This presentation

• Features of seed and seed production

• Features of farmers’ seed systems

• Features of seed laws

• Regional harmonization

• Emerging issues
Background

- Report in the framework of Sowing Diversity = Harvesting Security (SDHS) programme carried out in eight countries (India, Laos, Mali, Myanmar, Peru, Senegal, Vietnam and Zimbabwe)
- Impact of seed laws on the functioning of small-scale farming systems relatively less studied than impact of intellectual property rights laws
- Series of other policies, for instance on land rights, road and water supply infrastructure, family and gender, and health care, will also have critical role in affecting the functioning of small-scale production systems, not discussed here

Features of seed

- Seed is carrier of genetic information
  - often associated with traditional or scientific knowledge
- Therefore, seed is subject of policies focusing on
  - private rights (intellectual property; marketing)
  - community rights (traditional knowledge)
  - national sovereign rights (biological diversity)
- Multiple policy aims (food security, sustainable production, benefit-sharing)
- As a carrier of genetic information, seed can form a vehicle of technology transfer
  - It may help to increase output and reduce risk, respond to cultural preferences, depending on socio-economic conditions of the users
- Seed may transform farming systems
History of recent seed policy

- Over last three decades, government strategies for seed sector development in developing countries have evolved
  - until the 1980s, national governments played a major role in seed sector development.
  - since then, national agricultural research systems and other government agencies have largely disengaged from seed production
  - in some countries and for certain crops, this has led to the development of a dynamic private seed sector (e.g. maize and vegetables)
  - in many other countries and for many crops the public seed sector has collapsed whereas no private seed sector has emerged to replace it
  - hence, strong reliance on farmers' seed systems

Features of farmers' seed systems: farmers’ seed management

- Seed systems in many developing countries are predominantly farmers’ seed systems
  - these encompass accessing, selecting, crossing, testing, multiplication and storage of seeds and vegetative propagation materials by local farmers, without formalized oversight or quality control
  - Farmers select new varieties and traits in response to various environmental conditions and cultural considerations, and pass these on through their social and economic networks
  - Climate change is affecting agricultural production, yet
    - analysis of impacts on in situ conservation of crop genetic diversity and farmers who conserve it have been absent
    - largely unclear how farmers varieties (as much as modern varieties) will be able to respond to alterations in climate
Features of farmers' seed systems: social context

• Seed exchange between households depends on the social ties between them
  • social networks that underpin this exchange are under pressure due to various factors such as commercialization, labour migration, livelihood diversification or prolonged conflict

• Trend to more extensive market use may also result from chronic poverty
  • more farmers need to procure larger portions of seed off-farm and at a more regular basis, demands that cannot be easily filled by neighbours in the community

• Reliance on market for (farmers' and formal) seed provision particularly important for poorer farmers
  • studies that assess both seed supplied from relief aid and seed obtained from markets suggest that markets are even more important to farmers in times of stress

Features of farmers' seed systems: farmer specialists

• Small number of farmers may be identified as ‘key seed suppliers’ by their neighbours

• Seed villages, seed clubs, or seed regions/centres within local production systems also form evidence of specialized functions in seed markets
  • strong example: 40+ seed clubs in the Mekong Delta of Vietnam

• Alternatively, farmers may consciously prefer to obtain seed from trustworthy merchants

• Farmers assess not only the quality of the seed but also the ‘quality’ of the provider
  • it is not always possible to ‘see’ seed quality
Features of farmers' seed systems: interface with formal sector

- Seed from formal sources may offer new important traits relating to yield and resistances or higher quality than is regularly available in farmers' markets
  - continuous influx of formal varieties into farmers' seed systems
- Formal sector seed is often not readily available to small-scale farmers
  - usually farmers do not have information about where seed can be purchased, nor do they know of which cultivars, quality or price
  - may have to travel to a nearby town for an agrochemical outlet
- Some interventions attempt to take away such market access limitations
  - e.g. farmer field schools and those under the (controversial) AGRA umbrella

Formal and farmers' sector roles

- Formal seed sector tends to offer high-quality seeds
  - exhibiting new traits (in particular higher yields and better resistances
  - against a high price and sometimes limited availability and accessibility
- Farmers' sector is locally based and omnipresent
  - often lacks the access to external diversity allowing major innovations
- Seed policy should address the respective roles of the formal (public and private) and farmers' sectors
  - need for coordination between the different seed systems
  - countries should develop integrated, complementary approaches that strengthen both the formal and farmers' seed systems and the connections between them
  - African Union model law provides for this
Features of seed laws

• Seed laws are primarily meant to protect the farmer
  • by establishing a legal obligation for the seller to guarantee the identity and quality of seed by means of inspection and testing procedures
• Seed laws regularly also protect the seed developer and producer from unfair competition
• Procedures (e.g. certification systems, seed quality standards) may
  • include accreditation and authorization procedures
  • aim to protect and promote enterprises that engage in quality seed production
  • set barriers for newcomers in the seed market (including farmer seed enterprise)

Features of seed laws

• Questionable whether in practice seed laws are effective in reaching these goals
  • depends on government infrastructure and capacity to carry out regular seed inspections
• Many countries lack the expertise and infrastructure to certify all seed lots offered in the market
• Not all producers will be able to meet the strict requirements set for commercial seed enterprise
• But: some minimum standards of genetic purity, physical purity and germination rates of any seed offered in the market may still be relevant for farmers
Regional harmonization

- Regional harmonization of seed laws has been prepared, for example in West Africa and Southern Africa
  - aimed to promote private seed sector development by creating larger harmonized markets
  - harmonization should promote the distribution of appropriate and adapted varieties between countries within a sub-region
- In the process, exemptions for small-scale sector may be lost
  - exemptions are national
  - stricter rules often only allowing varieties meeting the UPOV-based DUS standards (Distinctness, Uniformity and Stability) to be marketed
  - farmers' varieties are by definition distinct (farmers recognize them for certain traits), but often not uniform and stable to the extent that commercial varieties are

Regional harmonization: SADC

- Currently seed markets in the region - in which companies offer hybrid or OPV seeds - are segregated, diverse, and difficult to access for newcomers
  - in each country a new variety must go through lengthy variety testing and release procedures before seed may be marketed
- Harmonization of seed policies and regulations has been a longstanding interest of SADC and COMESA
  - efforts are designed to enable faster movement of varieties and seed
  - SADC has developed a protocol for harmonization of the seed policies in the region
- Pillars of SADC’s harmonization are
  - aligning the variety release system, and the seed certification and quality assurance systems
  - developing common quarantine and phytosanitary measures among the member states
Bottom-line

• Balance between formal and farmers’ seed systems varies
  • differences between and within countries and regions, between crops and farming systems
• Few countries have explicit exemptions in their private sector-oriented seed laws for farmers’ seed systems, which may render marketing of local varieties, landrace seeds and farm-saved seeds of improved varieties technically illegal
• Challenge for policymakers is to create policies and laws that support each of the seed systems where they are most effective

Bottom-line

• Seed laws commonly provide the procedures and standards for:
  • variety release systems which aim to register only varieties of proven value to be made available to farmers through the formal seed system
  • seed certification which aims to monitor and guarantee varietal identity and purity throughout the seed chain
  • seed quality control which checks on other seed characteristics such as viability and seed health, protecting bona fide seed producers from unfair competition
Issues in seed laws (1)

- **Farmers’ ability to acquire the seeds of their choice, through trade, barter, or exchange**
  - seed law may hinder farmers in acquiring seeds to the extent that only registered and/or certified seeds may be offered in the market, and only by registered sellers
  - in particular, barter and exchange of seeds of varieties protected by plant breeder’s rights is prohibited
- **Farmers’ ability to save, reuse and exchange farm-saved seeds**
  - saving of seeds of varieties protected by plant breeder’s rights and re-using these seeds on the same farm is effectively fully exempted from obligations for small-scale farmers; to which extent exchange (vis-à-vis organized marketing) in the community is also exempted, is unclear and controversial
  - selling from small farmer to small farmer appears to be either allowed or ignored

Issues in seed laws (2)

- **Farmers’ ability to breed and/or select (new) farmers’ varieties**
  - breeding and selection of farmers’ varieties is not regulated, as is also apparent from a wide array of community support activities undertaken by project partners
  - formal registration and public marketing of resulting farmers’ varieties might appear very difficult or even impossible if requirements to be met would be identical to those posed for the formal sector
  - farmers seed producers report less concern on seed certification
- **Farmers’ access to breeding material, e.g. from public (national or international) gene banks and research institutes, or from private sources**
  - farmers’ access to breeding materials other than marketed varieties is often limited, but this is not the result of seed policies and laws
  - partners have shown that cooperation with the public sector in providing breeding materials to farmers can be very effective and essential
Issues in seed laws (3)

- *Farmers’ ability to register (new) farmers’ varieties, including cost of registration*
  - it appears difficult to register farmers’ varieties given legal requirements regarding DUS/VCU testing (*multi-locational trials*), as well as seed seller registration (*facilities and formal training*)
- *Farmers’ ability to sell (new) farmers’ varieties locally and to commercialize more widely*
  - since registration of farmers’ varieties is a prerequisite for wider commercialization, such marketing is difficult to arrange
- *Farmers’ ability to establish farmer seed enterprises*
  - seed laws demand registration of seed producers and sellers and set further requirements

Summary of issues in seed laws

- Requirements that hinder the full development of the small-scale sector
  - 1. Registration of farmers as seed producers
  - 2. Registration of farmers’ varieties
  - 3. Limitations to market seed of protected varieties
  - NOT: certification of seed lots
Conclusions

• Small-scale sector is essential for seed security and food security
• Developing countries may be able to make better use of the capacities of its small-scale farmers
• Current seed policies and legislation regularly disregard the role of farmers’ seed systems
• Seed policies and legislation may better facilitate and promote optimal role for small-scale food production sector
• Participatory review process of existing policy and legislation could be next step