



**SAARC SEED
BANK**
Potentials and
Challenges

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Outline

- Introduction
- Why Regional Seed Banks?
- SAARC Seed Bank (SSB): Modalities
- Major Concerns
- Way Forward

Introduction



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SAARC: People and Economy

- The total population of SAARC Region is 1.7 billion which is **23% of the world**.
- The population is likely to exceed **2.2 billion by 2050**.
- Tremendous progress in last 4 decades
 - Food consumption increased from 1900 kcal to 2500 kcal
 - Average GDP growth >6%
 - Decreased food imports

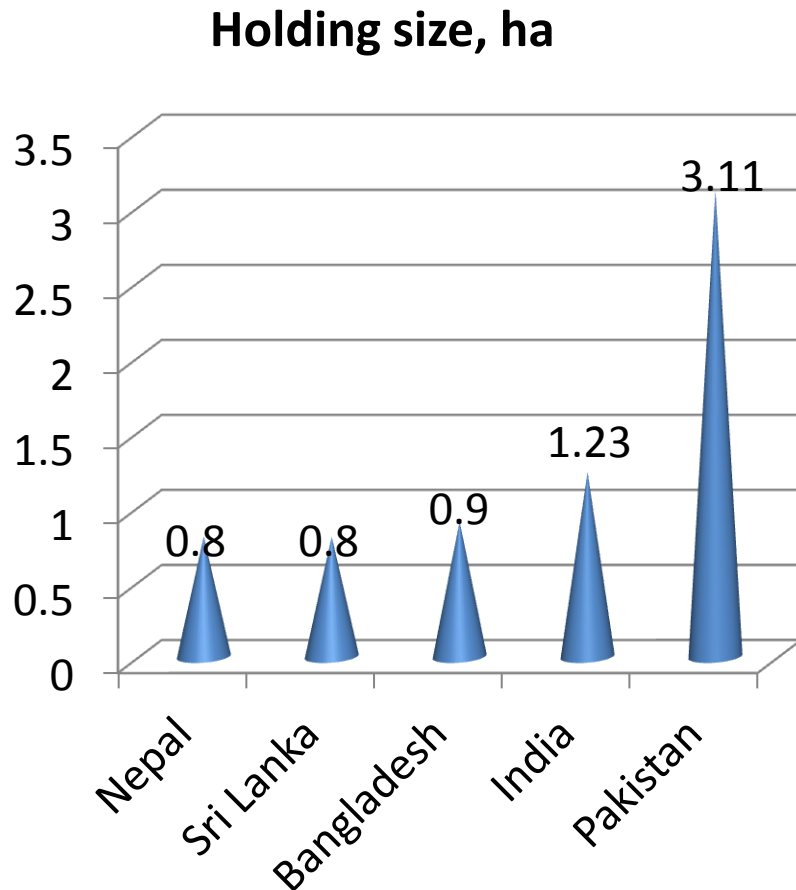


SAARC: Poverty & Agriculture

- Yet, it is the home of 40% poor and 35% of undernourished people of the world.
- 68% of SAARC people live in the rural areas.
- Agriculture important for livelihood security of > 50% population
- More than 65% of farmers are smallholders who hold less than 2.5 acre (1 ha) of land



Smallholder Agriculture

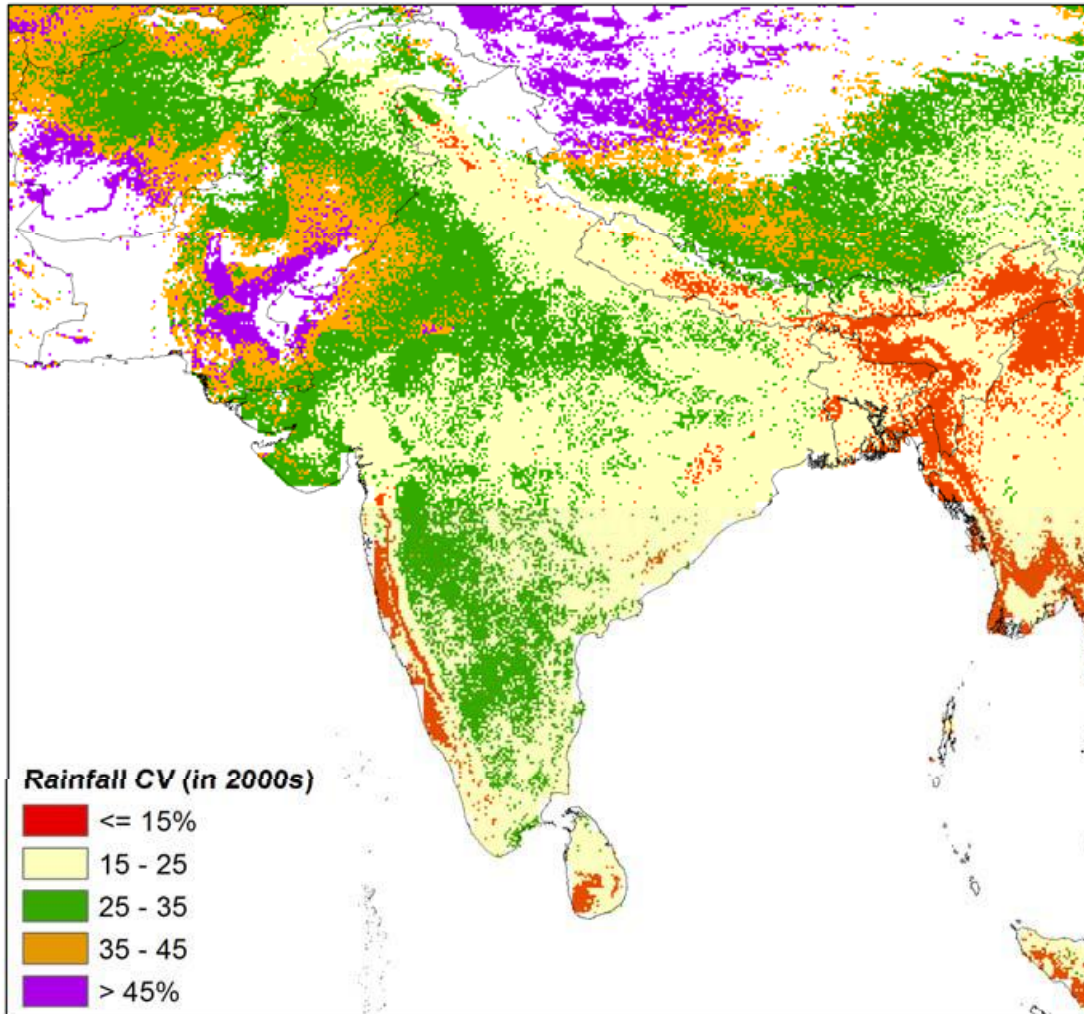


- Small size of holdings
- Majority are marginal, having lands < 1 ha
 - Bangladesh 87%
 - India 80%
 - Nepal 90%
 - Pakistan 36%
 - Sri Lanka 71%

Climate change and agriculture

- South Asia is projected to be very vulnerable to climatic risks (major hotspot)
 - Increased risk of floods, droughts and heat events
 - Increased production variability
 - Likely to reduce agricultural production by 10-50% by 2050 and beyond, if we do not start adapting now

Vulnerabilities in South Asia



- Drought: 70% land
- Floods: 12% land
- Cyclones: 8% land
- Frost: Northern regions
- Heat: Frequent at many places
- Coastal salinity ingress

Regional Seed Banks, why?



Seed for Food

- To protect around 500 million people from serious malnutrition, the region will have to increase food production at a rate of 60%, by 2050 (SARFC, 2015).
- Food production is depended on availability of **Quality Seeds**, along with other inputs.
- To increase food production:
 - In-situ and ex-situ conservation of varieties
 - On farm research for high yielding varieties and
 - Available supply of seeds to farmers is important in this region

Community Level Seed Banks

- Since thousands of years, farmers of this region have been

- producing,
- developing,
- preserving,
- sharing,
- exchanging and
- Selling



seeds at individual and community level.

- Farmers collect 60-80 percent seed by saving, exchange buy or selling at local level

Seed Management: Problems

- Farmers
 - don't have right to exchange beyond the border of countries
 - don't have capacity to conduct research at large scale
 - not capable for preserving all indigenous varieties



Future food security and Self sufficiency depends on
Further increase in

Yield potential

with varieties and associated technologies having

Higher input use efficiencies

and

Resistance / Tolerance

to

biotic and abiotic stresses



Those have it - will win

Those who don't have it ????



Considering the vulnerabilities and
opportunities,
Ensuring long term climate adaptation and food
security is difficult without
**a progressive, proactive, farmer-friendly and
transparent Seed Bank**
for the Region.



SAARC Seed Bank: Modality



SAARC Seed Bank (SSB)

- In their declaration of the 16th SAARC Summit in April 2010, South Asian governments agreed to promote cooperation for a regional seed bank in South Asia.
- At the 17th SAARC Summit held in November 2011, they signed on to: **The SAARC Seed Bank Agreement** and **The Framework for Material Transfer Agreement**

Objectives

- Provide Regional Support to **National Seed Security** Efforts; address regional seed shortages through collective actions; and foster inter-country partnerships.
- Increase **Seed Replacement Rate (SRR)** with appropriate varieties at a faster rate as far as possible so that the **use of Quality Seed** for Crop Production can be ensured.
- Act as a **Regional Seed Security Reserve** for member states of SAARC.

Ratification

- Heads of eight member countries signed Seed Bank Agreement.
- Only five countries ratified the SAARC Seed Bank:
 - Bangladesh (NOV 2011)
 - Bhutan (JUL 2013)
 - India (2011) Delegated National Seed Corporation Limited for SSB on 12 January 2012
 - Nepal (NOV 2014) and
 - Sri Lanka (NOV 2011)
- Ratification from all member countries are mandatory to establish the SSB.

Major provisions

- Seed replacement rate (SRR)
- List of common varieties
- Maintaining seed quality
- Seed reserve and the quality of the reserve
- Withdrawal, release and replenishment
- Determination of price
- Institutional arrangements

SSB: Major Concerns



Concept of the SSB

- Lack of clarity on the concept of seed bank
 - Without conservation/maintenance of seeds, it is just a seed business
 - SAARC Seed Bank or SAARC Seed Trading?
 - Is it just a seed reserve or a dynamic seed system?
 - Only a system for improved (modern) varieties or also to promote conservation and use of local varieties?

Seed Security

- Seed security not defined and inadequately addressed
 - Seed security is primarily assured through self-production and additionally through purchase of seeds
 - Over emphasis on short-term seed security through external supply/ trading mechanisms
 - No consideration for long-term seed security through strengthening local and national seed systems and establishment of seed information system

Local Seed and Seed Systems

- Over emphasis on SRR
 - Focus on modern varieties while undermining of local seeds and seed systems
 - One sided promotion of seed trading/ private sector
 - Ill-defined role for farmers and farming communities
 - Information sharing mechanisms?

List of Common Varieties

- Basis of preparing a common list of varieties
 - How this will address diverse seed needs of farmers?
 - Why to limit the varieties rice, wheat, pulses and oil seeds? Why not vegetables?
 - Danger of narrowing down genetic base (negative genetic diversity)
 - Even undermines provision of ITPGRFA
- Role of hybrid and transgenic varieties which may decrease seed security

Quality and Pricing

- Harmonized quality standards and testing procedures
 - Only focus on modern varieties
 - Any special measures for the consideration of local varieties of seeds?
 - What terms and conditions of quality standards will be included within the Seed Bank system for the farmers' varieties?
- How country specific situations would be considered in addressing the fair pricing?

Transparency & Ownership

- There is a serious lack of transparency in the Seed Bank mechanism.
 - Information of only Indian national designated authority is open for all.
 - Only powerful vested interest groups will be benefited by such lack of transparency
- Lack of ownership
 - How/through what mechanisms local/ indigenous varieties would be conserved?
 - How to protect them from corporate companies?

Institutional Arrangement

- Limited representation of farmers in Seed Bank Board, and no representation of Community Seed Organizations
- Only SAARC Seed Forum (SSF) and corporate seed companies already moved to form SSF has access in the Board,.
- There is no mechanism to select a real farmer. So, there is a doubt of political and corporate dominations.

Demand and Supply Dynamics

- Mechanism to collect real demand?
- Supply side is not clear – who will produce seed? Role of farmers and pricing mechanism
- Supply could be expensive in the lack of decentralized seed production
- Strict quality control and certification is likely to exclude local/ farmers' varieties
- What actions would be taken if seed allocated for SSB remains without use?

Rights of Local Farmers

- Lack of provisions to protect the rights of indigenous and local farmers on the genetic resources
 - The SSB recognizes the Trade Related Intellectual Property Rights (TRIPs) but
 - Ignore the United Nations Convention on Biological Diversity (CBD) and United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)

Way Forward

- There is a strong need for review and amendment of the Agreement by all the member countries.
- The concept should focus on the whole seed systems: conservation/maintenance; production; distribution; research and information sharing.
- Pressure should be created on non ratified countries to ratify SSB as soon as possible to activate the Seed Bank for the farmers.
- All the countries should be encouraged to identify their nodal points.

Thank you



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