

Recent Developments in and Key Challenges Facing the Regional and Sub-Regional Organizations [ROs & SROs] of Agricultural Research in the Developing Countries

By

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1. Introduction

This write-up follows a request by the Secretariat of the iSC of the CGIAR to prepare a short note on the recent developments in and challenges being faced by regional and subregional organizations (RO's & SRO's) for agricultural research in developing world. This request is based on my experience during the period 1995/2001 as the first Executive Secretary of ASARECA (Association for Strengthening Agricultural Research in Eastern and Central Africa) and also on my involvement in the formation of FARA (Forum for Agricultural Research in Africa) during the period 1996/2001. The comments below are therefore based largely on this experience of ROs and SROs in Africa. Many stakeholders in sub-Saharan Africa [SSA] including among others, NARS leaders, donor agencies and IARC's have in the recent past devoted quite a lot of effort and resources towards strengthening regional and subregional cooperation in agricultural research.

The views expressed herein therefore are my personal views and do not reflect the official position of the organizations I have been or am associated with. These views are made in the context of the debate in the CGIAR System as per request from the interim Science Council [iSC]. For the purposes of this note Regional Organizations [ROs] are taken as those covering a whole continent (e.g. SSA; Middle East and North Africa [MENA]; Asia Pacific etc) while Sub Regional Organizations cover an eco-political region (Eastern & Central Africa; Southern Africa; Western Africa; Caribbean etc).

2. Developments in the Regional Organizations [ROs]

The most recent developments at the regional level include:

- The establishment in September 2002 of the Executive Secretariat [ES] of the Regional Organization (RO) for Africa, FARA, based at the FAO Regional Office for Africa (RAF) in Accra, Ghana. FARA therefore joins the other regional organizations for Asia/Pacific region - APAARI; for the North Africa and Near East region - AARINENA and FORAGRO for Latin America and the Caribbean region. The Secretariats for AARINENA and APAARI as well as that of the Global Forum for Agricultural Research [GFAR] are hosted by FAO while that of FORAGRO is hosted by a regional organization, IICA (Inter-American Institute for Cooperation on Agriculture).
- The establishment of the ES of FARA in FAO-RAF was made possible through a World Bank grant. Due to the fact that FARA is not yet a legally constituted body a Trust Fund in FAO was established through an MoU (Memorandum of Understanding) between

ASARECA and FAO (the grant from the Bank was routed through ASARECA which is one of the member SROs of FARA) thus demonstrating the complexities of the process.

- FARA was established after lengthy discussions in Africa starting from the February 1996 African Regional Forum (ARF) meeting held in Kampala, Uganda. These discussions culminated in the signing, in Addis Ababa, of the MoU in April 2001 by the three SROs (ASARECA, CORAF and SACCAR) agreeing to establish FARA with an Executive Secretariat hosted initially in FAO.
- The discussions and consultations leading to the establishment of the ES of FARA were quite intense and at times acrimonious [especially on the need for the ES and where it should be located] and finally it was agreed to follow the APAARI and AARINENA model and establish it as a Trust Fund project in the Regional Office of FAO in Accra. The process of establishing the ES of FARA was technically superintended by ISNAR as lead technical consultant on contract from SPAAR/World Bank. The role of ISNAR ended once ASARECA and FAO signed the MoU establishing the FARA Trust Fund and the appointment of the Executive Secretary of FARA.
- Among the options considered for locating the Secretariat of FARA were: with one of the member SROs; in one of the African NARS; with one of the IARCs with a head office in Africa and at the FAO Regional Office for Africa in Accra. The first two options were rejected due to inadequate administrative and logistical support necessary for an institution which was going to operate on a continental basis. With four IARCs already having their headquarters in SSA, the third option was seriously considered – especially locating it at the ILRI campus in Addis Ababa. This was also rejected because it was felt that it would have biased the orientation of FARA during its formative stage in addition to the high overhead costs charged by most IARCs for services [usually between 15-30%]. FAO was therefore selected as it offered the best deal financially [overhead charges of between 6-13%] and had experience of running similar offices for ROs for Asia and the Near East as well as the GFAR Secretariat and also being a sponsor of the CGIAR.

Some of the issues which were discussed/raised by, among others, the Africa NARS leaders during the process of establishing FARA include:

- Apprehensions by many African NARS leaders that FARA will compete with the SROs for resources. The SROs are preferred by the NARS leaders because not only do they feel that they own these organizations but also the subregions constitute an eco-political region which they can more easily and readily relate to than that represented by the ROs.
- Historically cooperation in agricultural research has been at subregional level rather than regional. Most NARS leaders felt that operationally projects should be at the subregional level rather than the regional level. Many NARS leaders, while appreciating the need of having loose and non executive mechanisms for consultation and representation at continental/regional level, felt that SSA was too large with many diverse eco-regions to have projects at this level.
- Financing of the Executive Secretariat of FARA is currently by donors and hence raising questions on its long term sustainability and doubts on the value-addition of operating projects/programmes at this level. If the expectation is for the member SROs to contribute

to the budget of the FARA Secretariat then this is a difficult proposition as the SROs themselves have problems raising funding for their own secretariats.

- There were also apprehensions that FARA was a donor-driven project - to take over from SPAAR which was established by donors at the 1985 MTM Meeting of the CGIAR held in Tokyo. The World Bank which hosted the Secretariat of SPAAR from 1985 to 2001 was one of the organizations pushing for the merger of SPAAR and FARA and the establishment of its office in Africa.
- While APAARI [for Asia Pacific region] and AARINENA [for Middle East and North Africa region] have existed for some time there was no clear evidence presented to the African NARS leaders that they were having significant impact in the field especially when viewed from the perspective of the smaller NARS. The presence of very large and strong NARS in these regions [e.g. China, India, Brazil etc] makes it necessary for the ROs to assume different shapes and functions in terms of regional cooperation amongst the NARS and linkages with the research systems from outside the region [e.g. IARCs and ARIs].
- It is important to note here that the SSA region has 48 national systems of which a majority of them are quite small with less than 100 scientists and most are required to undertake research on a large portfolio of commodities and factors of production. Even where the NARS are regarded as large these have less than 500 full time equivalent scientists [with MSc and/or Ph.D.] thus being small and comparatively weak by world standards. Thus the role of the RO's and SRO's will need to be different in such a scenario. Therefore, the governance structures, collaborating mechanisms, and organizational arrangements may have to be different for each region and/or subregion.

Issues of Concern and Challenges at the Regional Organization Level

Major issues of concern and challenges at the Regional Organization level include:

- The Secretariats for the three ROs are linked to FAO as Trust Fund projects and have operated as such. They are thus viewed as such by the different stake holders, the NARS, SROs, donors, IARC etc. This has both advantages and disadvantages.
- A major advantage of this link is for the ROs to use the FAO convened biannual regional meetings of Ministers of Agriculture to provide the political umbrella they need to operate in the region. Also FAO with an extensive network of Regional Offices and Representation in most countries provides a unique legally recognized institutional infrastructure which the ROs [and even the SROs] could use to facilitate their collaborative programmes. This is in addition to being able to provide logistical and administrative support to the ES of FARA at competitive rates.
- A disadvantage of this link, mentioned by some, is the perception that by being located in FAO the ES of FARA is rather far removed from its key stakeholders [i.e. the NARS and SROs and the IARCs]. There is also a perception that by being linked to a global organization like FAO, the ES of FARA loses its independent identity [just as the SPAAR Secretariat's links with the World Bank were viewed] and this may affect how

some key donors view it. A major difference between SPAAR and FARA is that the former had its offices in Washington D.C. while the latter is in Accra, Ghana.

- Funding for the Secretariats has come from donor agencies and there is little, if any at all, contribution from the NARS and/or SROs which are supposed to be the main constituents of the ROs. This is likely to remain a major challenge of the ROs.
- Some regions are so big (e.g. SSA) such that many informed observers feel that there is little value added in doing things at this level. Indeed, quite a number do feel that the subregional level should remain the highest level at which projects should be operationalized.
- A number of observers feel that the creation of the RO and indeed the GFAR was, in part, a consequence of the members of the CGIAR being unable to take bold steps to restructure the international agricultural research system. This is exemplified by the many recommendations for reform/restructuring of the IARCs made by several panels over the past decade which have not been implemented.
- Lack of political cover/umbrella of some of ROs makes them vulnerable to being used by whoever funds them. How for example do the RO link up with regional inter-governmental organizations [IGOs]? At the same time too close an affiliation with the IGOs has its own problems especially in the developing world. The case of IICA and FORAGRO in Latin America region may thus be an interesting one to watch.
- It is pointed out for example, that the European NARS/ARIs have been quite successful in forming their RO i.e. EGFAR, largely due to being connected to the European Commission [EC] – an inter-governmental body. Similar organizations to the EC are not there in the other regions.
- What is the role and status of the IARCs in these ROs? The proposals in the constitution of FARA are for the SROs to be ‘Founding Members’ and the IARCs and ARIs working in a region to be non voting associate members. Some NARSs leaders feel strongly about this and would want to restrict the associate membership to those IARCs with their headquarters in the region. This may be a challenge to the SROs and the IARCs active in the region but with headquarters in other parts of the world.

3. Sub-Regional Organizations [SROs]

It is at this level that there is quite a lot of activity, at least in sub-Saharan Africa. Three SROs exist there: ASARECA, CORAF and SACCAR. Cooperation in agricultural research in Africa at the subregional level and from an institutional perspective has gone through three major phases in the past 50 years:

- ◆ ***From 1950-1975:*** During this period, integrated subregional research organizations were established by colonial authorities which operated throughout the African continent. Examples of this are the Eastern African Agricultural and Forestry Research Organisation (EAAFRO) and similar institutions established in Rhodesia/Nyasaland, West Africa [both for Francophone and Anglophone areas] and Belgian Congo for the Territories under Belgian rule. These organizations were

maintained even after most countries attained independence in the 1960s. All functioned as subregional research organizations and were quite effective with considerable impact on the ground. Thus, it is results of the work of these organizations that led to the release in the 1950s and 60s of maize varieties that formed the basis of the maize revolution in Zimbabwe and eastern Africa (Gerhart, 1975). The quarter of a century of 1950-75 is also the period when Africa recorded consistently high agricultural growth rates and remained quite competitive in global markets.

- ◆ ***From 1975-1985:*** Political problems began to occur in the 1970s and these adversely affected the operations of the subregional research centres and organizations such that by the end of the decade most of them had been disbanded and had become national centres. At the same time, cooperation between the IARCs and the NARSs in “central source networks” began. The establishment of Faculties of Agricultural Sciences provided new opportunities for education and the NAROs increased their manpower capacity through training.
- ◆ ***From 1985-to date:*** During this period, a special focus has been put on the establishment of the subregional organizations, INSAH in 1980, SACCAR in 1984, CORAF in 1985 and ASARECA in 1994. The formation of these SROs was given an impetus when SPAAR (Special Programme for African Agricultural Research) was established in 1985.

Therefore SPAAR came into being because CGIAR donors felt that their investments in Africa did not bear sufficient fruit and attributed this to two causes. First, the African NARSs were too weak and second, donor support was not coordinated. At first, the CGIAR chairperson also chaired SPAAR. Donors met annually to discuss how to improve the coordination of their assistance to African research. In May 1989, the leadership of SPAAR changed – a new Executive Secretary was appointed, and the chairmanship was transferred to the Vice-President for Africa at the World Bank. [SPAAR (1998); Mrema (2002)]. To tackle the first cause of weakness of the NARS a number of studies were commissioned by SPAAR on the status and capacity of the national systems and their interaction with the IARCs.

Development of a Framework for Cooperation

- SPAAR developed a regional Framework for Action (FFA) in 1990/92 in each of the four eco-political regions in Africa, namely: The Sahelian FFA under CILSS (Comité Permanent Interétats de Lutte contre la Sécheresse dans le Sahel), the Southern African FFA under SADC (Southern African Development Community) and the Humid Zone of Western and Central Africa under CORAF and the fourth one for the Highlands of Eastern and Central Africa. The last one was implemented under the auspices of IGAD (Inter-Governmental Agency for Development), with support from DANIDA (Danish International Development Agency), among others.
- The objectives of the FFA are threefold:
 - Restructuring and improving NARSs;
 - Cooperation in agricultural research on a regional level in order to achieve greater efficiency through economies of scale and scope;

- Making agricultural research more accountable to clients and markets, which means that to a greater extent it should be demand driven.
- From the outset it was recognized that with over 48 NARS in SSA which in 1995 employed a total of about 6000 scientists [with MSc and above qualifications] with about 50% of them in three countries – Nigeria, Sudan and South Africa - there was a serious problem of lack of critical mass in all the other 45 NARS whichever way one grouped the scientists at national level whether on commodity or discipline basis.
- The lack of critical mass coupled with stagnating total funding [on a per scientist basis declining funding due to the large increment in numbers of scientists employed] led to increased cooperation at subregional level to reduce duplication and increase efficiencies. In the absence of the SROs which had been established during the 1950s [as explained above] the IARCs played a leading role with donor support in establishing central source regional commodity research networks in the 1980s. These networks were researching on those commodities/factors which were under the mandate of the respective IARCs active in Africa - mostly food crops and NRM.
- These IARC led central source networks were brought under the umbrella of the SROs established in the 1980s & 90s and which had adopted the guidelines in the SPAAR's FFA. Further these SROs- ASARECA; CORAF; and SACCAR identified their own priorities as well as developed strategic plans for subregional agricultural research. These were, in a number of cases, not congruent to what the IARCs were undertaking in the subregions.
- While CORAF and SACCAR had been established before the FFA, however, for the subregion of the highlands of eastern and central Africa ASARECA was established in 1994 following the FFA principles. It therefore had a very lean secretariat and from the outset adopted an apolitical position given the fact that it was operating in a politically very fluid region and also after learning from the problems which SACCAR was then facing due to being part of the subregional IGO i.e. SADC.

Issues of Concern and Challenges at the Subregional Level

Issues of concern and challenges at the subregional level include:

- ◆ In their work, the sub-Sahara African SROs, namely ASARECA, CORAF and SACCAR have developed strategies, which focus on market/economic growth whereas the IARCs have tended to focus on poverty eradication. Some NARS leaders are sceptical of this strategy by the IARCs. They feel that with a large majority of Africans being poor by any standard/criteria one uses, there are many apparent reasons to support those who are wary and doubtful of a strategy with such broad objectives as poverty eradication. While appreciating the good intentions for developing a research strategy with such broad objectives, they nevertheless feel that this may be rather utopian and they would prefer a situation where the research systems develop a strategy in which they are held accountable for more focussed objectives.

- ◆ Most, if not all, the problems of African agriculture are first generation problems spanning from those of production as well as post production processing and marketing to weaknesses and inadequacies in support institutions and infrastructure. This may not require the type of research currently being undertaken in the IARCs. Indeed such problems may not render themselves to research which produces “international public goods” but rather one which produces “regional public goods” and in a number of cases “national public goods”.

- ◆ It is also important to reappraise and rethink the whole issue of food crop and cash/industrial crop balance in research. While the research systems in the 1950s & 60s researched on both, the 1970s & 80s brought a major shift into food crops research at the expense of cash crops. Many countries especially in Africa have lost their competitiveness in export commodities particularly when compared to countries which continued to invest in research in cash and industrial crops [e.g. Malaysia etc.]. Even more serious they now find they cannot compete to produce food for their urban areas due to cheaper imports [rice imports in Africa]. This issue of priorities for research may present another fault line in the collaboration between the NARS & SROs in Africa and the CGIAR system.

- ◆ The SROs have taken over and strengthened the ‘central source’ regional agricultural research networks previously run by the IARCs. The work undertaken in these networks is now more in line with the strategic plans of the SROs for regional agricultural research as approved by ASARECA (1997), CORAF (1999) and SACCAR (2000). Prior to this the networks were used more for testing and outreach of technologies developed by IARCs in their headquarters. The networks are now partnering with other technology generating agents rather than the case before when the partnership was confined to the IARC involved. Some donors are increasingly recognizing these SROs as better or more locally owned organizations for channelling their assistance for regional agricultural research.

- ◆ Opening up of joint research at subregional level exposes the weakness of the NARS, especially the smaller ones. This may have positive effects if the small NARS exploit the opportunity availed to them through the SROs to develop niche areas in which they have a comparative advantage in the region. There may be negative effects if nationalistic tendencies are not well managed by the SROs and other regional bodies.

- ◆ Sustainability of NARS at national level is increasingly becoming an issue of concern. Can small NARS be able to provide adequate resources to maintain complete teams of high quality researchers required for each of the commodities they are handling? Shouldn’t each National system focus on fewer commodities and do research on them for the whole region with expectation that for those commodities which are not covered nationally these will be handled by one of the neighbouring countries in the subregion. Issue of centres of specialization is becoming increasingly important. A primary role of the SROs then will be to facilitate over the medium to long term the emergence of such centres and mechanisms for maximum technology transfers [or spill-ins and spill-overs] across national boundaries. Planning and managing such SROs requires new institutional and organizational management knowledge which, in my opinion, is well beyond what an IARC such as ISNAR is currently capable of offering.

- ◆ New concepts such as AKIS [Agricultural Knowledge and Innovation Systems] are being introduced and are creating new institutions/organizations at the national level. In quite a number of cases these are eroding the capacity in the NAROs/NARS built in the 1980s and 90s due to higher salaries these organizations can offer at least initially as they are able to attract the best staff of the NAROs/NARS. Should the SROs open up to these new organizations being created under AKIS etc instead of concentrating on the NARS? How long will these new concepts last – after all there have been so many of these concepts in the past which have come and faded away [T&V, FSR, IRD etc. etc] but the agricultural research stations have out-lived all of them and remain the fundamental units of the agricultural systems.

- ◆ The organizational and institutional uncertainties occurring at national level as explained above are partially due to the weaknesses of the extension services. These services have traditionally all along been organized and functioned at national level with no subregional, regional or international linkages. If AKIS leads to the strengthening of extension at the expense of research, which is likely to be the case in the small national systems found in a majority of the African countries, then this may have far reaching consequences for the SROs and the IARCs.

- ◆ Overload of partnerships by IARCs with the NARS members is increasingly becoming a serious problem. As each IARC [and sometimes each programme in an IARC] wishes to establish a partnership with the NARS in each country this increases the number of partnerships which each NARS has to have. Some NARS have as many as 50 links with the IARCs alone. The few scientists in the small NARS, the majority of which are in Africa, then end up spending more time servicing the IARC programmes. While SROs are supposed to help here, they themselves are overloaded with requests for partnerships from these same agencies.

- ◆ Financial sustainability of the SROs, especially for the Secretariats is becoming an issue. Sustainable financing mechanisms are being initiated, e.g. ASARECA is planning to establish a Trust/Endowment Fund to partially finance its core secretariat budget. This is an innovative financing mechanism - the challenge is to make it work.

- ◆ Political linkages do at times become issues of concern e.g. SACCAR was politically linked to SADC but this proved to be more of a liability to its existence as an autonomous institution. ASARECA opted to be free standing, largely because it is in a region which is politically very fluid. It has, as such, demonstrated more resilience at least in its first seven years. The evolution of SACCAR in Southern Africa from a very active independent organization in the 1980s and 1990s to a mere desk in the SADC Secretariat is a significant change over the past one year, again demonstrating the problems associated with political linkages of these organizations.

- ◆ The SROs in Africa have been grappling with the issue of how closely should they be linked to Subregional Intergovernmental Organizations (IGOs) like SADC in Southern Africa, IGAD in the Eastern/Horn of Africa and ECOWAS in West Africa. SACCAR was the most closely linked to an IGO (SADC), right from its inception in 1984 and its recent problems have been largely due to the political decisions in the latter. ASARECA has

remained independent and appears to have escaped such problems at least for the time being. This is however a dynamic situation and could change in one way or another-the challenge is to anticipate such changes and have contingency plans to tackle them.

- ◆ Under the leadership of the Centre Directors Committee for sub-Saharan Africa [CDC-SSA] the IARCs did in 2000/01 initiate a planning activity to harmonize their work in Africa with what the SROs were doing and increase inter centre collaboration at the subregional level. This initiative led by IITA/WARDA in West Africa and ICRAF/ILRI in Eastern and Southern Africa appears to have lost steam with the changes in leadership in some of these IARCs. This has led to some disappointment in the region. This follows on similar studies [like the McIntyre et al(1995) study and the CGIAR Third System Review-CGIAR(1998)] undertaken in the past decade where expectations for change were raised only to be dashed after a short period.
- ◆ New funding modalities are being started in Eastern Africa with support of the major donors [i.e. USAID, EU, SIDA and DANIDA]. The competitive funding initiative of ASARECA with over \$25 million committed by donors may have quite an effect on the funding for NARS and IARC activities in the region if it is successfully implemented.
- ◆ Finally is the hypothetical question of what would happen to the ROs and the SROs if the IARCs are to be restructured and create more regionally [or subregionally] focussed and organized centres? The establishment of such centres was one of the recommendations made to CGIAR in 2000 by African NARS leaders following their Entebbe meeting [FARA (2000)]. It is likely that such centres would at least in Africa provide an important bridging organization between the remaining fewer global IARCs as well as ARIs and the AKIS/NARS at national level. This will leave the SROs and ROs to become more of mechanisms or fora for consultations rather than being operational centres for regional and subregional agricultural research. The operations will then be handled at these regionally/subregionally organized and focussed IARCs and the NARS/AKIS organizations at national level.

4. Conclusions

While the establishment of the SROs in Africa could be said to be responding to the need to strengthen the NARS by fostering collaboration amongst what are essentially small national systems to avoid duplication of efforts and attain economies of scale and scope, a lot still needs to be done to define what the ROs should be doing. Further a lot still needs to be done to articulate and refine the short, medium and long term strategies at the subregional level notwithstanding progress so far achieved. Given the size and diversity of the subregions in SSA, the many agro-ecological zones traversed and large number of commodities and factors of production which need to be researched on as well as the small size of most NARS, it is unlikely that any of the countries can individually set up and sustainably finance a national system with the critical mass of scientists and facilities to adequately cover all the commodities and factors of production. In essence the formation of SROs in Africa was challenging the concept of building comprehensive NARS in each country and instead let the national systems focus on a few areas for the region and facilitate maximum technology spill-ins and spill-overs from and to the neighbouring countries.

The challenge to the SROs is to develop planning and management systems which allow individual research centres and stations at the national level to develop niche areas in which they are recognized in the subregion as the main producers of both proprietary and regional public goods. Given the many commodities requiring research there should be enough areas for each country to have a niche area in which it is contributing to the production of regional public goods while benefiting from similar goods produced by others in the region. The role of the IARCs and ARIs should be to technically backstop these national centres producing regional public goods by providing the so called 'international public goods'. To achieve a harmonious and complementary working relationship between the NARS, the SROs and the IARCs in a setting with such a division of labour, may require a different institutional architecture and way of doing things by all. In the recent years some of the IARCs, in their quest to attract funding, have in some instances moved so much downstream such that there is little difference between what they are doing and what is done by the NARS.

By and large there seems to be a consensus that operationally the locus of activity and projects/programmes should be at the subregional level. While there may be some attempts to develop operational projects at the regional level i.e. at the FARA level, there is a need to be very cautious. The experience of regional collaboration all over the world shows that best results are achieved if the principle of subsidiarity is adopted when deciding at what level programmes and projects should be planned and implemented. In addition to this it is important that the research undertakings be they at national, subregional, regional or international levels should be on focussed and realistic objectives and with clear outputs for which the research systems can be held accountable for. This was the hallmark of the earlier collaboration in agricultural research in Africa in the 1950s & 60s as well as in the earlier years of the IARC's which led to the Green Revolution [Fitzgerald (1986); IITA (1992; 1993)]. The biggest challenge to all is to ensure that such systems emerge out of these consultations.

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