outcomes to the heterogeneity of regional contexts and to intra-regional heterogeneity. Customization requires participatory research in order to elicit revelation of the local information needed to guide research.

(v) **Implementation:** The CGIAR has always worked in coordination with NARS. In some regions, NARS have become stronger, and can absorb functions previously fulfilled by the CGIAR, allowing the latter to move upstream. In many regions, however, NARS have been weakened by austerity policies and downscaling of the role of the state, and the private sector has hardly emerged. This is the case for “hard” areas. In this situation, partnership with NARS needs to be much more hands on, even for downstream research activities. A regional approach greatly facilitates this collaboration. Division of labour among NARS at the regional level and coordinated complementarities with CGIAR research are essential.

In many of these countries, NARS have been marginalized because they have not adapted their delivery of technology to shifting demands. This includes consumer demands for safer and more nutritious food and for environmental amenities. It also includes defining modalities to collaborate with the private sector in a context of intellectual property rights (IPR) and market integration. Regional partnerships between CGIAR and NARS can help reposition NARIs in relation to changing effective demand and upgrade their relevance and performances.

(vi) **Impacts:** Impacts of adoption on the objectives sought tend to be interactive and cumulative, not simply additive. Hence, a coordinated approach to research and a “big push” effort at delivering technological innovations can have payoffs that are greater than the sum of individual effects. A coordinated regional approach to research is important to achieve these cumulative effects. In regions where poverty remains extensive and has failed to decline (as in Central America and sub-Saharan Africa), and where agriculture remains directly or indirectly the most important source of livelihoods for the poor, a comprehensive attack on poverty that coordinates agricultural technology with other interventions is one of the most promising instruments available.

4. Risks and Limitations of a Regional Research Approach

A regional approach is beset with risks and limitations arising from several unknowns that need to be addressed.

Lack of experience:

There is little experience in planning and implementing regional research priorities in the manner and scale envisaged by Plank 4 of the new CGIAR vision and strategy. There are no blueprints available on the management of the planning process, including the regional research priority-setting approaches and methods to be used. Overall, only a start has been made in setting up initial consultation processes in the regions. There is some way to go before multi-stakeholder priority-setting processes are established and regional research priority-setting process could begin. The main gap in the approach still remains the link with the non-agricultural dimensions of regional poverty. The regional groups apparently tend to do a reasonable job at bringing the agricultural stakeholders together, but they do not always manage to forge institutional linkages with policy planners and the political machinery that makes decisions about development and investments. Whether the "multi-stakeholder" extension of the regional planning process will bring in the non-agricultural dimensions of poverty remains to be seen.

In the regional consultation meetings that have been conducted so far, CGIAR Centres have offered strong presence and good cooperation. However, as each Centre in the past has largely done its own research planning with NARS in the region, there has been little cohesive inter-centre experience in regional research planning. There is even less experience in joint research planning by Centres as a group with regional organizations/sub-regional organizations (ROs/SROs), NARS as a group and other stakeholders, particularly the policy and development planners (agricultural and non-agricultural), private corporations, NGOs, and development and financial institutions, including ministries and donors. This is plainly evident in the sub-regional meetings that have taken place so far. However, Centres have begun to take steps to come

together at the sub-regional level to: inform each other about their activities; discuss the opportunities and challenges for joint work in the context of major constraints (technology, natural resource, policy, institutional) to address poverty; express willingness and take steps to establish a dialogue for joint research planning with ROs/SROs and NARS, and to expand the consultation processes that are inclusive and multi-stakeholder.

Lack of effective traditional partners:

It presumes that the CGIAR will find the necessary complementary partners and be able to effectively work with them. This may not be satisfied. In several regions, NARS have been debilitated by transitions in economic regimes and by structural adjustment. Since a regional approach is based on a division of labour between IARCs and NARS, what the IARCs will need to do in the region will depend on what the NARS can do. In some cases, this may place undue burden on the CGIAR, or draw it to accept functions for which it is not prepared, and which it should not assume.

The question of the catalytic institution for a particular region

Partnerships for poverty reduction need to go beyond traditional NARS. This raises the question of identifying which can be the catalytic institution for a particular region. This institution needs to have widely accepted leadership in the region, a credible commitment to poverty reduction, and ability of working *pari passu* with others. Clearly, an institution with recognized regional authority is needed. If this is missing, how far can the CGIAR go in assuming or catalysing this role? There are issues of political economy, legitimacy, and ownership that need to be resolved in each case, and this may fail.

There are several potential candidates who could play a catalytic role in the different regions. These include: the Regional Agricultural Research Fora or Organizations; the FAO Regional Offices; the regional political entities if any (e.g., ASEAN Ministers of Agriculture Conference; the West Africa Ministers Council of WARDA; IICA in Latin America); regional banks (e.g., Asian Development Bank; African Development Bank; Inter-American Development Bank/FONTAGRO). In practice, the catalytic role could also be implemented in a shared or differentiated manner, i.e., specific areas of research could be assigned primarily to specific actors, and CGIAR Centres could also play a catalytic role in such shared arrangements.

Regional ownership of the process and outputs:

A regional planning process and the desired products e.g., a regional research strategy for poverty reduction, must be owned by regional actors – NARS, policy planners and decision-makers, CGIAR Centres, development agents and stakeholders. Building multi-stakeholder ownership of the regional planning process and products is a challenge which cannot be taken lightly nor can the solution be taken for granted. The process will need to be organized and run efficiently and effectively to ensure that the stakeholders maintain interest and confidence.

Data and information:

A regional approach to research makes a heavy demand on the regional specific data and information. Weakness in the database coverage and quality and in the understanding of the poverty processes and impact pathways will limit the effectiveness of the regional approach. It is thus urgent that this regional information be made available in support of the regional planning exercise.

Transactions costs:

Transactions costs in coordinating with other development partners may be excessively high. Working with regional organizations and GFAR is essential to reduce these costs. Innovative solutions to reduce these costs will have to be experimented with to identify best practices for each particular context.

Lack of donor support:

To establish and sustain the regional planning process will require resources and donor participation. This unknown can make or break the regional initiative in a particular region, despite the potential of the regional process to add value to the effectiveness of a large range of research and development institutions and regional stakeholders. To secure the interest of governments in the region and of donors with interest in each particular region, participation of these agencies is needed from the outset.

Further, the implementation of the defined regional research priorities will need to be implemented through cooperative research between the CGIAR and NARS in the regions. Call for proposals and selection of submissions could be done in accordance with the regional research priorities. However, donor support and ownership will be essential to ensure that the regional research agenda is funded and implemented over time through cooperative projects. The cooperative research undertaking could be funded through competitive grants from a special fund supplied for this purpose.

5. Towards a Regional Approach to Research

The adoption of a regional approach to research had been widely recommended in the broad consultations that were part of TAC's development of the new CGIAR vision and strategy document, which was approved at ICW2000. Considering the flurry of activity that followed this decision, the proposed regional approach (Plank 4) has been well received by GFAR, the various ROs/SROs, and the NARS. Steps have been taken to move from vision to action in all regions where GFAR, ROs/SROs and the CGIAR Centres have held meetings (APAARI for Asia/Pacific, PROCI/FORAGRO for Latin America, FARA/CORAF/WECARD for West and Central Africa and FARA/ASARECA/SACCAR for East, Central and Southern Africa, AARINENA for the CWANA region) to discuss organization of the proposed regional approach.

5.1 Roles of TAC, GFAR and CGIAR Centres

As can be appreciated from the preceding sections, the Plank 4 of the CGIAR's operational strategy is extremely complicated and sensitive. Two phases to the process can be envisaged: the first, led by NARS in the region, has to do with overall planning and priority setting that defines priorities for the region as a whole (facilitated by GFAR with technical advice from TAC); the second identifies the CGIAR's role within a broader regional agenda (facilitated by TAC in consultation with relevant Centres and partners), i.e., with the subset of the total regional agenda in which the Centres will play a direct role.

TAC and GFAR: In phase one, TAC can provide advice and information on topics related to CGIAR priorities and strategies and keep itself apprised of the progress of regional planning exercises through its Secretariat and selected TAC Liaison Members. GFAR is playing a facilitating and coordinating role in calling meetings, helping set agendas, facilitating participation of national and regional representatives, and mobilizing resources.

It is in the second phase where previous experience is limited and TAC will help to link regional priorities from phase one with CGIAR priorities. The criteria used by TAC to assess opportunities for strategic choices in shaping CGIAR global research agenda are: contribution to CGIAR goals, production of international public goods, CGIAR's comparative advantage and alternative sources of supply, probabilities of success and cost effectiveness. TAC can employ these criteria, suitably adapted to specific regions, to select regional priorities identified through the bottom-up priority setting process. The results of TAC's analysis will eventually have implications for its recommendations to the Group on regional investments in research.

At ICW'00, the CGIAR decided to implement the bottom-up priority setting approach of Plank 4 in at least one region as soon as possible on an experimental basis, with the help of TAC and GFAR and in collaboration with existing national and regional institutions. At the end of November 2000, the CGIAR Chairman suggested to the TAC Chairman that TAC should take the lead, in consultation with the CGIAR Centres, GFAR and national and regional institutions, to select a region for the first effort as had been agreed at ICW'00.

Assuming the regional experiment is successful in the pilot region (see section 6), the first round of regional/sub-regional planning exercises would likely be completed by the end of 2002. TAC would then be in a position to incorporate the regional research agenda into its ongoing revision and updating of the CGIAR Priorities and Strategies document, which serves as a guide to Centres' Medium-Term Plans. The latter serve as the mechanism to promote Centres' action on CGIAR priorities, whether global or regional. TAC's external review and impact assessment functions, in part, also serve this purpose. TAC's role in overseeing these processes and advising the Group is well established.

CGIAR Centres: To facilitate the participation of the CGIAR Centres in the regional planning processes, the Centres have agreed among themselves to the following initial "assignment" of regional responsibilities, namely: West and Central Africa, IITA/WARDA; Eastern and Southern Africa, ICRAF; Central and West Asia and North Africa, ICARDA; South Asia, ICRISAT; Southeast and East Asia, IRRI; Latin America – Lowlands and Central

America, CIAT; Latin America - Andean Highlands, CIP. In undertaking these responsibilities, Centres, will, as always, need to collaborate closely with national and regional partners in keeping with the decentralized regional planning and participatory approaches envisioned by the new CGIAR strategy.

The CGIAR Centres may relate to regional priorities in a variety of ways at different stages in the planning process. During phase one, Centres with capacity in the social sciences and policy research such as IFPRI, ISNAR, and others can contribute individually and collectively to the in-depth analysis of the key regional issues. Should they choose to do so, it would be ideal to see a joint effort with the stronger NARS, ROs/SROs, GFAR, regional development banks, FAO regional offices, universities, bilateral agencies, and other stakeholders. Such an effort would help to build ownership and win financial support.

The CGIAR Centres active in their respective regions could play a pivotal, back-up role in the regional planning exercises, given their research capacity and databases as well as experience in convening and organizing regional activities. However, the Centres should not be expected to take the lead. The regional planning exercises will identify many vital complementary activities (research, extension, investments, policies, and legislation) that will require support and commitment from other regional stakeholders. It is important, therefore, that these exercises be seen as joint, collective efforts rather than purely CGIAR-driven activities.

5.2 Regional Consultation Processes Underway: Some Emerging Lessons

Throughout November and December 2000, and subsequently during the past four months, a series of regional/sub-regional consultations have taken place, among regional and sub-regional organizations (ROs/SROs), NARS, CGIAR Centres and other IARCs and other stakeholders of agricultural research, in which the topic of regional priority-setting was discussed. ROs/SROs have undertaken priority setting exercises in the past as part of their mandate of promoting regional and sub-regional cooperation. This function is now gaining a new dimension, with the CGIAR decision to take into consideration regional priorities as an input in its strategic planning process and research implementation. Strong interest was expressed by all participants to see how these two processes could be closely linked in order to provide an input into the CGIAR process.

To assure full participation of all stakeholders in the regions/sub-regions, the exercise need to be further publicized and opened up to broad participation. In addition to GFAR, that has been supporting the process of consultation among stakeholders, all CGIAR Centres have provided strong cooperation and support to this endeavour and are expected to continue to do so⁵. However, it must be pointed out that the dynamics of the process are being generated by the regional stakeholders and by the ROs/SROs who are clearly leading the process, with the support that GFAR is providing. The discussions that have already taken place on the regional approach to research for the CGIAR and NARS have raised a number of considerations that indicate the

⁵ CGIAR Centres in all regions have taken steps to work together with ROs/SROs. Also, Centres have held several regional integration meetings, e.g., organized by IITA/WARDA for West and Central Africa, by ICRAF for Eastern and Southern Africa, by ICRISAT for South Asia, and by ICARDA for CWANA.

beginning of a learning process toward regional priority setting and regional research partnerships. The following are some of the issues and emerging lessons that need to be noted.

(a) The value added to NARS of determining and implementing regional priorities

An important question that has been raised by NARS is what is the added value of determining and implementing regional research priorities? In discussing this point, three factors were mentioned as bringing a clear added value: (a) a better understanding of regional development needs and the development of consensus and ownership of these ideas based on a common perception by the main stakeholders; (b) the identification of what each stakeholder can do within the common framework defined by the regional priorities, facilitating synergies among them; and (c) the possibility of assuring complementarity among the main stakeholders to develop a critical mass of researchers and greater development impact. On the basis of these ideas, it was felt that it would be very useful to spell out these advantages in a more systematic way⁶, identifying how to carry out this process in order to make sure that this potential added value becomes a reality.

(b) Weaknesses in the earlier efforts by ROs/SROs in determining regional priorities

The efforts of regional priority setting that ROs/SROs have undertaken during the past few years have generated an important learning process, as well as basic information on regional research needs. At the same time, these efforts of determining regional priorities have three weaknesses. The first is that participation in the process of determining the priorities of ROs/SROs has been limited in some cases only to national agricultural research institutes (NARIs), with little participation of other stakeholders (NGOs, private sector, donors, etc.) and research providers (universities, state or provincial ROs). A second weakness is that the regional priorities quite often only refer to crop and sometimes to animal production, with little or no reference to forestry and fisheries or resource management. Thirdly, the regional priorities will have to be more sharply focused if they are to have an impact on the programme orientations of the various stakeholders involved. These factors should be taken into consideration in the process of determining the regional priorities. On the basis of these considerations, all regions have expressed a clear interest to review their regional priorities while addressing these weaknesses, and to carry out a joint effort with the IARCs of the region to identify the regional priorities that are more relevant to the CGIAR.

(c) Partial coincidence between regional research objectives pursued by NARS and the CGIAR

The main objective of many NARS in pursuing agricultural research is sustainable competitiveness of agriculture and contributions of agriculture to national economic and social development, and this is to be achieved through the delivery of national public goods. The CGIAR's mandate is to seek the sustainable reduction of poverty and improved food security, and to achieve this through the delivery of international public goods. Also, CGIAR gives itself a longer time horizon than national research systems, implying a lower discount rate in projects that generate future benefits. This is particularly important for the complementarity between

⁶ This report is a contribution towards this felt need.

agricultural research and natural resource management, where NRM considerations may consequently have more weight for the CGIAR than they have for NARS. Because there are large areas of coincidence between these objectives and modus operandi, there is ample scope for collaboration between NARS, regional organizations, and the CGIAR in the definition and implementation of research agendas.

Each group of organizations is, however, also pursuing objectives that are not the same. In addition to regional objectives, the CGIAR is pursuing objectives at the global level, which are not simply the aggregation of regional research needs. Within a region, the CGIAR will be pursuing objectives that are partly, and potentially largely, coincidental with national and regional objectives, but also partly distinct. For example, commodities that pertain to the CGIAR mandate are only a subset of those on which NARS in the region are working. On the other hand, more explicit poverty reduction objectives for the CGIAR imply greater concerns for the multidimensionality of poverty. For the CGIAR, the art of regional priority setting and research implementation will be to seek maximum overlap with the objectives and programmes of partners in the region, but without compromising on the specific mandates of the NARS and ROs, and of the CGIAR. Participation of NARIs in developing regional research agendas will also draw them toward the delivery of international public goods (or at least regional club goods), helping narrow down the gap between CGIAR and NARIs research instruments.

(d) Importance of regional ownership for areas of coincidence

For that part of the CGIAR's regional agenda that is coincidental with the research pursued by NARS and ROs, priority setting should be developed as a bottom-up process with participation among equals. This includes NARIs, universities, the private sector, NGOs, and producer organizations preferably engaged in participatory agricultural research. Hence, there is a need for broad coalitions that should be more inclusive than the current practice of regional forums. Organizing this process requires giving time to local partners to: mobilize participation of stakeholders; establish leadership roles at the regional level and procedures in the process of consultation and decision-making; and consolidate strength in the capacity for priority setting and implementation of research at the national and regional levels.

(e) The CGIAR's poverty objective requires a broad regional approach to coordinate the use of research for poverty reduction

In seeking to improve the poverty reduction impact of its research, the CGIAR needs to coordinate its programmes with those of development agents in the region (international development agencies, regional development agencies, national and local governments, NGOs, etc.) that are pursuing poverty reduction on a variety of fronts. This includes health, education, institutional development in support of competitiveness of smallholders, infrastructure development, and regional policies. This is particularly important in the regions where the conditions for diffusion of technological innovations are largely not in place, and hence where a research effort will only bear fruit on poverty reduction if accompanied by these other interventions.

A regional approach to poverty reduction using the instruments of agricultural research must consequently: (i) Start with a characterization of poverty in the region including its mapping, the identification of its determinants, the nature of its dynamics, and alternative options to escape from poverty. (ii) Identify the potential role of agricultural technology in reducing poverty directly (adoption by poor farmers) and indirectly (employment and wage effects in agriculture, reduction in the price of food for net buyers and non-farm consumers, linkage effects with non-agricultural activities, and overall economic growth). (iii) Coordinate the delivery of research results with the delivery of the other determinants of adoption and dissemination of technological innovations.

Hence, the CGIAR either needs to work with broader regional coalitions than those currently in place in support of agricultural research, or make sure that existing regional organizations are broadened to include meaningful representation of development agents beyond agricultural research. It should be clear, however, that each region will evolve its own distinct approach to research according to the specificity of its objectives, constraints, and capacities.

6. Next Steps

All the developing regions have shown strong interest in participating in the implementation of the Plank 4 of the new CGIAR strategy. The ROs/SROs have emphasized the importance of regional priority setting and of strengthening their capacity to do so. Further, they see the opportunity for organizing action in terms of responding to areas where the CGIAR may become more active in the sub-region/region. They consider it more practical to move forward step by step with sub-regions, rather than whole regions, where there can be relatively greater homogeneity.

The main challenge now faced by ROs/SROs and the CGIAR Centres in proceeding with the regional planning process is that of revisiting regional research priorities in order to improve their focus, and to do so in such a way that the various stakeholders are involved. Secondly, ROs/SROs and the Centres must define how to approach the task of identifying regional priorities that are relevant for the CGIAR, within the broader framework of regional priorities? On the basis of the work GFAR did with ROs/SROs and with TAC in the three months after ICW'00, four perspectives have been proposed as possible next steps in the identification of regional priorities relevant for the NARS and the CGIAR.

- (i) Revisiting of regional priorities and discussion with all stakeholders, including NGOs, and farmers.
- (ii) Analysis of the interaction between poverty eradication on the one hand, and economic growth and competitiveness of the agricultural production on the other. The objective of this analysis is to look for win-win situations, where increasing the competitiveness and sustainability of key areas of agriculture can significantly contribute to poverty eradication by generating direct benefit for the rural poor, through employment, income generation and other means.
- (iii) Analysis of the production systems that predominate in the peasant or smallholder economy of sub-regions, their technological constraints, and the population of the rural

poor that are related to these systems. This includes issues related to the use of local knowledge and the management of agroecosystems.

- (iv) Analysis of recent efforts at poverty mapping. Identification of the determinants of poverty, of options to escape poverty, and of the role of agricultural technology and development in reducing poverty in the region.

The second perspective above is the most innovative one that could lead to the identification of areas of common interest and how to develop complementarity of effort, facilitating the synergism and a greater development impact. Further, the above four types of perspective analysis can complement each other. The analysis of the third and the fourth perspectives are important for the provision of baseline information required for the analysis of the second perspective and for revising existing regional priorities. Various actors in the sub-regions can cooperate in putting the information together for these four types of analytical steps. This cooperation would also allow a sub-regional mapping of institutions to identify national components of NARS, regional networks and organizations (including NGOs), and development agencies that are making investments in regional poverty reduction and sustainable NRM through agricultural research.

Although regional consultations were initiated soon after ICW'00, no region as yet has fully embarked on the four step process of identifying regional priorities. In terms of the progress so far, four possibilities are clearly in the process of taking shape. In the Latin America and the Caribbean (LAC) region, it has been suggested by FORAGRO to concentrate on Central America (from Pueblo in Mexico to Panama) and the Caribbean sub-region, as the highest priority, with a strong interest being equally expressed by the Andean sub-region. In the Asia/Pacific (A/P) region, APAARI has given initial priority to South Asia, but with a strong possibility emerging that the countries in the Southeast Asia sub-region may also embark on a similar exercise. In the sub-Saharan Africa (SSA) region, the FARA proposal is to initially focus on the West and Central Africa sub-region for which the recently completed CORAF/WACARD strategic planning effort has produced good information on sub-regional needs and a framework for action. However, ASARECA/SACCAR are also actively moving forward with their sub-regional consultation processes. In Central Asia, North Africa and West Asia (CWANA) region, an initial focus by AARINENA could be on the Mediterranean sub-region. The consultation processes in all the regions are moving forward and could become broad-based and multi-stakeholder in nature over the coming months, if donor support can be mobilized.

TAC not long ago undertook a strategic study of the effectiveness of the CGIAR research investments in the Latin America and the Caribbean region. Rural poverty in the Central America and the Caribbean sub-region is extensive and the sub-region is composed of many small nations who stand to gain from a regional approach to research. The sub-region has an effective regional organization of NARS - FORAGRO and the regional PROCi (SICTA) - that could be the coordinating mechanisms for the CGIAR's renewed emphasis on a regional approach to research. There is more than a decade long experience in regional priority setting in the region, and there is strong support from FONTAGRO and IICA. These conditions suggest that the chances of success for piloting an experimental bottom-up approach to priority setting in the Central America and the Caribbean sub-region would be relatively higher than in other sub-regions.

The regional planning process in Central America and the Caribbean sub-region is further advanced than in the other sub-regions and has lessons to offer on the regional research planning process. The process has begun well in terms of initial consultations and process planning, and the first multi-stakeholder meeting to define formulate a detailed proposal for a sub-regional planning process is scheduled in early May 2001. Thus, from then on, the multi-stakeholder consultation process in this sub-region can be expected to become increasingly broad-based, subject to funding becoming available. A regional research strategy for sustainable poverty reduction must be owned by regional actors: NARS, development agents, and stakeholders. To fulfil its mandate in priority setting at the regional level, the current FORAGRO-PROCI initiative could be gradually complemented in two dimensions for research priority setting: (i) coordination with development agents⁷ in the region to integrate the potential contributions of agricultural research in a comprehensive Poverty Reduction Strategy for the region; and (ii) participation in the priority-setting process by NARS members in an extended sense, stakeholders (representatives of different categories of poor in the region), and development agents.

In the light of the above, TAC, in consultation with GFAR, the national and regional institutions and CGIAR Centres, took steps to implement the Group's decision for piloting an experimental bottom-up priority setting approach in the Central America and the Caribbean sub-region. However, as all regions are attempting to engage in a regional planning process, TAC, in consultation with GFAR, will monitor progress in all regions.

In the next steps for the bottom-up priority setting that are mentioned above, TAC and its Secretariat will concentrate more on working with CGIAR Centres and interested stakeholders on the identification of regional IPG research priorities for NARS and the CGIAR, and on the interphase of regional priorities with CGIAR global priorities. They will make available to the regional planning processes TAC's database for priority setting and the information generated through TAC's strategic studies such as on poverty-technology relationships in different regions, on analysis of priority-setting approaches, on impact etc. GFAR and its Secretariat will continue to support the ROs/SROs in improving the methodologies for regional priority setting and in effectively integrating the various stakeholders of agricultural research in a more participatory planning process. Both TAC and GFAR will facilitate the sharing across regions of lessons that are expected to emerge from the different regional planning processes that are now gaining momentum.

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⁷ Development agents could initially be represented by the Latin American Inter-Agency Group for Rural Development which is composed of IADB, FAO, CEPAL, IICA, IFAD, GTZ.

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