

National Seed Policy



Government of Pakistan
Ministry of National Food Security & Research

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List of Abbreviations and Acronyms

AOA	Agreements on Agriculture
BNS	Breeders Nucleus Seed
BOI	Board of Investment
CBD	Convention on Biological Diversity
CWANA	Central and West Asia and North Africa
DNA	Deoxyribonucleic Acid
ECO	Economic Cooperation Organization
FFP	Food, Feed & Processing
FSC&RD	Federal Seed Certification and Registration Department
GM	Genetically Modified
GMO	Genetically Modified Organisms
HSU	History of Safe Use
ISTA	International Seed Testing Association
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
NARC	National Agricultural Research Centre
NBC	National Biosafety Committee
NSDRA	National Seed Development and Regulatory Authority
NUYT	National Uniform Yield Trial
OECD	Organization for Economic Co-operation and Development
PARC	Pakistan Agricultural Research Council
PBR	Plant Breeders Right
PCCC	Pakistan Central Cotton Committee
PGRI	Plant Genetic Resources Institute
PPP	Public Private Partnership
R & D	Research and Development
SDN	Site Directed Nuclease
SMEDA	Small and Medium Enterprises Development Authority
SOPs	Standard Operating Procedures
SPS	Sanatory and Phytosanitary
TBT	Technical Barriers to Trade
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights

UPOV	International Union for the Protection of New Varieties of Plants
VEC	Variety Evaluation Committee
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

A. INTRODUCTION

Background

Over the past 40 years, Pakistan has made significant strides in the agricultural sector, increasing the production of food grains and industrial crops by 3-4 times. Despite this progress, the country remains a net importer of edible oils, pulses, vegetables, and dairy products, leading to a persistent food deficit. The policy is aimed at achieving food and nutritional security at the national and household level.

The growth in agricultural and food production varies across regions, crops, and different segments of the farming community. In the nineties, there was a noticeable slowdown in the pace of growth, which resurged in 2006 and beyond, underscoring the necessity of revitalizing the agricultural sector.

Seeds play a pivotal role in determining the production of food crops. It is essential to have seeds with appropriate characteristics to accommodate the diverse agro-climatic conditions and intensive cropping systems, as well as to meet the varying demands of consumers. A sustained increase in agricultural production and productivity relies significantly on the development of improved crop varieties and an efficient system for the timely supply of high-quality seeds to farmers.

The framework for promoting and regulating the seed industry in Pakistan is established through key legislative measures, including the Seed Act of 1976, amended by the Seed (Amendment) Act of 2015, Seed Amendment Act 2024 along with the Seed (Business Regulation) Rules of 2016 (amended in 2021) and the Seed (Truth-in-Labeling Rules) of 1991. Additionally, the introduction of the Plant Breeders' Rights Act of 2016 further contributes to this regulatory foundation and development of Seed Sector. As the demand and supply of seeds are subject to various factors, this process remains dynamic, necessitating continuous improvements in regulations and facilitation. Adapting to changing scenarios is crucial to ensure the effectiveness and relevance of the regulatory framework in addressing the evolving needs of the seed industry.

Situation Analysis

Regulatory arrangements are updated. The Seed Sector has progressed well starting from four public sector organizations to around 1000 private sector companies with availability of seeds around 48 percent. However, the sector is facing challenges like.

- Low seed replacement rate
- Minimal seed export, despite incepting ISTA accredited lab
- High seed imports, especially technology based and hybrid seeds
- Research in plant variety development and seed technology is limited due to factors like.
 - non availability of elite germplasm
 - un-skilled human resource
 - absence of modern infrastructure
 - weak coordination among stakeholders
- Overseas investment in seed R&D is negligible

B. Vision and Mission of National Seed Policy

Vision

A vibrant seed system ensuring availability of quality seeds for food security, sustainable agricultural and economic growth

Mission

To ensure availability of quality seeds and promote the seed industry by adopting technologically advanced germplasm, while ensuring the conservation and sustainable use of plant genetic resources, biosafety obligations and stewardship and safeguarding the rights of farmers and breeders.

C. Objectives of the Policy

The main thrust of the National Seeds Policy is to facilitate availability and encourage the adoption of high-quality seeds of improved varieties. This initiative aims to enhance crop productivity, bolster food security, create supplementary sources of farm income and employment, lay the groundwork for value-added agricultural exports, and alleviate poverty in rural areas across Pakistan. By prioritizing the dissemination of superior seeds, the policy aims to equip farmers with the necessary resources to cultivate more resilient and high-yielding crops, ensuring a steady food supply while economically empowering rural communities.

Detailed Objectives

These objectives aim to create a robust seed industry that supports sustainable agriculture, enhances crop productivity, ensures food and nutrition security through seed research and commercialization. Progress audit of achievements on these objectives will be carried out periodically.

- i. **Quality Seed Production:** Improve high-quality seed production of approved varieties and seed replacement rates. Promote the production of high-tech and hybrid seeds to reduce dependence on imports and ensure food security.
- ii. **Certified Nursery Plants:** Encourage the production and plantation of certified plants through registered nurseries for fruits and vegetables.
- iii. **Fair Competition:** Create a level playing field for the public sector, and national and multinational seed companies to ensure quality seeds are available at reasonable prices.
- iv. **Investment and Innovation:** Foster an environment conducive to domestic and foreign investment, joint ventures, and protection of Breeder's Rights to bring in new technologies and genetic resources.
- v. **Promotion of biotechnology and genomic tools:** Develop crop varieties with higher tolerance to biotic and abiotic factors and improved nutritional qualities through biotechnology and other modern technological tools and methods.
- vi. **Support Organic Agriculture:** Support organic agriculture through a seed development system aligned with international standards.
- vii. **Private Sector Participation:** Increase private sector involvement in variety development, seed production, research on biotechnology and other modern seed technologies with appropriate incentives.
- viii. **Seed Exports:** Promote seed exports through participation in regional and international seed schemes.
- ix. **Farm-Saved Seeds:** Recognize the role of farm-saved seeds in meeting planting needs, preserving genetic diversity, and conserving crop biodiversity.

- x. **Climate Change Research:** encourage development of climate smart planting material to mitigate and adapt to the impacts of climate change.

D. KEY STRATEGIC AREAS

1. Variety Development & Plant Breeders' Rights
2. Seed Production and Distribution
3. Quality Assurance and Monitoring
4. Infrastructure & Human Resource Development
5. Genetically Modified Plant Varieties
6. Import of Seed and Planting Material
7. Export of Seed and Planting Material
8. Strengthening of Domestic Seed Industry
9. Conservation of Plant Genetic Resources for Food and Agriculture
10. Harmonization of Variety Evaluation and Approval
11. Seed Sector Reforms



1. Variety Development and Plant Breeder's Rights

- 1.1. The development of improved varieties of plants and availability of seed of such varieties to the farmers is crucial for a sustained increase in agricultural productivity. The new varieties should match the market trends and requirements, tolerant to biotic and abiotic stresses, adaptable and meet farmers' needs.
- 1.2. Plant breeder's rights will be protected to stimulate investment in research and development of new plant varieties and to facilitate the growth of the Seed Industry in the country.
- 1.3. The rights of farmers to use, exchange and share farm-saved produce of registered varieties will be protected, with the provision that farmers shall not commercialize sale of his farm produce as seed under the brand name.
- 1.4. The researcher will have free access for one time use to the protected varieties without authorization of initial breeder for research purpose only.
- 1.5. Already developed varieties donated by any International or foreign research institution will not be considered for protection of plant breeder rights.
- 1.6. The varieties merely selected from land races without any breeding effort will be treated as collective property of the farmers of a specific community, province or national property, as the case may be.
- 1.7. Farmers/groups of farmers/village communities will be rewarded suitably for their significant contribution in evolution of a plant variety subject to registration. The contribution of traditional knowledge related to such genetic resources needs to be addressed through suitable mechanisms and incentives.
- 1.8. A National Gene Fund will be established for payment of compensation to village communities for their contribution to the development and conservation of plant genetic resources and also to promote conservation and sustainable use of genetic resources.
- 1.9. Plant Genetic Resources for Food and Agriculture will be permitted to be accessed by Research Organizations and Seed Companies from public collections as per the provisions of the 'Material Transfer Agreement' of the International Treaty on Plant Genetic Resources and the legislation on Biological Diversity. Complete information in respect of Plant Breeders' Rights, details of applications, description of protected varieties, available genetic resources with public collections and details related with such resources will be disseminated for the benefit of the stakeholders.

- 1.10. Regular interaction amongst the Private and Public Researchers, Seed Companies/Organizations and Development Agencies will be fostered to develop and promote growth of a healthy seed industry in the country.
- 1.11. Private sector Research and Development initiatives in respect of variety development and seed production of vegetable, pulses, fodder and oilseed crops and in respect of development of hybrid seed technology will be encouraged and liberally considered for financial assistance under development projects.
- 1.12. The public sector Research Institutes will be encouraged to enter into joint venture with private sector for commercialization of varieties and hybrids developed by them through a standard Agreement
- 1.13. Biotechnology/other research Institutes and Faculties of Universities will be encouraged to carry on research assignments sponsored by the private sector on mutually agreed terms; for incorporation of useful traits in commercial varieties.
- 1.14. Arrangements will be made to make available useful gene constructs, to national (public & private) breeding programs for incorporation in commercial varieties through standard material transfer agreement
- 1.15. Special research initiatives will be taken for development of plant varieties tolerant to biotic and a biotic stress and responsive to low nutrient availability.



2. Seed Production and Distribution

- 2.1 To meet the Food Security needs, it is important to ensure timely availability of adequate quantity and quality of seed of superior varieties to the farmers. Public and Private Sector Seed Institutions will be encouraged to enhance production of seeds to meet the objective of food and nutritional security.
- 2.2 Pakistan's seed program adheres to the limited four generation system of seed multiplication, namely, Pre-basic, Basic, Certified and Approved seed. The Breeders will have the primary responsibility for production of pre-basic seed as per the requirements of the public and private seed sectors and shall be encouraged to contribute to Basic Seed Production.
- 2.3 Arrangements will be made in consultation with Research Institutes and Provinces, to prepare a National Seed Map to identify potential, alternative and non-traditional areas for seed production.
- 2.4 Seed replacement rates will be raised progressively with the objective of expanding the use of quality seeds.
- 2.5 The Seed Crop Insurance Scheme will be encouraged to provide effective risk cover to seed producers and will be extended to all traditional and non-traditional areas covered under the seed production programs. Seed growers will be encouraged to avail Seed Crop Insurance to cover risk factors involved in production of seeds.
- 2.6 The private sector will be facilitated to establish internal quality control and accredited seed testing laboratories; however federal seed testing lab shall have the final authority on testing and testing protocols.
- 2.7 Special emphasis will be given on clonally propagated crops such as potato, banana, oranges, pistachio, ginger etc. through establishment and strengthening of tissue culture laboratories



3. Quality Assurance and Monitoring

- 3.1 The National Seed Development and Regulatory Authority (NSDRA) will be strengthened. The NSDRA will be responsible for execution and implementation of the provisions of the Seed Act and advise the Government on all matters relating to seed planning, development and regulations.
- 3.2 To meet quality assurance requirements for export of seeds, Seed Testing facilities will be established in conformity with ISTA and OECD seed certification programs. The scope of the already existing ISTA accredited laboratory at FSC&RD shall get enhanced.
- 3.3 Appropriate package of incentives will be provided to the Seed Industry (Public & Private) to encourage development of new varieties/hybrids, hybrid seed production, production of seed processing machinery, establishment of seed testing labs and export of seeds.
- 3.4 A mechanism will be established for collection and dissemination of market intelligence regarding preference of farmers and industry
- 3.5 The National Digitized Data Base will be strengthened for monitoring of information on the requirement of seed, its production, distribution and preference of farmers on a district-wise basis; as well in international markets to facilitate seed industry. The Provincial crop reporting system should be digitally linked with FSC&RD MIS for calculating seed requirement and availability.
- 3.6 The private sector will be strengthened to participate in Basic Seed production of public sector varieties through providing unhindered access to Pre-basic Seed following the Seed Act.
- 3.7 A national DNA finger printing database will be maintained for approved/enlisted varieties.



4. Infrastructure and Human Resources Development

- 4.1 To meet the enhanced requirement of quality/certified seeds, creation of new infrastructure facilities along with strengthening of existing facilities, will be promoted.
- 4.2 Seed Research and Training Centers will be set up to impart training and build a knowledge base in various disciplines of the seed sector at federal and provincial level.
- 4.3 The Central Seed Testing Laboratory will be part of the National Seed Research and Training Center to perform referral and other functions as required under the Seed Act.
- 4.4 Existing seed processing facilities will be upgraded in terms of modern equipment and latest techniques, such as seed treatment for enhancement of seed performance etc.
- 4.5 Controlled condition storage for BNS and Pre-basic seed and aerated storage including PPP mode for basic and certified seeds would be created in different regions
- 4.6 The private sector will be facilitated to establish infrastructure for production of high-tech and hybrid seeds for the production of certified seeds of various crops/plants.
- 4.7 Arrangements will be made for the development of human resources in the fields of vegetable seed production, hybrid seed production, tissue culture, early generation seed production, development & maintenance of inbred lines, constitution of hybrids & commercial seed production, seed processing, seed storage and seed conditioning.

5. Genetically Modified Plant Varieties

- 5.1 Biotechnology will play a vital role in the development of the agriculture sector. This technology can be used not only to develop new crops/varieties, which are tolerant to disease, pests and abiotic stresses, but also to improve productivity and nutritional quality of food.
- 5.2 All genetically modified (GM) seed technologies will be tested for biosafety before their commercial release, as per the Biosafety Rules, 2005 and Biosafety Guidelines, 2005 as amended in 2024.
- 5.3 Cross-bred GM varieties will have exempt status for confined field trials in case risk assessment is conducted and well established for GM parent(s) as per Standard Operation Procedures notified by NBC.
- 5.4 Genetically Modified crop varieties/hybrids will be tested to determine their agronomic value in the national coordinated trials after Biosafety clearance given by NBC for permission of field trials.
- 5.5 After the GM technology is cleared by NBC for commercialization, its seed will be registered or enlisted and marketed in the country according to the provisions of the Seeds Act for commercial release.
- 5.6 Genetically Modified technology/event that has History of Safe Use (HSU) may be given exempt status case by case for biosafety data requirement studies as per National Biosafety Guidelines 2005 amended 2024.
- 5.7 All grains imported into the country for FFP (Food, Feed & Processing) will be required to be accompanied by a valid certificate from the Certifying Authority of the exporting country regarding their transgenic character or otherwise.
- 5.8 GM Seed for cultivation in the country will be subjected to biosafety risk assessment for at least one year related to health and environment.
- 5.9 If the seed or planting material is a product of transgenic manipulation, it will be allowed to be imported only with the approval of the NBC under the provision of Pakistan Biosafety rules 2005 amended 2024.
- 5.10 Packages containing transgenic seeds/planting materials, if and when placed for sale, shall clearly indicate their transgenic nature. The specific information like characteristics of the variety, name and nature of the transgenes, precautions in its utilization and any relevant information shall be clearly displayed.
- 5.11 Development of infrastructure for the biosafety testing, identification and evaluation of transgenic planting materials will be accelerated.
- 5.12 Termination technology shall not be permitted.
- 5.13 Gene edited crops will be regulated differently. SDN-1(having no foreign nucleotide sequence) and SDN-2 products (having no foreign sequence but sequence from sexually compatible donor) will not be regulated as GMOs.

SDN-3 will be considered as GMO and regulated by Pakistan Biosafety Rules,2005 (amended-2024).

6. Import of Seed and Planting Material

- 6.1 The objective of the seed policy is to provide the best planting material available anywhere in the world to Pakistani farmers, to increase productivity, farm income and export earnings, while ensuring that there is no deleterious effect on environment, health and biosafety.
- 6.2 All imports of seeds will require a permit granted by the Department of Plant Protection and Phytosanitary Certificate and Non-GMO certificate issued by the company of the exporting country to prevent entry into the country of exotic pests, diseases, weeds and invasive species detrimental to agriculture and environment.
- 6.3 For import of GM crop seeds prior permission of NBC will be mandatory in addition to the existing regulatory requirements.
- 6.4 Seeds and planting materials imported for sale into the country will have to meet minimum seed standards of seed health, germination, genetic and physical purity as well as prior registration for genetic suitability as prescribed.
- 6.5 Exotic germplasm intended for research purposes shall be exempted from any fee charges and condition of post-quarantine facility.
- 6.6 All importers will make available a small sample of the commercial imported seed to the FSC&RD Depository and Gene Bank of PARC.
- 6.7 Only registered seed companies with import license will be allowed to import seed.
- 6.8 Seed sample of new imported varieties intended for experimental trials shall be allowed for 5 acres. A schedule of seed quantities for five acres in respect of different crops based on seeding rate shall be circulated.
- 6.9 Seed quality test certificate issued by OECD/official agency/ISTA Accredited lab of exporting country will be acceptable for imported seed consignments to avoid delays in custom clearance and demurrages.
- 6.10 Seed importers will be required to file an affidavit to the effect that the imported seed consignment is “true-to-type” and if at any stage of growth, the seed is found not true-to-type, he will pay compensation to the affected farmers.
- 6.11 The government will encourage the local production of high yielding, high-tech seeds in the country through capacity building exiting institutes and JVs through national and international collaboration to minimize dependence on seed import.

7. Export of Seed and Planting Material

- 7.1 Given the diversity of agro-climatic conditions, strong seed production infrastructure, efficient seed certification system and market opportunities, Pakistan holds significant promise for export of seeds.
- 7.2 Seed export policy will specifically encourage production of seeds for export and will be based on long term perspective, dispensing with case-to-case consideration of proposals.
- 7.3 Establishment and strengthening of Seeds Export Promotion Zones with special incentives from the Government will be facilitated.
- 7.4 A data bank will be created to provide information on the International Market and on export potential of seed from Pakistan in different parts of the world.
- 7.5 Joint ventures for seed production under export agreements will be encouraged and facilitated.
- 7.6 Pakistan will consider joining multilateral arrangements like CWANA, ECO or OECD seed schemes to facilitate seed exports.
- 7.7 The scope of the ISTA accredited laboratory of FSC&RD shall be enhanced to support the seed export.

8. Strengthening of Domestic Seed Industry

- 8.1 Incentives will be provided to the domestic seed industry to enable it to produce seeds of high yielding varieties and hybrids at a faster pace to meet domestic requirements. Seed Industry will be provided with a congenial and liberalized climate for increasing seed production and marketing.
- 8.2 Membership to International Organizations and Seed Associations like ISTA, OECD, UPOV, WIPO, at the National level or at the level of individual seed producing agencies, will be encouraged and facilitated.
- 8.3 Financial support for capital investment, working capital and infrastructure strengthening will be encouraged through BOI / SMEDA / Commercial Banks / Cooperative Banks.
- 8.4 Tax rebate/concessions will be considered on the expenditure incurred on in-house research and development of new varieties and other seed related research aspects.
- 8.5 Reduction of import duty will be considered on machines and equipment used for seed production and processing, for production of plug nurseries; and for import of greenhouse equipment which are otherwise not manufactured in the country.
- 8.6 Effective implementation of the PBR Act shall be ensured to stimulate and protect investment in R&D activities for development of promising varieties. This will ensure availability of diverse and elite germplasm to support the business of the seed industry and sustainable enhancement of farm productivity.



9. Conservation of Plant Genetic Resources for Food and Agriculture

- 9.1 Pakistan is rich in genetic diversity of many crops. There is a long list of land races and farmers' varieties in various crops. This wealth of plant genetic resources for food and agriculture will be properly documented and protected for effective utilization by future breeding programs.
- 9.2 The plant genetic resources for food and agriculture will be protected through diverse legal instruments including international conventions like ITPGRFA, WIPO and CBD and through national legislation of Seed Act, Plant Breeder's Rights Act and Protection of Geographical Indicators Act etc.
- 9.3 PARC, PCCC, Universities and Research Institutes will be facilitated to strengthen documentation and conservation activities related to plant genetic resources in their relevant fields in collaboration with national germplasm resource center i.e. PGRI, NARC for conservation and future breeding programs.
- 9.4 Farmers will be encouraged for *in situ* maintenance of land races and farmers' varieties through extension service, training programs and other incentives.



10. Harmonization of Variety Evaluation and Approval

- 11.1 Evaluation of local and imported varieties/hybrids under the umbrella of Variety Evaluation Committee (VEC) will be made at national level only.
- 11.2 A harmonized procedure for evaluation and recommendation of varieties/hybrids shall be approved/amended by VEC from time to time as per requirement.
- 11.3 VEC as an evaluation and recommending body shall be made truly representative by including members from private and public sector.
- 11.4 DNA profile will be made mandatory to be submitted by the concerned public/private breeders during the evaluation/ NUYT trial to stop leakage of germplasm and give confidence to the developers of new technology.
- 11.5 Fruit plant varieties, once evaluated and recommended by VEC shall be released on national level. However, the provinces may opt for additional evaluation if deem necessary.

11. Seed Sector Reforms

- 11.1. NSDRA shall supervise the seed sector from end to end and develop a coordination mechanism among different institutes, working for seed variety development, registration, protection, certification and marketing, at federal and provincial level
- 11.2. Capacity building programs shall be initiated from the platform of NSDRA for all the stakeholders including government officials, seed companies, seed dealers and farmers.
- 11.3. FSC&RD will be merged with NSDRA as its regulatory organ which will be restructured on modern lines with full digitalization and MIS based track and trace system for ensuring seed quality.
- 11.4. Farmers shall be empowered to verify the authenticity of purchased bags of certified or Truth in Labelling bags through an SMS based system.
- 11.5. Appropriate legislative and institutional changes will be adopted to transform the current overregulation into an enabling regime. Regulatory focus will be shifted from the production stage to seed sales.
- 11.6. Private seed sector shall be encouraged through a system of self-certification to promote culture of branding in the seed market which is already a success story in hybrid maize and paddy seed market. Further crops shall be opened for gradual Truth in Labeling seed scheme.
- 11.7. Quality based seed producing companies, having their own registered or enlisted varieties, shall be encouraged to produce and market their seed through Truth in Labelling scheme.
- 11.8. Special emphasis shall be given to the development of cotton seed varieties by incorporating new technologies resistant to different pests, diseases and also by adopting hybrid cotton seed production technologies.
- 11.9. Seed Act and other seed rules and regulations shall be holistically reviewed to facilitate and promote efficient seed sector and encourage investment.
- 11.10. Registration and renewal criteria for seed companies shall be reviewed to promote excellence and ensure serious and quality contenders in the seed business.
- 11.11. A system of categorization of seed companies shall be introduced to transform the seed industry, acknowledging quality R&D and entrepreneurship, incentivizing growth and rewarding progressive businesses. Introduction of KPIs based performance evaluation and upgradation system for each category, and differentiation in licenses for seed development, production and trade will infuse professionalism, progressiveness and specialized service delivery.

11.12. No person/company will be allowed to promote/market and advertise the sale and purchase of unapproved seed through any means which includes print, electronic and social media.

E. INSTITUTIONAL ARRANGEMENT

- i. Ministry of National Food Security and Research
- ii. National Seed Development and Regulatory Authority
- iii. Pakistan Agricultural Research Council
- iv. Federal Seed Certification and Registration Department
- v. Department of Plant Protection
- vi. National Biosafety Center
- vii. Plant Breeders Right's Registry
- viii. Pakistan Atomic Energy Commission
- ix. Provincial Agriculture Departments
- x. Agricultural Universities
- xi. Private Seed Companies
- xii. Finance & Credit Institutions
- xiii. Civil Society and Farmers

F. LEGAL AND REGULATORY FRAMEWORK

Enactment of this policy through federal government legislation.

G. CONCLUSION

The Government of Pakistan is confident that the National Seeds Policy will receive strong support from Provincial Governments, Agricultural Universities, plant breeders, seed producers, the seed industry, and all other stakeholders. It is anticipated that this policy will act as a catalyst in achieving the objectives of sustainable agricultural development, ensuring food and nutritional security for the population, and raising living standards for farming communities.

The implementation of the National Seeds Policy is poised to play a pivotal role in boosting food production and striving towards a hunger-free Pakistan. By establishing an efficient system for the supply of high-quality seeds to farmers, this policy is expected to inject momentum into agricultural production.

Furthermore, the National Seeds Policy is set to lay the groundwork for liberalizing the seed sector and initiating necessary legal reforms to modernize the seed system in accordance with WTO agreements on TRIPS, TBT, SPS, and AOA. This strategic move will cater to the evolving needs of the rapidly expanding seed industry.

With a focus on broadening the scope of the domestic seed industry, enhancing its technological capabilities, and promoting investment in research and development programs, the National Seeds Policy aims to facilitate the production of hybrid seeds and certified vegetative planting material. By fostering an environment conducive to seed exports, this policy will contribute significantly to national agricultural production and create employment opportunities for professionals, skilled workers, and small farmers in the competitive global seed trade landscape.

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