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# GUIDELINES FOR ESTABLISHMENT AND MANAGEMENT OF PUBLIC AGRICULTURAL RESEARCH INSTITUTES (PARIs)

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# GUIDELINES FOR ESTABLISHMENT AND MANAGEMENT OF PUBLIC AGRICULTURAL RESEARCH INSTITUTES (PARIs)

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## 1.0 Purpose of the Guidelines

The conduct of research in the reformed National Agricultural Research System (NARS) in Uganda shall operate within a unified institutionally pluralistic national framework that involves multiple agricultural research service providers from the public research institutes, universities, private companies, farmer organisations and cooperatives, civil society and public-private agricultural research foundations.

The purpose of these guidelines is to outline the needed changes in the management and operation of public agricultural research institutes to improve their relevance and promote greater efficiency in utilizing the physical and human resource infrastructure, including institutional autonomy and governance, and linkages with clients, technology uptake pathways, and the global agricultural research system.

## 2.0 Mandate and Functions of NARO

The National Agricultural Research Act of 2005 establishes the National Agricultural Research Organisation (NARO) for the purpose of coordinating the activities of the entire National Agricultural Research System (NARS). The Organisation comprises the Council as the governing organ, three standing committees as the technical arms and the Secretariat for provision of the day to day administrative and management support. The NARO Council has the following functions:

a) Setting the policy and providing the general research strategy for the entire NARS;

b) Coordinating and overseeing the implementation of the agricultural research policy and national research strategies relating to publicly funded agricultural research;

c) Appointing Public Agricultural Research Institute (PARI) Management Committees, the Directors and Scientists;

d) Advising and coordinating formulation of policy and legislative proposals, research standards, codes of ethics, conduct and practice; and guidelines for delivery of agricultural research services;

e) Coordinating and promoting cooperation and collaboration between Uganda and other countries, institutions, scientific or professional societies and other agricultural research service providers;

f) Supervising the entire NARS in terms of quality standards, financial and technical accountability through the Departments of Research Coordination, Finance & Administration and Quality Assurance;

g) Mobilising funds for agricultural research, overseeing management of the National Agricultural Trust Fund and providing funding for the advancement and promotion of agricultural research and development on both competitive and non-competitive basis.

### 2.1 Functions and duties of the NARO Secretariat

The NARO Secretariat is the executive organ of the Council and is responsible for the day-to-day operations of the Organisation. The administrative functions of the Secretariat shall include but are not limited to:

(a) Preparation of a 3 years rolling plan of NARO for approval by the Council;
(b) Co-ordination of the activities of PARIs and other agricultural research service providers to ensure proper management and use of public funds;
(c) Provision of advocacy for the entire NARS;
(d) Monitoring, evaluation and performance assessment of publicly funded research programmes;
(e) Development and management of the human, physical and financial resources of the Secretariat;
(f) Development and management of information systems within the NARS as well as with other regional and international organizations;
(g) Formulation of a uniform scheme of service for all public agricultural research institutes;
(h) Establishment and management of national, regional and international linkages and partnerships;

## 2.2 Functions and duties of Public Agricultural Research Institutes (PARIs)

The reform of the NARS is based on the creation of PARIs with clearly defined levels of autonomy, flexibility and accountability.

Two categories of PARIs – the National Agricultural Research Institutes (NARIs) and the Zonal Agricultural Research and Development Institutes (ZARDIs) were established by the Act. The broad functions of PARIs is to (i) conduct agricultural research and skills' enhancement programmes which are of public interest, (ii) act as innovative public centres of excellence and reference on specified agricultural research programmes and enterprises, and (iii) maintain core technical, administrative research staff and facilities.

Specific core functions of a public agricultural research institute shall be as follows:

(a) Generation and development of technologies, methods and knowledge of strategic and applied importance;
(b) Establishment and management of the human, physical and financial resources of the PARI;
(c) Provision of technical back-stopping and capacity building to MAAIF and other agencies dealing in agricultural research and advisory services;
(d) Development and management of a research information system that ensures adequate information exchange and enhances collaboration and linkages with stakeholders and partners;
(e) Planning, monitoring and evaluation of research programmes undertaken by the PARI to ensure conformity with national and/or zonal research priorities and strategy;
(f) Ensuring multiplication and dissemination of quality technologies to appropriate uptake pathways;
(g) Generation of periodic reports on research to the NARO Secretariat and other stakeholders;
(h) Establishment of sustainable linkages and partnerships with Local, Regional and International research bodies; and,

(i) Participation in problem identification and prioritization of research demands for the national and/or zonal research agenda, including generating and maintaining an up-to-date database on the peoples' livelihood, farming systems' constraints and opportunities.

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## 2.3 Autonomy of PARIs

Public Agricultural Research Institutes are set up as semi-autonomous bodies so as to have management and employment flexibility to tailor business rules and regulations and human resources management to the special needs of research under the general policies and guidelines set by the NARO Council. Each PARI, through its Management Committee, shall have full powers to set and change its own rules of business in its operations relating to the implementation of its programmes, allocation and management of its resources in accordance with its approved annual programmes and budget. The administrative, financial, and personnel decision-making powers required for each PARI shall be as follows:

| **Function** | **Level of flexibility/autonomy** |
|---|---|
| *Governance:* Management Committee membership and appointment of staff | 1. All PARI staff members shall be appointed on contract terms agreed upon by the appointing authority and the appointee, and renewable in accordance with the general terms and conditions of service for PARIs established by the NARO Council.<br>2. Members of the Management Committee shall, unless specified by office, be selected in their personal capacity and appointed by the Council to contribute to the efficient management of the business of the institute.<br>3. Management Committee shall approve the rules of business developed and proposed to it by the Director and technical staff of the institute.<br>4. Management Committee shall appoint all non-scientific staff of the institute through an open and transparent selection process free of external interference.<br>5. The appointment of the PARI Director and Scientists shall be by the Council. For these recruitments the NARO Secretariat will constitute interview panels comprising members of the Scientific Committee and the respective PARI Management Committees. |
| *Research Programmes:* Program formulation, funding, and implementation | 1. Each PARI and its Management Committee shall have full powers to:<br>a. Develop and negotiate its core research programme with the NARO Council through the NARO Secretariat for consolidation and funding.<br>b. In pursuit of (a) above, ensure that all relevant aspects of strategic and applied research are adequately articulated and defended.<br>c. Independently develop its portfolio of research proposals to submit for competitive bidding to any funding source.<br>d. Within the contractual obligations, have full authority to internally manage resources among the major budget categories of operating costs, capital equipment and salaries in order to ensure overall efficiency.<br>e. Save for external evaluations; take full responsibility for monitoring and evaluation of its research activities. |

| Function | Level of flexibility/autonomy |
|---|---|
| *Personnel Management:* Hiring and firing, incentive and reward systems, and human resources development | 1. Each PARI shall have full authority to:<br>a. Independently, transparently and on merit-basis select its technical and administrative and support staff.<br>b. Implement a performance-based incentive structure and promotion scheme within the broader provisions of the approved reward and incentive scheme for public research personnel.<br>c. Review the performance of all staff and dismiss unproductive staff (for Directors and Scientists subject to approval by the Council).<br>d. Select staff for training on the basis of merit and skills-enhancement requirement.<br>e. Manage the payroll of PARI staff, while management of gratuity, provident fund and staff insurances may be handled centrally by NARO secretariat, if the PARIs decide to do so |
| *Administrative procedures:* Procurement of supplies, equipment, and personal services | 1. Each PARI shall have full authority to:<br>a. Independently, subject to set budgetary ceilings and provisions of the Public Procurement and Disposal of Public Assets Act and Guidelines of 2003, procure supplies and equipment with internal accountability mechanisms.<br>b. Employ short-term research staff and consultants. |
| *Financial Management:* Funding, disbursement, and asset management | 1. Within the broader provisions of the Public Finance and Accountability Act of 2003, each PARI shall have full authority to:<br>a. Diversify their funding support by soliciting and obtaining grant funding from any source.<br>b. Commercialise its research products through charging royalties and retaining a share of attached intellectual property rights.<br>c. Retain and use income generated from research and non-research products and services, subject to approval by the Minister responsible for Finance.<br>d. Enter into joint ventures with the private sector through research contracts and adapting, testing and scaling-up research products for commercialisation.<br>e. Acquire and dispose of capital assets within the provisions of the Public Procurement and Disposal of Public Assets Act and Guidelines of 2003 and any other existing law.<br>f. Set procedures and processes for internal disbursement of funds. |

| Function | Level of flexibility/autonomy |
|---|---|
| *National Collaboration* Inter-PARI communication and relations | 1. PARIs shall be free to establish a national forum to strengthen inter-PARI relations, communication and information management. |
| *International Collaboration:* Negotiation of agreements for collaborative research and donor assistance | 1. Each PARI shall have powers to enter into agreements with international institutions for research collaboration and scientific exchanges.<br>2. PARIs shall seek clearance from Government or the Council before entering into any agreement that legally or financially commits the Government of the Republic of Uganda or the National Agricultural Research Council. |

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## 2.4 Members of the PARI Management Committee

The Management Committee of a PARI shall have not more than NINE members for a NARI and EIGHT members for a ZARDI (Annex 1) appointed in the following manner:

(a) Composition of Management Committees should, as much as possible, shift from institutional representation toward appointment of respected professionals and stakeholders appointed on account of their high moral character, proven integrity and professional capacity.

(b) Membership should ensure that there is a balance of skills, experience and gender.

(c) Members of the Management Committee other than the Director and Scientist(s) from the PARI shall hold office on terms and conditions specified in their instruments of appointment.

(d) Membership of the Committee shall be part time and a member of the Committee, other than the Director of the PARI, shall hold office for three years and will be eligible for re-appointment for one more term.

## 2.5 Managing the Human Resource

Each PARI shall maintain a productive scientific environment that encourages scientists in innovation and independent thought and initiative. The following shall apply:

a. Technical training shall be open for all categories of staff and based on transparent selection processes.

b. Every member or category of staff employed by a PARI shall have clear Terms of Reference, which are regularly reviewed in consideration of changing market demands.

c. All PARIs shall adhere to a common contracts review and performance appraisal and promotion system that is based on attainment of personal and institutional targets.

d. Performance improvement and incentive schemes shall explicitly recognise merit and provide opportunity for basic salary increments, prestige and professional recognition.

e. Budgets and project management shall be decentralised to encourage independence and research entrepreneurship, especially for competitive grants, which shall be awarded to individual scientists and teams.

f. PARIs shall ensure that there is an adequate workload for each core member of staff to sustain research and guarantee institutional productivity.

g. Training shall place emphasis on key areas of leadership and management skills, strategic and programme planning and management, proposal writing, financial planning and management to improve research leadership and management as key requirements for effective PARIs.

Each PARI shall also maintain an incentive system that encourages and rewards scientists. Core staff shall be guaranteed a base pay that is uniform across all PARIs and comes in the form of core funding to the PARI. There shall be additional incentives in the form of social incentives – improved primary (office) and secondary (for household) working conditions. Additional monetary incentives based on rates determined by the Management Committee and derived from the revenues accruing to the institute shall be paid. These additional incentives shall take the form of, but are not limited to:

a) *Top-up across the board*: PARIs shall have the flexibility to generate income from contracted research fees, sales etc. and pay additional top-up to staff.

b) *Output awards*: PARIs shall award researchers for peer reviews and the production of research reports and extension materials, using funds included in research budgets funded by clients of research.

c) *Contract research fees*: PARIs shall implement research activities in their mandate area on request and funding from contractors. These contracts shall include a charge for professional fees, a proportion of which shall be shared between participating researchers.

d) *Service Unit incentives*: Support services (pooled transport, computer and printer/photocopier use, production units, laboratory analysis, etc.) at each PARI may be reorganised into independent units, each with a business plan and managed in a commercial manner. Each unit shall retain an agreed proportion of profits for payment of incentives to its staff.

## 3.0 Linkages

The conceptual framework for agricultural research in the new NARS envisages a strong knowledge management function and the promotion of partnerships for efficient service delivery through complimentary participation. The PARIs require an array of appropriate linkage mechanisms involving a wider range of actors to achieve this.

### 3.1 PARI linkages with the Council

PARIs shall relate to the NARO Council as Contractors through targeted (core) and the competitive funding grants and the coordination and management of functions either managed by the Council or delegated to the PARIs. They shall, like any other Research Service Provider (RSP), receive guidelines on how to develop research

programmes responding to national/zonal priorities; allocating resources and commissioning reviews and evaluations from the NARO Council and/or any of its constituent committees.

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### 3.2 PARI linkages with Clients and Partners

PARIs will link with clients and partners through the following mechanisms:

a. Identifying and organising, within the resources available, the varied client base for demand articulation and dissemination and use of the institutes' outputs.

b. Participation of farmers, agribusiness firms and consumers in the execution of the institutes' research agenda, especially adaptive research that is designed and implemented by the clients themselves.

c. Participation of the institute clients and partners in the M&E of the institutes' research, especially applied and adaptive research, where client feedback and technology utilisation can be used in performance evaluation.

d. Sub-contracting research teams and other RSPs strategically located near envisaged research benchmark sites, especially for adaptive research, community-based resource management, and in providing a conduit for feedback from users of research products.

### 3.3 Linkages to Technology Uptake Pathways

The PARIs shall:

a. Operate jointly with clients and partners in the design and execution of adaptive research, including the joint conduct of diagnostic surveys and adaptive research experiments.

b. Jointly formulate technological recommendations with clients, especially the advisory service providers.

c. Increase their involvement in policy issues and debates.

d. Package and report socio-economic and biological research information in a form useful to policy formulation and decision-making.

e. Introduce incentives and reward systems based on response to and solving client problems (and client adoption of technology) for both their staff and collaborating partners.

### 3.4 Linkage to the Global Agricultural Research System

Each PARI shall have freedom to institutionally participate in formal and informal networks to share research results with the wider scientific community, develop joint proposals and share facilities with cooperating partners. PARIs shall also provide or arrange for merit-based funding to its scientists for training and greater interaction with the international scientific community.

## 4.0 Funding Modalities for PARIs

PARIs shall derive their funding from core and non-core sources. Government, in form of block allocations determined by the Council, shall fund capital and some operational budget requirements of PARIs. Each PARI shall be required to justify and

negotiate its core funding requirements with the NARO Council through the NARO Secretariat. Each PARI shall, periodically rationalise its staff numbers and infrastructure to a "critical mass" necessary for efficient operation, through the following mechanisms:

a. Rightsizing the staff and physical infrastructure requirements as improvements in office technology, laboratory procedures and mechanised experimental field operations are instituted; and,

b. Identifying and dropping programs that are unproductive over long periods of time, those that display overlaps and duplication, and those for which the PARI has no comparative and competitive advantage.

The following guide criteria shall be used to design and justify the core programme and hence core staff complement and budgetary requirement for each PARI.

| **CRITERION** | **COMPETITIVE** | **CORE** |
|---|---|---|
| Extent of existing research capability in a particular topic. | Two or more potential providers | Only one potential provider |
| Extent of Strategic National Interest in maintaining secrecy for competitive advantage | Low secrecy as not strategically important | High secrecy needed (e.g. elite valuable variety or germplasm) |
| Urgency of problem | Low level | Very High, rapid response needed (e.g. outbreak of new disease) |
| Strategic national interest in maintaining product or capability | Low level | High level (e.g. germplasm, crop protection service) |
| Incentive for private sector to get involved for commercial reasons | Significant incentives and commercial opportunities | Limited commercial opportunities (e.g. knowledge based technologies) |
| Risk of Private Sector monopoly of a product | Low risk | High risk (e.g. bio-technology) |
| Technical services for other researchers, extension providers and farmers | High level of returns, compete for registration as provider | Costly but essential service needing measure of subsidy unlikely to function on cost-recovery basis. |

The different sources of funding and application of funds shall be as outlined below.

| **Modality & Type** | **Financial Source** | **Institutional Fees** | **Staff Incentives** |
|---|---|---|---|
| 1. Core funding | Government & Development Partners | Core funding of support services | Salaries paid by Government on contract and subject to review |
| 2. Collaborative research | International, Regional and National partners | % of operational costs as administrative charges | Per diems as per terms specified in MoUs |
| 3. Contract research and Consultancy | Clients (NAROC, ZARD-SC, LGs, Private) | Professional fees/ administrative overheads as gauged from local/international consultancy rates | % of fees charged plus per diems |
| 4. Competitive grants | Government & Development Partners, Clients (NAROC, ZARD-SC, Other) | Professional fees/ administrative overheads as gauged from local/international consultancy rates | % of fees charged plus per diems |
| 5. Farmers' requests | Cost-sharing as a percentage of operating costs | Paid from core funding | As in 1. |
| 6. Sales (produce, seed, reports, services) | Customer pays | Established prices and charges | % for operating unit. |

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## Annex 1

### Composition and Functions of a PARI Management Committee

| COMPOSITION | |
|---|---|
| **National Institute** | **Zonal Institute** |
| • The NARI Director *( ex-officio)*<br>• One representative of MAAIF<br>• Three representatives of farmers from recognised farmer group or organisation (at least 1 woman and 1 disabled person)<br>• One representative of agric. advisory service providers<br>• One eminent scientist not affiliated to any PARI<br>• Two other persons of integrity and capacity in economic, finance, development, business or administration<br>**[ total 9 ]** | • The ZARDI Director *( ex-officio)*<br>• One representative from district local governments served by the ZARDI<br>• Three representatives of farmers from recognised farmer group or organisation (at least 1 woman and 1 disabled person) from the zone<br>• One representative chosen by agric. advisory service providers from the area served by the ZARDI<br>• Two other persons of integrity and capacity in economic, finance, development, business or administration from the zone<br>**[ total 8 ]** |

**FUNCTIONS**

- Formulate policies of a PARI and mobilise sufficient resources for the proper functioning of a PARI;
- Ensure that objects and functions of a PARI are carried out in line with policy and guidelines provided by the council;
- Approve work plans and prepare budgets for a PARI;
- Appoint and discipline all support staff of a PARI;
- Provide technical support and guidance to the PARI in the delivery of agricultural research services;
- Convene a meeting twice a year with researchers from the PARI, farmers, NAADS service providers, local authorities and other relevant stakeholders for the purpose of discussing matters relevant to the conduct of the PARI's research program;
- Establish and maintain linkages between the PARI and NAADS;
- Establish appropriate incentive scheme for the employees of the PARI;
- In collaboration with the Council formulate and design the human resource development and training programmes for the PARI;
- Prepare for approval by the Council rolling three years research and manpower development plans for the PARI;
- Develop and implement an agricultural research information management strategy for the PARI and facilitate sharing of information amongst the PARIs;
- Review and evaluate performance of all staff of the PARIs; and
- do all other things which are incidental to the efficient and effective discharge of the functions of the Management Committee.

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