



**GFAR**

GLOBAL FORUM ON  
AGRICULTURAL RESEARCH

FORUM MONDIAL DE  
LA RECHERCHE AGRICOLE

FORO GLOBAL DE  
INVESTIGACION AGROPECUARIA

## **NARS Secretariat**

### **Comments on the TAC Report: *The CGIAR and National Agricultural Research Systems (NARS)***

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We fully endorse the fact that TAC has chosen the subject of CGIAR-NARS collaborative relationships as one of the priority strategic issues to be address over the next couple of years. We are fully aware of the fact that there are many good examples of CGIAR-NARS relationships and joint ventures that have developed during many years of working together. Recent workshops held in various International Centers (IARCs) have clearly identified and described such cases of research partnerships.<sup>1</sup> But we also believe that this is a growingly important issue for three reasons:

- 1) These relationships and partnerships can be strengthened to fit more closely with changing conditions, knowledge, understanding and capacities.
- 2) This changing context is leading to *changing strategic roles* that IARCs can play, for example in the new areas of research (i.e. biotechnology, ICT applications, agroecological approaches, etc.). This in itself is changing the relationship between the CGIAR and NARS.
- 3) The interaction between the CGIAR and NARS has traditionally been conceived in terms of interaction with individual NARS. In fact, it has really been conceived in terms of the interaction with specific NARIs. This relationship now has to be rethought in terms of two important changes: (a) The institutional diversification that is taking place in agricultural research (new actors), and the challenges this is posing for the integration of NARS (evolution from the NARIs to the NARS model); and (b) the emergence of the Regional/Sub-Regional Fora and Programs, that generates new opportunities and possibilities for collaboration with NARS, through these bodies

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<sup>1</sup> An example of this can be seen in the recent CIAT publication on: \_\_\_\_\_ -

and/or programs. These two factors are having a clear incidence on CGIAR-NARS relationships. They generate new opportunities and new modalities of cooperation.

The paper prepared by Hans Gregersen mainly analyzes the first point mentioned above. In the subsequent activities that are being envisaged on this topic, the other two points should also be considered.

Thanks to our proximity to the TAC Secretariat, and as part of the close working relationship we have started to develop, we had occasion to interact both with Hans Gregersen and with Shellemiah Keya in recent months in the preparation of this report. We made several observations to an earlier draft of this paper, and we are very pleased to note that many of them were taken into consideration in this revised version.

Our comments are organized around five main points: (a) the importance of the strategic questions that are raised, (b) the conceptual framework that is used to describe the differences among NARS, (c) the specific recommendations or suggestions that are presented in the report with respect to each of the strategic questions, (d) the main general action recommendation that comes out of the report, and (e) a similar joint effort we are initiating with IAEG related to an important aspect: how to carry out impact assessment and evaluation of research partnerships.

## **Importance of the Strategic Questions Raised**

The paper correctly identifies five key or strategic questions related to the strengthening of CGIAR-NARS collaborative relationships. These are:

- Analysis of various mechanisms and modalities of cost-effective collaborative research efforts between IARCs and NARS and changing nature of them.
- Identification of comparative advantages as a way of articulating collaborative strategies and agreements.
- Reconciliation of CGIAR and NARS priorities seeking complementarities and synergisms between their efforts.
- Financing of collaborative research activities.
- Use of ICT in improving information and knowledge flows.

An aspect that does not receive sufficient attention in the paper is that of the process of the globalization of science, and of the changing patterns of research organization that are emerging, as a consequence of the changing environment. Such an analysis could reinforce the conclusions and recommendations of the paper. A second aspect that is mentioned, but only marginally, is the need to strengthen NARS as a key component of the chain that goes from knowledge (and technology) generation, to adoption, to application and to development impact. This line of reasoning can also reinforce the conclusions and recommendations of the report.

## **Observations on the Conceptual Framework used for Analyzing NARS**

The paper correctly point out that NARS constitute a very heterogeneous set of research systems, that greatly vary according to various criteria. In seeking to characterize and analyze some of those differences, the paper speaks of *the multidimensional continuum of NARS and of relationships*, that is described in terms of three main dimensions or continua:

- A *continuum of institutional capabilities* (from strong to weak).
- A *continuum of comparative or relative advantage situations*, from high to low comparative advantages.
- A *continuum of relationships* between NARS and IARCs, from fully integrated working partnerships to informal and sporadic collaborative arrangements.

We would like to make two methodological observations. The first one is that we can classify NARS in the first and third continua mentioned above, with interesting insights into the implications of this for the role IARCs can play in each case, and for the type of collaborative relationship that can emerge. The second continuum does not apply strictly to NARS. It applies rather to *research areas* (a continuum of research areas), in which in certain research areas IARCs have a greater comparative advantage than many NARS, while in other research areas IARCs have less comparative advantages than NARS (in any NARS). It is therefore difficult to generalize to the NARS level, and say that an IARC has a comparative advantage (or that it does not have it), for a given NARS. IARCs can make important contributions in all NARS.

The second methodological observation is that these three criteria are significant when looking at NARS *from the perspective of the CGIAR*, and in terms of NARS-CGIAR relationships. If we analyze NARS in order to understand better their characteristics and differences, and the factors that have an impact on their effectiveness, then the analysis of the *multidimensional continua that differentiates NARS* would have to take into consideration *other criteria* that could be more important than the three that are analyzed in this paper. In a certain sense this is an unjust criticism of the report, since the consultant was asked to look at NARS from a CGIAR perspective. But I am raising this issue in order to point out that the analysis of the multidimensional continua that differentiates NARS is an important topic for the understanding of NARS as such, and as a tool for improving their effectiveness. Once we start to address this issue, we will have to bring into the picture a very different set of criteria and indicators. This is closely linked to the suggestions that are made in the paper in recommendation *A1*, related to the characterization of NARS and to the issue of agricultural research indicators (see the Annex below).

## **Comments on the Specific Recommendations or Suggestions Presented in the Paper**

The report presents several suggestions and recommendations on actions that TAC can undertake in each of the five strategic points, in cooperation with other actors, specially in cooperation with the NARS Secretariat because of the topic involved. In the Annex below specific comments are presented on many of the suggestions and/or recommendations, adding some comments from a NARS perspective.

Of the various recommendations presented, I would particularly like to highlight the importance of the following ones: (a) undertake and promote an improved framework for analyzing the characteristics and relative strengths of NARS (**A1**); (b) analysis of the new mechanisms and modalities for collaborative research that are emerging and development of guidelines to promote them (**A2**); (c) how to relate to the non-conventional actors (stakeholders) in agricultural research through new innovative partnerships (**B3**); (d) articulation between the CGIAR and NARS priorities and how to promote complementarities and synergisms (**C1**); (e) funding of collaborative research efforts (**D1**); and (f) collaborative efforts for improving information and knowledge flows, taking advantage of the opportunities opened by the ICT revolution (**E1**).

The first recommendation (A1) is related to a very important issue for NARS: that of *indicators of agricultural research*. This refers to *input* indicators, *output* indicators and *impact* indicators. Here there are both interesting recent experiences, as well as a significant challenge to develop an *information system* that is sustainable and agile, that assures ownership by the participating NARS, and that thus seeks to assure a commitment to update the data and to use the information it provides.<sup>2</sup>

## The Main Action-Recommendation

Based on the above considerations, we are in full agreement with the main recommendation of the report: *that TAC, collaborating with others, should undertake further assessment of the NARS-CGIAR collaborative relationship theme, through a study of alternative strategies and modalities for CGIAR-NARS collaboration.*

Our main observation is that, given the nature of this study, and the importance of involving the stakeholders, this study could be jointly led by TAC and the NARS Secretariat. Through the NARS Secretariat, we will be involving the Regional/Sub-Regional Fora, and thus the NARS that constitute them. This would have the advantage of reflecting a CGIAR/NARS led analysis of this topic, that is of interest to both.

We also hope that in the follow-up to this report, TAC may consider promoting or supporting several of the more specific recommendations that are presented in it, as options for further work by TAC. In these various possible activities, there are ample opportunities for further collaboration between TAC and the NARS Secretariat. These are clearly identified in the Annex at the end of this paper.

## Similar Collaboration with IAEG

With the Impact Assessment and Evaluation Group (IAEG), the NARS Secretariat is discussing a similar type of collaboration looking at an issue that the report under discussion only partly analyzes: **how to evaluate the effectiveness and the impact of collaborative research partnerships**. This leads to the need to seek for new criteria for impact assessment and evaluation, as compared with the evaluation of projects undertaken by a single research institution or group. In a meeting last week between Frans Leeuw and Christian Hoste we discussed the approach that is being developed by IAEG and the possibility of joining forces in covering the following three aspects:

- a) Review of recent efforts of evaluating research partnerships and of characterizing cases of successful partnerships. Most likely this will entail going outside the agricultural sector, to look into the experience and methodologies that have been developed in other sectors (i.e. health and social development projects). The objective here will be to identify criteria and methodologies from these experiences.

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<sup>2</sup> An interesting recent experience is the project that ISNAR carried out in the late eighties. See Philip G. Pardey and Johannes Roseboom: *A Global Data Base on National Agricultural Research Systems*; Cambridge, Cambridge University Press, 1989. This has developed into a systemwide initiative led jointly by ISNAR and IFPRI but which, unfortunately, has not yet been founded. In the Annex we present some reflections from a NARS perspective.

- b) Identification of existing CGIAR/NARS research partnerships, seeking to identify modes of cooperation and the various products or impacts of such partnerships, including the capacity-building aspects (through co-authorship and training, for example). This is closely related to the effort that the NARS Secretariat is presently developing with Regional/Sub-Regional Fora on identifying and analyzing successful research partnerships.
- c) Application of the impact assessment and evaluation criteria to the research partnership cases identified in the second step.

Through such an approach we can assess and evaluate the real impact of research partnerships and of collaborative ventures. This will allow us to address two important aspects of the topic under discussion: (a) the cost-effectiveness of research partnerships, and (b) the various impacts and synergisms that research partnerships can generate. One very important question that this second aspect refers to is: when and how do research partnerships lead to what in the recent literature is called "*innovation networks*" and "*learning networks*". Here we have more sophisticated cases of research partnerships and to networking, where the synergisms generated lead to *learning* processes and to *innovation*.<sup>3</sup>

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<sup>3</sup> On this point see Global Forum on Agricultural Research: *GFAR Plan of Action 1998-2000*; GFAR, December 1997, pp. 4-7. Also see the discussion on *Learning Networks* in the CGIAR Private Sector Committee's report: *Strengthening CGIAR-Private Sector Partnerships in Biotechnology*; CGIAR Secretariat, April, 1997.

## **ANNEX:**

### **Outline of Recommendations and Comments**

In this Annex we summarize the eleven recommendations presented in the report, organized around the five strategic questions or issues that are analyzed in it. Comments and suggestions are made for the principal recommendations, either to explicit them or to add a NARS perspective.

A. **How to orient IARC collaborative activities with NARS: How should working relations or collaborative mechanisms differ in the various cases?** In order to properly address this issue, the following activities are suggested:

A1. TAC and the NARS Secretariat, with the operational input of ISNAR, can undertake or promote an *improved framework for analyzing the characteristics and relative strengths of NARS*. This framework should generate improved information on NARS, covering the broad spectrum or continuum that they represent. Instruments for this:

- Comparative studies on different NARS. Cases of successful NARS integration and of different institutional models.
- Establishment and upkeep of a *global data base on national agricultural research systems*. This leads to the issue of *Agricultural Research Indicators*.

It is interesting to point out that the NARS Secretariat, through the Regional/Sub-Regional Fora, is initiating a clear effort in this direction that can contribute to the implementation of this recommendation. Case studies of both successful research partnerships and of ongoing cases of NARS integration, will be prepared with the respective Regional/Subregional Fora (RF/SRF). With respect to the second mechanism, in attempting the establishment of a global data base on national agricultural research systems, a decentralized approach could be followed. That is, one in which the data basis are established at the regional/sub-regional level, where ownership of such a data base by the stakeholders is easier to achieve, and where the function of keeping the information updated is easier and less costly.<sup>4</sup> This is an area where TAC and the NARS Secretariat can collaborate closely.

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<sup>4</sup> In implementing this idea one can build upon the experiences of past efforts in this direction, such as the previously mentioned ISNAR experience and the CGIAR systemwide initiative, in establishing a *Global Data Base on National Agricultural Research Systems* (see footnote 2). But the decentralized approach that is being suggested here seeks to solve the problem faced by these previous efforts of establishing centralized mega data basis, adopting the approach InfoSys has adopted in Europe of decentralized, but coordinated and linked, data basis. Here the regional/sub-regional information systems can play a key role.

A2. TAC and the system need to consider the variety of new mechanisms and modalities for collaborative research research that are emerging:

- Regional and Sub-Regional organizations (RF/SRF and R/SR programs).
- New forms of interaction with non-conventional partners (i.e. private sector, NGOs, universities).
- Systemwide and Ecoregional Programs.

A3. TAC could work with the NARS Secretariat and other groups in developing *strategies and guidelines for different forms of research collaboration*.

**B. How can the CGIAR system and NARS make more effective and efficient use of their respective strengths or comparative advantages in forging effective partnerships?** In order to properly address this issue, the following activities are suggested:

B1. In TACs ongoing assessment of the ecoregional approach, it should pay particular attention to the role this approach has played in building-up NARS-CGIAR collaborative research efforts.

B2. More effort should be placed in improving strategies, methodologies and indicators of relative advantages, on the basis of which more systematized and formalized collaborative agreements could be formulated. This is related to A1 above, in terms of the relevance of *agricultural research indicators* and global or regional data bases on the characteristics and performance of NARS. This is an issue that has come up in all Regional/Sub-Regional Fora meetings, and in which the NARS Secretariat is particularly interested. The same question arises when you are looking at this issue from the point of view of identifying comparative advantages, as a way of articulating collaborative agreements among research stakeholders or partners at the regional/sub-regional level. A joint effort with TAC would be greatly welcomed.

B3. TAC might wish to explore, in collaboration with the GFAR and the other IARCs, the characteristics and roles of the other stakeholders of agricultural research (the "other 96 percent"), with two questions in mind: (a) their role as alternative sources of relevant knowledge and technology; and (b) how to relate to these other stakeholders through innovative partnerships. This also impinges upon NARS-CGIAR relationships.

**C. How do priorities and goals of NARS and the CGIAR compare and relate to each other? How do they match, how do they differ, and how can we assure a greater complementarity among them?** In order to properly address this issue, the following activities are suggested:

C1. CGIAR and NARS priorities can be different. Thus TAC might initiate activities aimed at: (a) understanding better those differences in priorities, given their different mandate, scope and nature; and (b) seek to improve complementarities between or among the priorities of both. This second question is particularly important in the changing context in which we operate, where the changing institutional environment (new actors and new research organizational patterns), as well as the emergence of the new areas of science, are having an impact on the strategic role international centers can play, and on

the type of strategic alliances they can develop. The issue at stake here is that of the efficiency of the global system.

- C2. TAC, in cooperation with the NARS Secretariat and the Regional/Sub-Regional Fora, could undertake a preparation of a paper on the different forms and modalities of NARS involvement in CGIAR priority setting. This is done at the project, center and system levels.

It is interesting to point out that in a recent meeting with Don Winkelmann, Chairman of TAC, we recently discussed various approaches to the issue of the articulation between the CGIAR and NARS priorities. The Chairman of TAC is writing a paper on this topic.

- D. **In what ways can financial arrangements for collaborative relationships be improved, and how can the CGIAR best help NARS to secure incremental funding for collaborative programs and projects?** In order to properly address this issue, the following activities are suggested:

- D1. The main recommendation here is that TAC might *explore the implications of the CGIAR collaborating more directly with groups and institutions involved in funding research in NARS*. This recommendation really involves three complementary issues, that although they are related, they have their own specificity. The first one is that of how to *increase investment in agricultural R&D*, both public and private. This first question is particularly important given the trend to stagnant, or even decreasing, levels of public investment in agricultural R&D. The second question is that of *how to fund collaborative research efforts and programs*. Part of the funding can come from cost-sharing among the participating partners. But new innovative mechanisms specifically aimed at funding collaborative efforts at the regional/sub-regional level, such as FONTAGRO in LAC, are appearing. The third question is whether the CGIAR should *collaborate more with funding research in NARS*. This third question has become relevant, with the growing awareness of the importance of strengthening NARS as a key element of the chain that goes from knowledge (and technology) generation, to adoption, application and development. If development, not only research, is our objective, then the importance of the strengthening of NARS cannot be disregarded. This, in fact, is one of the main topics of the Global Forum, and particularly of the NARS Secretariat within the GFAR.

- E. **How can the CGIAR system best insure that the global information and communication technology advances are fully incorporated into the workings of CGIAR-NARS collaborative relationships?** In order to properly address this issue, the following activities are suggested:

- E1. TAC, in collaboration with the NARS Secretariat and the respective Regional/Sub-Regional Fora, need to aggressively support collaborative relationships for improving information flows within NARS, among them, and between them and the IARCs and other stakeholders or partners in agricultural research. This issue has been identified as one of the five Lines of Action of the Global Forum. The NARS Secretariat, with the various Regional/Sub-Regional Fora, are developing activities aimed at strengthening regional/sub-regional information systems with the purpose of facilitating such information flows, as part of an emerging global agricultural information system. This is precisely the



topic of the consultation meeting that is being organized in Rome at the end of March, on *"Information Initiatives in Agricultural Research: Enhancing Global Cooperation"* (Rome, FAO, March 29-31, 1999). Most likely concrete recommendations for actions will be coming out of this meeting, in which TAC and the NARS Secretariat can effectively collaborate. The CGIAR system as a whole, and particularly the IARCs, can play an important role in this process.

- E2. TAC might explore ways in which the CGIAR system could contribute to the emerging joint FAO-World Bank initiative on ARKIS (Agricultural and Rural Knowledge and Information Systems).