

National Agricultural Research Organisation

STRATEGIC PLAN

2008/09 – 2017/18

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ACRONYMS

ARDCs	:	Agricultural Research and Development Centres
ARENET	:	Agricultural Research and Extension Information Network
ARTF	:	Agricultural Research Trust Fund
ASARECA	:	Association for Strengthening Agricultural Research in Eastern and Central Africa
CAADP	:	Comprehensive African Agricultural Development Programme
CAEC	:	Centre for Continuing Agricultural Education
CBOs	:	Community Based Organisations
CGIAR	:	Consultative Group on International Agricultural Research
CGS	:	Competitive Grants Scheme
CIT	:	Core Implementation Team
COMESA	:	Common Market for Eastern and Southern Africa
CSOs	:	Civil Society Organisations
FARA	:	Forum for Agricultural Research in Africa
FMR	:	Financial Management Report
GDP	:	Gross Domestic Product
HR	:	Human Resources
IAR4D	:	Integrated Agricultural Research for Development
ICT	:	Information and Communication Technology
IDPs	:	Internally Displaced Persons
IFPRI	:	International Food Policy Research Institute
IPR	:	Intellectual Property Rights
KPI	:	Key Performance Indicator
LAN	:	Local Area Network
M&E	:	Monitoring and Evaluation
MAAIF	:	Ministry of Agriculture Animal Industry and Fisheries
MDGs	:	Millennium Development Goals
MoFPED	:	Ministry of Finance, Planning and Economic Development
MOR	:	Market Oriented Research
MSc	:	Master of Science
MTEF	:	Mid Term Expenditure Framework
MUARIK	:	Makerere University Agricultural Research Institute Kabanyolo
NAADS	:	National Agricultural Advisory Services
NaCRRRI	:	National Crops Resources Research Institute
NaFIRRI	:	National Fisheries Resources Research Institute
NaFORRI	:	National Forest Resources Research Institute
NaLIRRI	:	National Livestock Resources Research Institute
NAR Act	:	National Agricultural Research Act
NARs	:	National Agricultural Research Systems
NARIs	:	National Agricultural Research Institutes
NARL	:	National Agricultural Research Laboratories
NARO	:	National Agricultural Research Organisation

NAROSEC	:	National Agricultural Research Organisation Secretariat
NARP	:	National Agricultural Research Policy
NaSARRI	:	National Semi-arid Agricultural Resources Research Institutes
NDP	:	National Development Plan
NEPAD	:	New Economic Partnership for African Development
NGO	:	Non-Governmental Organisation
PEAP	:	Poverty Eradication Action Plan
PFA	:	Prosperity-For-All
PhD	:	Doctor of Philosophy
PMA	:	Plan for Modernisation of Agriculture
RSP	:	Research Service Provider
SP	:	Service Provider
UBOS	:	Uganda Bureau of Statistics
WAN	:	Wide Area Network
ZARDIs	:	Zonal Agricultural Research and Development Institutes

FOREWORD

This Strategic Plan explicitly states the desires and aspirations of the National Agricultural Research Organisation (NARO) for the period spanning 2008 – 2019. The broad mandate of NARO as enshrined in the National Agricultural Research Act (NAR Act 2005) is to enhance the contribution of agricultural sector research to five key output areas; agricultural productivity, sustained competitiveness, economic growth, food security and poverty eradication. Several strategies are proposed for each result area, in order to achieve the mission “to generate and disseminate appropriate, safe and cost effective technologies” and the vision of “A market-responsive, client-oriented, and demand-driven national agricultural research system”.

The Strategic Plan 2008/09 - 2017/8 is a product of a protracted consultative and participatory process of all stakeholders in agricultural research and development. It embraces the principle of Integrated Agricultural Research for Development (IAR4D) as a basis for collective responsibility in contributing to the implementation of the National Development Framework Programmes. The Plan is therefore a commitment of NARO to transform the entire National Agricultural Research System (NARS), including public agricultural research institutes the private sector, civil society organisations, and the academia into centres of excellence for agricultural research for development with capacity to attract institutional support and effectively participate in agricultural research service provision.

We acknowledge all the various stakeholders who contributed to the formulation of this document. We thank the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) for its continued support and guidance. NARO is highly indebted to her Development Partners for their support. Special thanks and tribute go to the NARO Council and Government of Uganda.

For God and our Country

Professor Frederick I.B. Kayanja
CHAIRMAN, NARO COUNCIL

EXECUTIVE SUMMARY

Agriculture is the key sector in the economy of Uganda, providing up to about 32% of Gross Domestic Product (GDP) and 85% of total export earnings. Between fiscal years 2003/04 and 2007/08, the average growth rate of agricultural GDP reduced from 1.6% to 0.7% (MAAIF 2008). The reduction in productivity is due to a number of multi-sectoral factors. The Plan for Modernisation of Agriculture (PMA) was designed to harmonise solutions to these factors. Activities associated with undertaking, promoting and streamlining research in agriculture, livestock, fisheries and forestry are critical to achieving the tenets outlined in the PMA. These crucial components of the PMA are a mandate of the National Agricultural Research Organisation (NARO).

This strategic plan for the period 2008/2009 – 2017/18 is based on NARO's comparative advantage as a coordinating body of the NARS; development trends and challenges; commitment to mission, vision, mandate and core values; and National and sector development frameworks and aspirations of the Government of Uganda. The overall goal set out in the strategic plan is to enhance the contribution of agricultural sector research to agricultural productivity, sustained competitiveness, economic growth, food security and poverty eradication. The mission and vision to guide attainment of this goal are “to generate and disseminate appropriate, safe and cost effective technologies” and “a market-responsive, client-oriented, and demand-driven national agricultural research system”, respectively.

The strategic plan focuses on the following five results:

- Client and impact-oriented, market-responsive agricultural sector research agenda developed and implemented
- Capacity and efficiency of public and private agricultural sector research service provider teams to respond to client needs and market opportunities improved
- Infrastructural and financial sustainability capacities to support and facilitate agricultural research enhanced and strengthened
- Mechanisms for contributing to agricultural research sector policy formulation and development strengthened
- Quality assurance procedures in the NARS established and implemented

To implement the proposed strategies, the ten-year strategic plan is clustered in three distinct phases viz short, medium, and long term. In the short-term (2008 – 2010) efforts will be focused on consolidating achievements of NARO accrued from previous strategic intervention, responding to emerging threats and market opportunities, piloting thematic research, identifying priorities for mid-term research agenda and the implementation of the NARS reforms.

The medium term plan will focus on a research technology and institutional development priorities defined for a five-year period (2010 – 2014). Specifically the medium term plan will steer technology development for increased production, and competitiveness along the value chain, through thematic research; institutionalise quality standards, processes in

management, technology development and information dissemination, packaging, dissemination and impact assessment of outputs of the outgoing strategic plan. Other important areas to be addressed in the medium term are strengthening capacity for thematic Market-Oriented Research (MOR), pluralistic research, finalise, implement strategy for empowerment of private agricultural research service providers, review, and streamline competitive grants schemes (CGS), strengthening partnerships: synergies and complementarities for agricultural research and information sharing, especially the NARO-NAADS-farmer-market nexus, and initiate efforts to capitalise the Agricultural Research Technology Fund (ARTF).

The long-term plan, 2014/15 -2017/18 will be based on outcomes of implementing the medium term activities. In addition, the following areas will particularly be key in the long term: consolidating mechanisms for private sector contribution to agricultural research, institutionalising income generation by the Public Agricultural Research Institutes (PARIs) to contribute to research funding, actualisation of client led demand articulation process, review of research service delivery public-private-partnerships (for sustainability and efficiency), and impact assessment of NARS performance.

NARO envisages a number of challenges in implementing this strategic plan, such as: Ensuring wide but economical consultative processes for identifying and implementing agricultural research priorities and developing guidelines, procedures, incentives and sanction structures, for a solid and output oriented research process. Others include: building and coordinating stakeholders in the NARS to be influential, integral and active participants in the national technology development and policy formulation; and building synergies amongst the NARS institutions and with other actors in the economy to proactively lobby, and mobilise resources for the NARS in Uganda. The Uganda NARS has acquired international repute, and NARO recognises the challenge this presents with regard to sustaining growth while remaining competitive.

The performance indicators and targets were defined to provide basis for tracking short, medium and long-term achievements of the strategic outputs. Through stakeholder consultation, NARO has defined strategies, expected outputs, targets and performance indicators to monitor and evaluate implementation of the strategic plan. Nevertheless, the strategic plan provides for flexibility and is not cast in stone. Thus, mechanisms analysing future opportunities and addressing threats not envisioned are provided for in this strategic plan.

CHAPTER 1 INTRODUCTION

1.1. *CONTEXT OF AGRICULTURE IN ECONOMIC DEVELOPMENT AND POVERTY ERADICATION*

Agriculture is the key sector in the economy of Uganda. It provides income to about 78.8% of the rural households and provides approximately 77% of formal sector employment and over 85% of total export earnings. The sector contributes about 32% of Gross Domestic Product (GDP) and 88% of the Uganda's population, estimated to be 31 million (MoFPED, June 2008)¹, living in the rural areas and depending directly or indirectly on agriculture for their livelihoods (MAAIF 2006)². The country's major transformation toward economic growth and poverty reduction began in the late 1980s with the adoption of the Vision 2025 Strategy that set the broad national ambitions. The national policy documents and frameworks drawn from Vision 2025 outline the necessary policy actions for social transformation. These policy actions recognises that, agriculture is a critical sector for restoring growth in the rural incomes and government aims at increasing ability of farmers to innovate and adopt new technologies. In the 1990s, the Gross Domestic Product of the country grew steadily by more than 6% annually from a low rate of 3% in the 1980s. The proportion of the population living below the poverty line declined from 56% in 1992 to 31% in 2008 (UBOS 2008)³. These trends were a result of sound policies that attracted trade and investments in agriculture. Thus, the agricultural sector and indeed agricultural research is very significant in the national development agenda.

Despite the afore-mentioned achievements, challenges in the areas of poverty reduction and sustainable development still require attention. Between fiscal years 2003/04 and 2007/08 the average growth rate of agricultural GDP reduced from 1.6% to 0.7% (MAAIF, *background to the budget*, 2008) The observable low productivity has been attributed to multiple factors including weak farmer-market-extension-research linkages, declining soil fertility, pest and disease outbreaks, inadequate infrastructure and climatic change. In recognition of the multi-sectoral nature of the factors hindering the attainment of agricultural transformation, Government formulated a comprehensive Plan for Modernisation of Agriculture (PMA).The PMA was designed to address the factors that undermine agricultural productivity, namely: poor husbandry; low use of improved inputs; limited access to improved technologies/knowledge and technical advice; poor access to credit; poor transport, communication and marketing infrastructures; and insecure land tenure and user rights.

Reforms in the National Agricultural Advisory Services (NAADS) and National Agricultural Research Systems (NARS) are expected to make significant contribution towards realisation of the PMA emphasise enhancing extension and research efforts with

¹ MFPEd, 2008. Ministry of Finance and Economic Planning: Background to the National Budget, 2008. Kampala, Uganda.

² MAAIF,2006. Ministry of Agriculture Animal Industries and Fisheries: Development Strategy and Investment Plan. 2005/06, Kampala, Uganda.

institutional arrangements that ensure increased responsiveness to clients' needs. The NAADS and NARO contribution to PMA is therefore focused on increasing access to improved knowledge, technologies, information and associated services that address, in a sustainable manner, the needs and opportunities of mainly economically active poor farmers. The NARS reform culminated into the National Agricultural Research Act of 2005, which established NARO as a body corporate.

1.2. THE NATIONAL AGRICULTURAL RESEARCH ORGANISATION

The agricultural research system in Uganda has evolved over the years from sub-sector based research institutes into a unified National Agricultural Research Organisation (NARO) under the 1992 statute. The organisation was mandated to “undertake, promote and coordinate research in all aspects of crops, fisheries, forestry and livestock, while ensuring dissemination and application of research results. The “old NARO” comprised nine National Agricultural Research Institutes (NARIs) and 12 agro-ecological based Agricultural Research and Development Centres (ARDCs) in accordance with decentralisation policy. The ARDCs implemented outreach and partnership programmes to strengthen relevance and dissemination of research products and services. The Organisation registered several achievements and gained national, regional and international accolade. The inception, growth, and achievements of NARO (1992 -2002) are documented (Mukiibi, 2003)⁴.

In spite of the NARO achievements, subsequent reviews indicated that there was need to broaden stakeholder participation and address entire commodity value chains in the research process. This was intended to ensure responsiveness of research outputs to market demand. Following the launch of the Plan for Modernisation of Agriculture (PMA), NARO re-aligned her strategic focus beyond “technology development” to a “people impact-orientation”. The re-alignment gave birth to the NARS which provided mechanisms for integration of research and development issues through resource-to-consumption innovation systems approach with broader multi-stakeholder participation.

1.3. THE NATIONAL AGRICULTURAL RESEARCH SYSTEM

The National Agricultural Research Act (NAR Act 2005) has transformed the “old NARO” from a predominantly public sector research organisation to a “new NARO”. This brings on board a cross section of entities with the competence and interest to participate in the delivery of agricultural research services. Key stakeholders in the NARS now include the semi-autonomous Public Agricultural Research Institutes (PARIs) and the Non-PARIs (universities and other tertiary institutions, Community Based Organisations (CBOs) and Civil Society Organisations (CSOs), several players in the private sector, and farmers/farmer groups/associations. The semi-autonomous PARIs consist of National Agricultural Research Institutes (NARIs) and Zonal Agricultural Research and Development Institutes (ZARDIs). The NARIs are mandated to do research on issues of strategic national

⁴ Mukiibi, J.K. 2003. The contribution of NARO to the Modernisation of Agriculture in Uganda.

importance (priorities) while the mandates of ZARDIs address priorities that are articulated by geographical innovation through platforms participatory processes.

The reform makes research more compliant with national development policies and strategies. The reform, designed to increase the contribution of research to commercialisation of agriculture is defined in the National Agricultural Research Policy (NARP 2003) and the National Agricultural Research Act (NAR Act 2005)

1.4. STRATEGIC PLAN 2000 -2010

The NARO Strategic Plan (2008/9 – 2017/18) is situated within the national, regional and global trends in the social economic and political environment that impact the agricultural research sector. At the national level in particular, the NARO reform ushered in by the NAR Act 2005 is a key milestone in the development and contribution of institutional arrangements and/or frameworks engaged in the broad array of research in the agricultural sector.

The Strategic Pan is part of the implementation of NAR Act 2005 and is unique in many respects. In particular, it is the first NARO Strategic Plan that takes into consideration the wider stakeholder engagements under the NARS.

CHAPTER 2 THE STRATEGIC PLANNING PROCESS

2.1 BACKGROUND

The strategy development process involved a series of consultative meetings with different stakeholders. The stakeholders jointly reviewed achievements and strategic gaps, identified challenges, development trends and drivers of the NARS. Strategic objectives were derived from key challenges and required actions to address development trends. The consultation workshops were interspersed with review and feedback workshops.

The strategic planning process considered the analysis of the external and internal environments influencing the NARS. The process considered the economic development frameworks at the national, regional and international levels. At all these levels the key thrusts include poverty alleviation, improved food/nutrition security, maintenance of high quality environment services and natural resource management for improved livelihoods. For NARO to contribute to development goals and aspirations at the national, regional and international levels, it is imperative that its activities are aligned within the goals of these economic development frameworks.

2.2 DEVELOPMENT TRENDS

The key development trends that provide a foundation for the present and future programmes of NARO include:

1. A drive towards cross-sectoral agricultural development to achieve rural transformation and economic growth. This is on the premise that performances in other sectors such as health, road infrastructure, governance and market related issues influence agriculture;
2. Regional integration and networking provide benefits from collaborative advantages and economies of scale. The collaborative partnerships and networks support aggregation of synergies for higher impact, effectiveness, and efficiency in production of public goods;
3. The adoption of client-led demand articulation processes by NARS calls for supply responses that stimulate integrated agricultural research for development. This is consistent with current trends in socio-economic empowerment of end-users of research products;
4. The world economic environment demands public and private institutions to play a critical role in setting the socio-economic development policy and agenda;
5. The drive towards commercialisation and value addition is leading to expansion of private sector investment in agriculture that may in the long-run result in the reduction of the agrarian economy;
6. There is impetus towards reducing transaction costs of publicly supported services and;

7. Other trends include globalisation and its ripple effects, gender empowerment and macro-economic reforms including privatisation and decentralisation of public services.

2.3 IMPLICATIONS OF CURRENT TRENDS FOR NARO

The foregoing development trends demand NARO, as a coordinating entity, to play leading role in steering the NARS to respond and adapt to national, regional and global changing demands and needs. This requires intense engagement with stakeholders and playing a proactive role in the national agricultural innovation system. The key implications for NARO include:

1. Ensuring wide and rational consultative processes for determining agricultural research priorities for a robust research process;
2. Guiding and coordinating all stakeholders in the NARS to be influential, integral and active participants in the national technology development and innovative system and policy formulation process;
3. Developing innovative approaches that promote adaptability, creativity and entrepreneurship in the conduct and management of agricultural research;
4. Promoting partnership and networking amongst the NARS institutions and with other actors in the economy for rationalized resource utilization;
5. Strengthening the capacities and competencies of institutions responsible for demand articulation and of research service providers to aggregate and respond to these demands and;
6. Evolving into an organisation that proactively lobbies, advocates and mobilises resources for the Uganda NARS. This will entail equitable support to both public and private actors, handling trans-mandate and broader representation issues, and creating of a dynamic port of entry and support for agricultural research and development.
7. Creating an institutional environment that fosters inclusivity, subsidiarity, transparency and democratically consultative processes in setting agricultural research priorities/agenda
8. Changing the existing mindset from research as a public service to research as a business replete with the dynamism, creativity and entrepreneurial attitudes incumbent in corporate entities.

2.4 STRATEGIC CHALLENGES FACED BY NARO

During the strategy development process the NARS stakeholders identified the following strategic challenges that should be addressed to achieve the goal set out in the Strategic Plan:

1. How to build an impact oriented, market responsive, and participatory research agenda responding to social and environmental needs

The drive for rural transformation and economic growth in Uganda poses a complex challenge that requires concerted efforts of the actors and stakeholders to achieve impact. The key elements in this challenge include building confidence in all NARS constituents and their subsidiaries, developing platforms and environment for participatory priority setting and experimentation, feedback and societal learning, and establishing information and knowledge sharing mechanisms and networks.

2. How to build, strengthen and sustain capacities and competences for high quality research management processes, delivery of quality research services and products

Development concerns are multidisciplinary and require more innovative and integrated approaches. The NARS reform emphasised pluralism in agricultural research for development that requires research service providers to adopt and or integrate interdisciplinary approaches in their operations. This requires institutional integration across mandates and interests, and also calls for new cross-cutting competences such as personal mastery and facilitation skills, managerial and entrepreneurial skills for practitioners conducting or managing agricultural research. NARO with promote systems for interactive learning that goes beyond technical training.

3. How to mobilize and equitably allocate resources for agricultural research

The public sector (Government and Development Partners) dominate funding mechanism for agricultural research. Most of the funding has been going to the public research institutes. The introduction of competitive funding is a good avenue for allowing other stakeholders to benefit from public funds. The challenge is how to increase and diversify funding sources to keep research funding at sufficient and sustainable levels to meet demands of an increasing number and diversity of service providers.

4. How to influence policy and development practices to generate higher impact in support of agricultural research

NARO is obliged to steer the NARS into a proactive entity that will harness all available opportunities to engage policy makers in policy reform and keeping itself relevant in development endeavours. There is insufficient inter-dependency and sustainable partnership among stakeholders to enhance synergy for efficient pluralistic innovation systems and policy formulation. Technology dissemination and uptake pathways are weak and limited in scope. This is coupled with lack of critical mass in all institutions. There are inadequate mechanisms for translating research results into policy advice.

5. How to institutionalise quality assurance in the NARS

Pluralism with varying competences requires standardisation of concepts, processes, products and services. This calls for development and adherence to standards of national, regional and international rating. In order to achieve this, there is need to institutionalize quality assurance, participatory planning monitoring and evaluation and impact assessment in the NARS.

2.5 STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS

This strategic plan takes into account the strengths, opportunities, weaknesses and threats in the NARS.

Strengths to build on

NARO will build on the following strengths to achieve its goals and objectives:

- NARO's reputation of producing high quality outputs created over time;
- Highly qualified human resource and existing infrastructure;
- Existence of an enabling legal framework (e.g., NARS Act, 2005);
- Strategic partnerships and collaborative linkages; and
- Availability of technical agricultural expertise in the NARS.

Opportunities to take advantage of

The following opportunities shall be exploited for the benefit of the Organisation:

- Commitment of Government and Development Partners to fund agricultural research;
- Political support at various governmental levels for agricultural research;
- Existence of other research bodies and organizations at both the national and international levels;
- Increasing demand for value addition;
- Modern technologies in agricultural research including ICTs;
- Gender responsiveness in agricultural research;
- Increasing demand for improved technologies generated by the NARS; and
- Emerging markets for agricultural products.

Weaknesses to address

NARO will deal with the following weaknesses:

- Weak research – extension - markets linkages;
- Poor information flow;
- Limited capacity to track technology adoption and impact ;
- Resource gaps (human, physical, financial and information); and
- Limited capacity to retain staff.

Threats to be countered

NARO shall have to put in place mechanisms for countering threats notably:

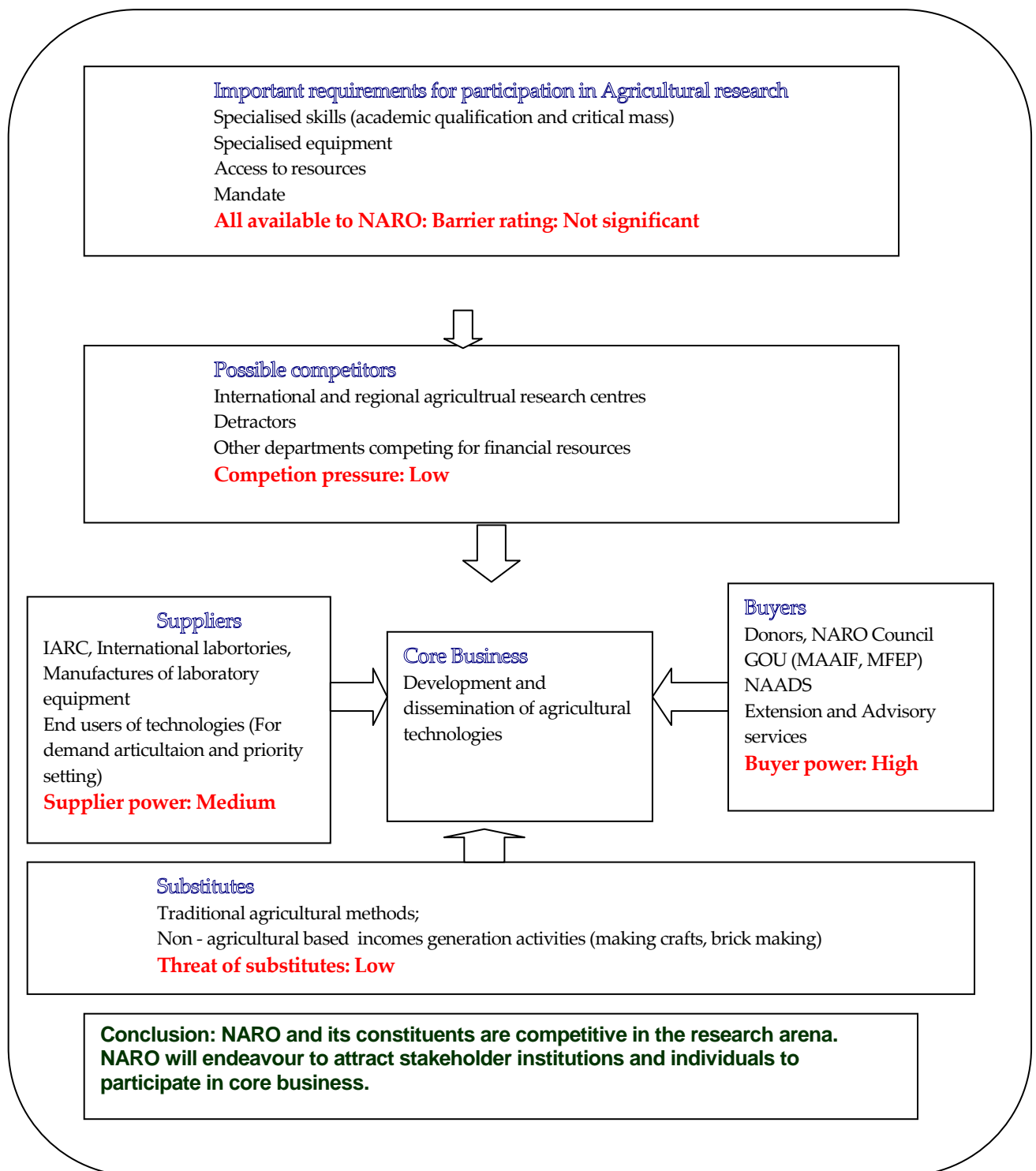
- The erratic climatic changes;
- Emergence of pests and diseases;
- Volatile client demands;
- Increasing global food prices;
- Competitive labour market; and
- Declining natural resource-base.

2.6 OPERATIONAL ENVIRONMENT: ANALYTICAL FRAMEWORK

An understanding of the operating dynamics of NARO is critical in ensuring that the organisation and its constituents remain competitive and relevant in agricultural research. Box 1 summarises the situational dimension of the operational environment, highlighting the following critical issues:

- Requirements for participation in agricultural research;
- The core business;
- Possible competitors;
- Substitutes; and
- Suppliers and buyers.

Box 1. Operational environment of NARO



CHAPTER 3 NARO STRATEGIC PLAN: 2008/9 - 2017/18

3.1 BACKGROUND

The NARO Strategic Plan for the period 2009 – 2018 is consistent with the guidelines and targets set out in the NARS core document (MAAIF 2005)⁵. The essence and themes of the strategy are enshrined in her mission, vision, and core values and strategic outputs that address and are linked to national development frameworks. The strategy also encompasses the principles of the NAR policy and the expectations of stakeholders on both the supply and demand segments of the NARS.

3.2 VISION, MISSION, GOAL AND CORE VALUES

Vision

“A market-responsive, client-oriented, and demand-driven national agricultural research system”

Mission

“To generate and disseminate appropriate, safe and cost effective technologies”

Goal

To enhance the contribution of agricultural research to sustainable agricultural productivity, sustained competitiveness, economic growth, food security and poverty eradication.

Core Values

In pursuance of its mission and vision, NARO will be guided by the following core values:

a) *Inclusivity*

Inclusivity creates opportunities and conducive environment for all interested stakeholders to participate in research service delivery. The mechanisms to be used include Competitive Grant Scheme (CGS) and strategic allocation of core funds to facilitate public-private sector partnerships.

b) *Subsidiarity*

NARO now coordinates a pluralistic NARS, subsidiarity will be key to increasing stakeholder engagement and equity, and to give all constituents a sense of belonging.

⁵ National Agricultural Research System Reform Programme: Core Document

c) *Transparency*

Transparency is a vital value for enhancing mutual trust and building healthy partnerships. NARO will establish mechanisms for participatory resource allocation, peer review, information sharing and allow open discussion on resource mobilisation ventures. NARO's pursuit for transparency will also ensure integrity in all aspects. This will promote professionalism and ethics in agricultural research service delivery. NARS stakeholders will be encouraged to share credit, benefits and risks and manage conflicts of interest.

d) *Accountability*

NARO will promote the principle of value-for-money in resource allocation, utilisation and reporting among the various actors in the NARS.

e) *Excellence*

The organisation will continue to pursue excellence and design modalities to ensure that pluralism accentuate research processes and outputs. NARO will ensure that all service providers comply to standards of excellence and will provide conducive environment for creativity in the frontiers of science.

It is the obligation of NARO to inspire participants in the NARS to adapt the above core values as enduring tenets influencing their way of doing business. This is especially important, as these values will influence how NARO will empower research service providers, and how effectively she will engage NARS constituents to remain cohesive in addressing priority research without compromising their semi-autonomy.

3.3 NARO'S STRATEGIC RESULT AREAS

In the next ten years (2008/2009 – 2017/18), NARO will steer the NARS to pursue the following strategic result:

- 1) Client and impact-oriented, market responsive agricultural sector research agenda developed and implemented
- 2) Capacity and efficiency of public and private agricultural sector research service provider teams to respond to client needs and market opportunities improved
- 3) Infrastructural and financial sustainability capacities to support and facilitate agricultural research enhanced and strengthened
- 4) Mechanisms for contributing to agricultural research sector policy formulation and development strengthened
- 5) Quality assurance procedures in the NARS established and implemented

3.3.1. Strategies to achieve the planned results

Strategic Result 1: Client and impact-oriented, market responsive agricultural sector research agenda developed and implemented

This strategic output seeks to strengthen the relevance of the NARS in national development. It focuses on the development and implementation of a relevant agricultural sector research agenda that has stakeholder approval and responsive to client and market demands while conserving national resource base. The strategies to achieve this strategic output include:

1.1 Strengthening mechanisms for stakeholders to identify emerging issues and analyse the demand-supply chain of innovation systems in agricultural research for development

1.2 Formulating and execution of an agricultural research agenda to generate and disseminate technologies that adequately address zonal and national priorities.

Strategic output 2: Capacity and efficiency of public and private agricultural sector research service provider teams to respond to client needs and market opportunities improved

This strategic output aims at enhancing the capacity of research service providers to undertake client responsive research. Currently agricultural research service provision is characterised by public research institutes, universities, and uncoordinated private service providers.

Achievement of this output will result in individuals, teams, and institutions that are equipped to engage in inter-disciplinary and multi-institutional agricultural research for development. New capacities will enhance collaboration across and within semi-autonomous Public Agricultural Research Institutes (PARIs), universities, private sector and regional and international institutions. It will also stimulate complementarities leading to increased relevancy of technologies and high standard of service provision. Strategies to achieve this output include:

2.1 Creating a critical mass of agricultural research service providers with competences and capacities for management and implementation of market-oriented research;

2.2 Attracting capable non-PARI research institutions, teams and individuals to participate in demand articulation, technology generation and dissemination processes and;

2.3 Creating a conducive environment for multi-sectoral and multi-institutional partnerships and collaborations to underpin pluralism in the conduct of demand-driven agricultural research.

Strategic Result 3: Infrastructural and financial sustainability capacities to support and facilitate agricultural research enhanced and strengthened

Research infrastructure and funding for agricultural research are inadequate to address competing demands. Agricultural research is heavily dependent on donor funding and often characterised by erratic disbursement and flow of funds. Some of the research institutions have good infrastructure and equipment while in other cases there is need for capital investments in infrastructural outfits and refurbishment of existing ones.

As an apex body for the NARS, NARO is mandated to source for funds for research activities and to create an environment for all research service providers to get access to appropriate facilities. Strategies to achieve this objective are:

- 3.1 Mobilising adequate funds for sustainable agricultural research and institutional capacity development; including the training of young scientists in cutting edge science
- 3.2 Strengthening mechanisms for equitable and transparent allocation of funds to all agricultural research service providers, and;
- 3.3 Developing and maintaining state-of-the-art agricultural research facilities that are accessible to agricultural research service providers.

Strategic Result 4: Mechanisms for contributing to agricultural research sector policy formulation and development strengthened

This strategic output seeks to ensure that NARO guides and coordinates the NARS to make a collective voice in the policy arena. This will facilitate the process of responding to client demands and opportunities for holistic household development. It focuses on engaging policy makers and other players to create an all-inclusive forum for influencing policy and other agro-based development strategies. The strategies to achieve this objective are:

- 4.1 Empowering NARS stakeholders to participate in governance and decision-making related to agricultural research and development; and
- 4.2 Strengthening and institutionalisation of mechanisms for stakeholder participation and translating agricultural research results and products into policy advice.

Strategic Result 5: Quality assurance procedures in the NARS established and implemented

The NARO will use participatory approaches to develop and institutionalise quality assurance mechanisms and procedures to ensure effectiveness and efficiency in agricultural research. The organisation will promote a balance of sciences and scientific applications that matches challenges in the economy and ensure compliance to standards and guidelines for safe and quality research services delivery. It will create favourable environment for sourcing and contributing to the global knowledge market through participation in the frontiers of agricultural sciences. It will also promote establishment of centres of excellence using established standards of international accreditation. Strategies to achieve this output are:

- 5.1 Developing and promoting guidelines and tools that enhance the delivery of safe and quality agricultural research products and services;
- 5.2 Branding NARO as a lead agency with national mandate to coordinate agricultural research for development and;
- 5.3 Mainstreaming participatory monitoring and evaluation, and impact assessment mechanisms with effective client feedback pathways and societal learning processes.

CHAPTER 4 IMPLEMENTATION PLAN

4.1 ACHIEVING NARO'S STRATEGIC OBJECTIVES

Translating this strategy into action requires a series of plans, reviews and continuous learning and adaptation towards optimising its operations. It also requires continuous dialogue among key players to smoothen implementation processes and structures to maximise efficiency and benefits. The identified strategies provide ingredients for guiding NARS constituents in developing short and medium-term business and implementation plans with defined milestones/indicators and targets that will result in desired outcomes and impact.

4.2 RISKS IN IMPLEMENTATION AND MITIGATION STRATEGIES

The transformation of NARO into an umbrella organisation of several stakeholders with different competencies and demands poses a risk of not meeting expectations. This is particularly so if demands are not well articulated and prioritized and if the principal of subsidiarity is not well understood and applied. Failure to achieve the desired bond of a common vision and mission will lead to wavering support and reduced commitment to the organisation. Stakeholders will especially be looking for reduction in transaction costs expected to be realised from the synergies and partnerships resulting from pluralistic NARS. Another likely risk will be failure to seize new opportunities and inability to adjust to changing demands and unfavourable policy shifts.

Twined with the mandate to coordinate the NARS, is NARO's intent to remain a comprehensive organisation. Comprehensiveness and diversity among the NARS have a very practical application that will be handled in a logical deductive approach. The path of agricultural research is not easily predicted, especially as new areas and challenges emerge that draw upon a wide variety of disciplines and expertise in the agricultural sciences. Thus, the ability to adapt is reduced if comprehensive offerings are not present. The ecological principle of "stability through diversity" will aptly apply in this scenario.

Cross cutting issues

Mainstreaming gender

NARO will endeavour to guide the mainstream of gender in the routine processes of agricultural research services delivery, project development, implementation, monitoring, evaluation and reporting processes. The public research institutes and registered private researchers will be equipped with skills for gender analysis and participatory research. To achieve and develop appropriate technologies for the different social groups, NARO will establish mechanisms for needs assessment for gender responsive technologies. Other key interventions for ensuring gender responsiveness are defined institutional arrangements for allowing stakeholder participation in demand articulation and priority setting. Capacity development programmes for gender analysis are already underway for scientists and research managers in the public institutes and will be extended to registered private researchers.

HIV/AIDS

The priority setting process for research takes into consideration the needs of the disadvantaged. The development of varieties that have high nutrition value and labour-saving implements are both important for farmers that are affected by HIV/AIDS. Sensitisation programmes will also be linked to the farmer participatory research activities.

Environmental Sustainability

Environmental sustainability is one of NARO's key social responsibilities. Natural resource management is one of the five themes in the organisation's research and development continuum. A number of projects in forestry, soil and water and plant biodiversity have been developed for implementation in the short and medium-term.

4.3 MONITORING AND EVALUATION

NARO is working to establish a sustainable inter-institutional framework for an elaborate, cost-effective monitoring and evaluation systems and reporting structures to ensure timely action and feedback. Monitoring of research and institutional development activities will be based on a logical framework and baseline data.

4.4 FINANCING OF THE STRATEGIC PLAN

NARO Council and management will continue to mobilise finances for core and competitive grants for technology development and for continuous improvement of research institutional development. NARO's aspiration is to mobilise sufficient funding for supporting research in the short and medium term and to establish mechanisms for sustainable funding. Funding in the short and medium term will be based on annual government allocation, donor contributions, international and regional competitive grants and bilateral projects as well as non-tax revenue generated from research related goods and services. In the long term, in addition to these sources NARO is in the process of establishing a research trust fund.

4.5 IMPLEMENTATION PLAN

Strategic Result 1: Client and impact-oriented, market responsive agricultural sector research agenda developed and implemented

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
1.1 Strengthening mechanisms for stakeholders to identify emerging issues and analyse the demand-supply chain of innovation systems	Institutionalise demand articulation processes for generating research agenda and capturing emerging issues	Number and composition of functional stakeholder fora formed	One review and planning meeting for research service providers annual held annually	Performance of PARI and Private Agricultural Research Service Providers (PARSP) in demand-supply chain analysis evaluated twice
	Define and document processes for amalgamating demands from different demand articulation structures	Priority setting instruments developed and utilized	Research priorities monitored at least once a year and evaluated every two years	Impact assessment undertaken
	Implement appropriate programmes for NARS stakeholders in demand-supply chain analysis	Number of stakeholders with capacity to develop and implement demand-supply chain analysis; Number and types of demand-supply chain analyses undertaken on priority commodities	At least 2 scientists in each PARI and non-PARI gained skills At least 10 commodities fully analyzed	

1.2 Formulating and executing research agenda to generate and disseminate technologies that adequately address zonal and national priorities.	Establish platforms for stakeholder participation in research planning and technology exchange	Proceedings, reports of workshops, meetings, annual, quarterly	At least five meetings /workshops for main research service providers	Impact assessment conducted every five years
	Develop mechanisms for strengthening research-extension interface	Number of stakeholder platforms developed and operationalised in research planning and technology exchange	The stakeholder planning platform functional by 2009 and technology exchange platform operational by 2011	At most ten workshops /meetings for main research providers
		Frequency of research extension interaction to exchange technologies and emerging issue	The interaction mechanism functioning in at least the 5 ZARDIs by 2010	Evaluate performance of the interaction mechanism by 2012
	Generate technologies that address agricultural production, value addition and marketing constraints	Number and quality of new research outputs generated and disseminated; No of technologies adopted by end users Evidence of outcomes attributed to adoption of new technology	Increase baseline research outputs by at least 5%	Peer review stakeholder platforms every two years from 2011 evaluate impact by 2015 Increase baseline research outputs by at least 15%

Strategic Result 2: Capacity and efficiency of public and private agricultural sector research service provider teams to respond to client needs and market opportunities improved

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
2.1 Creating a critical mass of research service providers with competences and capacities for management and implementation of market-oriented research	Review and implement recruitment plan in the PARIs and NAROSEC	Number of new staff recruited annually	879 staff recruited (234 scientists, 233 technicians 412 support staff)	Critical mass of research service providers created and sustained
	Develop and implement staff training plan	Number of staff trained in doctorate and masters degrees	40% scientists to have doctorate and 55% masters and 5% a first degree.	45% scientists to have doctorate and 55% masters' degree.
		Number of short term capacity strengthening courses attended by staff	60% of the planned capacity strengthening programmes planned and attended.	75% of the planned capacity strengthening programmes planned and attended
	Regularly update human resource database of PARIs and NAROSEC	Frequency of update and quality database of PARIs and NAROSEC	A new Human Resources manual developed and operationalised	Comprehensive human resource database
	Develop and implement favourable HR policy	Rate of annual staff turn over	Reduce baseline figure by half	Reduce 2012 target by half
		Percentage of staff adhering to performance targets	90% of staff adhering to performance targets	All staff adhering to performance targets

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
2.2 Attracting capable non-PARI research institutions, teams and individuals to participate in demand articulation, technology generation and dissemination processes	Sensitise and train non-PARI institutions and individuals on pluralistic market-oriented research system	Number of non-PARI institutions and individuals sensitised on MOR system	20 non PARI institutions and 100 individuals sensitised on MOR system	50 non-PARI institutions and 250 individuals sensitised on MOR system
		Number of non-PARI service providers trained in MOR	20 non PARI institutions and 100 individuals trained in MOR	50 non-PARI institutions and 250 individuals trained on MOR system
	Develop research skills and competencies of non-PARI service providers	Number of non-PARI service providers trained in research skills	200 non-PARI service providers	400 non-PARI service providers
	Establish and regularly update database of research service providers	Updated data base of research service providers	Database of agricultural research service providers established	Database of agricultural service providers regularly updated
	Develop mechanisms and procedures for Non PARIs to access specialised equipment for research within the NARS	Number of Non-PARIS accessing specialised equipment for research within the NARS	All registered Non PARI involved in basic research	
	Organise for a for sharing knowledge and experience between PARI and non PARI SP	Number of fora organised for knowledge and experience sharing	10 knowledge and experience sharing fora organised	

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
2.3 Creating a conducive environment for multi-sectoral and multi-institutional partnerships and collaborations to underpin pluralism in the conduct of demand-driven research.	Establish mechanisms for tracking and participating in research and innovation initiatives.	Number of national, regional and international research initiatives	Develop partnerships with at least 5 new international research bodies and at least 3 private firms	Develop partnerships with at least 10 new international research bodies and at least 6 private firms

STRATEGIC Result 3: Infrastructural and financial sustainability capacities to support and facilitate agricultural research enhanced and strengthened

Strategies	Activities	Performance indicators	Mid term target (5 years) 2009-2014	10 year target June 2018
3.1 Mobilizing adequate funds for sustainable agricultural research and institutional capacity development; including the training of young scientists in cutting edge science	Prepare and submit annual budgets in consultation with PARI management committees Prepare technical reports (M&E) continually lobby government for increased MTEF provisions	Timely preparation and submission of annual budgets	Budget submitted annually to the Ministry of Finance	Budget submitted annually to the Ministry of Finance
		Percentage change in the MTEF ceiling	6% increase in the MTEF provisions	10% increase in the MTEF provisions
		Percentage change in GoU development budget support to NARO	10% GoU contribution to research support budget	15% GoU contribution to research support budget
	Establish interactive fora for continuous dialogue with traditional and non traditional development partners	Number of fora held to discuss funding with development partners	One forum per quarter totalling to 24 fora	Bi-annual interaction with development partners
		Number of non traditional partners on board and amount of funds raised	One fora per year with non traditional partners; 2 new non traditional partners brought on board	One fora per year with non traditional partners; 4 new non traditional partners brought on board
	Set up agricultural research trust fund for sustainable research funding	Number of funding sources and amount of funds raised; Number of projects supported from the ARTF	Trust deed registered by 2009 ARTF capitalised by 2012	ARTF supporting 5% of NARS research budget
	Collate and disseminate information on regional and international initiatives to enable	Number and amount of resources tapped from the regional initiatives by the research teams	25% contributed from regional and international initiatives	30% contributed from regional and international initiatives

Strategies	Activities	Performance indicators	Mid term target (5 years) 2009-2014	10 year target June 2018
	research teams tap into regional resources			
	Strengthen the participation of Private sector in financing agricultural research	Number of private companies contributing financial resources to agricultural research	At least 5 companies contributing to agricultural research	10 categories of products funded by private sector
	Establish revenue generating activities in the PARIs	Amount of revenue generated, % contributed to agricultural research by internal revenue	At least 1 billion Shillings generated annually NARIs raising 5% and ZARDIs 1% of annual budget as royalty from technologies	At least Shs 1.6 billion generated annually NARIs raising 5% and ZARDIs 1% of annual budget as royalty from technologies
3.2 Strengthening mechanisms for equitable and transparent allocation of funds to all research service providers	Link all institutes and other active service providers on computerised tracking system	Number of service providers linked to computerised tracking system	All PARIs and selected stakeholders and Secretariat linked by WAN	All research service providers getting public funds through NARO linked to FMS of NARS
	Establish finance (accountability) structures at institutes	Number of institutes with accountability committees	Finance (accountability) teams established at each institute by 2010	All members of finance committees acquired skills in finance management
3.3 Developing and maintaining state-of-the-art agricultural research facilities accessible to research service providers	Establish appropriate infrastructure for 6 NARIs	State of the art infrastructure at NARI	All six NARIs have sufficient office space and modern laboratories	All NARI infrastructure maintained at International standard
	Establish appropriate infrastructure	Sufficient office and laboratory space at ZARDIs	9 ZARDIs operational; 7 ZARDIs with sufficient office space; 2 ZARDIs with	9 ZARDIs operational with sufficient office and

Strategies	Activities	Performance indicators	Mid term target (5 years) 2009-2014	10 year target June 2018
	at the ZARDIs		good laboratories, 6 ZARDIs with operational laboratories,	laboratory space, At least 4 ZARDIs maintained at international laboratory standards
	Maintain infrastructure for management of agricultural research	Sufficient office space and staff welfare facilities at NARO secretariat,	NARO Secretariat fully rehabilitated	
	Annual assessment of status and needs for new equipment	Periodic assessment of status and needs for new equipment.	Annual update of inventory	Annual update of assets inventory
	Regularly replace and updating old and obsolete equipment	Number of old equipment replaced.	Complete replacement of obsolete in all PARIs and provision of basic equipment for 7 Zonal Institutes and NaFORRI and selected non-PARI	
	Purchase new equipment for under-equipped laboratories	Number and type of equipment purchased periodically.	All institutes have 70% of the basic equipment requirement	All institutes have state-of-the art for mandated research
	Establish mechanism for maintenance and regular service of equipment	Maintenance and regular service of equipment mechanism designed and implemented	Annual maintenance contracts put in place	An instrumentation technician appointed

Strategic Result 4: Mechanisms for contributing to agricultural research sector policy formulation and development strengthened

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
Empowering NARS stakeholders to participate in governance and decision-making processes related to agricultural research	Design and implement appropriate competence development programs for stakeholders	Number of stakeholders benefiting from competence development programmes per year	All stakeholders registering to participate in research service provision each year benefit in at least one competence development programme	At least one representative of registered stakeholders benefiting from competence development programme
		Number and type of stakeholder completed competence development programs	All members of council and management committees stakeholders trained in Governance Chairpersons of MCs and heads of participating non-PARI institutions trained in Conflict management Heads of registered Non-PARI trained in leadership	New members of MCs, and council; given leadership and governance basics
		Number decisions (list them) influenced by stakeholders	8	15
		Category (regularity of change) participating in management committees	At least four of the categories to have changed representatives.	At least 6 out of 8 categories to have changed representatives.

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
	Provide platforms for NARS stakeholders to interact, share views and experiences	Number of platforms provided for stakeholders' interaction	Four (4)	Six (6)
		Category of stakeholders interacting and sharing their experiences	Number of categories participating to increase annually to reach 10 non-PARI institution and all PARI by year Five (5)	!0 % by end of 2018
	Periodically review the performance of stakeholders	Number of stakeholder-performance reviews conducted	Four (4)	Eight (8)
		Number of support actions taken as recommended from performance reviews	Five (5)	Ten (10)
Strengthening and institutionalisation of mechanisms for stakeholder participation and translating agricultural research results and products into policy advice	Establish and implement fora for sharing policy-lessons learned	Number of fora for sharing policy-lessons learned	5 (research & extension; development partners; policy makers; Research Managers; Scientific	Consider the market value chain
		Number of policy-lessons learned by forum	At 3 lessons learned per forum	At 10 lessons learned per forum
	Strengthen sharing of policy information across the NARS	Number of policy information sharing mechanisms	The number of end-users accessing policy information to increase by 20 %	Number of end-users accessing policy information to increase to 50 %
		Number of stakeholder categories sharing policy information	Baseline study to establish access to policy information completed	At least 5 categories of stakeholder sharing policy information
	Develop capacity of stakeholders to translate research results into policy advice	Number of stakeholders trained in translating research results into policy briefs	At least 10% of no-PARI researchers and 20% PARI scientists trained in translating research results into policy	At least 40% of no-PARI researchers and 50% PARI scientists trained in

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
			briefs	translating research results into policy briefs
		Number of stakeholders trained in advocacy and lobbying	At least 20% of the stakeholder trained in advocacy and lobbying	At least 50% of the stakeholder trained in advocacy and lobbying
		Number of new policy briefs developed	At least one policy brief in each of the key sub-sectors	At least four policy brief in each of the key sub-sectors
	Establish platforms for policy debates	Number of established policy debate platforms	At least 2 policy platforms established	At least 4 policy platforms established
		Number of policy debates held	Database developed and reviewed annually	Database reviewed annually

Strategic Result 5: Quality assurance procedures in the NARS established and implemented

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
5.1 Developing and promoting guidelines and tools that enhance the delivery of safe and quality agricultural research products and services	Establish centres of excellence in the NARS	<ul style="list-style-type: none"> • National, regional and international accreditation certificates • No. publications in refereed journals • No. of products patented • The national, regional and international rating of outcomes and impacts technologies and services from the NARS • Qualification and credentials of human resources in the NARS • Quality of infrastructure in the NARS • Regular institutional performance appraisal reports 	<ul style="list-style-type: none"> • At least 3 accredited laboratories • At least 10 articles published in refereed journals • Annually Institutional performance appraisal establish 	<ul style="list-style-type: none"> • All laboratories in the NARS issues with international accreditation • Ugandan Journals listed among internationally recognized journals
5.2 Branding of NARO as a lead agency with the national mandate to coordinate agricultural research for development		<ul style="list-style-type: none"> • A reputable branding of NARO in the NARS • <i>Logos depicting NARO in the PARIs and non-PARIs registered in NARO</i> 		

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
	Establish performance standards and guidelines for research service delivery in the NARS	<ul style="list-style-type: none"> • No. of standards/guidelines effectively used in the NARS • Inventory of eminent scientists vetting proposals • Quality rating of proposals funded under competitive grant schemes 	<ul style="list-style-type: none"> • Proposal rating from non-PARIs meets similar levels with PARIs 	
5.3 Mainstreaming participatory M & E, and impact assessment mechanisms with effective client feed back pathways and societal learning processes	Institutionalize result oriented M&E system in the NARS	<ul style="list-style-type: none"> • No. of tools used for to capture data on milestones, outputs, outcomes and impacts of research and development processes • National coverage of M&E data collection network • No. of active M&E practitioners in the NARS • No. of quarterly and annual reports depicting milestones, output, outcome and impact generated 	<ul style="list-style-type: none"> • Reporting tools improved and used for regular data capture • Network of M&E practitioners established in the NARS • Quarterly M&E reports delivered 	

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
	Undertake regular institutional performance appraisal reviews and rewards	<ul style="list-style-type: none"> • Criteria and guidelines for institutional performance appraisal and reward schemes development and used in the NARS • Guidelines for individual performance appraisal and reward schemes developed 	<ul style="list-style-type: none"> • Guidelines for institutional performance developed and used • Annual rating of institutions and individuals published 	
	Establish effective management of information system (MIS) in the NARS, and improved contribution to and sharing of the global knowledge	<ul style="list-style-type: none"> • Quality of infrastructure and human resources employed in MIS • Timeliness of quality report generated and used by clients (management, scientific community, advisory services etc) • No of articles in the print media • No of user manuals and advisories published and disseminated • No of issues of UJAS and other journals in the NARS • No of active value chain learning platforms established • No of ZARDIs and NAADS districts linked to ARENET 	<ul style="list-style-type: none"> • ICT capacity and linkage in the NARS established • Infrastructure development schemes in the NARS developed • At least one article in the print media every quarter • At least four manual, and policy advisory generated annually • At least 30 articles published in UJAS annually • At least 10 commodity value chains established by 2010 • All ZARDIs linked to ARENET • At one Biennial National Scientific Workshop organized in the NARS every • Electronic library services extended to NARS 	

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
		<ul style="list-style-type: none"> • No. of scientific workshops organized and coordinated by NARS • Documentation updates and improved library services 		
	Increasing efficiency of providing research services to clients	<ul style="list-style-type: none"> • Guidelines for rationalizing programs and projects among actors in the commodity value chains developed and used • Guidelines and, tools and processes for rationalizing priorities at zonal and national levels developed • Consistent declines of personnel-to- operational-cost ratios in projects • Consistent increases in returns to investment in research and development along the various commodity value chains 	Existing guidelines reviewed and improved An effective and efficient institutional framework for M&E and impact assessment established	
	Establish mechanisms for exercising Incentive schemes for compliance and Sanctions for non-PARIs	<ul style="list-style-type: none"> • Guidelines for institutional and individual performance assessment developed and reviewed annually • Annual nominations for National 		

Strategies	Activities	Performance indicators	Mid term target (5 years) June 2014	Long term 10 year target June 2018
		and International Awards established <ul style="list-style-type: none"> • Incentives schemes for excellence and sanctions for professional misconduct established 		

Budget for mid-term (2009 -2014)

NATIONAL AGRICULTURAL RESEARCH ORGANISATION (NARO)

PROJECT COST SUMMARY GOU/ DONOR SUPPORT

Component Description	Notes	Amount in UGX '000'					Total
		2009/10	2010/11	2011/12	2012/13	2013/14	
A Technology Development and Adoption							
Technology generation		6,080,000	6,080,000	6,080,000	6,080,000	6,080,000	30,400,000
Emerging issues in Technology Development		1,900,000	1,900,000	1,900,000	1,900,000	1,900,000	9,500,000
M & E		380,000	380,000	380,000	380,000	380,000	1,900,000
Management of Agricultural Research		475,000	475,000	475,000	475,000	475,000	2,375,000
Sub Total		8,835,000	8,835,000	8,835,000	8,835,000	8,835,000	44,175,000
B Outreach & Extension Programme							
Adaptive Research and Technology Dissemination		5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	28,500,000
Emerging issues in Outreach & Extension		1,900,000	1,900,000	1,900,000	1,900,000	1,900,000	9,500,000
Management of Agricultural Research		570,000	570,000	570,000	570,000	570,000	2,850,000
Support to CGS		5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	28,500,000
Quality Assurance		380,000	380,000	380,000	380,000	380,000	1,900,000
Sub Total							

		14,250,000	14,250,000	14,250,000	14,250,000	14,250,000	71,250,000
C Institutional Development							
Infrastructure of NARO Institutes	1	3,990,000	3,990,000	3,990,000	3,990,000	3,990,000	19,950,000
Infrastructure of NAROSEC	2	1,900,000	1,900,000	380,000	-	190,000	4,370,000
Technical Support to NARO	3	570,000	570,000	570,000	570,000	570,000	2,850,000
Support for Goods & Services	4	1,235,000	1,235,000	1,235,000	1,235,000	1,235,000	6,175,000
Recurrent Costs - Operation & Maintenance		665,000	665,000	665,000	665,000	665,000	3,325,000
Staff Costs (Remuneration)		15,225,000	15,986,250	16,785,563	17,624,841	18,506,083	84,127,736
Human Resource Development for Research & Extension	5	1,805,000	1,805,000	1,805,000	1,805,000	1,805,000	9,025,000
Management of Agricultural Research		180,500	180,500	180,500	180,500	180,500	902,500
Quality Assurance		228,000	228,000	228,000	228,000	228,000	1,140,000
Sub Total		25,798,500	26,559,750	25,839,063	26,298,341	27,369,583	131,865,236
Total		48,883,500	49,644,750	48,924,063	49,383,341	50,454,583	247,290,236
							-
Exchange Rate 1 USD = UGX		1,900					

Notes:

		Funding Arrangement (%)	
		IDA	GOU
	category A & B core research	90	10
1	there will be renovations to the existing structures especially to the new institutes of Nabwin, Buginyanya and Rebitaba. Other institutes will have their laboratories and other buildings enhanced.	90	10
2	NAROSEC plans to put up a new headquarters. This will cover the total cost of construction.	90	10
3	with the studies, renovations and constructions expected there will be need to source externally expatriate skills to enhance implementation of the program	90	10
4	new vehicles will be procured to replace the existing ones which are over 4 years old. Each institute will have at least 3 new double cabin pickup tracks replaced	100	taxes
5	NARO plans to have all positions filled during the period. The target is to have comprehensive training for the new and existing staff.	90	10