SUB-SAHARAN AFRICA CHALLENGE PROGRAMME

Building Sustainable Livelihoods
through
Integrated Agricultural Research for Development

"Securing the future for Africa's children**"**

PROGRAMME PROPOSAL

Executive Summary

1. RATIONALE FOR A CHALLENGE PROGRAMME FOR SUB-SAHARAN AFRICA

Sub-Saharan Africa is the only region in which livelihoods and food security continue to deteriorate. Over the last 14 years, the number of Africans living below the poverty line has increased by 50% and Africa is dependent on a disproportionate amount of food aid. This situation, intolerable for humanitarian reasons, also threatens peace across the region and prevents the continent from playing its proper role in expanding world trade and conserving the global environment.

There is widespread land degradation in Africa, manifested by soil erosion, nutrient depletion, desertification, deforestation or overgrazing. The relationships between land degradation, low agricultural productivity and poverty are complex and driven by an array of common factors. The alarming rate of degradation reflects a dramatic draw down of natural capital and a simultaneous lack of investment to replenish it. Motivating investment in natural resources requires incentives, inputs, information and institutions more or less concurrently. This has not occurred in sub-Saharan Africa.

The New Partnership for Africa's Development (NEPAD), established by Africa's leaders in Abuja in October 2001, recognised the importance of improving agricultural productivity as the engine for economic growth, and the crucial role of research in making this happen. But agricultural research is not a simple matter. It took an extensive consultation process, which culminated in this proposal for a Sub-Saharan Africa Challenge Programme, to determine the three highest priority issues: failures of agricultural markets, inappropriate policies and natural resource degradation. The overwhelming consensus was that, despite many local success stories, addressing these issues in isolation had failed to raise the productivity and profitability of African agriculture sufficiently or sustainably. There is urgent need for high-impact innovations that can only be achieved by redefining the roles of scientists, farmers and other key stakeholders through collaborative learning processes, addressing questions about the level, timing, type and form of participation, as well as the most effective approaches and methods to foster them. Policy and marketing issues must also be dealt with to remove constraints and to create conducive conditions for the adoption of sustainable income enhancing innovations.

The concept of Integrated Natural Resource Management reconciles these different factors by recognising the importance of addressing the interactions between them, e.g. water, pests and soils, and the interactions between their components.

2. THE SUB-SAHARAN AFRICA CHALLENGE PROGRAMME

The Sub-Saharan Africa Challenge Programme (SSA CP) was inspired by the considerations outlined above and reinforced by a number of important recent initiatives for agricultural development in Africa. Foremost among these is NEPAD's *Comprehensive Africa Agricultural Development Programme* (CAADP) (NEPAD 2003). In May 2001, FARA, its subregional members and the CGIAR Centres issued *The Durban Statement* (CGIAR 2001), reconfirming their full support for the African vision for agricultural research, and calling *"on the international research system, including the CGIAR Centres and advanced research institutions, to forge more effective and efficient partnerships with African NARSs and achieve greater programmatic integration."* **These words will translate into action through this Challenge Programme.**

A Programme Formulation Workshop convened by FARA in March 2003 endorsed the priorities and the need to address them in an integrated manner. The participants agreed that this entailed a new way of doing business that would raise the impact achieved by Africa's research for development system and proposed a new paradigm under the rubric of 'Integrated Agricultural Research for Development' (IAR4D). IAR4D encompasses institutional capacity building, market approaches, knowledge management and policy research, and explicitly includes attention to reversing inherent male-oriented gender biases in agricultural research. The approaches advocated by IAR4D are drawn strongly from the concepts and methods promoted by the CGIAR Task Force on Integrated Natural Resource Management with emphasis on participatory methods, cross-scale analysis and adaptive management. The **vision** for the Sub-Saharan Challenge Programme is: Improved rural livelihoods, increased food security and sustainable natural resource management throughout sub-Saharan Africa as a result of greater impact from agricultural research for development. Its **mission** is: To add value and enhanced impact to ongoing agricultural research for development in sub-Saharan Africa by achieving greater coherence and efficiency through application of the principles and methods of IAR4D. Its **goal** is: Within 15 years, to attain quantifiable improvement in the contribution of agricultural research to alleviating rural poverty, increasing agricultural productivity, sustaining the natural resource base and enhancing the adaptive capacities of farmers, scientists and policy makers.

This Challenge Programme will make a significant contribution to achieving the Millennium Development Goal of halving the number of Africans living in poverty by 2015 and the African Vision for Agricultural Research of achieving 6% annual growth in agricultural productivity by 2020. It will do this through integrating agricultural research for development in partnerships throughout the region, supported by organisational change, better knowledge management and capacity building. This Programme will explicitly seek to reverse gender biases in agricultural research, information, institutions and services.

3. PROGRAMME AGENDA

Farmers in Africa face persistent poverty because they do not have good market opportunities. Research in the SSA CP will provide options for improving input and output **markets** for smallholder and pastoral produce, across borders, between regions, and between communities.

IAR4D will produce **options for smallholders to intensify the use of their limited resources** while maintaining food security and without jeopardising the assets on which the future of farming for them and their children depends. It will allow resource-poor households, especially those headed by women, to intensify their production systems and move into the market economy, and it will provide options for coping with labour shortages due to urban migration, HIV/AIDS and other factors. Research interventions in partnership with stakeholders at all levels will incorporate the interactions of soils, water and pests within the social and economic context of market-driven smallholder agriculture. This research will build African scientific capacity for IAR4D to promote **sustainable use of natural resources** that will enable smallholders and pastoralists to adapt appropriately to market changes, while optimising ecosystem services and reducing land degradation.

Although a smallholder-led transformation of Africa is both technically and economically feasible, this will not happen where there are constraining policies and institutions. There must be reforms in market and trade policies for export crops and intra-regional trade in agricultural products, and these will have to be built on further domestic market reforms. The Challenge Programme will therefore incorporate **policy analysis** in the points of entry for all aspects of IAR4D to provide policy makers with options for formulating pro-poor policies. Such policies are required to facilitate the formation of producer organisations so that they can standardise and bulk up their commodities to reduce the cost of sales. Policies are also needed for supportive rural infrastructure to reduce high transport and marketing costs and for addressing issues such as property rights and more effective ways of managing common property. There are also issues of financing smallholder and pastoralist production and marketing and encouraging them to save and invest.

The key feature of the SSA CP is that **entry points**, identified and diagnosed in a participatory process by the Pilot Learning Teams, will be starting points for the exploration of the full dimensions of the problem being studied, across the whole agricultural system in the resources-to-policy chain. The entry points will determine what research is needed and which teams will be best able to deliver that research. The potential entry points and the science that will be applied to addressing them are discussed in detail in the SRO priorities and the keynote and position and contained in Volume 2 of this proposal.

The science required to address the entry points will determine the composition of the IAR4D teams, formed by wide ranges of partners with complementary but differentially developed skills and objectives: In addition to NARSs[1] (comprised of diverse governmental, parastatal and university institutions) IARCs[2] and ARIs,[3] they will include

[1] National agricultural research systems
[2] International agricultural research centres

farmer groups of various kinds, extension staff, non-governmental organisations (NGOs) and participants from the private sector and government. This will require team building, which experience shows entails dedicated skill and attention. **Facilitation and mentoring** will therefore be provided to bring all members of the Pilot Learning Teams up to speed in their knowledge and capacity. It will also ensure that the Pilot Learning Teams become learning organisations able to apply adaptive management skills to all aspects of their agenda and make the institutional changes required. They will be helped to internalise processes of self-evaluation as part of the continuous learning process and coached in how to reach out and influence policy makers.

The new paradigm for Integrated Agricultural Research for Development (IAR4D) has been developed as a means of increasing the impact of agricultural research by being holistic, integrative and encompassing components necessary for out-scaling and up-scaling. While endorsing this approach, the iSC advised a cautious start up to allow time for the new organisational arrangements and the innovations in IAR4D to be validated. The SSA CP has, therefore, been structured in 4 independent modules with each being suited to starting as soon approval is given. The modules are:

First module - for three Pilot Learning Teams with an inception stage and evaluation before approval to moving into full IAR4D implementation.

Science Council approval and recommendation will required for initiation of further modules.

Module two – for up to six more Pilot Learning Teams for internalising IAR4D in NARS.

Module three – for measures required for out-scaling and up-scaling IAR4D

Module four – for programme impact assessment

The objective will be to gain approval for starting modules 2, 3, and 4 as soon possible because delays will impair the reinforcing interactions between the modules and thereby impede the achievement of the full impact potential of IAR4D.

Since the start of each module depends on future approval it is not possible to present a hard and fast timetable. However, in view of the high level commitment of all categories of collaborators and the important value additions that will be gained from implementing the programme as a whole it is projected that the 2nd, 3rd. and 4th modules will be initiated between 12 to 18 months after the start of the first module.

The **first module** will provide resources for initiating research at three Pilot Learning Sites. The research will commence with an inception stage, which will provide outcomes and information on which the principles of IAR4D can be assessed. The progress and outcomes of will be monitored and evaluated for internal management purposes and to enable the CGIAR Science Council to determine if and when further modules of the Programme may be recommended to the CGIAR Executive Council.

[3] Advanced research institutes

The **module two** proposes support for a further six IAR4D teams that, with an average of three per subregion, will bring IAR4D to within reach of the farmer and community organisations, the research organisations and the politicians who need to be persuaded by first hand observation of the IAR4D approach and the outcomes.

The **module three** proposes support for a set of actions designed to ensure that out- and up-scaling of IAR4D will not be impeded by a lack of understanding of what it has to offer nor by a dearth of human capacity in the institutions that are critical to its adoption and impact.

This module provides for the **methodological developments to be captured, synthesised and analysed** and made available to the IAR4D teams and other stakeholders. It will also ensure that **information and knowledge** stemming from IAR4D will be made available in suitable forms to all critical cadres of stakeholders. As a departure from much previous research, it will also ensure that the beneficiaries interact effectively with their formally trained colleagues in generating the information and knowledge.

Scaling up from the household through community, district, national and regional to international levels will be assured by forging relationships with client organisations, and incorporating IAR4D in **capacity building** and demonstrating impact. This component of the Challenge Programme will resolve the critical organisational arrangements and processes for implementing IAR4D on the basis of equal participation amongst diverse and unequally endowed collaborators. It will study how to remove inter- and intra-institutional barriers**.**

The capacity building components will address the varying needs of the wide range of stakeholders expected to be involved in out-scaling and up-scaling IAR4D, including local communities and agricultural graduates. A secondary but important product of the Challenge Programme will be testing and validating innovative arrangements and processes that can be taken up for strengthening agricultural science capacity generally.

Module four encompasses independent **impact assessment,** which will assess the impact of the SSA CP on livelihoods based on sustainable natural resource management and of the success of the processes for implementing and institutionalising IAR4D. Since such objectives are not achieved in the short term, alternative ways will be established for continuously assessing whether or not satisfactory progress is being made towards appropriate and sufficient impact. A separate, independent unit to will conduct these assessments.

4. PROGRAMME IMPLEMENTATION

This proposal is for a pilot learning phase of 6 years in which the principles of IAR4D will be applied and tested at selected sites, administered at subregional level. Continent-wide mainstreaming of IAR4D will follow this, building on the successes and lessons learnt.

Following the assessment of the SSA CP proposal by the CGIAR interim Science Council, the **final preparatory steps** will be selection of *potential Pilot Learning Sites and the probable; partnerships for those sites, specific constraints to be addressed, roles*

of the CGIAR centres and science to be used. The SROs will lead this process ensuring compliance with subregional priorities and criteria. Zeroing in on the eventual sites, within those criteria, will be aided by the application of modern poverty mapping and spatial analysis by research partnerships including CGIAR centres.

Final selection of the Pilot Learning Sites and identification and prioritisation of the research agenda will involve the participating communities in accordance with the **participatory principles of IAR4D** as a new way of doing research.

Following completion of the preparatory steps, the research programme will start with the **first module in an inception stage** in which three nuclear Pilot Learning Teams will complete the team building and organisational change processes and develop proposals for full implementation of IAR4D, which will detail the proposed scientific programme and outcomes. These will be reviewed by the CGIAR Science Council and advancement into full IAR4D implementation will depend on a positive evaluation of the inception stage.

As noted above, initiation of subsequent modules of the SSA CP will also depend on the confidence generated in IAR4D through reports submitted to the CGIAR Science Council, which will make recommendations to the CGIAR Executive Committee.

Module two for additional IAR4D teams will be implemented through a **Competitive Grants Scheme** with merit as the overriding criterion for all prospective participants in Pilot Learning Teams. Eligibility to apply for grants will be **open to all FARA members**, i.e. all stakeholders in agricultural research for Africa's development. All teams must include a national research institute from each of the countries in they will work and at least one CGIAR centre. The actual number of IAR4D teams that will be supported will depend on the confidence and support generated amongst African governments and regional and bilateral donors on a project-by-project basis.

The competitive grants for Pilot Learning Teams will be implemented in three stages: Expressions of Interest, Concept Notes and Full Proposals. The Programme Steering Committee will issue a call for Expressions of Interest to all parties who may be interested in participating in IAR4D Projects. This will be open to all public and private stakeholders in the production-to-consumption chain and research, extension and development. It is particularly aimed at identifying parties who may not be aware of their common interests and at engaging farmer organisations and community-based organisations that may not have the contacts or experience to develop more formal concept notes. The nuclear Pilot Learning Teams that come together on the basis of Expressions of Interest will be invited to develop **Concept Notes**. These will be applications for funds to carry out the consultative processes, project design, preparatory capacity building and institutional change actions necessary for developing comprehensive **Full Proposals** for implementation of IAR4D. The grants decisions will determine the content, mode and outcomes of the Programme.

The expressions of interest, concept notes and full proposals will be reviewed by the SROs and the SSA CP Programme Coordinator, before submission to the Programme Steering Committee for final evaluation and selection. At all stages, full guidelines for proposal preparation will be given. Successful project proposals will have the following characteristics:

- They will be designed around entry points targeted at removing specific constraints or bottlenecks at identified locations, leading to on-site knowledge development.
- The projects will integratively explore the wider dimensions of the constraints, including gender biases, and their systematic and geographical significance.
- They will be demand-driven and executed by multidisciplinary teams from a range of different stakeholder institutions and organisations.
- The teams will be committed to building capacity and be able to adapt as the dimensions of the constraints are realised and confronted.
- The projects will contribute to improved methodology and capacity for integrated agricultural research for development in sub-Saharan Africa.
- They will present plausible and persuasive links (impact pathways) connecting the proposed activities and expected outputs and the Programme's goal.

The **Pilot Learning Sites** will be carefully selected to provide effective, contrasting demonstrations of the impact of IAR4D that optimise the opportunities for comparison between divergent environmental, economic and policy environments across sub-Saharan Africa. In the Inception Stage it is proposed that there will be a site in each subregion and one each in the Humid Forest, Subhumid and Semi-Arid agro-ecological zones.

5. PROGRAMME GOVERNANCE AND ORGANISATION

The **Programme governance** structure is based on discussions with stakeholders representing all potential participants, consideration of the CGIAR Guidelines for Challenge Programmes, lessons learned from other Challenge Programmes, comments on the pre-proposal by the interim Science Council, and communications between FARA and the CGIAR Secretariat. The proposed structure is flexible but will ensure rigorous management and accountability.

A **Programme Coordinator** who will report to the Programme Steering Committee on policy and technical matters will lead the **Programme Coordinating Unit**. S/he will be a senior employee of FARA whose administrative supervisor will be the Executive Secretary of FARA. **FARA's Executive Secretary** will support the Programme through FARA's roles in advocacy, promoting functional partnerships and the exchange of information and knowledge.

Although FARA will have overall responsibility for the SSA CP, the Programme's **governance will follow the principal of subsidiarity**, with decisions being delegated to the lowest practical level to ensure ownership and representation. The **Programme Steering Committee** will be comprised of representatives of FARA, the subregional organisations (SROs)[4], the CGIAR and the principal stakeholders appointed by their constituents.

[4] ? Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA);
? Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/ West and Central African Council for Agricultural Research and Development (CORAF/WECARD); and
? Southern Africa Development Community, Food, Agriculture and Natural Resources (SADC/FANR).

The collaborators will form Pilot Learning Team Management Committees to make decisions about team operations. However, there will be a properly constituted fully legal lead agency, which will be responsible for managing and accounting for the funds, for the progress of activities at the site and for reporting progress to the SROs and the Programme Steering Committee.

The SSA CP implementation schedule is:

1. SRO-led stakeholder identification of initial Pilot Learning Sites
2. An inception phase stage involving only the first module supporting three Pilot Learning Teams with:
    a. Approval of concept notes
    b. Approval of proposals for full implementation of IAR4D
3. Review of progress and recommendation by the Science Council to the CGIAR Executive Committee on initiation of further modules
4. Following a positive review by the Science Council, initiation of further modules 2, 3, and 4 dependent on attracting investment by African governments and ODA donors.

A best estimate of the time required to get a successful review suggests that the further modules may be initiated within 12 to 18 months of the start of the first module. With this timing the resource requirements are estimated at US$ 83 million over 6 years, but the actual total will depend on success in attracting funding for specific components of the Programme.

Using modest standards of achievement, the Programme will yield an internal rate of return (IRR) of 27% and, at a 10% discount rate, a net present value (NPV) of US$ 164 million. This does not include benefits from enhanced capacity for agricultural research, improvements in natural resource management, conservation of biodiversity or changes in the approaches and functioning of the agricultural research systems, which will be the most important outcome of the Sub-Saharan Africa Challenge Programme.

The Programme will catalyse and promote changes in the region's agricultural research, without which the already dire prospects for Africa's children will continue to deteriorate.