

DINTER 0033

R Posada
SDR/TAC/IAR/00/01

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

TECHNICAL ADVISORY COMMITTEE

Special Meeting FAO Rome 25-27 January 2000

UNIDAD DE INVESTIGACION Y
DOCUMENTACION

ALTERNATIVE SCENARIOS FOR A
CGIAR VISION AND STRATEGY IN 2010

105913

For Comments

This paper was prepared by the TAC Secretariat under the guidance of Alain de Janvry Chair SCOPAS. The paper should be considered as an early draft and is intended to initiate discussion by TAC on a vision and strategy for the CGIAR in 2010. The TAC Chair will provide a separate note outlining the context for discussion of the attached paper.

TAC SECRETARIAT

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

January 2000

TABLE OF CONTENTS

	Page
1 GOAL SCENARIOS	3
S 1 Current CG mission and goals – Rebalanced	3
S 2 Broadening the CGIAR goals	4
S 3 Limiting the goals or narrowing the focus	5
S 4 NRM for food security	5
2 DO WHAT SCENARIOS	6
S 1 Essentially no change	6
S 2 Increase the number of commodities and instruments	6
S 3 Decrease the number of commodities/instruments	8
S 4 Focus principally on NRM	8
3 HOW TO SCENARIOS	10
S 1 Essentially no change	10
S 2 Redefine/clarify regional mandates of some centres	11
S 3 Use of task forces	12
S 4 Co ordinator catalyst contractor model pursuing well-defined priorities	13
4 WITH WHOM SCENARIOS	14
S 1 Typology of partnerships	14
S 2 Explore various partnership arrangements	14

UNITED NATIONS
 WORLD FOOD PROGRAMME

Alternative Scenarios for a CGIAR Vision and Strategy in 2010

1 GOAL SCENARIOS

S 1 Current CGIAR mission and goals – rebalanced

- **Mission** To contribute to food security and poverty eradication in developing countries and in countries in transition through research partnership capacity building and policy support and promoting sustainable agricultural development based on the environmentally sound management of natural resources (agreed at ICW98 following the System Review)
- **Goals** The overarching goal of the CGIAR is to alleviate poverty and protect natural resources in order to achieve sustainable food security (TAC Report on Priorities and Strategies 1997) The intermediate goals are to increase the productivity of resources in agriculture forestry and fisheries and to improve the sustainable management of natural resources (TAC Report on Logframes 1998)

Focus Rural Poverty

Justification

- Agricultural growth through its direct and indirect effects can be one of the most effective instruments for poverty reduction in both rural and urban areas of the developing world (WDR 1999)
- Agricultural research (technological innovation) is a necessary but not in itself sufficient condition for agricultural growth The multidimensional nature of poverty the heterogeneity of the poor and the multiplicity of poverty exit strategies mean that technological solutions must be complemented by policy and institutional innovations that enhance sustainable agricultural growth in order to directly and indirectly reduce poverty
- The CGIAR's current portfolio of outputs (germplasm improvement germplasm collections sustainable production systems improved policies and enhanced research institutes) is potentially the right combination of research and research related approaches needed to bring about the CGIAR's goals

Issues

- The CGIAR's goals must be specified in measurable preferably quantitative terms both to ensure their plausibility and to facilitate monitoring and evaluation of progress toward achieving them Elaboration of the CGIAR Logframe to include performance indicators at the System level would serve to make research more impact oriented and strengthen aggregate accountability to Members
- The content balance and degree of integration of the CGIAR's portfolio warrant review and as appropriate refinement to ensure that (a) outputs are congruent with changes in the external environment for science technology policy and legal/regulatory frameworks

that influence CGIAR priorities and (b) that mechanisms to maximise interaction and synergy among outputs produce the desired impacts

- The CGIAR's work on integrated programmes which combine sustainable production systems with integrated natural resource management (NRM) and which have socioeconomic dimensions and a regional scale requires conceptual innovation to ensure that poverty and human aspects are sufficiently addressed

S 2 Broadening the CGIAR's goals

This could be done by including the following possible candidates to the CGIAR's goals

- Mitigation of climate change specifically through enhanced carbon sequestration and reduced methane emissions
- Provision of ecosystem services i.e. water purification flood control coastline stabilization waste treatment biodiversity conservation soil generation disease regulation maintenance of air quality and aesthetic and cultural benefits and preservation of the rural landscape

Alternatively the choice could be to reaffirm the current goals but to consider climate change ecosystem services conservation of culture and the preservation of rural landscape as desirable by products (externalities) or tangential (secondary) goals. These will be monitored and reported on as additional benefits from CGIAR programmes to increase sustainable food security

Justification

The CGIAR currently produces intermediate outputs relevant to some of the above goals particularly in the areas of mitigation/adaptation to change and *ex situ* conservation of genetic resources for food and agriculture. Treating these (now incidental) goals as ends rather than as by products may also help to attract resources from non traditional sources such as the three UNCED associated conventions the Global Environment Facility (for collaboration at national level) and environment ministries/agencies. Such expansion would also necessarily involve the CGIAR in greater cooperation with inter governmental bodies (e.g. Commission on Sustainable Development) responsible for monitoring and reporting on international activities in some of the proposed areas and for recommending action plans affecting the conservation and sustainable use of natural resources vital to the agricultural sector

Issues

Fully addressing the proposed goals would imply that the current goal of protecting the environment would no longer be linked exclusively to agricultural outputs and would be of relevance to both developed and developing countries. The implications of these changes for the CGIAR's capacity to contribute to the goals of poverty alleviation and food security would need to be carefully assessed as even if additional resources materialized the scientific profile of the System would require significant modification. The CGIAR's comparative advantage vis a vis other international actors already heavily involved in the environment sector would also need to be assessed. Finally an expansion of the CGIAR's

capacity in the domains of policy and law would be necessary assuming its advice was sought by the intergovernmental bodies noted

S 3 Limiting the goals or narrowing the focus

Single goal alternatives could include

- ***Reducing rural poverty (i.e. dropping urban poverty reduction as a goal)*** The CGIAR's impact on urban poverty to date has basically been through a reduction in the price of food. This is principally determined by international forces and by large scale farm production both of which can be attained by research carried out by developed countries, the private sector and NARS. Even if the McCalla projection that 90% of the increase in population will come from developing countries located between the Tropics and that only 10% of the world's food production is traded proves to be correct urban populations will still have most access to traded food.
- ***Poverty reduction (i.e. dropping protection of natural resources as an independent goal in itself)*** In which case improved management of natural resources including adequate attention to conservation of resources to ensure long term productivity would be an essential consideration in obtaining this goal.
- Achieving agricultural advances similar to those created by the green revolution in regions with a high incidence of poverty but which have been thus far bypassed by technological breakthroughs in agriculture and where there is a high possibility that yields can be increased using the CGIAR's scientific capacity. This would lead to targeting productivity gains in sorghum, millet, root crops and smallholder farming systems in the Sahel and other marginal areas. The private sector and NARS could take over the CGIAR's efforts to improve germplasm in more favoured areas.

S 4 Natural resource management for food security

Under the assumption that much of the genetic resource management research (GRMR) will increasingly be carried out by the private sector the CGIAR will be able to expand its role in research on improved management of natural resources an area in which the private sector is unlikely to make significant investment and in which NARS and Non governmental Organizations will still require strategic partners in order to fulfil their missions.

A key area of focus will be the development of a typology of problems regarding NRM to determine which problems are solvable and therefore appropriate for research by the CGIAR and its partners and which are not. In this context NRM will focus mainly – but not exclusively – on making agricultural production more efficient and profitable. Safeguarding the environment will be an important and always sought after secondary focus but not the primary goal.

2 DO WHAT SCENARIOS

S 1 Essentially no change

The CGIAR conducts multidisciplinary research centred on specific commodities ecoregions production sectors NRM and farming systems the aim being to improve whole production systems in a sustainable manner The focus is on upstream strategic research of an international public goods nature

Justification

- Poverty weighted congruence analysis confirms that some 90% of the commodities on which the CGIAR works are of importance to the poor in developing countries Allocations to work on production sectors forestry livestock fish crops are derived from this poverty weighted analysis and are thus of commensurate importance to the poor
- The CGIAR has a strong comparative advantage in doing research on these crops/commodities by virtue of its knowledge of and research on these commodities and the partnerships and linkages developed over the last 25 years
- Past achievements have been impressive and a number of potential breakthroughs are probably in the pipeline
- Large benefits would accrue indirectly to poor rural and urban consumers through a reduction in prices of these commodities
- CGIAR should not enter uncharted territory for which it has no comparative advantage/experience/critical mass

S 2 Increase the number of commodities (e.g. vegetables, cash crops non-ruminant animal products, non-forest timber products) and instruments (e.g. post-harvest technologies, ecosystem characterization/ management)

Justification

The CGIAR may be missing out on unique opportunities to raise incomes and improve the welfare of poor households Many of these households could directly and indirectly benefit from research based productivity improvements in labour intensive high value crops such as vegetables cash crops and non ruminant products through increased market surplus or improved family nutrition

A primary focus on largely subsistence non tradable commodities may not best serve the interests of poor household producers Identifying profitable cash crop enterprises for small producers may be essential in order to maintain their competitiveness and ultimately their survival

The CGIAR should be commodity focussed but not commodity bound That is to say that it should not focus on all crops of relevance to poor producers but focus on selected

commodities which could evolve in importance through time. The CGIAR should adopt a commodity focus that could eventually make poor producers more competitive in the market place and earn them a livelihood that equals or betters their other alternatives.

A stronger focus on some of these commercial and/or niche crops represents an opportunity to directly enhance the welfare of women as they are often responsible for growing vegetables, home gardens, backyard animal husbandry (goats, sheep, rabbits, chicken, fish) and collecting forest products. It also opens up opportunities to directly exploit lucrative opportunities in urban and peri-urban agriculture. Finally, some non-ruminant animal products (eggs, poultry, aquaculture) are expected to have very high rates of growth in demand in developing countries, both among urban and rural poor.

The following could be taken into consideration but note should be made that putting these into effect will require much greater efforts by the CGIAR in poverty mapping:

- Vegetable research: contribution to improve nutrition of people
- Tapping burgeoning urban and peri-urban agriculture with high rates of return
- It is by now well known that permanent damage is not necessarily done by cutting down tropical forest because the forest can re-grow fairly rapidly. The real damage depends upon what is done with the land after clearing. Using it for annual crop/arable agriculture is about the most damaging process as the soil is in danger of severe water erosion and nutrient leaching. This is of course one of the bases of the use of trees in agroforestry. Most tree crops give a similar level of protection and it seems remarkable that CGIAR gives no specific attention to the main tree crops of the tropics. These include coffee, tea, cocoa, oil palm, coconut and several major species of fruit.
- Non-CGIAR commodity cash crops (cotton, coffee, tea, cacao, sugarcane, spices) are of special importance to small subsistence farmers as they enable them to earn money while the staples they produce (CGIAR commodities) are not sold or cannot compete with low-price imports. However, when there are high transactions costs on food markets, as for instance in distant regions or regions with poor infrastructure, complementarities between food and cash crops need to be achieved in integrated farming systems.
- Work on post-harvest research as crop processing can create rural employment.
- Work on non-forest timber products which can provide income and niche opportunities for rural people.
- Quantitatively estimate trade-offs among ecosystem goods and services so that utilization of resources for agricultural production can be understood in terms of possible impacts on the supply of goods of importance to clean water, timber, biodiversity, flood control, etc. As projected climate change may well exacerbate the problem of balancing supply and demand for resources, particularly in developing countries where adaptation will be subject to financial and other constraints, strategies to mitigate and/or adapt to climate change need to be developed and are of particular importance to small farmers in these countries.

S 3 Decrease the number of commodities/instruments

Justification

It is likely that the private sector will continue to increase its investment in agricultural research on some of the traditional CGIAR mandate crops e.g. wheat, rice and maize. This offers the CGIAR an opportunity to narrow its commodity focus and to strengthen its investment in neglected or orphan crops e.g. millet, sorghum, plantain and cassava. In addition, it will also allow the CGIAR to achieve critical weight in some previously under-researched regions (marginal environments) or topics e.g. drought research, climate change etc.

The following are some of the options open to the CGIAR:

- Focus on fewer crops and leave major staples in favoured areas to the private sector, NARS and agricultural research institutes
- Focus on crops in disadvantaged areas and in countries with weaker NARS
- Focus only on crops for which no private research can be mobilized (market failures) e.g. millets, sorghum
- Focus on crops and cropping systems/environments that are less well researched and where gains through productivity research are still high (orphan crops, orphan farming systems)
- Focus on traits of importance for major crops (e.g. biotic and abiotic stress resistances)
- Focusing on one large and significant ecosystem would satisfy these concerns. The tropics have (a) little help from the private sector, (b) the weakest NARS, (c) commodities and environments that have a more limited research history, (d) frail and marginal environmental conditions, (e) a large share of the rural poor, (f) food insecurity, and (g) the largest future projected increases in food demand. It could be the CGIAR's niche: it is a big one.
- Focus on genetic resources management research as the most efficient and feasible vehicle by which agricultural research can contribute to the competitiveness of the ecosystem(s) and its rural poor.

S 4 Focus principally on NRM

Justification

- The CGIAR core competence has up to now been in genetic improvement of crops. With greater investment in crop biotechnology being done by the private sector and advanced research institutions in the North, it is likely that the CGIAR's comparative advantage in crop genetic improvement may decline in the future. At the same time, there remain many challenges to sustainable agricultural development that the private sector will address only partially, if at all: erosion is taking a growing toll, water shortages loom

in many areas of the world and the majority of the world's fisheries are overexploited. Feeding the world will also require maintaining biodiversity. The *raison d'être* of the CGIAR should be to develop production and resource management methods that can be used by the world's resource poor farmers so that they can obtain secure livelihoods without degrading the natural resources.

It has been argued that the CGIAR can ill afford to have three fairly independent and major agendas of research – poverty, genetic resource management and NRM. It can also be demonstrated that there are trade offs and costs associated with engaging multiple objectives. Therefore, resources should not be wasted on independent research agendas in poverty alleviation and natural resources management.

Nonetheless, it is recognized that

- Inefficient management of natural resources limits exploitation of improved germplasm
- Sustainable management of terrestrial and aquatic resources is required that links habitat research to integrated disciplines of natural and social sciences (for unimproved germplasm)
- There is a need to improve knowledge on how specific ecosystems respond to biophysical changes, develop forecasting tools to identify win-win opportunities for ecosystem management and develop integrated regional models incorporating physical, economic and technological change to enhance policy makers' understanding of the consequences of different ecosystem management options. These objectives in cooperation with other major international science assessment entities.
- International coordination is required to link site-specific research to scaling up NRM, taking into consideration off-site effects.
- CGIAR Centres possess great scientific and organizational strengths, have excellent links to international world science and to NARS, and are positioned strategically around the world in or near developing tropical countries. Therefore, the CGIAR has a comparative advantage for anything that calls for work on the ground in the tropics (Tinker).
- Strategic research into NRM should take more into consideration whether the farming systems that are being used in a given region are sustainable and efficient. This means that organic matter, nutrient levels, soil structure, erosion and ease of root penetration are all at acceptable levels, that cycling rates of nutrients are acceptable, and that this is proven by sustainable crop yields that are fully satisfactory as percentages of the yield potential and by acceptable rates of off-site losses. This can only be achieved if CGIAR Centres become more closely involved with real farms on a long-term basis. The results will determine whether the Centre itself knows how to farm sustainably and profitably in this farming system at say three different levels of input. If this is not the case, the Centre should aim to find out **why**. This is the essence of **yield variation research**, which eventually should lead to changes in farming systems to make them sustainable (Tinker).
- The net result of increased livestock production is that a much larger amount of feed and fodder is needed – perhaps up to 50% more than at present. It is unlikely that significant

amounts of new land will be available and land will be needed for three principal reasons (i) agriculturists/food security experts will demand more for agriculture (ii) biodiversity experts/ecologists will demand more for wildlife preservation (iii) scientists researching global change will demand more for carbon sequestration (and will unite with the biodiversity community on the preservation of forest land) Increased agricultural production can only come from two sources a re intensification of agriculture in the temperate zone with re use of set aside land and a steadily growing intensification of agriculture in tropical lands This implies that **less suitable land** will be exploited in the tropics under climates that are **less predictable** It follows that all the usual forms of environmental damage caused by agriculture will increase This will not be true everywhere but will bite hardest where population growth is largest and spare land is least possibly in Sub Saharan Africa India or China Imports from temperate sources will of course increase It follows that to see any real physical quantum change in the need for NRM (as long as climate change proceeds steadily) a growing number of serious problems will become progressively more difficult to solve (Tinker)

- Water will be a considerably greater problem in 15 years time The most obvious path to intensification is irrigation [WMI should have the data to inform TAC as to where the main shortages will emerge – one likely candidate is Pakistan The most pressing task may be to stop the silting up of existing dams that demands huge sums just to keep the total area of irrigated land constant so there will be a growing pressure to control erosion Some of the silt will originate in other countries which will call for the essential skill of conflict management If the total foodstuffs produced increase by 50% the total use of plant nutrients must increase by considerably more to ensure high yields The nutrient cycle will speed up greatly perhaps doubling with nitrate and nutrient pollution of water greatly increasing especially where there is much re use of water in irrigated basins Water quality will be a crucial problem that can only be solved by NRM on the soils of the river basin (Tinker)
- International coordination is required to link site specific research to scaling up NRM taking into consideration off site effects
- As mentioned above the resources of the CGIAR are eminently suitable for tackling NRM issues (see also Tinker's think piece)

3 HOW TO SCENARIOS

S 1 Essentially no Change

Justification

If it ain't broken don't fix it Centres organization and mode of operation work well with little overlap between Centres in mandate or responsibility and excellent collaboration between Centre Directors

- The CGIAR is based on the concept of the international Centre as the organizational mechanism for conducting the Systems research and research related functions Each Centre is a centre of excellence has a problem solving approach brings together a critical mass of scientific manpower and resources has a multidisciplinary research approach

has the ability to catalyze and coordinate research on well focused themes is free from political constraints and has the ability to maintain continuity of effort over the sometimes long time periods needed for success This Centre concept is complemented by other organizational approaches such as network arrangements, collaborative research programmes or partnerships and outposting of staff

Justification

The international Centre concept remains valid with the important proviso that Systemwide programmes to address cross sectoral/multi disciplinary problems require dramatic improvement for example through the formation of task forces around high priority themes defined in terms of particular outputs (See also below *Issues*)

Issues

Reassessment of the content and balance of the CGIAR's portfolio should serve to more clearly delineate the role of Centres at various levels in the hierarchy of System objectives as specified in the CGIAR Logframe Pending formal analysis of changes in the external environments influencing CGIAR priorities anticipated portfolio changes may include expansion of capacity in policy institutional and legal/regulatory domains with formal representational and/or policy advisory responsibilities at the intergovernmental level (e.g. CBD FCCC CCD FAO/CGRFA WTO/TRIPS) assigned to Centres specializing in these activities and contraction of technology related research as responsibilities for certain commodities devolve to NARS ARIs and/or the private sector

S 2 Redefine/clarify the regional mandates of some Centres

The CGIAR should have in each region a Centre with specific responsibilities for that region This idea is based on the presumed cost economies that would result the capacity it would generate for CGIAR units to sort out priorities better within a region and the guarantees the regional Centre would offer that regional work would be truly trans regional and spill over to other world regions As an organization interested in producing international public goods the challenge for the CGIAR will continue to be to engage trans regional research agendas so that work in Africa (for example) spills over to Asia and to Latin America

A regional centre would also allow for

- Easier targeting of ecoregions as the Centre would serve as the single regional focal point for the CGIAR
- More effective NRM work
- Multi commodity multi sectoral and multidisciplinary approaches
- Better coordination with NARS and other partners
- Integration of efforts by different Centres

- Facilitate inter regional collaboration
- Much greater orientation towards impact
- Regional Centres could be complemented by Centres with global commodity responsibility (e.g. cereals, roots and tubers, legumes, livestock, forestry and fisheries and water)

The CGIAR must be a decentralized organization to span effectively a vast range of ecosystems. In this scenario, the CGIAR would have one Centre for each of the regions. It is difficult to conceive of a selection of priorities that could be handled from a single central location.

Decentralized decision making and governance by the individual decentralised units should receive advice from two main sources: (a) a centralized assessment and planning unit, and (b) representatives of stakeholders from the NARS with which the decentralized units are working. The latter advice and information could be provided, for example, through an annual meeting of stakeholders, somewhat like the annual meeting/assembly of stockholders but managed perhaps through electronic conferencing techniques because of the distances likely to be involved. Stakeholders would be expected to elect members to the executive bodies of the decentralized units (e.g. boards of trustees).

The new CGIAR would become a consortium of self-standing and independent entities woven together by the intellectual power and influence of a central cross-entity unit.

S 3 Use of task forces

Justification

The CGIAR is increasingly dispersing its efforts. This is, of course, symptomatic of the enormous demands for public sector research, confirming the continuing role of the CGIAR system. However, due to dispersion, the System is increasingly at risk of not being able to reach the critical weight regarding its achievements, which is needed to make a huge difference on any one issue, as occurred in the 1960s for the Green Revolution. The System needs to sharpen its strategic choices, achieve broad mobilization of its research capacity in support of these priorities, and secure long-term financial support in order to see the results of its research come to fruition and deliver other major achievements of the calibre of the Green Revolution. This implies revising the processes through which priorities are set, research is implemented, and resources are mobilized and committed.

This could be done by

- Using a participatory priority setting mechanism with broad consultation of stakeholders to arrive at well-defined themes with specific outputs that could be prioritized. Ecoregional approaches and human dimensions should be incorporated into priority setting for technology development.
- Use formula matching by the major donors, principally the World Bank, where percentage matching is not totally passive as under the current system, but driven by a

few strategic priorities recommended by TAC and broadly agreed upon by CGIAR management, scientists and stakeholders. To do this intellectual leadership needs to be exercised by TAC and major donors. Coordination achieved between Centres in pursuing strategic priorities and consultations with stakeholders made effective and credible. Undertakings that correspond to these priorities would be matched at a significantly higher level than other undertakings with funds remaining unrestricted. Logframe reporting, external reviews and impact analysis will provide the instruments to check that projects are indeed pursuing, as stated, strategic priorities.

- Use a task force approach to pursue a small number of time bound impact driven major undertakings with the potential for critical mass achievements. As opposed to the current matrix approach to inter Centre initiatives these task forces would be managed independently from Centres even though they would be located in Centres and borrow current staff members. Task force CEOs would have full discretion to hire needed staff, seek partnerships and outsource undertakings in particular with NARSs, NGOs, northern platforms and the private sector. These alliances would indeed be essential to reach the desirable critical mass. Project horizons would be medium term, say 5 to 10 years. Goals against which logframe progress and impact analysis can be assessed would be well specified. These undertakings would be recommended by TAC and supported by a broad coalition of donors. Going beyond the recent CGIAR mandate, strategic research could be explicitly linked with technical assistance initiatives to seek measurable impacts.
- Increase the number of System wide programmes to ensure close collaboration between Centres and other partners in pursuing themes of high priority to the System as a whole.

S 4 Coordinator catalyst contractor model pursuing well defined priorities

Justification

The CGIAR accounts for less than 4% of the investment in agricultural research for developing countries. The CGIAR's niche is to serve as a catalyst and coordinator for research of importance to the poor. Much of the CGIAR's research should be outsourced to advanced research institutes and to mature NARS. This would also reduce the current high overheads of the CGIAR.

This could be achieved by

- A more virtual CGIAR drawing more on sabbaticals and using internet to interact with a network of public and private sector scientists located at their home institutes.
- The CGIAR being a knowledge base for agricultural research for the poor.
- Brokering for the poor in technological and policy interventions.
- Competitive grant approach.
- Increasing and enhancing the strength of NARS. The CGIAR's success will require strong NARS to fulfil successfully its mission and mandate. NARS should encompass related seed industries, policy institutions, institutions of higher education and private

sector (profit and non profit) institutions including those adding value to primary production through post harvest handling and processing Therefore the CGIAR should develop a meaningful and strong capacity to help study advise and strengthen NARS

4 WITH WHOM SCENARIOS

S 1 Typology of partnerships

Recognize types of partnerships based on purposes (Gelia Castillo) such as

- Partnership for research and technology generation focused on well defined research problems
- Partnerships to enhance research impacts (e.g. technology delivery extension legislation national policies etc.)
- Partnerships to develop research capacity (training institution building etc.)
- The kind of partners partnership strategies modalities and sources of funding would differ according to the type of partnership

S 2 Explore various partnership arrangements

- *The private sector* Consider various models ranging from Berkeley – private sector type collaborations (Rausser) to full service contracting (the Jeffery Sachs model) to public private philanthropic collaborative activities (Merck & Co /WHO/Africa model)
- *NARS* Where is their comparative advantage? Much of the earlier NARS – CGIAR partnerships could be replaced by CGIAR – NGO – private sector collaboration because of the incentives The definition of NARS could be broadened to include NGOs and national universities
- *Broad platforms* Seek alliances based on well defined common goals and interests (e.g. ICRISAT/VLS studies in the past) mainly with universities and ARIs (including use of sabbaticals visiting professorships) but also with others
- *National and international organizations engaged in combating poverty* While NARS have been the traditional CGIAR partners for work on germplasm new partners need to be found to integrate the CGIAR's research outputs on agricultural technology into comprehensive strategies to reduce poverty Building these partnerships will require working with international development agencies with broader mandates than the CGIAR such as UNDP IFAD FAO WHO and the World Bank Anti poverty partnerships will include national and local governments NGOs farmers and grassroots organizations and the private sector As part of its social science and management research the CGIAR will be called to experiment with best practices on developing and working with these partnerships The CGIAR cannot undertake adaptive research in farmers' fields but needs to be linked to other agencies to design implement and evaluate successfully the full range of its programmes

Justification

- Shifting comparative advantages in commodity research coupled with the projected increased demand for research based policy and legal/regulatory advice implies corresponding changes in the CGIAR's collaboration, networking and partnership arrangements. Upstream strategic research for staples is expected to devolve increasingly to NARS in partnership with ARIs and the private sector with certain CGIAR technology Centres playing a brokerage role. Certain CGIAR Centres can also be expected to play an advocacy role in intergovernmental fora, such as IPGRI with FAO/CGRFA, the CBD, WTO/TRIPS dealing with genetic resources issues such as access benefit sharing, sustainable use and IFPRI or a new centre to represent the CGIAR in fora such as the CSD, FCCC, CCD dealing with policy issues in the areas of NRM and environmental protection. Finally a substantial broadening of partnerships with NGOs and public sector agencies can be expected in the fields of education, health, nutrition and other sectors that complement the CGIAR's efforts on poverty reduction.
- The budget of the CGIAR represents about 4% of the total funds devoted to agricultural research for developing countries. If the International Centres plan to remain important players in 2010 they must work more in partnerships, consortiums or networks.
- To enhance the Global Forum for Agricultural Research (GFAR) mission which is to mobilize the world's scientific community in their efforts to alleviate poverty for food security and sustainable agricultural development (GFAR).
- To exploit the new global knowledge system for food security which takes full advantage of the revolution in communication and information technology (System Review).
- A significant shift in emphasis is needed in partnerships that go beyond a simple transfer of technology extending from socioeconomic needs to technology and back again (Conway).
- Develop mechanisms (i.e. new partnerships) for the diffusion and adoption of alternative technologies.
- Promote participation of NGOs, national universities and farmers' organisations in research priority setting and implementation.
- Decentralize research programmes and develop transparent-horizontal partnerships with regional, national and local NGOs.