

2011

Report of the Expert Consultation  
Workshop on Seed Policy  
Formulation, Milan, Italy



# **1 INTRODUCTION**

Agriculture is the economic base of majority of the developing countries, especially in many developing countries. The role of agriculture continues to be very important for socio-economic development and the attainment of the MDG goal of combating hunger. In developing countries, increased population and urbanization has led to decreasing agricultural land available for crop production. Therefore, more food has to be produced from limiting land areas – a situation that calls for intensive, highly productive agriculture. In this context, the catalytic role of new plant varieties and high quality seed in increasing crop productivity and mitigating challenges posed to agriculture by changing world situations have been recognized.

The green revolution of the 1960s which transformed the agriculture of Asian countries was greatly boosted by seed program development efforts that led to the development of the Asian seed industry. However, similar efforts in Africa, including an FAO initiative - the Seed Improvement Development Program (SIDP) of the 1970s - did not yield expected dividends, particularly in the sub-Saharan Africa. These past experiences confirm that poorly designed and implemented national seed policies and regulations have significantly undermined the access of farmers to improved quality seed and improved agricultural inputs required for boosting food production.

Recent evolutions of the general agricultural context, international instruments, developmental paradigms and the international seed sector raise issues on the strategic choice to be made by countries. The 2008 food price crisis, climate change issues and the recent recognition of the importance of agriculture in economic growth has provoked a renewed interest in investing in the development of the seed sector, recognized to be a critical step for boosting agricultural production and productivity. It has become clear that the seed policy must be closely aligned with the level of development of the agriculture sector. As a consequence, FAO had received a number of requests for assistance from member countries to assist in the development/review of their seed policy. The increase of interest in this domain calls for the development of a comprehensive guideline to assist them in the process.

It is within this context that the FAO organized a three-day expert consultation on Seed Policy Formulation in Milan from 28 – 31 March 2011. The event, which was organized in collaboration with the national seed certification agency of Italy, INRAN-ENSE, pulled together 27 experts (Appendix 1) from 16 countries covering all regions of the world.

## **2 OPENING CEREMONY (Monday 28 March 2011)**

At the opening ceremony of the consultation, Mr. Thomas Osborn, FAO Senior seed policy Officer briefly summarized past efforts of the FAO to assist countries in developing seed policy and plan. He explained that the importance of seed policy consultation arose from the needs to meet the challenges of food production and climate change through effective national seed systems. He clarified misconceptions with regards to seed policy and seed regulation. He emphasized the need to provide better assistance to countries in seed policy formulation and implementation as well as the need to facilitate the collaboration of the public and private seed sectors. Mr. Osborn pointed out that the objective of the consultation was to review past efforts in seed policy development, with the view of obtaining new ideas that will be useful in addressing changing agricultural situations of the world. Finally, he explained that views/ideas obtained from these consultations and those to be held in regions of Africa and Central Asia will be distilled and used to enrich FAO's efforts. In his speech, Dr. Pier Giacomo, who represented the national seed service, INRAN-ENSE, expressed the view that the consultation was timely to solve various problems associated with inappropriate seed policies.

### 3 OBJECTIVES OF THE WORKSHOP

The broad objective of the workshop is to improve member countries' national seed policies so it could impact positively on the agricultural development efforts. Specifically, the objective of the expert consultation workshop was to bring together a broad range of seed sector experts and stakeholders in order to discuss issues, elements and procedures of seed policy formulation and implementation. The output of the workshop will be to improve guidance to countries for the formulation/revision and implementation of their seed policies, thereby facilitating the development of the seed sector.

The four-point focus for analysis and discussions at the consultation was as listed below.

- **Seed policy issues.** *What are the major issues that are to be considered in the design of a seed policy and which strategic choices need to be made by countries?*
- **Seed policy contents.** *What are the elements that need to be included in the seed policy?*
- **Seed policy formulation.** *What is the process that should be followed to formulate a seed policy?*
- **Seed policy implementation.** *What steps need to be taken in order to ensure that seed policy documents are effectively implemented?*

To fulfil the above tasks, the consultations took the forms of four (4) plenary sessions and working group meetings as detailed in the agenda (Appendix 2). The participants introduced themselves, provided some information about their backgrounds and indicated what they expect to get from the consultation and the meeting started.

## **4 EXPECTED OUTCOME OF CONSULTATION**

The conclusions and recommendations of the consultation are to be used to improve the draft policy formulation manual being prepared by FAO as a tool to guide governments and other stakeholders on seed policy. The output will:

- Enrich policy guidelines with options on critical seed sector development issues with advantages and disadvantages of the various options
- Provide critical input that will be the basis of a regional seed policy workshops
- Lead to improved technical assistance of FAO and partner organization in seed policy formulation
- Contribute to the development of a vibrant seed sector in developing countries that will allow farmers' to have better access to quality seed adapted to their needs.

## **5 SESSION 1: Introductory Presentations and Discussion**

Two presentations were made in session 1 on a) Challenges of Promoting Sustainable Seed Systems for Resource Poor Farmers in Central America (Allan Hruska, FAO Central America) and b) FAO Seed Enterprise Case Studies (Philippe Le Coënt, FAO).

### **5.1 Presentation of Allan Hruska (FAO)**

The presentation highlighted the fact that the present seed systems of Central America are predominantly based on free seed distribution, which was considered expedient for political reasons. In the light of emerging shift in the development strategy of agriculture in the region, the presenter tried to identify ways to ensure a transition from emergency seed-distribution approach to a development-oriented programme. He gave a bird's eye view of the focus of the Spanish-funded project dealing with the development of small-scale seed enterprises and the development of seed markets.

In the ensuing discussions of the papers, the meeting was further informed on the points summarized below:

- El Salvador has started looking at the option of developing a more sustainable system of seed supply instead of the old practice of spending USD 110 Million annually on free seed distribution. It was observed that even the illiterate farmer value seed but their perception can be better improved through public-private sector partnership in seed campaign and promotion. Niche markets in Venezuela and El Salvador for beans produced in Nicaragua has reportedly boosted the seed market.
- In Latin America, production of labelled-non-certified high quality, seed was offered as an option for reducing administrative procedures associated with seed certification

and a means of coping with the problem of low budgetary allocation to the ministry of agriculture.

- On detailed information to confirm the profitability of seed business in the region, the meeting was told that information was still being collected and collated on the relative seed prices of hybrid vs. non-hybrid crops.

The participants discussed the destructive role that free seed giveaways have on attempts to promote sustainable seed security. Too often emergency programmes are carried out too long, don't access locally-produced seed, or don't carry out careful seed security analyses before giving away seeds. Likewise, many countries engage in or permit seed giveaway programmes during non-emergency situations. From national governments to small NGOs, seeds are often given away for political support or to "boost production". Unfortunately all of the free seed corrodes the local seed markets, deflating seed prices and eliminating effective demand for seed. In many countries small farmers come to see seed as a free commodity and don't expect to pay for it. Free seed makes it impossible for local seed enterprises to flourish and essentially condemn the local seed markets.

## **5.2 Presentation by Philippe Le Coënt and Wilson Hugo (FAO)**

A case study was presented on lessons learned from small-scale seed enterprises in 9 African countries, Brazil and India. In all these cases, small seed companies, often family-owned seed businesses, served as precursors for the development of the private seed sector.

The most important points highlighted in the case study were:

- How small and medium seed companies studied managed to stay in business in harsh economic environment. The reason for this sustainability required detailed studies.
- The enhancement of sustainability of companies by product recognition through seed quality, and/or regular provision of new adapted varieties.
- Intrinsic factors of customer trust in the companies' products as a key factor for survival and repeated yearly sales of small companies, more than seed certification.
- Operational differences of small and medium-size seed companies to stay in business.
- Good skills in seed production and sales are common to both small and medium size companies.

## **6 SESSION 2 and 3: SEED POLICY ELEMENTS AND ISSUES**

### **6.1 Working groups and plenary Discussions of the Elements and Issues of Seed policy**

The second and third sessions were devoted to the discussions on policy elements, issues and options to address the issues. FAO presented a list of elements to be considered in seed policy (see appendix 3) and results obtained from FAO survey on main issues related to seed policy (see appendix 4). During this session, participants were encouraged

to add more to the issues to those already pooled from FAO survey respondents. Three working Groups<sup>1</sup> were then constituted (Appendix 5) and each working group was provided with a facilitator and a rapporteur. The working groups were requested to examine the elements and issues related to seed policy. In addition, the groups were requested to transform the issues identified into problems statements and come up with a range of strategies for solving such problems or guidance for addressing the issues.

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<sup>1</sup> **Working Group 1:** Seed production, Marketing, Seed Enterprise development and Value Chain ; **Working Group 2:** Variety development, Agricultural extension, and Seed Security; **Working Group 3:** Regulatory Framework, and Capacity building

The working group reports were presented and discussed in plenary sessions. The multi-dimensional issues and problems covered technical, political, legal, financial and organizational dimensions. The results of the working groups sessions are presented along the elements of the seed policy.

## **1. Variety Development (Public and Private Sector)**

### **Problem statement and issues:**

- Insufficient availability of superior, elite, well adapted, end-user preferred varieties
  - Failure to utilize PGRFA sufficiently to develop varieties
  - The pace and strategy for varietal development, testing, release, and breeder seed production are not in tune with the prevailing demands of agriculture resulting in low adoption rates among other constraints
  - Inadequate levels of investment resulting in sub-optimal infrastructure and capacity in agricultural Research and Development
- Linking PGRFA conservation and use
  - Broadening the genetic base of germplasm including use of landraces, Crop Wild Relatives (CWR), introduced genetic stocks, advanced lines and improved varieties
  - Implication of international conventions and treaties on exchange of germplasm within and across borders
  - Access of private sector breeding and seed companies to PGRFA (varieties, germplasm)
- Linkages between variety development and seed production
  - Breeding should be demand-driven --- reflecting the needs of the growers, end-users, through the seed sector perspectives
  - Prioritization in terms of crops, ecology, traits, methodologies
- How to contribute to local plant breeding programmes (methodologies, outputs) with introduction of improved varieties
  - Comparative advantage --- balance between developing local breeding capacities, objectives vs. reliance on foreign introductions (International Agriculture Research Centers (IARCs), between NARS, private/public sector introductions, etc.)
- How will private sector have access to public varieties, minor crops/major crops, strategies for ensuring the availability of seed of new varieties of orphan crops,

systems to facilitate access to a diversity of varieties (traditional/modern, national/foreign)

**Objective of seed policy:** To utilize PGRFA to the widest extent possible to develop the best crop varieties suited to the agroecologies and are responsive to the needs of the end-users and market demands

### **Strategies**

- Considering farmer participation, scale, comparative advantage, cost and time
- Fast-tracking the release of new varieties as appropriate

## **2. Seed Production**

**Problem Statement:** Seed production is central in seed policy due to the main challenge to provide quality seed of improved varieties that will increase agriculture production. The roles of the public sector, private sector, farmers, civil society and other in this component will depend on a variety of factors:

- The level of development of the agriculture sector in the country i.e. the an early stage i.e. subsistence/semi commercial the government may have a lead role where the private sector is not well developed
- The particular crops: food security crops, vegetable crops, hybrids i.e. seed of some crops are more profitable and therefore of interest to the private sector and other may be managed by the public sector.
- Capability of (the public or private sector) to carry out the production of quality seed in a cost effective way (early generation and certified seed). Attention needs to be given the real cost of public seed production and the effect on the seed market and competition with the private sector
- The access to early generation seed (of public varieties) should not be restricted by the public sector i.e. early generation seed should be available to the private sector.
- With crops where the public and private sector are involved there needs to be a coordination mechanism to determine the qualities of early generation seed that is need to produce the necessary
- Quantity need for quality seed for sale to farmers to meet the market demand. A national seed association could be part of the coordination mechanism.( i.e. they should be recognised in the seed policy)
- The role of farmer saved seed needs to be considered in determining the effective demand of seed.

### **Issues**

- Roles of Public and Private sector and the formal and informal sector in seed production



- The role of the public sector depends on how is the crop commercialized in the country, intellectual property rights and the level of development of private and public sector.
  - Policies should not prevent the private sector from doing activities usually related to public sector activities i.e. maintenance of public varieties if they can and want to do.
  - Depending on the situation of commercialization and regulations, a system of producing non certified seed may or may not be considered formal seed sector.
  - There are cases in which farmer saved seed is an important portion of the market and have to be included in the policies to recognize it and improve it.
  - Depending on the level of development in agriculture, the farmers-based seed production may need to be improved in order to improve seed and food security.
  - Farmers' seed system do not necessarily mean local varieties, they may be registered varieties.
- How to set put an efficient foundation seed production system for public varieties?
    - How to allocate foundation seed system?
    - What should be the price of foundation seed?
    - How to ensure efficient use of this valuable product?
  - How to improve the informal seed sector?
    - Where are the “dynamic” parts that are most likely to foster farmer’s access to seeds?
    - What are problems / shortcomings of the informal seed sector? i.e. quality, information
  - Which type of seed production strategy to adopt at different stages of development of the seed sector
  - Possibility for Agric Research to produce late generation seeds under specified circumstances.

### **3. Agriculture Extension (public and private)**

#### **Problem Statement**

Mandate and scope of extension services inadequate to cater to the requirements of the seed sector. Inadequacies include the following:

- Lack of adequate capacity --- training, funding, staffing
- The full spectrum of key players in extension services not adequately recognized

### **Issues**

- How to integrate quality seed into extension programmes for crop production intensification? Farmer aware of quality assurance issues and regulations.
- Profile of the pluralistic natures of extension services – MOA provides info to farmers, NGO caters to, say, women groups, private seed companies extends agronomic practices
  - Need to reflect the roles of civil society (e.g. farmer associations and cooperatives) and NGOs in formulation of policies
- Policies should factor in the need for developing the enabling environment for extension to play its critical roles in seed delivery
- Role of extension services in the sustainable use of high quality seeds and planting materials

**Objective:** To create an enabling environment and develop adequate capacities for a pluralistic extension system to play its critical roles in seed production, delivery and use in specific seed situations.

## **4. Seed Marketing**

**Problem statement:** The seed sector is more than just production of quality seed but having balance between supply and demand. Understanding the nature of the seed market is essential in seed policy. An understanding of the difference between total demand i.e. “the total quality of seed needs to plant the total area of the crop” and the effective demand, i.e. “how much seed is purchased each year”, is absolutely necessary. The effective demand can be stimulated over time. Reliable information is needed to analyze seed demand.

### **Issues**

- How to promote seed demand?
- How to maintain Seed Market sustainable?
- Effective seed demand is usually not well understood or studied.
- Would it be possible to regulate local market/ village market of seeds when there is some identified issue? Would there be benefits to regulate?

### **Guidance**

- Government has a crucial role in creating a conducive environment for seed marketing and to avoid distortions. If subsidies are used they should be “smart subsidies” and an exit strategy should be considered. For example subsidies may stimulate short term demand for seed but should be phased out over time.
- The role of seed imports and exports in the seed market should be considered for which harmonization of seed rules and regulation can help.
- The voice of the seed industry need to be heard through seed associations on issues related to seed market (seed price, subsidies, etc).
- Seed marketing should be linked with regulatory instruments in place.

## 5. Seed Enterprise Development

**Problem statement:** How should the government provide a fair competitive environment for the seed enterprises to develop?

The opportunities and regulations regarding the role of the private sector in seed should be clearly outlined. Business friendly environment and reasonable seed regulations are necessary for the establishment and operations of a seed enterprise. Promoting a competitive environment between seed enterprises to prevent monopolies in large markets is essential.

### **Issues**

- How should incentives and programmes be designed to facilitate the establishment of local seed enterprises (farmer and farmer groups to establish viable seed enterprises)?
- Which seed production business models should be promoted?
- What should be the role of the public private partnership in promoting seed enterprises
- What should be the elements of a business enabling environment
- What is the importance of economies of scale to produce cost effective and therefore a competitive price (to compete with farmer saved seed) to offer value for money i.e. quality and genetics

### **Guidance**

- Incentives and programmes should be established to support the established local seed enterprises

## 6. Value Chain

### **Issues**

- Agricultural value chain approaches for the development of the seed sector are necessary. How to take into account the agro-processors as a potential engine of seed demand?
- What should be the strategic interventions in value chain?

### **Guidance**

- Seed should be considered the tangible linkage from research and development into agro industrial innovation systems.
- Policies should foster linkages with commerce, trade and industry, etc other ministries of the government.
- Farmers should have access to markets for their products including contract farming. Variety choice should be made according to the needs of the markets, including agro-processors.

- It is important to consider a holistic approach “input-production-marketing-processing” in order to strengthen farmers’ revenues and therefore facilitate investment in inputs including seed (and therefore increase food production)

## **7. Seed Security**

### **Problem Statement**

- Inadequate (insufficient, lack of) preparedness for dealing with risks.
- Lack of recognition of the value and opportunities for resilience in germplasm, crops and seed sources and strategic seed reserves. Security underpinned by genetic diversity of varieties (harnessing germplasm materials --- linkage with varietal development), diversity of crops and diversity of sources of seeds
- Poor arrangements for forecasting particularly in slow onset disaster (crisis), relief management and transitions.
- No long term mitigation plans for response to climate change.
- Seed policy is currently not taking enough into account disaster risk management and climate change.

### **Issues**

- How to secure seed supply even in situation of crisis? Climate change and Food price crisis.
- What mechanisms for coping with slow onset crisis, e.g. evolving climate change and variations
- Potential conflicts between seed security projects and seed sector development.

### **Guidance**

- The missions of seed security interventions should be clearly defined
  - Responding to the expected food crisis by 2050, for instance
  - Humanitarian interventions that target poor farmers
- Clear guidance are needed for coping strategies for responding to crisis and emergencies ---- disaster risk management framework--- preparedness, response and transition to development
  - best possible approaches e.g. strategic seed reserves, strategic food reserves
  - Strategic reserves of proven varieties (foundation, nuclear, breeder seeds, etc.)
  - temporary mechanisms for reviewing seed standards
  - Early warning systems to be better prepared for disaster situations
  - Mechanisms for empowering farmers to cope with emergencies through sourcing seeds of acceptable standards
  - Guidelines for sourcing emergency seeds locally (including agroecological delineations) vs. externally

- Different scenario and processes need to be developed for transitional arrangements between emergency and development.

## **8. Capacity strengthening**

### **Problem statement:**

Specific capacities are needed to implement seed policies. Problem of capacities related to seed regulations are acute in many countries. Capacity building relates to broader policies. There is also a lack of adequate institutions to implement seed policies. Regulation implementation requires adequate institution capacities.

### **Issues**

- Capacity building: how to distinguish it from the overall policy on extension and research of a country. Should we have specific treatment of this aspect related to seeds?
- How to ensure that people trained are adequately used for the purpose they have been trained?

### **Guidance**

A statement on capacity building should be part of a seed policy but as a simple statement: capacity building activities should be implemented to support the objectives of the seed policy. Recipients of capacity building and implementers should be mentioned in the policy. The seed policy document should specifically state the less obvious capacity building areas that need to be covered, for example on seed regulatory issues.

### **Options**

For small countries, addressing capacity building might need to be done in collaboration with other countries or international organizations.

### **Drafting proposition:**

Capacity building in terms of formal education and training is essential for implementing seed policy. Government will support the development of curricula on seed technology in the agronomy and agri-business education and seek opportunities for specialized training in-country or abroad. Capacity building programmes should be implemented to address broad based public and private seed sector.

Seed system development requires certain types of infrastructure. Government should commit the adequate resources to develop and run these infrastructures.

## **9. Regulatory framework**

### **Broad recommendation:**

Regulatory framework should serve the objective of seed policy. They should be compatible with available resources. Different sub-sectors may require different levels of regulation.

Appropriate regulatory frameworks should be adopted and enforced. They should create a level playing field for all seed stakeholders and should facilitate the development of the seed sector. Regulations should consider the use of incentive-based mechanisms instead of command and control mechanisms.

Broad representation of stakeholders (public, private, farmers...) in the design and governance of seed regulatory frameworks is necessary

## **9.1 Seed quality assurance**

### **Problem statement**

The objective is to make sure that farmers have good quality seed. Seed certification requires significant resources and capacities. Mandatory seed certification is not always the most effective solution. Implementation of seed certification may be difficult especially in situations of lack of governance. On the other hand, mechanisms are necessary to protect farmers from buying bad quality seed. Specific systems are needed for traditional varieties

### **Options:**

Truth of labelling system with or without minimum standards

Mandatory certification

FAO-QDS System

Promotion of voluntary initiative, such as code of conducts, to complement formal regulatory instrument.

Implementation modality options: Fully public, Accreditation/authorization system for the private sector to implement control under supervision of public authorities.

In a country, several options could be used depending on the crop

## **9.2 Variety release**

### **Problem statement**

Farmers often do not have access to the best varieties suited to their production system and agroecological zones. Variety release procedures are sometimes long, not properly implemented. Release criteria are not always transparent. Farmers may need independent information on the varieties offered on the market. Varieties that can have a potential negative impact on national agricultural production should not access the markets. Variety release systems might prevent the use of traditional varieties.

### **Options**

Preventative systems: avoiding having “undesirable” varieties released.

Promotional systems: releasing only the best performing varieties

DUS only

No release

In a country, several options could be used depending on the crop

Variety testing option:

- Full Public
- Based on breeder data
- Combined system

**Policy statement:** A competent, transparent and efficient system should be put in place in order to ensure that farmers have access varieties suited to their production system and agroecological zones. Special provision may be needed to allow the use/commercialization of landraces/farmers' varieties. Traditional varieties would need to be described in order to have a reference

## **9.2 IPR and farmers' rights**

### **Problem statement**

Inappropriate IPR/farmers' rights may constraint the development of the seed industry. Countries should take measures to protect and promote farmers' rights. Coherence of farmer's rights, seed regulations and IPR regulations is difficult to achieve.

### **Guidance**

IPRs and farmers' rights should be balanced. Farmers' rights would need to be clearly defined

### **Policy statement**

IPRs should promote innovation and balance the interest of the breeder/inventor and the agricultural community. Farmer's rights have to be protected and promoted. Provisions on farmer's rights should be coherent with the ones on IPRs and seed regulations.

## **6.2 Presentation by Niels Louwaars (University of Wageningen)**

During this session, Niels Louwaars gave a presentation on the topic “Seed Policy – dealing with multiple challenges” The presenter provided a broad overview of evolving seed policy and legislation in relation to the various stages of seed programme/industry development and the changing global situation. The proposed approach, named the “integrated sector development approach”, is based on the need to ensure that facilitative policy interventions and regulatory frameworks are adapted to the various types of formal (public and private) and informal (farmer-saved and community-based system) seed systems that co exist simultaneously in a country.

There were discussions on the following listed points.

- The grey areas amongst the boundaries of stages of seed industry development will need to be clearly defined in regulations and policies in order to appropriately deal with the various components of seed systems.
- Certification system can benefit the community based seed production through its supervisory and educational roles as well as the use of recognition system whereby seeds from reputable producers were not required to carry certification tags.
- Sales of seed under these situations will be enhanced by following a system where seed for sale should be labelled but not necessarily regulated and certified.
- A system of support to emerging private seed sector should be balanced with the support to farmers saved seed.
- Regulations of the different PBR could be achieved by looking at their common intentions.
- Definitions of seed by law should not be associated with the use of botanical definition may create problems of law enforcement.

## **7 Session 4 and 5: Seed Policy Formulation and implementation**

The session started with two presentations titled “ Experiences in Seed Policy Formulation and Implementation in Afghanistan” ( Sam Kugbei, FAO) and “ Do and Don’t of Seed Policy Formulation and Implementation” (Claudio Bragantini, EMBRAPA, Brazil) in Appendices 3.5 and 3.6. The presentations were to stimulate thoughts on seed policy formulation process and highlight some possible procedural problems and opportunities. At the beginning of the seed policy implementation session there were three presentations. The first presentation was by Sushil Pandey on Seed policy in India. The second presentation was by Alfred Dixon of regarding seed policy implementation in Sierra Leone. The third presentation was by Michael Turner regarding a seed policy formulation in Cambodia.



Summaries of the presentations and discussions are presented below.

### **7.1 Presentation by Sam Kugbei (FAO)**

The presenter provided chronology of the development of the seed supply system in Afghanistan from cross-boundary emergency seed relief operation carried out from neighbouring country to a fully-fledged seed industry capable of meeting substantial part of its seed demand. The presentation also pin-pointed the role of appropriate approach to seed policy formulation and regulatory framework application in the emergence of the private seed sector - family-and-community oriented seed business - development. Factors that facilitated adoption of seed policy were highlighted.

In the ensuing discussion of the papers, the under listed information was generated.

- The seed policy was widely circulated, discussed publicly and signed by Minister, and since seed law was nonexistent, the document of seed policy became the only law or document available to guide and regulate seed industry development.
- Awareness and ownership of the seed policy was greatly enhanced by the translation into local language and wide distribution of the seed policy document.
- There was no need to attach action plan at the time it was formulated because the seed program was already on stream under FAO project.
- Use of key people as on board's man was crucial to get government to quickly adopt the seed policy.
- The seed policy was signed by Minister, thousands of copies were printed and distributed everywhere, in both languages, English and Dhari (local language) and since seed law was not in existence, the seed policy document became the only law or document available.
- A critical factor for implementation of the seed policy is to get on board very influential stakeholder, who understands the importance of seed policy to champion the cause e.g. it was special advisor to the Minister of Agriculture in case of Afghanistan.

### **7.2 Presentation by Claudio Bragantini (EMBRAPA)**

The presenter presented lessons learned from previous seed policy activities made by the consultant and proposed recommendations on how to deal with the main elements of seed policy, including - capacity building, investment, legislation, policy approaches, policy implementation procedures, crops types and genetic diversity, market niche, value chain, Government commitment.

### **7.3 Presentation by Sushil Pandey (National Bureau of Plant Genetic Resources)**

The presenter provided detailed information on the evolution of India's seed policy and how the amended version of the earlier policy facilitated the close collaboration of both public and private seed sectors to enhance access of farmers to a wide range of crop varieties suited to their various agro-ecological zones. Attention was drawn to the way India addressed the issues of farmers' rights with the context of Plant Variety Protection (PVP).

In the discussions that followed, the presenter pointed out that:

- Crop seed certification in India is voluntary and is paid for by the state.
- Farmers are involved in the certified seed production system, as part of capacity building system, through which they learn how to produce good quality seed.
- In his opinion, the consultation is not to teach how to write policy but to understand scenarios and big issues in seed policy.

### **7.4 Presentation by Alfred Dixon (Sierra Leone Agriculture Research Institute)**

Mr. Dixon presented the process of formulation of the seed policy in Sierra Leone. He summarized the main elements of the policy document and highlighted the main challenges relating to the implementation in particular when a change of government after the seed policy was formulated resulted in a need to review the seed policy by the new government and the resources for the implementation of seed policy.

### **7.5 Presentation by Michael Turner**

Mr. Turner presented a *real-time case study* on “**The Cambodia Seed Policy Mission**” he recently carried out for FAO. The presenter provided information on circumstances of the mission, which included the need to put seeds back in the spotlight without a clear idea on how the final policy would look. He expressed the need to promote the function and format of seed policies to member Governments.

In conclusion, the presenter agreed that a seed policy should be clear and concise, realistic in its objectives, cover all crops, based on a consultation process and be in harmony with other policies and laws.

### **7.6 Working group and plenary discussions of the Seed Policy Formulation process**

During this session, working groups were asked to formulate recommendations on the process of formulation of seed policies. Working groups presented their reports at the plenary sessions on the outcome of their discussions on seed policy formulation.

## **Working group 1**

### **Guiding Principles**

The seed policy formulation process should be done before the seed law. Seed policies can be changed over time. Policy makers should be sensitized on the need to understand “what is seed policy and do we need it?”

#### **Actions:**

- Convene a meeting on seed in the country
- Make a review of the agriculture policy
- Provide case studies on seed policy in the region
- Make a review of the seed law and related regulation
- Take into account International agreements, regional harmonization etc
- Assess the seed sector and identify clear policy objectives and a long term vision.
- Key technical information needed to inform the process
- Key stakeholder involved and convinced if they need it with their commitment
  - Private sector
  - Public sector (NARS...)
  - Farmers but who to invite, farmer organization, the poorest, the wealthy, broad representation, women farmer, separate meeting with different farmer groups,
  - Clarify roles and responsibilities of stakeholders

#### **Options to undertake a process**

- Committee: with members consult/gather information and reconvene to determine the need for a seed policy formulation process
- Possibility to work at the regional level

## **Working group 2**

- Policy is not a law but can influence laws. It is not mandatory but can influence decision makers
- Must be participatory in order to ensure buy-in inter-sectorial collaborations in both the formulation and implementation
- Should be simple with a minimum of technical language
- Entry point (bearing in mind the diversity of situations across countries)
- The need for a policy could arise as an integral part of a development/emergency project
- Could be auto-generated internally by the country, say, by researchers, policy makers as part of an overall agricultural policy
- Seed policy is the elaboration of aspects of agricultural policy in order to emphasize aspects dealing with the delivery of seeds and planting materials
- Whatever option, in order to have a fair chance for success, the ownership must reside with the country – say, the relevant Ministry.

- A preface signed by the Minister, for instance, strengthens the “legitimacy” of the document.
- Reliance on benchmark data within the country (national agricultural development plan, statistics, etc.) necessary but absence of data need not prevent the development of a policy
- May necessitate baseline studies if such data do not exist
- Extract the objectives of the national seed policy from available sources (reports, plans, personnel)
- Use a consultative stakeholder forum (MOA, public and private seed sectors, plant health and protection, researchers, extension services, farmers, civil society, NGOs, representations of different sectors – field, root, cash, crops, inter-ministerial, etc.), validate objectives and articulate a set of recommendations (options, issues, etc.).
- Should be facilitated by technical assistance
- Taskforce as drafting committee (8 to 15 members --- multi-disciplinary team representing a sub-set of the stakeholders) distils the recommendations into a set of policy items; facilitated by technical assistance.
- Validation process of the draft policy --- copies distributed to all stakeholders and given about 2 months to provide comments and hence agree with the draft. Opportunity to revise the draft by the taskforce
- Production of the first draft which is submitted to the Minister.
- Approval process depending on the particular situations of the country – may require parliamentary approval, for instance
- Becomes an official document.

### **Working group 3**

#### **STEPS:**

1. Awareness (government and donor)
  - Create knowledge of stakeholders on seed policy through a seminar
  - Linking with influential key policy makers to ensure buy in
2. Understanding (assessment)
  - Analyze the situation for all elements listed
  - Identify key stakeholders
  - Identify pre-existing policies, strategies on agriculture. Seed policy has to be linked with higher policies
  - Make a participatory review of the seed sector and approval of this review by key stakeholders. The review should review the strengths and opportunities of the seed sector. Assessment should be field based. Assessment should REALLY be the basis of the policy document and be opened.
3. Preference (strategic choice based on assessment)
  - The policy discussion should start by a definition of the goals.
4. Action (policy formulation)

- Policy documents should not be copied from other countries.

## **7.7 Working group and plenary discussions of the Seed Policy Implementation process**

During this session, working groups were asked to formulate recommendations on the implementation of seed policies. Working groups presented their reports at the plenary sessions on the outcome of their discussions on seed policy implementation.

### **Working group 1**

The working group members mentioned the graveyard of policies and plans that have been adopted but not implemented, and the importance to avoid this situation in the future. They noted that sub/Regional approaches can work if there is a “champion country” to drive the process *i.e.* the East African Community and the role of Kenya. They emphasized the importance of developing action plans to concretely implement seed policies. They finally highlighted the risk of changing of governments that can make seed policy document obsolete, mentioned as “New king, new policy”.

### **Guiding Principles**

- Approval process by all stakeholders and government
- Commitment of stakeholders
- Communications/Public Awareness with farmers and government, private sector, donors that demonstrate the benefits and changes of the policy with clear concise messages.
- Road map/Strategy with clear roles and responsibilities should be developed that is then used in the development of an action plan with the stakeholders
- Government agency that will be responsible for implementation of the seed policy should be identified *i.e.* need to have a champion(s) in the government, private sector, seed association perhaps the national seed board/committee,
- Strong institutional home is necessary so that if there is a change of government there would not be a new policy
- The cross sectorial nature of seed policy may make it difficult to have implementation between several ministries *i.e.* a lead agency with sub agencies
- The road map/strategy can be a vision *i.e.* long term but the action plan should be realistic and with a short term time frame
- The action plan should be realistic, not a “shopping list”, fixed term with objectives and outputs
- It is crucial to obtain financial commitment, incentives first from the government and then from donors as necessary
- Sustainability and long term commitment of the government is fundamental
- Depending of the situation could lead to a review of seed law or other regulation or de regulations

- Review of the seed policy might be needed in the context of regional harmonization/regulations.

## **Working group 2**

### **Guiding Principles**

- Policy is meant to inspire action and should serve as the guiding principles for all present and future seed sector-related actions.
  - A policy can benefit from the establishment of action plan / road map that details targets, timeframes, etc. This translates the set of policies into actionable items.
- Review of existing laws and enactment of laws and regulations stemming from the policy.
- Put in place incentives as part of enabling environment
- Institutional arrangements reflecting the assignment of responsibilities as defined in the policy
- Development and strengthening of infrastructure, and capacity strengthening for the seed sector, e.g. for variety development, seed certification.
- Create awareness for the existence of the policy in appropriate media so that it is used as reference material and serves as a compendium for all seed-related activities
  - Wide distribution of copies of the policy --- in relevant languages.
- The coordinating body, e.g. National Seed Board – usually chaired by Minister or his/her representative --, monitors implementation
- Periodic review of the policy to reflect changing trends in order to maintain validity and relevance.

## **Working group 3**

### **Guiding Principles**

- Seed policies should be completed with an implementation plan with targets and milestones. The implementation plan should contain mechanisms for review, resources, commitment and institutions. It should be reviewed and monitored by the same stakeholders involved in the formulation. The implementation plan should specify from which source resources will come (government, donors).
- Awareness of the policy and implementation plan should be assured especially for target groups usually less represented (farmers...).
- May require review/formulation of seed regulations.

## **8 WORKSHOP RECOMMENDATION**

Considering the overall outcome of the meeting and findings of the workshop as earlier summarized, the Consultation Workshop recommended that further actions should be taken by FAO to finalize Guidelines for the formulation and implementation of seed policies taking into account the recommendations of the Workshop. The participants were requested to consider contributing short paper the seed policy publication.

## **9 CLOSING CEREMONY**

At the closing of the consultation, Mr. Osborn, on behalf of the Director-General of FAO, thanked the authorities of INRAN-ENSE for efficiently hosting the meeting and also the workshop participants for their dedication and invaluable input to make the meeting a success. The draft report of the consultation will be compiled and circulated to all participants for comments and corrections.

## Appendix 1 Participant List

	Name	Title/Institution	Address	E-mail contact
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9	Claudio Bragantini	Technology Transfer & Agribusiness Specialist, EMBRAPA	Embrapa Satellite Monitorino EMBRAPA Av. Soldado Passarinho, 303 Fazenda Chapadão CEP 13070-115 Campinas, SP, Brasil	claudio@cnpm.embrapa.br
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## **Appendix 2: Agenda**

### **FAO Expert Consultation on Seed Policy Formulation**

INRAN, Milan, Italy

28-30 March 2011

#### **Programme**

#### **Monday 28 March 2011**

##### **Opening**

08.30	Meeting in Lobby of Holiday Inn Hotel and Departure for INRAN Registration of Participants INRAN meeting room - Via Ugo Bassi 2
08.45 - 09.00	
09.00 - 09.15	Opening Remarks Welcome by INRAN Opening Remarks by FAO (Tom Osborn)
09.15 - 09.30	Introduction of participants
09.30 - 10.00	Background, Objectives and Discussion of the consultation (Tom Osborn, FAO)

##### **Session 1: Introductory Presentations and Discussion**

*Chairman: Mr. Pier Giacomo Bianchi, INRAN/ENSE*

10.00 - 10.30	Challenges of Promoting Sustainable Seed Systems for Resource Poor Farmers in Central America (Allan Hruska, FAO Central America)
10.30 - 11.00	Coffee Break
11.00 - 11.30	Presentation on FAO Seed Enterprise Case Studies (Philippe Le Coënt, FAO)

##### **Session 2: Seed Policy Issues**

*Chairman: Tom Osborn, FAO*

11.30 - 12.00	Seed Policy Issues Survey from Participants(Philippe Le Coënt, FAO)
12.00 - 13.00	Seed Policy Issues Discussion and Preparation for Working Groups
13.00 - 14.00	Lunch
14.00 - 16.00	Working Groups Discussion
16.00 - 16.30	Coffee Break
16.30 - 18.00	Plenary Presentations of Working Groups and Discussion
19.30-21.30	Light Dinner on a tram seeing Milan by night

## **Tuesday 29 March 2011**

### **Session 3: Elements of Seed Policy**

**Chairman: Claudio Bragantini, Embrapa**

08.30 - 8.45	Introduction to the Session and Working Groups
08.45 - 09.00	Integrated Seed Systems at the Policy Level(Niels Louwaars, Wageningen University)
09.00 - 10.30	Working Groups Discussion
10.30 - 11.00	Coffee Break
11.00 - 11.30	Working Groups (continued)
11.30 - 13.00	Plenary Presentations of Working Groups and Discussion
13.00 - 14.00	Lunch

### **Session 4: Seed Policy Formulation**

**Chairman: Alfred Dixon, SLARI Sierra Leone**

14.00 - 14.15	Introduction to the Session and Working Groups
14.15 - 14.45	Experiences in Seed Policy Formulation and Implementation in Afghanistan( Sam Kugbei, FAO) Do and Don't of Seed Policy Formulation and Implementation (Claudio Bragantini, EMBRAPA, Brazil)
14.45 - 16.30	Working Groups Discussion
16.30 - 17.00	Coffee Break
17.00 - 18.00	Plenary Presentations of Working Groups and Discussion
18.30 - 19.30	Meeting with Italian Seed Association
19.30	Buffet Dinner at Okoabassicafe

## **Wednesday 30 March 2011**

### **Session 5: Seed Policy Implementation**

**Chairman: Sam Kugbei, FAO**

08.30- 08.45	Introduction to the Session and Working Groups
08.45- 09.15	Seed Policy implementation in India (Sushil Pandey, India) Challenges of Seed policy implementation(Alfred Dixon, Sierra Leone)
09.15- 10.30	Working Groups Discussion
10.30- 11.00	Coffee Break
11.00-11.30	Working Groups Discussion (continued)
10.30- 13.00	Plenary Session and Discussion
13.00- 13.15	Closing
13.15	Lunch at Holiday Inn

### **Appendix 3**

### **Elements of Seed Policy**

Below are the main elements and sub-elements of seed policy. Please note the elements are cross cutting.

# **1 Variety Development (Public and Private Sector)**

- 1.1 Plant Breeding (Pre breeding, Participatory Plant Breeding)**
- 1.2 Multi-location Trials (VCU/DUS)**
- 1.3 Conservation of Plant Genetic Resources**
- 1.4 Identification of Priority Crops (Food Security, Cash Crops etc)**

# **2 Seed Production (Public and Private)**

- 2.1 Early generation seed production**
- 2.2 Certified seed production (Large, medium and small enterprises)**
- 2.3 Farmer Based seed production**

# **3 Agriculture Extension (Public and Private)**

- 3.1 Variety Awareness and demand creation**
- 3.2 Sustainable Crop Production Intensification**
- 3.3 Linkage to seed consumer Markets**
- 3.4 Facilitate Research-Extension-Farmer Linkage**

# **4 Seed Marketing**

- 4.1 Seed demand dynamics**
  - 4.1.1 Seed subsidies (reduced prices, seed loans, free seeds)**
  - 4.1.2 Crop producer price (link to agricultural policy)**
- 4.2 Input dealer/seed distribution networks**
- 4.3 Local market (types and roles)**

## **5 Seed Enterprise Development**

- 5.1 Business Environment/regulations**
- 5.2 Investment Incentives (capacity building, facilitated credits, tax/duty-free exemptions etc...)**
- 5.3 Private sector development**

## **6 Value Chain**

- 6.1 Agro industries (to drive seed demand)**
  - 6.1.1 Local/National/International**
- 6.2 Crop producer – food industry collaboration**

## **7 Seed Security**

- 7.1 Seed Buffer Stocks (feasible options)**
- 7.2 Use of seed in emergencies (guidelines)**
- 7.3 Disaster Risk Management (information system of landraces and varieties)**

## **8 Capacity Building**

- 8.1 Training**
- 8.2 Institution/Infrastructure Development**
- 8.3 International Assistance and Linkages**

## **9 Seed Regulatory Framework**

- 9.1 Seed Law and regulations**
  - 9.1.1 Governance (institutional arrangements)**
  - 9.1.2 Variety Release and Registration**
  - 9.1.3 Seed certification**
- 9.2 IPR/PVP (UPOV, patents)**



- 9.3 **Phytosanitary regulations (IPPC)**
- 9.4 **Bio-safety Protocol**
- 9.5 **Harmonization (regional/international level)**
- 9.6 **Business Regulations**
- 9.7 **Farmers Rights**
- 9.8 **International Standards (ISTA, OECD)**

## **Appendix 4**

### **Results of the e-consultation on major seed policy issues**

#### **Summary**

##### **Improving farmer's access to a diversity of varieties**

- Get varieties to farmers (7) : public/private partnership, how to set up an efficient foundation seed production system for public varieties, minor crops/major crops, strategies for ensuring the availability of seed of new varieties of orphan crops, systems to favour access to a diversity of varieties (traditional/modern, national/foreign)
- Linking PGRFA conservation and use (3): evaluating germplasm for specific traits (biotic and abiotic, climate change)

##### **Roles of formal and informal, public and private sector**

- Public Private partnership (7): some crops should be handled by the private sector, others by the public sector, facilitate the participation of the private sector in national decision making.
- Formal/ informal sector(6): promoting the informal sector, some crops would be based handled by the informal sector other by the formal sector promoting farmer-based private seed sector (semi- formal)

##### **Developing a sustainable seed production system**

- Seed production business models (4) : profitability of community seed production?, develop demand driven initiatives
- Agricultural value chain approaches for the development of the seed sector (3): take into account the agro-processors as a potential engine of seed demand
- Seed demand promotion (3): seed quality awareness among farmers, integration of seed supply and seed demand oriented interventions

##### **Seed rules and regulations**

- Facilitating seed trade (4) : rules for the development of seed sector, fair competition, regional harmonization, promoting new entrants
- IPR and Farmers' rights: (3). IPR is necessary to promote the investment by the private sector in plant breeding, interaction between IPRs and Farmers' rights.
- Efficient seed certification adapted to the needs (3): are high level of seed certification standards useful in countries where varietal purity is not required by industrials and consumers?, QDS

**Capacity building**

- Technology (2): biotechnology...
- Education (1): How education issues should be managed in seed policy
- Institutional capacity building (1)

**Seed security**

- Seed security (2): how to secure seed supply even in situation of crisis? Climate change and Food price crisis. Potential conflicts between seed security projects and seed sector development (1)

## Appendix 5

### WORKING GROUPS

<b>Working Group 1:</b> Facilitator: Tom Osborn Rapporteur: Wilson Hugo <b>Topics:</b> <ul style="list-style-type: none"> <li>• Seed production</li> <li>• Marketing</li> <li>• Seed Enterprise development</li> <li>• Value Chain</li> </ul>	<b>Working group 2</b> <b>Facilitator:</b> Josiah Wobil <b>Rapporteur:</b> Chike Mba <b>Topics:</b> <ul style="list-style-type: none"> <li>• Variety development</li> <li>• Agricultural extension</li> <li>• Seed Security</li> </ul>	<b>Working group 3</b> Facilitator: Michael Larinde Rapporteur: Philippe LeCoent <b>Topics:</b> <ul style="list-style-type: none"> <li>• Regulatory Framework</li> <li>• Capacity building</li> </ul>
<b>Group Members</b>	<b>Group Members</b>	<b>Group Members</b>
Jean-Louis Duval	Alfred Dixon	Robb Tripp
Claudio Bragantini	Tom Remington	Niels Louwaars
Mary Ann Sayoc	Zewdie Bishaw	Michael Turner
Allan Hruska	Sushil Pandey	Saifullah Syed
Sam Kugbei	Kouame Miezán	Mario Marino
Leslie Lipper	Hafiz Muminjanov	Evans Sikinyi
David Neven	Pier Giacomo	Lalaina Ravelomanantsoa