



THE REPUBLIC OF THE GAMBIA

NATIONAL SEED POLICY



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Food and Agriculture
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Prepared by MoA with partners: FAO and EU

Foreword

BY THE HON MINISTER OF AGRICULTURE MoA, The Quadrangle, Banjul, The Gambia

I have the singular honor to launch the updated National Seed Policy of The Gambia which has been produced through stakeholder consultations during April, 2018.

Seed sector stakeholders will recall that the original National Seed Policy document was prepared and adopted in 2008. The policy, which can be considered as a statement of intent by the Government, is meant to provide a well-defined and stable framework for the development of an effective and sustainable seed sector. It must also create an environment which will foster cooperation between government and all the partners and stakeholders who perform roles in the seed sector and other seed related sectors of agriculture.

Farming in The Gambia has depended for centuries on traditional seed saving practices and, while these practices confer some advantages, there are overwhelming issues and concerns which compel us to progress by adopting improved and more modern technologies. Gambia's delicate agro-ecology requires the best of modern crop improvement outputs; to increase crop yields, widen crop adaptation, enhance overall production, combat pests, and minimize the effects of drought and other calamities.

Many interventions are needed, from research, variety development and release, seed multiplication, seed quality control, processing and marketing, to extension, seed security and training, to name a few of the most important. The engagement and support of the full spectrum of stakeholders, including international agencies, donors and NGOs will be necessary. The expectation is that adequate quantities of high quality seeds will be produced by both the Formal and Informal Sectors to ensure national seed security, a major contributor to food and nutrition security.

Indeed, the seed policy has served The Gambia well. It has provided the basis and guide by which we have made the rapid advances that have occurred over the past several years: passage of legislation, formation of NSS, development of seed testing laboratories, formation of registered seed grower groups, development of storage and conditioning facilities, introduction of seed certification, training of staff to professional levels, formation of NSC and VRC and the streamlining of variety release and registration. As a result of these developments, we are now able to clearly define and discern the pathway in our seed industry development and have started to introduce a high level of awareness of our seed security status and take steps to address shortfalls.

Yes, the document of 2008 has served us well, but after 10 years, it is clear to us that there is need for updating it to bring it into line with current realities and to conform to our foreseen goals and objectives into the next ten years and beyond.

Beyond reflecting the changes that have occurred, the update needed also to bring on board issues relating to newly emerged components, sciences and technologies stating particularly how The Gambia should position itself in the areas critical in our agricultural endeavours, such as climate change, regional seed trade, seed security etc

I am happy to note the high level of consultation and collaboration which have taken place in the course of the updating exercise. All the relevant stakeholders of the seed sector, both public and private, have participated through their representations in the updating Task Force. Further, the product of the Task Force was subjected to validation in a workshop which was attended by a large number of stakeholders including farmers, seed growers, input dealers, researchers, extensionists, seed technologists, seed inspectors, agro-processors, MoA, FAO, DoA, NSS and NARI.

I have no doubt that the level of participation during the updating process by itself has rekindled the awareness of the key role the policy must play as the galvanizing tool that must propel all of us to act in concert towards the achievement of our seed development goal: the achievement of a seed industry status that combines the advantages and opportunities inherent in both the public and private sectors to rapidly enhance the attainment of agricultural transformation as well as food and nutrition security.

I look forward to a high level of cooperation among all stakeholders so that the next 10 years of seed policy implementation will be even more successful.

I have the pleasure to formally present the updated National Seed Policy of The Gambia and may it, from this date, provide the needed guidance and basis for all seed-related interventions in our dear country.



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Hon. Minister of Agriculture

National Seed Policy of The Gambia

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Abbreviations

AEGP	Agriculture for Economic Growth Project
AEZs	Agro-ecological Zones
AFSTA	African Seed Trade Association
ANR	Agriculture and Natural Resource Policy
AVCDP	Agricultural Value Chain Development Project
CGIAR	Consultative Group for International Agricultural Research
CORAF/WECARD	Conseil ouest et centre africain pour la recherche et le développement agricoles /The West and Central African Council for Agricultural Research and Development
DES	Department of Extension Services
DoA	Department of Agriculture
GBoS	Gambia Bureau of Statistics
GDP	Gross Domestic Product
GIEPA	Gambia Investment Export Promotion Agency
GMO	Genetically Modified Organism
GRA	Gambia Revenue Authority
IARCs	International Agricultural Research Centers
ICARDA	International Centre for Agricultural Research in the Dry Areas
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IITA	International Institute for Tropical Agriculture
IRRI	International Rice Research Institute
ISRA	Institut Sénégalais de Recherches Agricoles
ISTA	International Seed Testing Association
MOA	Ministry of Agriculture
MOFEA	Ministry of Finance and Economic Affairs
NARI	National Agricultural Research Institute
NARS	National Agricultural Research System
NDP	National Development Plan
Nema	National Agricultural Land and Water Management Development Project
NGO	Non-Governmental Organization
NSC	National Seed Council
NSS	National Seed Secretariat
OECD	Organization for Economic Cooperation and Development
PPS	Plant Protection Service
QDS	Quality Declared Seeds
R&D	Research and Development
ROPFA	Reseau des Organisation Paysannes et Producteurs de l'Afrique de l'Ouest meaning 'Regional Network of farmers and Producers' organizations – West Africa)
SPFS	Special Project for Food Security
TANGO	The Association of Non-Governmental Organizations
TCP	Technical Cooperation Programme of FAO
UPOV	International Union for Protection of New Varieties of Plants
UTG	University of The Gambia
VRC	Variety Release Committee
WAAPP	West Africa Agricultural Productivity Project
WASIX	West African Seed Information Exchange

THE NATIONAL SEED POLICY OF THE REPUBLIC OF THE GAMBIA

i. Background

The Gambia is located on the West Coast of Africa and has a total land area of 10,689 square kilometers. The population of The Gambia is estimated at 1.9 million, with an annual growth rate of 3.3 percent (GBoS, 2013) and average household size of 8.3. About 50 percent of the population lives in rural areas, and women constitute 51 percent. The distribution of the population is skewed (57.5 percent) towards the Kanifing Municipality and Brikama Local Government Area. This is mainly attributable to rural-Urban migration.

The agricultural sector is characterized by little diversification, mainly subsistence rain-fed agriculture with a food self-sufficiency ratio of about 50 percent. It contributes 21 percent to GDP (GBoS, 2016). The crops sub-sector makes an important contribution to foreign exchange earnings, provides about 75 percent of total household income and employs 70 percent of the labor force (ANR, 2017-2026).

However, due to the dependence of the crop production sub-sector on rainfall, production is often hampered, thus impacting on the yield volumes which directly affects economic growth rate. The sector grew by a meager 0.5 percent in 2016, compared to 3.8 percent in 2015, mainly due to a decline in crop production, which contracted to 3.4 percent in 2016, from a growth rate of 4.5 percent in 2015. Agricultural growth has been on the decline during the last decade. For example, in 2004, the agricultural sector contributed up to about 29 percent of GDP, but a decade later in 2016, this level of contribution to GDP plummeted to 21 percent in 2016 (GBoS, 2017).

Notwithstanding the above, there was a forecast that the sector was expected to grow by 3.6 percent and 6 percent in 2017 and 2018 respectively. This is attributed to investments in irrigation schemes and the development of value chains for groundnut, cashew, sesame, rice, and horticultural projects as part of the new NDP strategy. Overall, there is a steady growth.

The country is divided into seven (7) agricultural regions namely: Western, North Bank, Lower River, Central River (North), Central River (South) and Upper River Regions and Greater Banjul area.

ii. Climate

The Gambia is a small sized West African country. Its ecology is predominantly drought Sahelian shrub-land. The country has a Sudano-sahelian climate, characterized by a long dry season (November to June), and a short wet season (July to October). Some 56 percent of the country's total land mass or about 555,240 ha, are considered suitable for agriculture and are utilized for upland cereal and groundnut production as well as for grazing and fallow. Gambian soils are generally poor and have deteriorated over the past 20 years. About 43 percent of the total land mass (425,000 ha.) is under natural vegetation cover. Of the total vegetation cover, 302,000 ha was categorized as forest in 2010. Rainfall ranges from 850 mm to 1200 mm. Daily temperatures average 18 to 30°C (ANR, 2017-2026).

iii. Agro-climatic Zones

Crop production is carried out in three main agro-ecological zones viz: Sahelian (<600 mm) confined to the Central River North; Sudano-Sahelian (850 – 1200 mm) occurring in North Bank, Lower River, Central River and Upper River regions; and Sudano-Guinean (>900 mm) found in Western, western North Bank and southern Upper River regions. Despite an overall degradation of the environment and the change of land use in the last 20 years, The Gambia is still relatively rich in biological diversity.

The main annual food crops grown in The Gambia include rice (the staple food), millet – both early and late, maize, sorghum, cowpea, groundnut, cassava and sweet potato. Groundnut, a food and cash crop is the Gambia's major export crop.

Maize is grown in all the agro-ecological zones (AEZs). It has a demand for fertile soils and high fertilizer input. There is research need to introduce high yielding early and extra-early maturing varieties. Recently it has moved from being a backyard crop to field crop with high commercial value.

Rice is cultivated in the upland rainfed, lowland and rainfed hydromorphic soils, mangrove swamps and in the tidal or pump irrigated lowland in all AEZs

Early Millet is grown in all the AEZs early in the cropping season. Both late and early millet types respond to dry seeding prior to the onset of the rains.

Sweet potato is the second most economically important root crop after cassava and an important food and cash crop in The Gambia. It is grown in upland and lowland ecosystems in all the AEZs, but extensively in the lowland "tandaco" ecosystem in a rice-potato relay cropping. Here the farmers, mostly women, are able to produce sweet potato crops twice in the year, during the rainy season and after a rice crop during the dry season, irrigated from shallow wells in these lowlands

iv. Farming Systems

Farming systems in The Gambia are characterised by a wide range of production and cropping patterns. The two main farming systems are upland and lowland. The upland system involves crops such as groundnut, millet, sorghum, maize, cowpea, findi, rice, sesame and horticultural crops as well as livestock husbandry. The lowland system traditionally places greater emphasis on rice.

v. Upland Farming System

Field crops account for over half (66 percent) of agriculture's contribution to national GDP. Here, farmers rotate major cereals with groundnuts, the principal cash crop. Groundnut is the most important upland crop in terms of total area cultivated, with millet, maize, sorghum, and rice following in order of importance. The upland system can be sub-divided into three farming systems: 1) the fully mechanized, intensive system; 2) the semi-intensive system; and 3) the low-input, extensive system.

vi. Lowland Farming System

The lowland farming system is predominantly rice-based. It is usually characterised by rice ecologies such as rain-fed lowland, tidal mangrove, tidal freshwater, and irrigated.

vii. Horticulture

Horticulture is increasingly becoming a prominent feature in the farming systems. Production is concentrated in the peri-urban areas and contributes about 4.2 percent of GDP. Farmers are diversifying their production base to include fruits and vegetables for both home consumption and the market. This sub-sector has a lot of potential for growth. Horticulture (fruits and vegetables) holds the greatest potential for provision of additional sources of food, on-farm income and export earnings. The sub sector is becoming one of the growth points in the country's export and foreign exchange earnings.

The Ministry of Agriculture, through Department of Agriculture, continues to pay much attention to strengthen the horticultural crop production subsector, from seeds to consumption. The support forms part of the implementation of the National Horticulture Master Plan that was prepared by Horticulture Technical Services through support from Food and Agriculture Organization (FAO).

It is estimated that 88 percent of Gambian women participate in horticultural production. Cold and warm season varieties are now grown in the Gambia, serving as source of income and food for the rural and urban farm families. Currently, commercial and medium scale horticultural farms, (averaging 25 -100 hectares each and 5-25 hectares each, respectively), have been supported with boreholes, solar powered generators for lifting water, as well as overhead tanks and ground reservoirs for water storage respectively, pressure generation and drip irrigation systems, while small Scale farms having about 1-5 hectares each were supported with shallow open wells, small portable solar powered generators for lifting water and ground reservoirs for water distribution.

viii. Research and Variety Development

The national agency charged with the mandate of agricultural research is the National Agriculture Research Institute (NARI) whose methodology for variety development is largely based on adaptive/applied research on crops. Although, over the years NARI has intensified its efforts in the introduction and release of good groundnuts, cowpea, maize and rice varieties, the rate of varietal change to respond to changing agro-ecological conditions is slow. The varietal development effort by NARI is limited in both capacity and funding. In addition, the lack of high yielding crop and rainy season varieties is quoted as a main obstacle by the small scale farmers (who depend primarily on public services), while these have been grown by commercial farms for many years. In view of the high cost of basic research, NARI collaborates with relevant international, regional, and private institutions, adopting as far as is possible, adaptive research technologies as a means of rapidly attaining the national variety requirements.

Considering the limited resources currently available, NARI would continue to participate in international collaborative research, obtaining from these the most promising germplasm for inclusion in the national breeding programmes.

Therefore, the national breeding efforts will be directed towards identifying well-adapted lines or vegetative materials obtained from the international centres, maintenance breeding of released varieties. Further, the improvement of existing indigenous varieties needs to be promoted to acquire the required level of genetic purity.

ix. National Seed Programme

Quality seed is the most vital input for sustainable increase in crop production, because the quantitative availability of quality seeds of improved cultivars is considered crucial for realizing productivity and adoption of cultivars in different agro-climatic conditions. The use of high quality seeds enhances agricultural productivity and improves food and nutrition security. However, lack of improved seeds continues to be one of the greatest impediments to bridging the vast yield gap. In developing countries, notably sub-Saharan Africa, farmer-saved seeds remain the principal source of seeds for most crops, especially the field crops (Grain legume, oilseeds and cereals).

The National Seed Secretariat is responsible for production of foundation seed from the limited quantities of breeder seed received from NARI. The capacity for this is very limited and very little foundation seed is being made available to feed the pipeline of certified seed production.

The quality assurance structures, such as Seed Testing laboratory, seed legislation, certification manuals and other features were installed between 2014 and 2016. These led to the improvement of seed quality assurance standards. In addition, seed fields' inspection was introduced, anchored by NSS, extending seed certification and quality assurance to the field and post-harvest processes. Furthermore, there have been improvements in seed processing beyond the crude and manual methods of the previous decade. The allocation of four seed processing plants by partners (FAO, Nema, etc) has filled a major void and introduced a much needed component in the support to registered seed growers. However, marketing channels are still underdeveloped and sales are essentially ex-factory and on ad-hoc basis, with NGOs and donor assisted projects being the main clients for available seeds. Extension support to the seed programme by the Department of Agricultural (DOA) has improved and regional extension staff, play a major role in seed field inspection, strengthening seed certification and quality assurance.

Groundnut seed issues dominate the national seed industry. Although rice, and to a lesser extent, maize, are given attention by the seed industry, the rest of the coarse grains (millets and sorghum) as well as grain legumes, roots and tuber crops and vegetables are not adequately catered for. The situation stems, in part, from the inability of research to develop varieties which are superior to indigenous cultivars. In addition, most farmers recycle seeds or planting materials of these crops for prolonged periods mainly due to lack of funds to make needed periodic infusion of good seeds from the seed market. Consequently, demand for quality seeds from the formal seed sector is below expectation.

x. Improvements in the National Seed Programme

The formation of NSC and its sub-committee (VRC) has improved the coordination and oversight of the National Seed Programme; the establishment of the National Seed Secretariat (NSS) and the adoption of the Seed Quality Control and Marketing Act of 2014 and its subsidiary Seed Regulations have firmly established seed certification in the Gambia.

The formation of registered seed growers' association to take charge of certified seed production has marked the beginning of the privatization of the commercial components of the seed industry. However, inadequacies still remain in the area of variety development and maintenance, early generation seed multiplication capacities, facilities to support certified seed production and conditioning.

The most recent projects which have contributed to the development of the national seed programme are WAAPP, Nema, AVCDP and FAO/AEGP. These have addressed needs relating to coordination and oversight, quality control and capacity building aimed at positioning the National Seed Programme to benefit from further investment interventions.

xi The Informal Seed Sector

In the face of the low seed output from the formal seed sector, the informal sector remains strong and is the main source of seeds for all crops. The informal sector is made up of farmer to farmer seed exchanges, seed saving, seed barter and market purchases. These make up more than 90 percent of total seeds used. Therefore, it is clear that any intervention in the national seed programme should address more the informal sector in a way that would enhance its integration with the formal sector and contribute to crop production in a sustainable manner.

1. INTRODUCTION

1.1 The Government of The Gambia recognises the fundamental importance of agriculture for achieving food security and improving the wellbeing of the population. For this reason, Government attaches high priority to sustainable agricultural development in the wider context of strengthening the rural economy. Government recognises that the proper use of quality seeds of adapted and improved varieties is a prerequisite in enhancing crop production. This recognition is reflected in the Agricultural Policy of the Gambia which aims at increased self-sufficiency in the staple food crops, targeting an increase of at least 25% of present levels of production in the next 5-10 years. Appropriate strategies need to be directed at increased production through expansion of cultivable area and productivity enhancement with focus on sustainable improved technologies of which the use of improved seed will be a prime component. This requires that Government and partner stakeholders improve the production and distribution of improved seeds and suitably adapted indigenous cultivars.

1.2 It is the aim of the Government to develop the national seed programme and to position it to address the needs identified in the agricultural policy. Towards that objective priority has been given to the formulation of a National Seed Policy which shall be long term and aimed at providing a defined and stable framework for the development of an effective and sustainable seed system. All activities, which relate to seeds, should be consistent with this policy. Further, the spirit of the National Seed Policy shall guide all legislations relating to seed which may be enacted pursuant to it.

1.3 The policy should create an environment which will foster support from both Government and development partners for activities such as the quick delivery of new varieties from research to farmers, enhancement of the positive contribution of the informal seed sector, the rapid development of the private seed sector, particularly in the certified seed production, seed conditioning and marketing, monitoring of seed import, and the distribution of seed under emergency conditions etc.

1.4 Having taken into consideration the views of all relevant stakeholders who have participated in the development of The Gambian national seed programme, the views and recommendations of past national and international expert consultations and consultancies, as well as the recommendations of the Seed Policy Updating Task Force validated by the Stakeholders validation workshop in April 2018, the Government of The Gambia updates the National Seed Policy as outlined below:

2. PRIMARY GOAL OF THE NATIONAL SEED PROGRAMME

2.1 Availability of Quality Seed to Farmers: The Government of The Gambia, through its various institutions, the private sector and other indigenous stakeholders and in cooperation with relevant development partners, shall aim at ensuring adequate and timely availability of quality seed to farmers at reasonable prices and at appropriate locations. The National Seed Programme shall aim at injecting reasonable quantities of quality seeds in accordance with demand and available production facilities.

2.2 Viability and the Contribution of the Seed Industry: The long-term expectation is that the seed industry should be a financially viable sub sector in its own right.

However, Government recognises that in the short term, emphasis should be laid on the developmental aspects of the industry as a public service. This is because it is the opinion of the Government that the more important contribution of the seed industry at the moment should be the resultant overall increase in the contribution of agriculture to the Gross Domestic Product (GDP), increased food production, improvement in rural incomes, household food and nutrition security and an elevated standard of living of the rural population.

2.3 Food Security through Seed Security: It is the view of Government that strengthening the seed supply system will contribute to national and household food security by increasing crop production and by providing seeds in times of stress, such as drought. Against this background, Government will strive to develop an efficient and sustainable seed system to meet the needs of the country's farmers.

3. OVERALL STRATEGY OF THE SEED INDUSTRY

3.1 The overall strategy is such that NSS will be charged with the responsibility for organising and facilitating the production and marketing of seeds in The Gambia. NSS will produce and organise other private seed growers for the production of early generation seeds. It will also undertake quality assurance process aimed at achieving required quality standard of seed and positioning The Gambia to emerge as an effective player in the emerging ECOWAS seed market.

3.2 Nevertheless, government recognises the longstanding contribution of the informal seed sector of The Gambia which has served as the main source of seeds, covering more than 90% of seed requirement, and will strive to improve that sector to play a more effective role through enhancement of the role of farmer-based seed initiatives including on-farm seed selection and multiplication, community seed farms and village seed stores. Efforts will be made at improving the germplasm base of farmer-saved seeds, incorporation of relevant seed quality control elements into informal seed sector practices and reduction in post-harvest losses and deterioration.

3.3 At the same time, the fledgling private seed sector, at present made up of seed dealers, registered seed growers and informal seed sector practitioners will be encouraged to progressively enhance their participation as seed providers.

3.4 The Government, through NSS and other partners, shall play the lead support role, develop pilot operations, and maintain public-service infrastructural and service support required to maintain efficient seed supply, enhance farmer demand for improved seeds, and create an operating and economic environment favourable for investment in seed supply.

3.5 Government's first responsibility is to ensure that adequate stocks of high-quality seed of improved varieties are provided to farmers, to ensure production of the required food and feed. Government organizations responsible for foundation seed production, particularly the NSS, shall produce the quantities and types of such foundation seed to ensure that farmers' demand for improved seed varieties developed after years of research in the formal seed sector are met. As much as possible, certified seed production shall be carried out by registered seed growers who shall be guided, supported and supervised by NSS in a manner which helps them develop financially and technologically to become self-sustaining private-sector seed operators.

3.6 However, NSS and NARI will be supported to ensure the production of seed types which are required by farmers but not commercially attractive to the private sector.

3.7 Government will encourage and support the private sector to produce certified seeds that are required by farmers. Public sector institutions will however assist the private sector by contributing new varieties, early generation seeds, quality assurance and certification services as well as capacity building.

3.8 Government recognizes that a complex infrastructure for research seed multiplication and marketing is required to maintain a continuing flow of improved seed of high-yielding crop varieties. Government will therefore make every effort to ensure that the required public sector seed infrastructural components are established and operated in the manner most beneficial to national agricultural and economic development. Cooperative and supportive participation of both Government and the private sector are required to ensure efficient use of funds and other national resources, while providing the most effective service to agriculture.

3.9 The overall strategy should lead to a situation where, in general, activities of a public-service nature (research and variety development, early generation seeds, seed quality assurance and extension) which normally require some form of government support shall be conducted by Government and its subsidiary organizations. All activities of a commercial, market-responsive nature (certified seeds production, distribution and marketing) in which the private sector is willing to invest shall be entrusted to the private sector, as appropriate.

4. DEVELOPMENT ASSISTANCE

4.1 Modest gains have emerged in the national seed programme since 2015/2016. Research and variety development by NARI is now clearly differentiated from the seed production mandate entrusted to NSS. Also, the fledgling private seed sector, (registered seed growers) is now fully entrenched as the main certified seed producer and marketer. However, in the transitional period into a modern private sector led seed industry, serious shortfalls in quantities of available certified seeds still persist. This is largely the result of adverse weather, unavailability of farm labour, resulting from urban migration of youth as well as diminished usage of other improved inputs such as fertilizers and pesticides.

4.2 Government recognizes and applauds the assistance that has been received from its development partners in developing the national seed programme and in countering the effects of natural disasters. Government is of the opinion that the eventual attainment of a comprehensive national seed programme will place national agriculture in a strong position to be able to minimize the negative impact of natural disasters, provide in-built disaster mitigation ability and thereby reduce the huge funding that is normally involved in external emergency seed relief assistance. Towards that end, Government appeals to its development partners to recognize the need to extend their assistance towards the further development of the National Seed Programme through the support and implementation of the National Seed Policy.

4.3 International assistance will be sought for capacity development in the following areas:

- Human resource development
- Infrastructure and institutional development
- Entrepreneurial and private sector development
- Community seed initiatives
- Technical assistance

5 ADMINISTRATION OF THE SEED POLICY

5.1 National Seed Council

5.1.1 Under the authority of the MoA, the National Seed Council (NSC) is charged with the overall responsibility of advising the Government on all matters relating to the Seed Policy and all ensuing legislations, protocols and seed industry planning and implementation.

5.1.2 The NSC is composed of representatives from all relevant stakeholders. The terms of reference of the NSC reflects its crucial role of serving as guide, counsel, arbiter and lobbyist on behalf of the seed industry. The NSC will meet at least three times in a year to discuss the performance of the seed industry. The first meeting shall be held prior to the start of the season to assess the state of preparedness for the season. The second shall be held prior to harvesting to enable possible short-comings to be identified for correction. The third meeting shall be held after harvest to ascertain the actual seed quantity produced. The NSC membership is composed of representations from the following stakeholders:

- Ministry of Agriculture (MoA)
- Department of Agriculture
- Central Projects Coordination Unit
- National Agricultural Research Institute
- Private Sector
- Plant Protection Services
- Agro-business
- Farmers' Representative
- Non-Governmental Organisation (NGO)
- National Seed Secretariat (NSS)
- Ministry of Finance and Economic affairs
- Gambia Revenue Authority (GRA- Customs)
- Seed Grower Representative
- School of Agriculture, UTG

NSC shall, as the need arises, draw on outside expertise and co-opt representatives of other stakeholders, particularly specialized agencies of the UN and donors, to attend its meetings in observer status.

5.2 Variety Release Committee

5.2.1 A Variety Release Committee (VRC), under the authority of the NSC, made up of relevant technical members of the NSC, other relevant experts outside NSC and co-opted researchers, who may be relevant to specific crops or varieties being considered, shall take charge of variety registration and release functions. The procedures for variety release will be formulated and presented to the MoA for approval.

5.2.2 The NSS shall provide secretarial and back up services for both NSC, VRC and also serve as custodian of the National Varieties Catalogue.

6. CROP RESEARCH AND VARIETY DEVELOPMENT

6.1 Government acknowledges that the outputs of research are fundamental to the seed industry. Therefore, all attempts will be made to ensure that the NARI, is adequately resourced to undertake crop improvement activities for priority crops. For the medium term, the Government acknowledges the responsibility it has to fund agricultural research, but will encourage private sector involvement that supports national priorities. Government expects that private investment prospects in agricultural crop research will improve as the seed industry matures and is fully supported by a regulatory framework and a conducive investment environment.

6.2 Priority Crops

6.2.1 In view of scarce national resources, the prioritisation of crops will be determined by their economic importance and potential impact on food and nutrition security of the people. In that respect, research will concentrate on the following crops:

- Groundnut
- Millet
- Rice
- Maize
- Cowpea
- Sesame
- Sorghum
- Findi
- Horticultural crops of economic importance (mango, orange, cashew, cassava, onion, tomato, chilli pepper, okra, baby corn, egg plant).

6.2.2 The MoA, through DoA, NARI and NSS shall update the list of priority crops every ten (10) years to keep it in pace with the national requirements while MoA, NARI and NSS shall from time to time, review the prioritisation of crops which feature in research and the national seed programme with a view to keeping the crop list in line with national needs.

6.3 Variety Adaptation And Acceptance

6.3.1 As far as possible, varieties to be used in The Gambia will be locally developed in order to ensure their conformity with the local agro-ecological conditions and meet the attributes desired by farmers, consumers and agro-industry.

Towards that end, Government will strengthen the capacity of NARI and other relevant institutions in the collection, utilization and conservation of indigenous plant genetic resources and support existing gene bank at NARI for the preservation of The Gambia's indigenous germplasm.

6.3.2 In order to save costs and to minimize the period of variety development, NARI will be encouraged to collaborate with the International Agricultural Research Centres such as IITA, IRRI, AfricaRice, ISRA, World Vegetable Center, ICRISAT, CIMMYT, ICARDA, etc. as well as with NARS of collaborating countries in the sub region.

6.3.4 Furthermore, research will foster the cooperation of farmers in the context of participatory varietal selection and on-farm trials, whereby experienced farmers will have the chance to contribute to the early identification of potential varieties.

6.3.5 Irrespective of their source, potential varieties shall be entered into a national varietal catalogue which will ascertain their productivity, stability and adaptation to the ecologies and farming systems of The Gambia. The authority for the system of variety release shall be the National Seed Council acting through its Variety Release Committee.

6.4 Variety Registration

6.4.1 The National Seed Council, on the advice of the Variety Release Committee, will be the sole body responsible for the registration of varieties in The Gambia. Research institutions and other bodies engaged in the development of crop varieties will nominate varieties to the National Seed Council for registration after satisfying conditions for variety adaptation and acceptance.

6.4.2 The onus for proving the uniqueness of a nominated variety will rest on the breeder or the sponsoring research agency. Applications for registration of a new variety will include a comprehensive description of the variety, its attributes (distinctness, uniformity, stability, etc) and data from trials across designated environments.

6.4.3 The NSS shall maintain the National Varieties Catalogue containing details of varieties that are registered and eligible for certification and will regularly publish the updates of the catalogue in line with to the provisions of the Seed Regulations. In the process of registering varieties, the eligibility of all stakeholders with claim to the variety will be ascertained

6.5 Control of Varieties and Variety Ownership

6.5.1 Varieties shall be the property of institutions/individuals that developed and registered such varieties with the National Seed Council. All eligible contributors to the development of a variety will be documented at the time of registration. Unless proven otherwise, only such recognised contributors will have claim to the variety and any proceeds that may accrue from the use of the variety.

6.6 Farmers' Rights

6.6.1 It is recognized that farmers have contributed immensely in the development and preservation of plant genetic resources in The Gambia.

In many instances, landraces that have been developed and preserved by farmers are major components or contributors to new varieties. Every effort will therefore be made to ensure that farmers are adequately motivated for their efforts. Towards that end, farmers will maintain their right to use, exchange, share or sell their farm-saved seed between themselves without any restriction. They will also have the right to continue using any varieties of their choice without being hampered by the system of compulsory registration provided they do not commercialise production emanating from proprietary varieties.

6.6.2 The private sector utilising landraces for commercial purpose shall be encouraged to recognise farmers' contribution and provide adequate motivation.

6.7 Benefit sharing

6.7.1 Within the context of Variety Protection Legislation, which will be enacted in due course by Government as part of the overall package of incentives aimed at attracting the private sector into the seed industry, the owners of a variety shall be adequately compensated and/or recognized when such variety is used by a seed production agency multiplying such seed for sale as planting material. Also, the owners of a variety will be compensated for use of such variety in the development of another variety.

6.8. Biotechnology

6.8.1 Government recognizes that several advantages can accrue from the application of biotechnology in the seed industry (e.g. tissue culture, rapid multiplication and its use in plant breeding). Government also considers Biotechnology as an important tool in the struggle to reduce poverty, improve food security, reduce malnutrition, and improve the livelihoods of the rural and urban poor. Therefore, Government will adopt policies that would allow biotechnology, under the leadership of NARI, to be promoted, supported, and applied in safe and sustainable ways for improved agriculture and the social and economic welfare of the people of The Gambia. Such policies shall:

- Allow the promotion of national biotechnology needs assessment and targeted research
- Provide incentives for creation and financing of local private biotechnology enterprises,
- Promote local public R&D of foreign industry partnerships,
- Improve and enhance scientific capacities and technological infrastructure,
- Integrate biotechnology risk management into existing environment, health, and agricultural regimes.

In all these, bio-safety will be kept high on the agenda and appropriate safeguards developed.

7. SEED PRODUCTION

7.1 Generation System of Seed Multiplication

7.1.1. In the national seed programme, a four-generation system of seed multiplication will be followed. This means that recognition will be given to four seed classes, namely, Breeder, Foundation I, Foundation II, and Certified.

- Breeder Seed is the progeny of nucleus seed. Breeder seed will be under the direct control of NARI, CGIAR system and any other recognised breeding entity and will be used for the production of foundation seed:
- Foundation I Seed is the progeny of breeder seed and will be produced by the NSS as a public sector responsibility.
- Foundation II Seed may be produced from Foundation I Seed, especially where the multiplication factor of the seed is low. Both categories of Foundation Seed shall be produced by NSS. However, selected and trained registered seed growers may be contracted for the production of the Foundation I and II seed under the guidance of NSS.
- Certified Seed will be produced from Foundation seed and the production will be largely carried out by registered seed growers under the guidance of NSS.

7.1.2 In the event of a serious shortage of seeds, NSS, acting under the National Seed Council, will authorize the recognition of a temporary fifth class called Commercial Seed, which shall meet appropriately lowered standards or shall emanate from the multiplication of the certified class.

7.1.3 Finally, recognition will also be granted to Quality Declared Seed, in line with the FAO/QDS concept but its applicability will be limited to projects and programmes specifically authorized and mandated to operate under that concept and to seeds emanating from the informal sector. The QDS system is a seed production and quality assurance concept which allows developing seed programmes to achieve good levels of quality seed production with limited resources.

7.2 Early Generation Seed Maintenance and Supply

7.2.1 Maintenance and supply of breeder seed of improved varieties are the responsibility of the agency which develops the variety/hybrid. Government shall ensure that the NARI breeding program has the capabilities in terms of staff, facilities and budgets to ensure timely supply of the required amounts and kinds of breeder seed. Government shall also ensure that NSS is adequately resourced to produce and supply Foundation Seed. However, the private sector may participate in this service.

7.2.2 Government-produced foundation and other early generation seed shall be allocated at reasonable cost to qualified private-sector agencies upon request, as and when it is available and in accordance with established requirements for variety control and in compliance with Variety Protection Laws which may be enacted.

7.3 Certified Seed Production

7.3.1 Certified seed production shall be undertaken by registered seed growers who have been trained by NSS. The selection of seed production sites and growers should be made on the basis of targeting sites with optimum productivity conditions. The seed growers should have good farm management skills and have a demonstrable record of well managed fields, delivering better than average yields.

NSS will retain records of the performance of the seed growers. The terms and conditions for seed growers should fairly reflect the importance and risks of seed production. However premium payments awarded to seed growers must be carefully determined, and based on quality, in order to be able to commercially market the end product.

7.3.2 Government recognizes that the bulk of seeds to be used by farmers every year will emanate from the informal seed sector through the activities of a large number of small scale farmers who make up the informal seed sector. Government will encourage this parallel programme and will strive to enhance its contribution to the national seed effort through well designed extension education and campaigns on seed appreciation, variety selection, seed agronomy, seed processing, storage and marketing.

7.3.3 Additionally, farmers participating in the informal seed sector will be encouraged to multiply new varieties emanating from national research where such varieties hold advantage over their own cultivars. The intention of this integrated strategy is to assist in meeting the overall national seed demand while at the same time encouraging the development of private seed producers and assisting in enhancing seed security.

8 SEED CONDITIONING

8.1 Seed conditioning or processing is an essential seed supply operation. It is a requirement to be addressed for the seed lot is to be considered for certification. Seed conditioning (cleaning, grading, treating, bagging and labelling) ensures the rapid, safe and efficient conversion of raw seeds into clean and storable material through processing and maintaining the required quality attributes. Government shall ensure that the considerable national investments already made in this area are put to good use. Government shall, in principle, encourage and assist all relevant agencies in both public and private seed sectors to develop and maintain their own up-to-date and efficient seed conditioning facilities.

8.2 The public and private sector seed agencies shall be encouraged to provide conditioning services to small or new seed operations on a fee basis, to assist in developing the seed industry.

9. SEED STORAGE

The expected growth in certified seed production will need to be complemented with the development of appropriate storage facilities. While the investment for these will largely be expected from the private seed sector, government will initially, in collaboration with developmental partners, provide support by erecting seed storage facilities at strategic locations for use by registered seed growers. Also, assistance will be provided to upgrade and maintain existing seed stores for use by small scale seed growers/farmers.

10. SEED QUALITY ASSURANCE

10.1 Seed quality is the basis of crop performance and yield. Therefore, to ensure that high quality standards are developed and maintained for the seed sector, The Gambia has passed the Seed Quality Control and Marketing Act in 2014. The provisions of the Act, which are in harmony with the ECOWAS rules governing quality control and marketing of seeds, shall be applied in the formal seed sector.

Government has established the NSS as the national seed quality assurance and certification agency, which has formulated a set of seed standards and quality control rules, regulations and procedures.

10.2 It is recognized that the quality control system should be independent of the institutions responsible for production; hence NSS has been institutionalised to take charge of all the functions of seed quality assurance in the Country. NSS can enter into collaboration with other departments such as DoA and NARI in areas such as field inspection and national quarantine pest list applications.

10.3 The goal of achieving the highest seed quality standards possible is not to be understated. Government believes that quality monitoring will not only cover local seed production activities but will also cover emergency seed stocks and other imported seeds. In all cases, the quality control results shall be reported back to the party owning or managing the seed, indicating any action required correcting identified problems. Special arrangements may apply to vegetable seeds, depending on the form of packing used.

10.4 Improving the awareness of seed quality among farmers is a matter of the highest priority. Collaborating with NARI and NSS, it will be the responsibility of the extension system to promote the use of improved seed being produced by the NSS and registered seed growers. Extension will also be required to improve the capacity of farmers to maintain the quality of their own saved seed.

10.5 Rules and Procedures

10.5.1 The legal basis for seed quality assurance is the Seed Quality Control and Marketing Act 2014, developed in consultation with all participating stakeholders. The Act is supported by a set of regulations (Seed Quality Control and Marketing Regulation 2016) passed by MoA to guide in the detailed processes of seed quality assurance.

10.5.2 In support of the legislated seed quality control, Government has improved the existing seed quality control facilities to ensure the availability of needed facilities. The required level of skilled manpower resources necessary for the running of the seed testing laboratories as well as the programmes of field inspection and seed trade monitoring will be ensured through appropriate training in both local and overseas training institutions.

10.5.3 Although the external seed quality control programme will remain a public service, Government will seek to complement the required national budgetary support with a degree of cost recovery through levies and fees tied to services rendered to the client agencies and persons, when the seed industry has advanced appropriately.

10.6 Seed Quality Assurance Strategies

10.6.1 Seed testing methods shall follow guidelines established by the International Seed Testing Association (ISTA). The full range of quality assurance in The Gambia will cover Field Inspection and Plot Tests, Laboratory Seed Testing and Seed Trade Monitoring.

10.6.2 Under the general authority of MoA (Seed Quality Control and Marketing Act 2014),, the main goals of the seed quality assurance programme will be as follows:

a) Establish good external control procedures.

NSS will carry out the full range of quality assurance checks covering all areas where seed activities are conducted. This will include checks on exported and imported seeds.

b) Promote internal control procedures.

Government is of the opinion that the best seed industry quality status is attained when all seed industry participants take up responsibility for seed quality assurance. Government will therefore encourage all participating agencies, in line with appropriate legislation and regulations, and subject to the regular checks by the NSS, to maintain their own internal seed quality control operations.

11 PLANT PROTECTION AND QUARANTINE

11.1 The role of plant protection and quarantine is to conduct inspections at points of entry to prevent seeds and planting materials as well as soil contaminated with exotic insect pests and diseases, mites and extraneous materials from entering The Gambia and causing harm to the nation's agriculture. An effective plant protection and quarantine service can also help to assess and quantify crop losses, monitor and provide pests and disease forecasting information, and develop and disseminate pest control practices to farming communities, through collaborative research and training.

11.2 Plant protection and quarantine will also play a significant role in post-harvest seed management to enhance phytosanitary aspect as well as provide advice on seed storage and pesticide procurement.

11.3 Government will seek to strengthen plant quarantine regulations and provide the required resources, both human and material, to the Plant Protection Services of DOA. This is to ensure that adequate safeguards are developed at the country's borders and entry points to prevent introduction of new plant pests and diseases which would affect crop production.

11.4 As far as possible, plant quarantine procedures will be harmonized with those of other ECOWAS countries in order to enhance movement of seeds within the sub region. The Gambia will produce a National Quarantine Pest List. As well, since the country's borders are replete with cross border movements of farmers and traders, a cost-effective measure calls for awareness creation and education of the mass of border residents on issues of plant quarantine and related safeguards with a view to minimizing hazards. This will be done in collaboration with the extension system.

12 SEED MARKETING AND DISTRIBUTION

12.1 Basic Principles

12.1.1 Government will pursue the development of a private sector-led seed marketing and distribution. In line with the incentives towards the development of the private seed sector, government will work with financial institutions to ensure that access to affordable finances is available to the private sector to develop the necessary programmes and acquire the necessary equipment and facilities.

12.2 Extension and Promotion

12.2.1 Government will also support the private sector marketing effort with appropriate extension and promotional programmes such as farmer field visits and seed fairs to enhance farmers' seed utilization. This effort will involve advertisement on recommended and available varieties by radio, television and newspapers etc. with the aim of enhancing seed demand levels which are needed for enhancing investments in the seed sector.

12.2.2 Government will endeavour to increase the resources made available to develop and maintain the extension service, which is a crucial ally of the seed industry. The levels of activity for variety demonstrations, on-farm trials, seed appreciation and awareness programmes, on farm seed multiplication; in-situ germplasm conservation etc. will be increased. Additionally, and in support of this, the extension service will be expected to step up its farmer training for improving agronomic practices. This is expected to further enhance the general standard of farming and household food security.

12.3 Seed Industry Data

12.3.1 Government, through the NSC and other seed agencies, will compile seed marketing data such as seed demand and agro-ecological data required to guide in the planning of seed industry activities.

12.4 Seed Pricing

12.4.1 Government will recommend the realistic pricing system for seeds from the public sector, ensuring reasonable prices on the basis of efficient production strategies. This pricing strategy will be aimed at preparing the way for enhancing private sector participation and minimising the public cost of the national seed programme.

12.4.2 While Government will encourage adherence to realistic and open pricing system for seed, Government will at the same time aim at protecting farmers' interest and guard against abuse as well as ensuring fair returns on investment to encourage the growth of the industry.

12.4.3 Government will also support a campaign to ascertain the real and effective seed replacement frequency, with a view to supporting the production of only the real seed demand levels. When this has been realized, the scarce resources available will be most effectively applied to produce only the quantities of seeds actually required.

The strategy will be supported by a strong extension campaign, which will improve farmers' seed saving methodologies so that farmers maintain their saved seeds at acceptable quality levels in the intervening periods between replacements.

12.4.4 Government will, in addition, check the proliferation of unauthorised seeds, directly into the seed sector. Not only does this pose serious germplasm adulteration and other quality issues, but also, when done on a large scale, the practice may lead to price distortions and harm the commercial prospects of the fledgling seed industry. In line with the provisions of the Seed Quality Control and Marketing Regulations, the NSC will regulate the importation of seed into the country.

12.5 Seed Security Stock

12.5.1 Government is aware of the dangers of weather failure and other emergencies that can disrupt crop production. Emergency interventions involving introduction of externally sourced seeds, have an attendant potential of genetic erosion and disease and pest introductions. Such introductions shall be minimized by ensuring the deliberate and systematic stocking of an annually renewable National Seed Security Stock. Government is aware that due to the budgetary implication of such national stocks, they are often not sustainable. Therefore the national seed security stock of The Gambia shall be kept at the barest minimum. This shall be based on a planned seed production hectarage to be planted in the season following the emergency to meet the estimated minimum requirement for sustaining the seed industry and key vulnerable crop production areas. This minimum seed stock shall be kept at Government expense.

12.5.2 Strategies for amassing the seed security stock will include the following:

- Cold storage, by the NARI, for at least two years requirement of Breeder Seeds of the released and active varieties,
- Cold storage powered with solar system
- Production, by NSS, of an additional 50 percent of the annual requirements for Foundation Seed,
- Rapid deployment of available irrigation facilities for the production of additional seeds as soon as emergency occurs,
- Contract production with private seed producers
- Imports from neighbouring countries with similar varieties

12.5.3 Government is aware that the operation of a National Seed Security Stock will require considerable investment in terms of specialised storage facilities and financing. The cost will be minimized through the institution of a revolving fund. A revolving fund or Seed Support Fund, as required under the ECOWAS Harmonized Regional Seed Regulation, will enable a portion of the seed reserve stock to be rejuvenated at minimum cost on an annual basis. This will be achieved through sales of the stock at the beginning of the next marketing season to finance its regeneration. Cost-effectiveness will also be enhanced through contracts with private sector agencies that will operate the stocks alongside their own commodity or seed stocks.

13 CROP DIVERSIFICATION

13.1 Government recognises the need to diversify the national crop portfolio and to offer opportunities beyond groundnut and rice to mitigate food insecurity. Efforts already started in the production of such crops as root and tubers, horticulture, sesame, findi, cowpeas and other grains, particularly in urban settlements, will be continued and others will be added as soon as practicable. Government will support NARI, NSS and DoA to take the lead in developing adaptable varieties, production of their seed and the promotion of the new crops.

13.2 Government will encourage private sector participation and support other stakeholders such as farmers, agro-processors as well women and youth in the diversification efforts.

14 CLIMATE CHANGE

14.1 Government is aware of the imminent dangers associated with climate change and will strengthen NARI to develop more adaptable and high yielding early maturing varieties of priority crops. Strategic seed security measures will also be vigorously addressed including rehabilitation of existing irrigation infrastructures and the construction of new ones to improve seed production.

14.2 In the light of the uncertainties and risks associated with climate change and the impacts these may have on the traditional methods of field production of seed and propagation of planting materials, the government will encourage actors in seed production to revert to methods of production/propagation of more secured and rapid multiplication strategies such as tissue culture, in-vitro techniques, green/screen house techniques etc.

15 YOUTH, GENDER AND SEED SYSTEMS

The seed industry, including its governance, requires the representation of both male and female for effective seed industry operations. Government will take account of the special seed needs and requirements of women as well as the natural advantages that they can contribute. Further, towards enhancing seed security, Government will encourage women to participate effectively in the seed value chain, particularly in horticultural seed production, research plot work and seed quality assurance operations. Government is also aware of the natural inclination of the youth towards high tech areas and will take advantage of this to grow the seed industry to serve to retain the youth who would otherwise be attracted into illegal migration or resort to unplanned urban migration.

16 SEED IMPORT

16.1 It is noted that from time-to-time, stock seed must be imported for research and development purposes. Importation of seeds of some exotic fruits and vegetables may also sometimes become necessary. All possible Government assistance shall be provided to any Government or private-sector agency which requests import clearance of such seed, within procedures specified in the Seed Quality Control and Marketing Regulations established under this policy.

16.2 Required administrative procedures shall be minimized to avoid delays. Only normally applied seed quality standards, in both The Gambia and the country of origin, and internationally recognized plant quarantine standards shall be required. The ISTA Orange Certificate will be employed, where necessary, to ensure that the requirements of seed quality and varieties specified in tender documents are respected. Small quantities of seeds, required for research purposes, need not be subjected to the foregoing clearances, except regular plant quarantine checks.

17 SEED EXPORT

17.1 Government notes that, with good water sources, irrigation facilities, good rural road network, good crop production conditions and seed-oriented farmers, conditions exist for The Gambia to develop its seed export potential. Moreover, the country has a good record of seed exports to neighbouring countries. Government will encourage the further development of the seed export potential when the national needs have been met. Seed exports in that context will enhance the incomes of seed producers and enhance private sector participation, support the national economy and earn foreign exchange. Government shall therefore provide to private-sector agencies producing seed for export, all officially-provided incentives and supports, similar to those available to other export-oriented activities in the country.

17.2 The government will encourage the private seed sector to trade in seed through the established ECOWAS West Africa Seed Information Exchange (WASIX) managed by CORAF. The government will request the private seed sector to familiarize itself with the WASIX, partner with African Seeds Trade Association (AFSTA) and request ECOWAS to extend the training on the utilisation of the WASIX to The Gambian seed industries.

18 SEED SECTOR DEVELOPMENT

18.1 Private Sector Promotional Benefits

18.1.1 Government recognizes the important role the private sector can play in certain aspects of seed production (production of Foundation II and Certified Seeds) and seed supply, at minimum Government expense and minimum cost to farmers. Government will therefore encourage the private sector to play a major role in seed supply, and shall provide all possible support, to the sector as specified in this policy or established in ensuing supportive protocols, upon the advice of the National Seed Council.

18.1.2 It shall be the aim of Government to give maximum encouragement to private-sector seed supply. Therefore, private-sector agencies which invest in a specified manner in seed supply activities shall be eligible to receive some incentives. In line with the provisions of the GIEPA Act, examples of such incentives shall be tax exemptions, import and export privileges, guaranteed repatriation of profit (in the case of international companies), etc., with the aim of promoting investment in any identified priority area and in line with the investment laws of The Gambia.

18.1.3 Government recognises the importance of interactions among seed stakeholders as a major means of developing the sector. NSS shall be encouraged to coordinate an annual consultative forum comprising all seed stakeholders, mostly after seed production, to identify constraints countered during the season and suggest solutions towards mitigating such constraints.

18.2 The Informal Seed Sector

18.2.1 Government recognizes that the informal sector, made up of farmer-saved seeds and exchanges as well as supplies from local markets, is currently the predominant source of seeds in The Gambia. In view of this, Government will require MoA to continue its support and enhancement of the informal seed sector, encouraging its role in supporting household food security, as well as catering for the seed needs of crops, which are not in the portfolio of the formal seed sector. At the same time, MoA will encourage relevant informal sector groups to develop in their own practices and, where desired, to systematically evolve into formal sector entities. In that process, government will offer guidance and assistance in contact with foreign investment interest through proper sensitisation and documentation to assist the potential local partners.

18.3 Prices of Farm Outputs

18.3.1 Government realizes that only when farmers achieve reasonable incomes from their farming investments do they have the incentive and means to continue their patronage of purchased inputs, including improved seeds. Government will therefore pursue an acceptable arrangement whereby farmers will be assured of reasonable returns when they sell their produce.

18.4 Availability of Related Farm Inputs

18.4.1 Government recognizes that other farm inputs, such as fertilizers and pesticides, must be used to realize the full potential of quality seeds. This recognition is emphasised in the new agricultural policy. Government will therefore continue to ensure, through various incentives and concessions, the availability of fertilizers and other farm inputs, which act with improved seeds to enhance farm productivity. Government will encourage the location of small input retailers in strategic points to enhance accessibility by farmers in rural areas. Government will also encourage private investors to take interest in provision of appropriate seed packaging materials as well as other required agricultural inputs and machineries.

18.5 International and Regional Cooperation

18.5.1 Government realizes the benefits that international cooperation can contribute to national seed development. Government will therefore cooperate with such international organizations as International Seed Testing Association (ISTA), UPOV, OECD, AFSTA, World Vegetable Centre, AfricaSeeds, etc. As soon as possible when an appropriate level of seed quality assurance has been achieved, The Gambia will take steps to attain ISTA membership in order to realize the full benefits of the association.

18.5.2 Government intends to remain a key and credible player in ECOWAS seed harmonisation, contributing to the emerging seed market of the community, the advantages that The Gambia possesses i.e. relevant skills and knowledge in groundnut seed production , specialisation in rice varieties with wide adaptability, centrality of geographical location of the country and high quality of its seed.

18.6 Capacity Building

18.6.1 The presence of a stable cadre of subject matter experts is critical for the development of the seed sector. Government realizes that there is an immediate need to develop the capacity of the national institutions that will support the development of the seed sector

18.6.2 Government will give its highest priority to mobilising the resources necessary to undertake the required human resources development, according the training and placement of its seed related staff high priority. This will be reflected in MoA's annual plans and budgets. Efforts will be also made to develop and incorporate seed curricula into higher education for the training of professionals and technicians in the seed sector.

19 POLICY ADVISORY AND UPDATING

19.1 To keep the National Seed Policy current and applicable to changing conditions, the NSC will, from time to time, make recommendations to the Minister, MoA, on relevant issues of importance to the seed industry. The Minister shall consider such recommendations, discuss them with stakeholders, and in accordance with applicable laws, issue modifications in the National Seed Policy to improve its suitability and applicability to current conditions without changing its long-term intent and validity.

19.2 Plans of action shall be prepared and updated from time to time to serve as guide to both Government and other stakeholders in the implementation of actionable components of this policy. The plans of action shall be based on the strategies outlined in this policy and shall determine the required outputs and activities expected of the recommended interventions, the time frames, the responsible or implementing agencies as well as cost, budgets and other resources. The NSC will oversee the preparation of the plans of action but all participating agencies and partners, particularly as listed in Annex 2, will be required to propose the specifics relating to the components they are responsible for. The summary of the modalities and format of the seed plan is shown in Annex 1.

20 ENTRY INTO FORCE

20.1 Applicability

20.1.1 Government recognises that this policy statement does not have force of law but urges all stakeholders in the seed industry to respect the content and spirit of the policy. The legal force behind the policy emanate from the Seed Quality Control and Marketing Act (2014) and the Seed Quality Control and Marketing Regulations (2016) whose tenets have been largely influenced by the provisions of the seed policy. In due course, when a Variety Protection Legislation is enacted, Government will ensure that the latter is also adequately directed by the seed policy.

20.1.2 The provisions of this policy have relevance to and shall cover true seeds for the moment but shall be expected to cover also the vegetative planting materials such as cuttings, tubers and seedlings as soon as they are incorporated into the national seed programme.

20.2 Effective Date

20.2.1 This updated version of the National Seed Policy shall come into effect as of 29TH June, 2018 and shall replace the version approved on 1st April 2008. The tenets of the policy shall have long-term application, and shall continue in force indefinitely, until specifically modified under provisions of this Policy. However, any such modifications shall not change the intent or philosophy of the provisions contained in this document.

ISSUED this ²⁹..... day of ^{June}..... 2018


Hon. Minister for Agriculture

Appendix 1: Members of the 2008 Seed Policy Drafting Task Force

	<u>Name</u>	<u>Agency Represented</u>
1.	Ebrima Jow	NARI
2.	Dr.Babou O Jobe	NARI
3.	Amidou Mballo	NARI
4.	Sulayman Jallow	NARI
5.	Momodou M. Dabo	Private
6.	Kekoi Kuyateh	MoA
7.	Pa Abdulai Manneh	DOSFEA
8.	Ibrahima J. Jawo	DES
9.	Falalo M. Touray	DES
10.	Momodou W. Jallow	NGO
11.	Sidi M. Jarjue	SPFS
12.	Alasan M. Bah	Rural Finance
13.	Saikou Jammeh	Plant Protection

Consultant: J. Wobil, Food and Agriculture Organization

Secretariat: Karim SB Darboe, IT Officer, NARI

Appendix 2: Members of the 2018 Seed Policy Updating Task Force

SN	Name	Institution	Designation
1	Mr Hassan Jallow	Ministry of Agriculture	Permanent Secretary 1
2	Mr Sariyang Jobarteh	Department of Agriculture	Ag. Director General
3	Dr Demba B Jallow*	National Agric Research Institute	DeputyDirectorGeneral
4	Mr Musa Mbenga	Busumbala Agro Industry Ent.	Private sector
5	Mr Momodou Dibba	Ministry of Finance	Principal Economist
6	Mr Morro Manga	Nation Seed Secretariat	Director General
7	Dr Alagie Bah	University of The Gambia	Head of School Agric.
8	Mrs Amie Fabureh	Horticulture Technical Service	Director
9	Mr Basaikou Kanteh	Farmer Representative	President
10	Mr Sait Drammeh	Private	RTD PS
11	Mustapha Drammeh	Department of Agriculture	Reg. Agric. Director

* Secretary to the Task Force

Consultants: Josiah Wobil, Food and Agriculture Organization
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Observers: Dr.Mustapha Ceesay FAO Gambia
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Secretarial support: Karim S.B. Darboe, IT Officer, NARI

Appendix 3: Definitions of Terms Used in this Document

Seed: A mature plant part, usually an embryo, which under optimum conditions will develop into a full-grown plant. May be used to mean both true seed and vegetative planting material

Breeder Seed: Seed of the generation preceding foundation seed that is generated by the variety developer or breeder and may be of any generation between parental material and foundation seed.

Foundation I Seed: The progeny of Breeder Seed and the source of Foundation II Seed and sometimes Certified Seed, so produced as to retain the specific identity and purity of a variety. It is sometimes called basic seed. The production of Foundation I Seed should be under supervision of the sponsoring Breeder

Foundation II Seed: The progeny of Foundation I Seed and the source of Certified Seed, so produced as to retain the specific identity and purity of a variety. It is sometimes called basic seed. The production of Foundation II seed should be under supervision of the NSS.

Certified Seed: The progeny of Foundation I or Foundation II seeds so produced and handled as to maintain satisfactory genetic identity and purity.

Germplasm: The material basis of heredity.

Land race: Local plant material which contains a range of genotypes, derived as a result of selection pressures under local conditions.

Seed certification: A service involving inspections and laboratory testing developed to maintain and make available to the public high quality seed and propagating material of improved crop varieties.

Variety: A group of similar plants that by structural features and performance can be identified from other groups within the same species. It is sometimes called cultivar.

ANNEX 1: NATIONAL SEED PLAN

i. Introduction

Effective and balanced implementation of the National Seed Policy is critical if the stated objectives and outputs are to be achieved. Some of the policy areas will only require that stakeholders be more conscious of their roles and the importance of particular topics in the overall seed industry apparatus and therefore the need to accord them additional urgency and support. Other aspects will require new support initiatives in which relevant partners will be expected to provide support side by side with government effort.

Implementation activities will be either continuous, short term, medium term or long term, due to the differing developmental efforts and gestation periods which influence or determine the activity period.

It should be accepted that the implementation of the policy will call for additional resources from Government and partners beyond currently committed levels. However, it is easily argued that when the additional resources are effectively deployed, the benefits far outweigh the cost of the extra investments. Use of quality seeds and the improved input package, in which it is recommended to be applied, can lead to about 70% yield increment. Therefore, when quality seed usage is widely used in The Gambia, grounds are laid to realize the goal of national food and nutritional security.

ii. Preparation of a National Seed Plan

The first stage in the implementation of the National Seed Policy is the conversion of the policy statements and direction into a comprehensive National Seed Plan which consists of methodologies and programmes for implementing the actionable portions of the National Seed Policy. The National Seed Plan will also give guidance on how non-actionable portions are to be addressed. The NSC will be the authority for commissioning the preparation of the seed plan.

iii. Structure of the National Seed Plan

The preamble of the National Seed Plan should establish its connection with the National Seed Policy (NSP) and the existing Agriculture Sector Policy and plan documents. The plan should also review the performance of the seed sector and establish the current status, progress and problems of the seed sector and industry. Included should also be the identification and prioritization of programs and projects emanating from the National Seed Policy.

The Plan should give a fairly detailed Implementation Mechanism to show a detailed description of modalities, methodologies, costs and strategies for implementing the program/projects, including institutional arrangements and partnerships.

iv. Activity Categories

It is proposed to prepare a rolling five-year National Seed Plan made up of contributions on seed policy implementation strategies covering the following main areas:

- Research and Variety Development
- Early Generation Seed
- Certified Seed Production and Marketing
- Seed Industry Development
- Oversight and Coordination
- Seed Security Arrangements

The preparation of the overall plan will fall under the NSS but the individual components as listed above will be initially prepared by collaborating stakeholders (NARI, NSS, DoA, NSC, Private Seed Sector etc.) who shall submit their contributions to NSS for incorporation into the overall plan. The plan will then serve as guide to MoA, MOFEA and all other stakeholders as to the priorities of the seed sector of The Gambia and form the initial basis for Government budgetary allocations as well as guide development partner inputs into seed development in The Gambia.

v. Investment Profiles

The seed plan will be prepared in a profile format style which will capture the following features:

- Title of Activity
- Objectives
- Lead executing agency and implementing partners
- Time Frame
- Summary of Activities
- Resources Required/budget
- Expected Outputs (targets, results)
- Monitoring and Evaluation arrangements

The purpose of the investment profile is to provide an indication of the investment requirement to both Government and partners and to serve as basis for interest and adoption by potential sponsors. Following indication of interest and sponsorship intent, the profile can then be elaborated into a fully-fledged project document.

vi. Modalities of Implementation

The National Seed Plan will also contain the implementation modalities, including the institutional arrangement that will be in place at various stages of development. A work plan of the implementation as well as risks and assumptions, sustainability framework and partnership will need to be prepared for each investment activity.

vii. Profiles of Participating Agencies and Stakeholders

The National Seed Plan will present a wide array of agencies and stakeholders who will be required to carry out the plan in a coordinated manner. The agencies and stakeholders will therefore need to actively participate in the preparation of the National Seed Plan to engender ownership and for smooth and effective implementation. Brief profiles on the key stakeholders who have contributed to the seed industry in the past and are likely to show interest in this policy are shown in Annex 2.

Annex 2: Profiles of Participating Agencies and Partners

No	Agency/Partner	Current Contact	
1	Policy, Oversight and Coordination:	Email	Telephone
	MoA: MoA is the overall authority on seed issues, particularly in the initiation of policies and budgetary support. In the seed development effort, MoA interacts with partners to bring resources and other contributions to seed sector development. The various key agencies in the public seed sector subsist under MoA. The agencies are as follows:	info@moa.gov.gm	+220 4228270
	NARI: Has responsibility for research and variety development	Akjarju2013@gmail.com	+220 9935282 +220 7394211
	NSC: Has responsibility for the seed industry oversight and coordination function	nssgambia@gmail.com,	+220 4379769
	VRC: As sub-committee under NSC, has the responsibility for Varietal registration and release	nssgambia@gmail.com	+220 439769
	NSS: Has responsibility for seed industry development and quality assurance	nssgambia@gmail.com	+220 439769
	DoA: Has responsibility for agricultural extension and support for field inspection in certified seed production.	ansukceesay@gmail.com	+220 9844392
2	Seed production and Marketing		
	NSS: In addition to the quality assurance development mandate, NSS has responsibility for the production of foundation seeds for supply to registered seed growers.	nssgambia@gmail.com,	+220 439769
	Seed Growers Association: This is made up of the collection of registered seed growers. Has responsibility for the production of certified seeds for sale to the farming community.	farmersplatform@gmail.com	+220 7834241 +220 9901541 +220 7680404 +220 6588628

3	Donors/Development Partners		
	<p>FAO FAO has played lead roles in seed emergencies in The Gambia since the 90s. FAO has also pursued a formal seed industry development since that period with a view to introducing stability in seed production and supply, as well as seed quality assurance. Having initiated seed certification in The Gambia nearly 15years ago, FAO’s current efforts are aimed at entrenching the system and laying the grounds for commercialization. Gambia anticipate continued assistance from FAO to achieve completion of the present efforts.</p>	FAO-GM@fao.org	+220 4498034
	<p>AfricaSeeds The inter-governmental seed agency serving as implementer and coordinator of the AU continental seed program named ASBP. AfricaSeeds has signed an MoU with the Gambia by which AfricaSeeds will assist The Gambia in seed program development.</p>		+22522525770
	<p>World Bank Has assisted in seed program development in the past and through WAAPP was the main source of funding for the installation of the Gambian seed certification program.</p>		
	<p>AfricaRice Has the mandate to assist tropical African countries to develop their rice production. AfricaRice has served as source of quality germplasm and expected to play roles in several other areas of capacity building.</p>	AfricaRice@cgiar.org;	+225 22480910
	<p>Islamic Development Bank Although earlier attempts to assist in The Gambia’s national seed development program did not materialize, IsDB has made contribution in related areas and is seen to be a partner to be relied upon in future seed industry’s intervention.</p>		

	<p>African Development Bank AfDB has recently pronounced its new agricultural agenda for Africa and in recent discourse with national authorities, there seem to be many opportunities inherent in collaboration with the Bank in relation to the seed industry.</p>		
	<p>TANGO Capacity building support to the farming community, particularly seed growers.</p>	Email: info@tangogambia.org	+220 9921974
	<p>ECOWAS ECOWAS, through CORAF and others has recently championed the Seed Harmonization initiatives. The initiatives are very young and continued colaboration with ECOWAS will be necessary to properly mature them.</p>		
	<p>ROPPIA Has established rice framework at regional level. Advocacy and lobbying policy in favor of agriculture, especially small holder farmers including seed producers.</p>	Executive Secretary Email: roppa2000@yahoo.fr ;	+226 25360825 +226 78145353
4	PRIVATE SEED SECTOR		
	<p>Gambia Horticultural Enterprises (GHE) GHE has been a long time leader in the private seed sector. It continues to serve as the most credible seed dealership and has recently also become active in seed production. Beyond seed production and marketing activities, GHE has also been a leading supplier of other farm inputs such as fertilizers and pesticides. Going forward, GHE can be relied upon to play a credible role in capacity building as well as providing counterpart relationship with external investment interest.</p>	gamhort@qanet.gm	+220 4394819

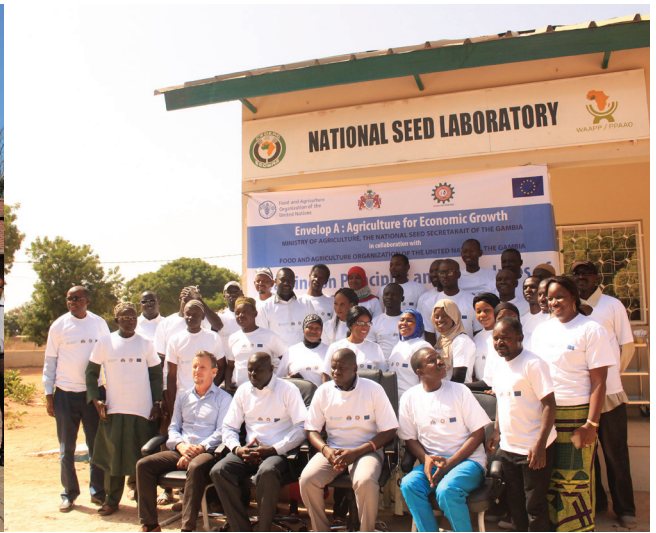
Annex 3: Pictures of Seed Policy Task Forces (2007 and 2018)



Task force 2007



Task force 2018





**Food and Agriculture
Organization of the
United Nations**

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