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Toward Global Partnership in Agricultural Research

**The Needs and Opportunities for Agricultural Research From
the Perspective of Latin America and the Caribbean**

The attached paper is circulated as an input into the discussions leading to the *Declaration and Action Plan for Global Partnerships in Agricultural Research*. (Note: This paper covers the research needs and opportunities aspects of the Regional Action Plan distributed as Document No. ICW/96/GF/07)

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I. General Framework

The previously distributed document entitled: " Plan of Action for Strengthening Global Agricultural Research: The NARS's Perspective" should be the starting point to place NARS's into perspective within Latin American and the Caribbean (LAC) regional dimension. This document brings up all the general challenges that NARS's must face in the near future and in a cost- effective way.

The Plan of Action (PA) provides a general framework to systematically place different levels of NARS's actions and their partnership as well as the association with the CGIAR system and the international scientific community, to put into practice a shared vision to reach a sustainable agriculture, viable and equitable.

The world is aware that the achievements of the Green Revolution are now insufficient to face the problem of increasing rural poverty, which in LAC dramatically increased from 195 millions to 250 millions in the period 1980-1992. Besides, as the PA indicates, agriculture research faces additional challenges of increasing productivity as well as improve income distribution, alleviate rural poverty, providing rural employment opportunities for the land less peasants with food security and conservation of the natural resource base.

It is important to recognize that the new agricultural research vision is taking into consideration that many technological achievements during the last 30 years had a minor impact among small farmers and peasants, but rather increased the gap between the small and the commercial farmers. The above has been a consequence of a rather biased agricultural research orientation directed to commercial agriculture without taking into consideration the economic and environmental as well as the highly risky type of agriculture developed by the small farmers.

Now, we are on the breakthrough of what we may call "Second Green Revolution" based on the development of new tools such as Biotechnology and particularly on Information Technology, all of which give a new opportunity to mankind to face the above mentioned challenges, but mainly to disappear the hunger menace from the world.

We shared the PA vision that to secure the above mentioned goals, new ways to generate and transfer technology must be explored, based mostly on a collaborative work of the technology's users, researchers and public and private extension agents.

II. NEEDS AND OPPORTUNITIES IN LATIN AMERICA

The Regional Plan of Action for the Strengthening Agricultural Research in Latin America and the Caribbean includes the issues pointed out during the First Consulting Meeting between the CGIAR and the NARS's from Latin America and the Caribbean, hold in Santa Fé de Bogotá in February, 1996.

Regional Research Priorities.

The rather special regional aspects to be taken into consideration in the task of establishing research priorities are:

- a) A significant agroecological and socioeconomic heterogeneity, as well as research and technology transfer institutional capacities, all of which implies that the strategies to be utilized must be sufficiently differentiated to make sure that they are viable operationally wise as well as accepted by the users community.
- b) The indicated heterogeneity has led to a unequal appropriation of the results coming from the IARC's, therefore any future effort should consider the reduction of these asymmetries to achieve a better distribution of the benefits.
- c) On the other hand, there are new institutional participants or actors (private sector, ONG's, universities) which are playing a very important role in developing additional research capacities, over and above the important effort of the public sector. It is because in some countries it's beginning to take shape the figure of the National Agricultural Research System (NARS), as a basic element to interlink with the IARC's System.
- d) The Agriculture Technology has significantly increased and has been generated through international research nets and strategic alliances. It is because of this that the association of the NARS's with the CGIAR system is very important in the search of new technological options.

It is in this framework that during the First Consulting Meeting mentioned above the identified high-priority research topics for the region, similarly to the ones established by the CGIAR-TAC, were the following: i) Poverty Alleviation; ii) Food Security; iii) Sustainable Natural Resource Management; iv) Strategic Research; v) Ecosystems Typification; vi) Export Products Promotion; and, vii) NARS's Institutional Development.

III. CURRENT DEVELOPMENTS OF THE NARS IN MEXICO (INIFAP).

This is a good opportunity to give a short note on the recent developments that are taking place in Mexico now days, particularly through INIFAP, to strengthen agricultural research, mainly through collaboration among the different research development agents.

To strength the capacity of the country to generate and transfer appropriate technology to the producers, Agricultural Research Foundations have been created in each and every one of the 31 states in the country. Federal and State financial resources have been allocated in this foundations, in addition to the contributions of the producers, for the technology transfer and development of applied research.

To improve the priority setting process and better reflect these priorities on the global agenda, INIFAP has increased collaborative work with CIMMYT. This partnership has been as users of technology already generated and also as associates in joint research projects. INIFAP and CIMMYT have jointly defined the following common priorities: Rainfed maize and wheat new varieties for high lands, maize apomixis, conservation of genetic resources, sustainable agriculture and economic evaluation. Our association with CIMMYT also seeks complementary support from CIAT, CIP and IRRI.

To strengthen the NARS's/NARS's association and its Fora a new approach among NARS's has been initiated, particularly to set possible collaborative projects. This association includes the USDA-ARS (Agricultural Research Service).

To support the development of large impact projects, like the ones the Mexican Government is promoting in the poor rural areas of the southeast, INIFAP will be signing this coming November, collaborative agreements with Malaysia Research Institutes, to work on oil palm, rubber and tree plantations.

Mexico is also consolidating associations with other scientific institutions within the Global Agricultural Research Community. At the national level INIFAP has promoted and provided financial resources to integrate a Competitive Fund, cooperatively with the National Council of Science and Technology, this last one responsible for the science and technology policy in the country. This Fund will serve to support strategic research and will be open to all public and private research institutions, including the universities of recognized excellence.

All these coordinated efforts are just a part of a Strategic Mid Term Plan whose first draft INIFAP is finishing this year. This Mid Term Plan will include Mexico's priorities and strategies to strength INIFAP to face its new challenges. Mexico will consolidate the NARS's to make an efficient use of the scarce resources to stimulate the goal established by the Mexican Government of assigning during the coming 4 years period an agricultural research budget equivalent to 0.7% of the GDP. This means that the resources allocated to agricultural research will practically be doubled.

IV. NARS'S ACTIVITIES AND OPPORTUNITIES IN LATIN AMERICA AND THE CARIBBEAN.

To recognize the existence of national agricultural research systems in the countries within the region does not necessarily implies that they are fully articulated, its components and flows are established, and the interactions and time dynamics are defined.

The systems are undoubtedly present but, as indicated before, there exist a significant asymmetry among the different countries systems. This makes a rather important action to strength the NARS's through an orderly institutional rearrangement and alignment to provide the systems with the proper base to promote a collaborative research through prioritized regional projects. This will allow a complementary work among different institutions in the countries which in turn, will stimulate an efficient use of the scarce available resources for agriculture research in the region.

To support the integration of joint projects in the region, it is necessary to define national research priorities in each country, to sponsoring regional and subregional research initiatives.

The priorities should be based as much as possible on simple criteria such as: important agricultural products at the local or Agroecological Zone, definition of the real means to solve clearly established problems; in other words the approach must be based from the base up; that is, starting at the rural community level and following a demand model.

Once the priorities have been defined an orderly research system must be integrated in each country and an institution should take the leadership to promote coordinated activities.

To accomplish such a paramount task there is a need to generate mechanisms to facilitate and promote the interaction and activities among NARS's on common high-priority problems.

ISNAR might play an important role on the strengthening of NARS's as well as on developing associations and strategic alliances among national research systems and members of the international research community to accomplish strategic research with an evenly definition of duties and responsibilities. It is necessary to emphasize this point since it is precisely in this link where the asymmetries are evident .

ISNAR could also participate in the integration of consortia among NARS's, IARC's and the donors community to develop research megaprojects at the ecoregional level.

Consequently the megaprojects need to have clearly defined the following elements:

- Specific collaborative work products, of interest to the donors.
- Well defined linkages among institutions, of interest to the partners.
- Established priorities within megaprojects, of interest for resources allocation.
- Clear megaproject management, of interest for budgeting and experts allocation

- Megaproject impact measurements previously defined, of general interest
- Timing due defined to allow on going, periodical and feedback evaluation

The above mentioned criteria make necessary to accelerate the elaboration of the Medium Term Plan for the region. This Plan should be based on the strategic plans that each national system is developing. The Mid Term Plant must include by all means, collaborative research as a basic work strategy. The efforts achieved in the Latin America and the Caribbean agricultural research regional forum have a clear indications of this prime idea.

V.CONCLUSIONS

It only remains to emphasize the need of establishing a participatory process among NARS's and the CGIAR system. That will facilitate the team work, but more important yet it will make possible the commitment of the global, regional and national scientific communities to face the new challenges that the agriculture research has now days.

Therefore, the Latin American and the Caribbean region agrees with the proposal "NARS CONTRIBUTION TO THE DECLARATION OF GLOBAL PARTNERSHIP IN AGRICULTURAL RESEARCH FOR ENSURING FOOD SECURITY, POVERTY ALLEVIATION, AND SUSTAINABLE NATURAL RESOURCE MANAGEMENT"