



## AFA Research Report

# Researches on the Situation of Seeds in Selected SAARC Countries



Asian Farmers' Association for Sustainable Rural Development



National Land Rights Forum Nepal



Kendrio Krishok Moitree

In partnership with:



World Rural Forum

March 2015

## Table of Contents

<b>Preface .....</b>	<b>3</b>
<b>The Seed Situation in Nepal .....</b>	<b>5</b>
By: Sunar Kunwar, <i>Senior Journalist, Kantipur Media House</i>	
<b>Awareness Campaign on Government’s Seed Policy and Practices for Landless, Smallholder and Woman Farmers.....</b>	<b>13</b>
By: National Land Rights Forum Nepal	
<b>Seed Situation in Bangladesh and Protecting Farmers’ Rights to Seeds .....</b>	<b>17</b>
By: Shahidul Islam, <i>Executive Director, Unnayan Dhara</i>	
<b>The Seed Business of Kendrio Krishok Moitree .....</b>	<b>23</b>
Adopted from an unpublished study conducted by KHANI (Food Security Network) Bangladesh, with the support of International Food Sovereignty Network (IFSN)	
<b>SAARC’s Policies and Programs on Food Security and Nutrition, Food and Seed Banks .....</b>	<b>33</b>
By: Rudra Bhattarai, Meena Pokhrel, Trijan Singh, and Deepakar Rupakheti, <i>Nepal Agriculture Cooperative Federation Limited</i>	

## Preface

Seeds, along with lands and forests, are the most vital natural resource for farmers. Very few plants can grow without seeds. Without seeds, there would be no vegetation and no food production, as seeds of edible plants are collected and sown for food, or the seed itself is food.

Such is the importance of seeds for a farmer, so that farmers' rights to use, save, exchange and breed seeds as well as to have access to affordable and quality seeds is one of the six priority policy agenda that we wanted to push further during the 2014 International Year of Family Farming, along with land rights, agro-ecology, sustainable agro-enterprises, gender equality, youth for agriculture and involvement in governance processes of women and men farmers.

This publication is a compilation of articles on the seed situation in South Asia as a whole, and Nepal and Bangladesh in particular. The articles here were edited from the research reports done under a project "Promoting Improved Policies in Favor of Family Farming in Developing Countries, in the Context of the International Year of Family Farming". The project paved the way for us to know more about the policies on seed of the governments of Nepal and Bangladesh (South Asian countries where we have members) as well as the regional intergovernment body in South Asia, the South Asia Association for Regional Cooperation (SAARC).

We thank the leaders and members of National Land Rights-Forum-Nepal (NLRF), Nepal Agriculture Cooperative Federation, Limited (NACFL) and Kendrio Krishok Moitree, national farmers' organizations (FOs) in Nepal and Bangladesh, respectively, for supervising the researches in their countries; for NGO partners Community Self-Reliance Center and Unnayan Dhara for accompanying the FOs in their research; and for Sunar Kunwar, Shahidul Islam, KHANI Bangladesh, International Food Sovereignty Network, Rudra Bhattarai, Meena Pokhrel, Trijan Singh, Deepakar Rupakheti for writing the articles.

Lastly, we thank the World Rural Forum (WRF) for giving us the opportunity to work on the seeds issue in Nepal, Bangladesh and South Asia as a whole; for the

International Fund for Agriculture Development who is the development partner of WRF; and for Agriterro, for covering staff support.

We hope that by reading this, one can gain familiarity on the seed situation in the South Asia region and the focused countries, as well as get some insights into the initiatives of farmers organizations in pushing for farmers' rights at local and regional levels.

**Ma. Estrella Penunia**

*Secretary General*

*Asian Farmers Association for Sustainable Rural Development*

## **The Seed Situation in Nepal**

By: Sunar Kunwar, *Senior Journalist, Kantipur Media House*

### **Background**

Nepal is rich in the natural and geographical diversity. The agro-climatic diversity of Nepal (ranging from tropical low lands in the south to high mountains in the north, to Himalayan elevation) has an advantage of producing different kinds of vegetable seeds. This advantage can be utilized to produce large amount of vegetable seeds for meeting internal demand . There lies a great prospective of exporting vegetable seeds of good quality in Bangladesh, India, Pakistan, Sri Lanka and other countries. Nepal, once self-sufficient in food, has become a net importer in recent years (RESakks Asia. November 2014).

According to the national agriculture census 2011, there are 26.5 million people in Nepal of which 83% live in the rural areas. Out of the total farming population, 83% are totally dependent upon agriculture for their livelihoods. On the average, size of land ownership per family is 0.68 hectare. Agriculture contributes 65.7% to employment and 35.7% to national economy.

### **Formal Seed Production in Nepal**

Seed plays vital role in agriculture production and therefore our food, for all generations. Productivity can improve by 20-30% just by changing quality of seed.

In Nepal, formal seed production is undertaken by government farms and stations, contract seed production by the National Seed Com-pany (NSC), NGOs, private seed companies, and the District Self Sufficiency Seed Programme (DISSPRO). However, these organizations jointly contribute less than 10 percent of Nepal's seed supply with the rest coming from farmers' preserved seed or informal cross-border trade (RESakk Asia. Nov 2014).

Out of 5 categories of sources of seed (Nucleus seed, Breeder seed, Foundation seed, Certified seed (Certified I and certified II) and Improved seeds) , only improved seeds are accessible to farmers. Currently, breeder and foundation seed production is mainly

done by NARC, for provision to the National Seed Company and 16 registered private seed companies. It is estimated that over half of the demand for improved seeds are met locally, and rest are met mainly by import from India, Japan, Korea, Thailand and other countries. The demand for improved seeds is increasing every year due to increase in the areas planted to fresh vegetables.

Though Nepal is a member of seed testing associations like ISTA (International Seed Testing Association), APSA (The Asia & Pacific Seed Association), and WTO (World Trade Organization), still there is no facility of a DUS (Distinctness, uniformity, and Stability) Test Center. The mechanism of field inspection and quality test by Regional seed quality testing laboratory is still not viable and well functional.

### National Seed Vision 2013- 2025

The National Seed Vision 2013- 2025 (Seed Sector Development Strategy) , developed by the Seed Quality Control Centre under the National Seed Board of Ministry of Agricultural Development, aims to increase crop productivity, raise incomes and generate employment through self sufficiency, import substitution and export promotion of quality seeds. The government aims to decrease the dependency on international market of seeds , and increase local food production.

However, the successful implementation of this vision is a big challenge. It requires an effective process where farmers receive high quality seeds and improved packages of agriculture services like irrigation, extension service, finance and markets in a coordinated manner.

### Guided Seed Act, Regulations and Policy

Existing Seed Act (1988), Seed Regulations (2013) and Seed Policy (1999) are relatively liberal towards the seed sector development in Nepal.

<b>Year</b>	<b>Requirement (MT)</b>	<b>Domestic supply (MT)</b>	<b>Gap (MT)</b>
2005/2006	1633	830	803
2006/2007	1700	870	830
2007/2008	1750	930	820
Source: (MoAC, 2008)			

However, some issues and constraints need to be addressed in the future with regards to implementation of existing and proposed seed regulations. Seed policy (1999) and Seed Act (1988) and its Amendment (2008) provided impetus for the growth of private sector in seed production. Consequently, the role of private sector in seed multiplication and distribution is increasing. Policies to promote the private seed sector should lavish attention to consumer education so that farmers are able to protect their interests and can express their demands.

### **Sources of Seed**

The sources of seed of Nepali farmers can be broadly divided into three categories:

a. Traditional source: refers to the practice of farmers where they save and re-use seeds for next planting, or exchange seeds among themselves. However, as the commercial vegetable farming evolved over the years in the country this practice has become limited.

b. Formal source: this includes seeds supplied through government farms and agencies, seed companies and suppliers, and retail shops. This includes both domestically produced seeds and imported ones. With the establishment of government farms and Agricultural Inputs Corporation in 1960s, the formal sector for seeds got established in Nepal and has been displacing the traditional source of vegetable seeds. The formal source of imports of vegetables seed are seen to account for around 25-30% of the total demand in the country.

c. Informal source: includes direct seed trading among farmers and seed producers, direct purchase from Indian border towns and other scheduled “haat bazaars” (local market). There are many observations about the existence of many varieties of Indian brands of vegetable seeds in the country which are not imported through formal channels, rather distributed directly by agents or hawkers.

### **Local Self-Governance Act (LSGA) 1998**

The Local Self-Governance Act 1998 authorises the local bodies such as Village Development Committees (VDC), District Development Committees (DDC) and

municipalities to formulate and implement policies, programs and activities related, among others to agriculture and rural development. There is a budget allocated for VDCs for agriculture development. However, this is not fully utilized for the benefit of smallholder and poor farmers.

**Timeline of seed sector development:**

- 1960 High yielding variety of wheat ‘Lerma52’ released
- 1962 Establishment of seed testing laboratory under Agronomy Division, Khumaltar
- 1964 Designated membership of Central Seed Laboratory with International Seed Testing Association (ISTA)
- 1966 Seed testing laboratory moved to Agriculture Botany Division to work closely with breeders as the division deals with the major crop commodity units identified
- 1966 Rice variety CH-45 released
- 1974 Agriculture Input Corporation (AIC) established under Corporation Act
- 1965 1975 Contract vegetable seed production at farmers level
- 1977 Contract cereal seed production at farmers’ level
- 1980 Seed Production and Input Storage Project (SPISP) funded by USAID
- 1981 Vegetable Seed Production Project (FAO) financed by the government of Switzerland
- 1982 Seed Technology and Improvement Programme (STIP) initiated
- 1983 First National Seed Seminar conducted
- 1984 Central Seed Science and Technology Division established
- 1985 Import of hybrid seed in vegetables and maize started by private sector
- 1988 Seed Act enacted
- 1990 Second Seed Seminar organized
- 1991 Establishment of Seed Entrepreneurs’ Association of Nepal (SEAN)
- 1993 Koshi Hills Seed and Vegetable Project (KOSEVEG), funded DFID
- 1997 Seed regulations enacted
- 1998 Seed Sector Support Project (SSSP) funded by DFID
- 1999 National Seed Policy approved
- 2000 Establishment of SEAN Seed Service Centre Limited (SSSC)
- 2001 Third seed seminar organized

- 2001 Seed Quality Control Centre established
- 2002 National Seed Company Limited established
- 2004 Vegetable seed Project initiated with SDC funding
- 2008 Fourth seed seminar organized. First amendment of Seed Act, 1988
- 2010 Seed Science & Technology Division revived as central disciplinary division of seed in NARC
- 2011 Accreditation of CSTL by International Seed Testing Association (ISTA)
- 2013 Promulgation of Seed Regulation – 2013

Source: Report on ‘national seed vision ‘ by Ministry of Agriculture Development, April, 2013

**Some typical /local variety and its status (existing or disappeared)**

<i>Cereals</i>			
Rice	maize	wheat	Millet
purano darmali**	korche i**	mamsino jire i**	Musuro dalle**
Bhangeri**	Dhede i**	jira gede**	Dalle kartike**
rato marsi**	bhirkote i*		
mansara**	murali i**		
sigre marsi**	pahela i**		
Sinali*			
Kalo kathe**			
basmati**			
Bhunte krishna vok**			
thade krishna vog**			
malabaha**			
himali / Aanga**			
aapajhutte**			

<i>Vegetables and Legumes</i>			
Pumpkin	Broadleaf mustard	cowpea	
Jante*	Nangkla pate*	Kartike**	
madale*		gajale*	
		hade*	

Legend:

\*existence

\*\*disappeared

**Comparison of local/traditional and hybrid/improved (relative advantages and disadvantages)**

District: Sindhupalchowk

No of farmer for interaction/discussion: 138

Study date: February 2015

Parameters	Local/ indigenous variety	Improved/ hybrid	reference
taste	good as compared to improved	not good as compare to local	
resistance to disease	highly resistant	less resistant	
resistance to insect/ pest	high	less	
labor/input	low	high	
filling /energy giving	high	low	
germination capacity	high	less	
production/ productivity	less	high	
vegetative part	high	less	for fodder
flour/kg	high	less	maize
weight/unit	high	low	
certainty of production	high	less	
stable/availability	locally available	imported	
cost of seed to buy	cheap	expensive	
adaptability to adverse climate	high	less	

### **Some Key Concerns**

1. There is a provision to measure the quality of the seeds in the national and international level but the Seeds Testing Association (STA) has not been able to initiate this process. Although there is a Seed Testing Association, there is a need for capable, knowledgeable, and skillful staff. Due to lack of skillful staff, there are problems related to seed policy and guidelines, seed storage, and seed production. The STA, being a member of the ISTA (International Seed Testing Association), APSA (The Asia & Pacific Seed Association) and WTO (World Trade Organization), need to establish a DUS (Distinctness, uniformity, and Stability) Testing Center.

2. Available imported seeds are of poor quality. For example, seeds imported from India have no markings of quality, the plant quarantine offices cannot effectively control seed quality especially in the border areas, and the people who are involved in quality control have poor knowledge of seed distribution processes in the country. Farmers are not aware of the quality of the seeds. There is an increasing trend of demanding compensation on the use of unmarked seeds which caused crop failures. There is lack of co-ordination among the governmental, semi-governmental, private and non-governmental bodies on the issue of investigation, production, and quality testing of the seeds.

3. The quality of seeds further deteriorate because of inadequate infrastructure such as seed storage, seed packaging materials, threshing equipments, special irrigation facilities and good transportation, among others.

### **Some Key Recommendations**

1. There is a great need to improve the quality of seeds, irrigation and use of appropriate fertilizers at the local level to increase productivity and develop resilience to varying weather/climate conditions. Special attention should be given to the storage, refining and distribution of properly-labeled seeds to the producers.

2. In the seed production programs, Natural Resources Diversity Protection Programs should also be included. Likewise, it is necessary to inform about the local seeds and its protection. Seed producers should produce based on the demand of farmers.

3. There should be increased level of availability of quality seeds at affordable rates.

### **Conclusion**

The government of Nepal has the objective of decreasing the dependency on international market of seeds and of increasing the production of food in the local level. To succeed in this objective and to have a sustainable development in the agricultural sector, food security, and development of agricultural community; there needs to be co-ordination among the government bodies, political parties, international organizations, academic sector, researchers, non-governmental agencies, private seed companies, private seed businesses, co-operatives, seed producers and farmers organizations and groups. The co-ordination among these agencies can assure the protection of natural resources, poverty alleviation, and food security along with the possibility of Nepal being a developed nation rather than a developing country.

### **Sources**

Ram Pratap Sah.. The Role of Seeds in Transforming Agriculture in Nepal. Policy Note 15. RESAKKS Asia November 2014..

## **Awareness Campaign on Government's Seed Policy and Practices for Landless, Smallholder and Woman Farmers**

By: National Land Rights Forum Nepal

### **Background**

As one of its members, the National Land Rights Forum–Nepal (NLRF) has been working together with the Asian Farmers Association for Sustainable Rural Development (AFA) on land and agrarian rights issues. In 2014, as part of AFA's campaign for favorable national and regional policies for small scale family farmers during the International Year of Family Farming, NLRF actively involved itself in an AFA project to initiate engagement with the South Asia Association for Regional Cooperation (SAARC), the regional intergovernmental body of South Asian countries, for the latter's Seed Bank Agreement. NLRF developed a paper on the Seed Situation in Nepal. Knowing much better about the seed policy and programs in Nepal, NLRF and AFA agreed to conduct a local campaign on the Nepali government's seed program, to ensure that landless members benefit from it.

### **Brief Description of the Initiative**

In the course of three months (January-March 2015), NLRF conducted multi-stakeholder dialogues with the goal: to increase awareness and concerns among landless, smallholders and women farmers on the Nepali government's seed policy and distribution mechanism.

There were four objectives of the initiative: (1) Review government's seed distribution mechanism in relation with landless, smallholders and women farmers; (2) Raise awareness about government's seed distribution policy among landless, smallholders and women farmers in 20 communities of Rasuwa districts; (3) Review the community seed protection system and document existing knowledge; and (4) Lobby with government for better policy on seeds.

### **Main Activities Undertaken**

1. NLRF organized a One - day multi-stakeholder interaction program at Rasuwa district. There were 32 participants, representing the District Development Committee

(DDC), District Agriculture Development Office (DADO), District Livestock Services Office (DLSO), and other concerned organizations, networks and 20 farmer representatives who were members of the District Land Rights Forum (DLRF).

During the interaction, the Senior Agriculture Development Officer explained the seed policy, distribution and mechanism in accordance with existing Seed Act 1988, Seed Policy 1999 and Seed Regulation 2013. The Officer explained how the existing policy is friendly to landless, women and men farmers, as well as some mechanisms to get support for their seeds as well as technical support to have access to lands.

Because of this interaction program, the farmer representatives realized that:

- The policies are good as such but lagging behind to address issues of poor and marginalized farmers in terms of their access to seeds, conservation of existing local traits, study on characters of local variety and recognition of indigenous knowledge of farmers.
- The decentralized agriculture extension approach could be the means for poor and smallholder farmers to have better access to seeds and extension support.
- That there is a provision (at least 15% minimum) of allocation of VDC for poor and smallholder farmer (by Interaction with Acting Local Development Officer)
- The characteristics of local seed varieties (eg taste, resistance to disease insect and pest) are better compared to hybrid and improved one; and that some good traits have already disappeared; and thus the importance of local “seed banks”
- Due to the protocol that the Chief of District authorizes the line agencies, they can have a direct interaction at the district level where they can express their issues on land rights, seed support mechanisms and a stronger voice in policy/guideline making.
- The district officers are open to ideas of the DLRF, particularly to seed/agriculture subsidy and cooperative model of farming/community based farming.

As a result of the interaction programs, the poor women farmers and smallholder were encouraged to develop and submit agriculture development plans, with the hope that these will be positively addressed by the VDC, District Development Committee DDC, DADO and DLSO, as they have committed to do so.

2. NLRF conducted Village level interaction programs with 21 farmer groups in three VDCs of Rasuwa and Sindhupalchowk districts, with a total of 438 farmer participants. Interaction was mainly focused on seed policy, seed bank, structure of national seed committee, and comparison between local and hybrid (relatively advantages and disadvantages on 18 parameters of both types). The conclusion of discussions from all these farmer groups was that the local seed varieties have more advantages in terms of taste, resistance to insect pest, and adaptability to adverse agro climate as compared to hybrid varieties.

3. NLRF published a leaflet about Seeds policy and issues in local language and distributed this leaflet to the 900 members of the 21 VLRF groups. Moreover, it prepared a document on “Seed issue in Nepal”, “Nepal ma Biu Uhile ra Ahile (Seed in Nepal- Then and Now”, and “Biu bijan sambandhi chhalfal karyakram (an interaction on Seed).

4. A sample survey on local seed varieties was conducted with the participation of 138 farmers in Sindhupalchok district.

5. Lastly, NLRF developed an alternative paper which was submitted to the Parliament’s agriculture sub committee.

## **Conclusions**

The use of good quality seeds that gives high yields plays the most important role to increase productivity of crop. To ensure the use of good quality seeds, they are required to be available on time and place at reasonable prices for smallholder and disadvantaged farmers. Nepal on the other hand is lagging behind in conserving local and traditional seed varieties with diverse genetic resources, in properly utilizing available resources to develop appropriate varieties and produce seeds, in increasing investment for seed infrastructure, in coordinating actors for smooth flow of seeds along the value chain and in making quality seeds accessible to poor, smallholders and women farmers. As a result, Nepalese market is under the domination of global seed business and seed import is continuously rising.

Thus, continuous lobby with policy makers is necessary so that seed policies and programs can be revised with the active participation of the farmers. Moreover, different

awareness and campaign program, with the support of appropriate agriculture input (technology and subsidy) is required. The awareness campaigns, as well as the lobby work, should significantly involve the women poor, smallholders farmers.



## **Seed Situation in Bangladesh and Protecting Farmers' Rights to Seeds**

By: Shahidul Islam, *Executive Director, Unnayan Dhara*

### **Introduction**

In early sixties, green-revolution-technology-based agricultural production system was introduced with a view to ensuring food self-sufficiency of the country. It is true that food production specially the production of food grains has substantially increased and the country was said to have achieved food self-sufficiency after that. But, the prescribed technologies were heavily dependent on high dose of costly chemical fertilizers, deadly poisonous pesticides, hybrid seeds, over extraction of underground water for irrigation, non-renewable energy (gas, petroleum, fossil fuel etc.) exotic breeds/ species/feeds for livestock and aquaculture development etc. which caused various problems to soil, environment, ecosystem, human health among others. Most importantly, the cost of production went beyond the investment ability of the small, marginal and landless farmers of the country who constitute about 88% of the farming community.

It is needless to mention that the present production system was introduced through seeds of High Yielding Varieties (HYV). So, seed is not only a production input but also the key tool to regulate the whole agricultural production system. It is also linked to the whole lifestyle of a community including the culture, religious belief, food habit etc. Seed is the holder and carrier of the crop diversity of a country leading to a unique agricultural system. So, the question of ownership of seed resources is a vital factor for the control over the production system of a country as well as the livelihood of the farmer community.

Bangladesh is very rich in biodiversity with thousands of species of crops, plants, animals, fishes, birds etc. The culture of the country has been developed based on this biodiversity. The ever-increasing monoculture of mainly HYV rice has been destroying the invaluable biodiversity and cultural heritage of the country. The farmers of Bangladesh were self-reliant for their seeds. They produced and preserved seeds of various crops in their houses and mainly the female were engaged in seed preservation activities. About 12,500 varieties of rice were recorded in the country developed by the peasants for thousands of years; and these were available for cultivation in Bangladesh. These naturally occurred varieties showed excellent ability to survive against region-

specific problems of crop production like flood, drought, salinity, soil problem, pest attack etc. But, due to introduction of HYV almost all of the indigenous varieties are now endangered, though few of them are preserved in the gene bank of IRRI (International Rice Research Institute) or BRRI (Bangladesh Rice Research Institute). Only very few of them are still being cultivated.

### **Current Situation on Seeds**

At present, the farmers are mostly dependent on the market for their seeds. A recent unpublished study conducted in all 30 Agro-Ecological Zones of Bangladesh reported that the farmers have already been dependent on company seeds on an average 45% of their crops; while it is 37% for rice, 28% for wheat, 89% for maize, 52% for potato, 86% for jute, 9% for pulses, 17% for oilseeds, 27% for spices and 60% for vegetables seeds (Islam 2012).

In the global context, only ten big multinational corporations control about 40% of world seed market. According to Context Network, the proprietary seed market (that is, brand-name seed that is subject to exclusive monopoly – i.e., intellectual property), now accounts for 82% of the commercial seed market worldwide. In 2007, the global proprietary seed market was valued at US\$22,000 million while the total commercial seed market was valued at \$26,700 million. The commercial seed market, of course, does not include farmer-saved seed.

The top 10 seed companies account for \$14,785 million – or two-thirds (67%) of the global proprietary seed market. The world's largest seed company, Monsanto, accounts for almost one-quarter (23%) of the global proprietary seed market. The top 3 companies (Monsanto, DuPont, Syngenta) together account for \$10,282 million, or 47% of the worldwide proprietary seed market.

International treaties like TRIPS (Trade Related Aspects of Intellectual Property Rights), UPOV (The International Union for the Protection of New Varieties of Plants) etc. are favoring the process of providing exclusive ownership of new plant varieties to commercial breeders. The multinational companies are securing patents to their seeds and are using terminator technologies with the full support from national and global policies; thereby increasing their abilities to get absolute ownership of seeds and genetic resources of the world.

At the national context, the national seed policy in Bangladesh favor the corporate seed business. The country's National Seed Policy (NSP) says "Varieties of crops, other than rice, wheat, jute potato and sugarcane, that are imported or locally developed by a private person, company or agency must be registered with the National Seed Board (NSB) giving prescribed cultivar descriptions, but will not be subject to any other restrictions; while for the public sector the NSP says "Varieties of all other crops except rice, wheat, jute potato and sugarcane developed by public research agencies will be subject to an internal review and approval by each respective agency and must be registered with NSB before being released". These two provisions indicate that release of a new variety is very much restricted for the public sector but not for the private sector. Also, there is no provision to conserve the indigenous seed resources and biodiversity, even if our government signed up with the Convention of Biological Diversity (CBD) and Agenda 21 of the United Nation Conference on Environment and Development (UNCED).

In Bangladesh, the multinational companies have been promoting hybrid seeds and recently genetically-modified (GM) seeds. Without any prior assessment of the impact of hybrid and GM seeds in the country's agriculture and despite the protests by reputed agricultural scientists, plant protection specialists, politicians, NGOs, environmentalists and intellectuals, the National Seed Approval Committee of the government of Bangladesh approved the import of hybrid seed in 1998. In addition, very recently the Bangladesh Agricultural Research Institute (BARI) has introduced Bt Brinjal (eggplant), a GM seed, to replace nine most popular indigenous varieties of the country, with an argument that the varieties will reduce the use of harmful insecticides. However, it has to be noted that Bt Brinjal has been banned in India, even if the Indian Company Mahico, affiliated with Monsanto, has been financing the research on BT Brinjal. BARI is also set to introduce golden rice, saline tolerant varieties and other GM varieties, with the support of the multi national companies.

The peasants of Bangladesh are already experiencing many problems with seeds purchased from the market: ever-increasing market price, businesspersons' manipulated seed crisis, below-quality seeds, lower germination rate among others. The problems with hybrid seeds are more severe. For example, in 2010 thousands of tomato farmers of Godagari, Rajshahi experienced huge crop loss by cultivating poor quality or adulterated

hybrid tomato seeds of the variety named 'Sabal' marketed by Syngenta, a multi national company. Around five thousand farmers became financially paralyzed as they invested huge amount of money to cultivate the variety. Then the farmers filed a case in court to demand compensation from the company. Despite the assurance of the Agriculture Minister, the farmers did not get neither any compensation nor any justice as there was no legal right/framework which farmers can use to claim compensation from the damages of poor quality seeds. Another example is, in that same year thousands of farmers experienced huge crop loss by cultivating poor quality or adulterated seeds of a hybrid rice variety named 'Jhalak' imported by a local company 'Energy Pack' from a Chinese company. Such cases of damages from poor-quality seeds are being reported by national and local print and electronic media, but no effective measures are taken by the government.

Given this global and national context, there is thus a strong and well-founded fear that the food security of the world will be controlled by only a few multinational corporations, undermining freedom and food sovereignty of a country. The ownership and control of seeds concentrated in too few hands and a food supply based on too few varieties planted widely are the worst option for food security. This can spell disaster for the farmers in poor, developing countries like Bangladesh. Company seeds, which are often sold in a package with fertilizers and pesticides, increase the cost of production and increase the risk of indebtedness when crops fail due to adverse climatic conditions. It would also decrease farmers' access to seeds (most possibly because of high costs), reduce scope of public funded plant breeding, increase the loss of genetic resources and prevent seed sharing.

### **The Initiative of Kendrio Krishok Moitree**

In the aforesaid context, the Kendrio Krishok Moitree (KKM), a national farmer organization in Bangladesh, has started its own seed enterprise with the main objective of reinforcing farmers' control over seeds and genetic resources. Over last few years KKM has managed to create a positive image in producing and marketing quality seeds. The demand is getting higher and private local traders (who are not the members of KKM) have expressed their interest to purchase seeds from KKM.

## Farmers' Calls to Government

However, in order to ensure farmers' ownership over seed and genetic resources KKM demands to the government the following actions to be taken immediately.

- Ban import and promotion of seeds varieties (such as hybrid and GM seeds) that can not be preserved by the farmers for growing in the next season. If such varieties seems to be much needed for the country, such seeds must be owned by public research institutions, and must be readily available to the farmers and must be promoted only after proper scientific assessment -to identify any impact on human & animal health, biodiversity, environment and ecosystem.
- Resist corporate control over seed resources by reviewing provisions of TRIPS, UPOV and developing a *sui generis* system for deserving Intellectual property rights in the light of Convention of Biological Diversity (CBD 1992).
- Strengthen research for increasing yield and cost effectiveness of indigenous varieties of crops.
- Strengthen *in situ* and *ex situ* conservation, improvement and promotion of indigenous varieties in collaboration with farmers and research centre.
- promote diversified cropping rather than monoculture.
- Support farmers in developing their community seed bank.
- Conduct proper documentation of biodiversity for protecting bio-piracy.
- Patronize farmers' innovation and indigenous knowledge.
- Strengthen BADC (Bangladesh Agricultural Development Corporation) so that it can meet the total demand of quality seeds.
- Build the capacities of both farmers and NGOs (Nongovernment Organization) on conservation, development and promotion of indigenous varieties.

## References

- Action Aid (2004): Trade Related Intellectual Property Rights and Threat to Food Security and Farmers Rights, Action Aid, UK.
- Barakat, A. & Maksud, A.K.M. (2002): Fate of Bangladesh Agriculture Against Globalization: Some Critical Issues, Bangladesh Journal of Political Economy, Vol XVI, No.-1, Bangladesh Economic Association, Dhaka, Bangladesh. p. 257-276.

- Islam, Shahidul (2012): Seed Situation Analysis in 30 Agro-ecological Zones of Bangladesh. An unpublished research conducted by Unnayan Dhara, Bangladesh.
- Kanniah, R. (2003): TRIPS, Farmers' Rights and Food Security-The Issue at Stake. Briefing Paper, Consumer International, London, UK.
- Mahfuzullah (2002): Intellectual Property Rights and Bangladesh, BELA & CFSD, Dhaka, Bangladesh.
- Partha, P. (2004): Seed Crisis: Farmers' Seed Rights. BARSIK, Lalmatia, Dhaka, Bangladesh.
- SAWTEE (2003): UPOV, Faulty Agreement and Coercive Practices. Policy Brief. No.5, Year 2003.
- [www.seedquest.com](http://www.seedquest.com): Informal System Dominates Seed Sector in Bangladesh.
- [www.gene.ch/genet/1999](http://www.gene.ch/genet/1999): 4-Patents: Developing Countries Preparing non-UPOV sui generis Plant Variety Protection Schemes.
- [www.gene.ch/genet/2001](http://www.gene.ch/genet/2001): 4-Patents: European Parliament Connects Bangladesh Aid Programme with Joining UPOV.
11. <http://gmwatch.org/gm-firms/10558-the-worlds-top-ten-seed-companies-who-owns-nature>.

## **The Seed Business of Kendrio Krishok Moitree**

*Adopted from an unpublished study conducted by KHANI (Food Security Network)  
Bangladesh, with the support of International Food Sovereignty Network (IFSN)*

### **Introduction**

Kendrio Krishok Moitree-KKM (Central Farmers' Alliance) is a platform of more than 21,000 farming families, 60% of which are represented by women. The goal of the alliance is to take forward the mandate of smallholder farming families and advocate for their rights, ensure food security, get recognition and dignity of women farmers, ensure sustainable livelihood and formulate pro-poor agriculture policy and thereby move towards a solvent and dignified life. The alliance has three tiers: at the grassroots are 813 village- based farmer's organizations; at the Union level are 30 Union -based farmer's alliance; and then the central alliance. All the tiers are working towards making linkages with the local, national and international networks on food rights and sustainable agriculture.

Seed quality is one of the most important and critical inputs for sustaining agricultural production in Bangladesh. Consultations with farmers revealed their following problems with regards to seeds : Lack of information on the quality of the seeds in the market; lack of information on sources of quality seed, difficulty in accessing quality seeds. Because of these problems, farmers are not getting good yields, and therefore lesser incomes. They are not also getting fresh agricultural commodities like mustard oil, lentil, aromatic rice etc. resulting in poor health conditions. Vice versa, there is good demand for quality and fresh agricultural commodities like mustard oil, wheat flour, aromatic rice etc. in the niche market.

### **Objectives of Seed Business**

The seed business of KKM is conceived as a social enterprise in the framework of the solidarity economy<sup>1</sup>, placing a social agenda before financial goals. Its objectives are many –fold: is to increase farm production, enhance farmers' decision-making capacities, stronger farmer organization, facilitate adoption of improved farming technologies, reduced food insecurity and improved livelihoods of the farm families.

---

<sup>1</sup> A **solidarity economy** is an economy based on efforts that seek to increase the quality of life of a region or community through not-for-profit endeavors. It mainly consists of activities organized to address and transform exploitation under capitalist economics and the corporation executive, large shareholder dominated economy, and can include diverse phenomena (Wikipedia)

“The main thrust of business strategy is to get quality seeds, get fair price, get access to information as well as to address the challenges of the market and fight against those exploitation of the market. Through the business, it is hoped that the farmers will be able to increase the production and earn excess income which will directly contributing to their food security.”<sup>2</sup>

### **History of the Seed Business**

The Kendrio Krishok Moitree and its seed business had their beginnings in a four-year Food Security and Livelihoods (FoSHoL) project undertaken by Action Aid Bangladesh (AA-B), and supported by the European Commission till 2010. The project aimed to increase household income and secure their livelihoods.

The capacity building of what will be the KKM was done in three stages:

#### **(a) Improved method of raising rice seedling:**

A total of 2439 farming households (1242 women-headed and 1197 male headed) from 561 farmers’ organizations developed skills and became involved in raising rice seedlings using improved bed method. Parts of these seedlings were used for their own fields and remaining parts were sold to other farmers. They used improved rice varieties, from which they attributed significant increases in rice yields. Improved rice varieties included BR-11, BR-14, BRRi dhan-23, BRRi dhan-33, BRRi dhan-41, BRRi dhan-44, Horidhan, Jamaibabu, Jotai Balam, Malsiz, Hasim, and Pasam , among others.

#### **(b) Rice cultivation using improved production practices:**

A total of 16,413 farming households (8578 women-headed and 7835 male-headed) were involved in Amon rice cultivation following integrated crop management (ICM) practices. The ICM method of rice cultivation integrated all possible integrated pest management techniques including use of balanced fertilizer and close field monitoring for appropriate and timely actions. With less or even no pesticide application, production costs decreased, soil fertility improved, and rice yields increased. Project M&E data reported about 9-15% of increase in yields, and an increase by 91% in the net profit margin, attributed to ICM and IPM practices.

---

2 “Business Plan of Agri-business for farmers”, prepared by Ekramul Hossain.

**(c) Rice seed production and preservation:**

A total of 1644 farm households (990 women-headed and 654 male-headed) from 390 farmers' organizations were involved in Boro rice seed production (following rouging practice) and preservation. Rice varieties used for seed production included BRRI dhan-28, BRRI dhan-29, BRRI dhan-47, BR-14 etc. The foundation seeds were provided by Bangladesh Rice Research Institute (BRRI) and seed certification was done by the Seed Certification Board of Bangladesh Government. The FoSHoL Project facilitated these service relationships among the farmers' organizations and the mentioned departments and agencies of the government.

The seed growers of the project were able to manage an average annual turnover of 218 tons of rice seeds, which they used in their farms, and the excess, which they sold to other farmers. Thus a spirit of seed entrepreneurship developed among the FoSHoL farming communities, enabling them to keep timely control over their seeds, to sell quality seeds at reasonable prices for the other FoSHoL farmers and to get additional income, especially for the seed growers. This seed entrepreneurship became a tie of solidarity and cooperation among FoSHoL farmers' organizations in different geographic locations of the country. It also became the training ground to acquire basic knowledge and experience to manage the seed business.

The formal start of the seed business in 2008 under the leadership of KKM was carefully planned, i.e. "not to use the normal market channel to do the business without piloting our ability".<sup>3</sup> Various fora, training and meetings were held to learn the business technique, to strengthen skills and knowledge and decision-making abilities

**The Stakeholders of the Seed Business**

Central Moitree, Union Moitree, Seed Traders and the Buyers are the wheels of the seed business. However, in the KKM seed business, all of these stakeholders are members of KKM. They are interrelated and dependent on each other; without proper functioning of one wheel as well as failure to keep the commitment, the rate of profitability will be reduced, the threat of losing future business opportunity will increase. Because of this, the roles & responsibilities among the various stakeholders were clearly spelled out.

<sup>3</sup> "Business Plan of Agri-business for farmers", prepared by Ekramul Hossain

**Central Moitree:** Procurement of seeds, Storage of seeds, Packaging, Distribution, and Transportation, Fixing retail price and commission.

**Union Moitree:** Assessing demand of seed traders, Distribution of seeds to traders, Providing information to the organizations, Monitoring the seed selling, Collecting money from seed traders, Sending money to central Moitree/KKM.

**Seed Traders:** Collecting Seeds from Moitree on time, Selling seeds to the organization members, Returning money to Union Moitree on time.

**Buyers:** Collecting seeds on time, selling seeds on time as required by the member of the organization, Returning money to Moitree on time.

### Procurement of Seeds

During the first year of operation (2008), KKM worked in close cooperation with FoSHoL coordination team and bought 70 tons of seeds with reasonable market price from a reputed seed grower. It stored these seeds in a specially rented warehouse at Goraghat upzila under Dinajpur district to eliminate the carrying cost. For the above period Tk. 192,500 (Tk.2.75 per kg) was spent for storing purpose.

Types of seeds & quantity as per stock (1st Year):

		Kg		Kg	Ton
BR-28	Foundation	14290	Certified	8000	
					22.29
BR-29	Foundation	28000	Certified	16880	44.88
BR-16	Foundation	2830			2.83
Total		45120		24880	70, 00

Later years (2009-2013) the quantity of seed procurement remained more or less similar.

### **Selling strategy**

As all the seed traders are KKM members and they do not have adequate fund to invest immediately to operate the business, therefore, they were given an opportunity to act as selling agents (with the idea that they will eventually be local dealers). As a rule of thumb Union Moitree signs a contract with Central Moitree for collecting money, supervision & distribution of seeds, monitoring the selling activities and establishing liaison between traders and buyers. A 5% commission is given to encourage all the Moitree to render their services on time.

Union moitree will then sign an official contract paper with each individual trader. As agreed in the contract, selling price must be returned promptly to the Union Moitree.

### **Seed Supply Strategy**

The Union moitree get the total requirements for seeds (quantity and variety) from their seed traders. It consolidates data from their seed traders, and sends this data to the Central Moitree. Central Moitree starts this data collection (of demand) on first week of October, because many producers start to plant on first week of November.

There is a need to adjust the demand and supply as per stock in hand. For example BR-28 is the most demanding variety in one region and BR-29 is the required variety from another region. In the first year of operations, KKM had enough stock to fulfill the demand of the traders.

Hired laborers who are also KKM members do the packaging. In the first year, 206 person- days were required, and the task was completed within 9 days.

Considering the context of cost and availability, Central Moitree manages rental of trucks from local area. For example, in first year, it rented eight tracks for transporting the seeds. The table below provides an example of the distribution status. The quantity of the seeds remains similar in the subsequent years but there are variations in the types of seeds.

**Table 1. Seed Distribution, KKM Seed Business, Year 2008.**

Sl	Particulars	Product ion (Bags)	Koy- ra	Rup- sha	Sat- khira	Tala	Noak- hali	Kuri- gram Sadar	Uli- pur	Su- nam	Total Bag
1	B-29 (10kg Pack) Foundation	2100	160		50		150	150	200	1200	1910
	B-29 (5kg Pack)	1400	80	100			100	200	100	800	1380
	B- 29 (10kg) Certified	1685									
2	B-28 (10kg Pack) Foundation	1029	200	100	300	300			100		1000
	B-28 (5kg Pack) Foundation	800	200	200	100	100		100	100		800
	B-28 (10kg Pack) Certified	800	200	150	150	150		50	100		800
3	B-16 (5 kg Pack) Foundation	566	320				240				560
	Total	8354	1060	550	600	550	490	500	600	2000	6350

### Seed Processing Facilities

In 2011 KKM established a seed-processing unit including a 10,000-sq.ft-storage building. During this year KKM produced 50 metric tons of Rice seed.<sup>4</sup> It also acquired some equipment such as Seed Dryer (Model type SOL - 140 & FAN/Blower Model type

<sup>4</sup> A Journey Towards Sustainable Food Security, Annual Report 2011.

HVL - 100), Seed Grader and Seed Germinator.

### Management of Seed Business

The seed production, processing and marketing is managed by a executive committee comprised by 9 executive committee members elected by the representatives of 30 Union Moitree. Usually, all the 30 Union Moitree representatives and 9 executive committee members sit together every three months. The staff of AA-B play facilitative role as the strategic NGO partner of KKM.<sup>5</sup>

### Cost of Production and profitability

As all traders engaged in the seed business and the buyers are from poor & marginalized farmers, they are not in a position to afford the high price for quality seeds. The price is thus fixed within a reasonable level that is lower than the similar seeds marketed by other companies. However, the price is fixed around 10 to 15 Taka (Bangladeshi currency) compared to corporate price. The following example provides an idea about the profitability of the seed business and the earnings of various stakeholders:

#### Earnings from trade (1st Year, as Example):

##### Foundation Seeds

Variety	Quantity	Cost
BR-28	14290 X 60	857,940.00
BR-29	28000 X 50	1,400,000.00
BR-16	2830 X 60	169,800.00
Certified		
BR-28	8000 X 55	440,000.00
BR-29	16880 X 45	759,600.00
<b>Total</b>		<b>Tk.3, 626,800.00</b>

##### Gross profit from sale of entire stock:

Total Sale:	3,626,800.00
Total Cost	3,310,170.00
	<b>Tk.316, 630.00</b>

<sup>5</sup> Meeting Minutes of Seeds & Agro Systems, Ghorahgat.



### **General Outcomes of Krishok Moitree Seed Intervention**

A strong nationwide seed production, processing and marketing network has been established by the participant farmers which reduced their crises for quality seeds, opened up new options for livelihoods and strengthened their struggle for control over seeds of their own. Every year they are producing 70 to 80 MTs of Rice seed.

During the last few years, KKM managed to create a positive image in producing and marketing quality seeds. The demand is getting higher and private local traders (who are not the members of KKM) expressed their willingness to purchase seeds from KKM.<sup>6</sup>

---

6 Interview with Krishok Moitree



## **SAARC's Policies and Programs on Food Security and Nutrition, Food and Seed Banks**

By: Rudra Bhattarai, Meena Pokhrel, Trijan Singh, and Deepakar Rupakheti,  
*Nepal Agriculture Cooperative Federation Limited*

### **1. Introduction**

#### **1.1 History of SAARC**

SAARC is an association, established in 1985 by the seven member states of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. Afghanistan became a member of SAARC during the fourteenth SAARC Summit held in Delhi, India in April 2007. Until 2009 China, Japan, Republic of Korea, USA, Iran, Mauritius, Australia, Myanmar and the European Union have joined SAARC as Observers. These seven countries differ greatly in land area, GDP, and population.

The analysis of theories of globalism and regionalism, leads to find out the rationale for regional cooperation in South Asia. In addition, it is desirable to look at the evolutionary process of regional cooperation in South Asia. It includes the different four phases: Conception (1977-80), The Meeting of Foreign Secretaries (1981-83), The Meeting of Foreign Ministers (1983-85), and The Summits (1985-2004). Late president of Bangladesh, Ziaur Rahman, initiated the proposal for establishing a framework for regional cooperation in South Asia, on May 2, 1980. The idea of regional cooperation in South Asia was discussed in different conferences: the Asian Relations Conference in New Delhi in April 1947, the Baguio Conference in the Philippines in May 1950, and the Colombo Powers Conference in April 1954 (Malik, 1993). Since 1977, the Bangladesh president seemed to have been working on the idea of an ASEAN-like organization in South Asia. During his visit to India in December 1977, Ziaur Rahman discussed the issue of regional cooperation with the new Indian Prime Minister, Morarji Desai. King Birendra of Nepal gave a call for close regional cooperation among South Asian countries in sharing river waters in the inaugural speech to the Colombo Plan Consultative Committee which met in Kathmandu in December 1977; President Ziaur Rahman welcomed the King's call during the former's visit to Bangladesh in January 1978. President Ziaur Rahman had also informally discussed the idea of regional cooperation with the leaders of South Asian countries during the

Commonwealth Summit in Lusaka (1979) and the Non-Aligned Summit in Havana (1979). However, the Bangladesh president seemed to have given a concrete shape to the proposal after his visit to Sri Lanka and discussion with the Sri Lankan president, J.R. Jayawardene, in November 1979. Several factors seemed to have influenced President Ziaur Rahman's thinking about establishing a regional organization in South Asia during 1975-1979: (1) change in the political leadership in South Asian countries; (2) an acute balance of payment crisis of almost all South Asian countries which was further aggravated by the second oil crisis in 1979; (3) failure of the North-South dialogues, and increasing protectionism by the developed countries;(Muni,1984) and (4) publication of an extremely useful background report by the Committee on Studies for Cooperation in Development in South Asia (CSCD), identifying many feasible areas of cooperation;(Thornton,1991). During this critical period, President Ziaur Rahman's initiative for establishing a regional organization which would give the leaders of South Asian countries an opportunity to improve their understanding of one another's problems and to deal with conflicts before they turned into crisis, became much more appealing.

While the Bangladesh proposal was promptly endorsed by Nepal, Sri Lanka, the Maldives and Bhutan, India and Pakistan were skeptical initially. India's main concern was the proposal's reference to the security matters in South Asia. Indian policy-makers also feared that Ziaur Rahman's proposal for a regional organization might provide an opportunity for new smaller neighbours to regionalize all bilateral issues and to join with each other to gang up against India. Pakistan assumed that it might be an Indian strategy to organize the other South Asian countries against Pakistan and ensure a regional market for Indian products, thereby consolidating and further strengthening India's economic dominance in the region. However, after a series of quiet diplomatic consultations between South Asian foreign ministers at the UN headquarters in New York from August to September 1980, it was agreed that Bangladesh would prepare the draft of a working paper for discussion among the foreign secretaries of South Asian countries. Between 1980 and 1983, four meetings at the foreign secretary level (April 21-23, 1981, Colombo; November 2-4, 1981, Kathmandu; August 7-8, 1982, Islamabad; March 28-30, 1983, Dhaka) took place to establish the principles of organization and identify areas for cooperation. After three years of preparatory discussions at the official level, the focus of discussion shifted to the political level in 1983. The first South Asian foreign ministers' conference was held in New Delhi from August 1-3, 1983, where

the Integrated Programme of Action (IPA) on mutually agreed areas of cooperation (i.e., agriculture, rural development, telecommunications, meteorology, health and population control, transport, sports, arts and culture, postal services and scientific and technical cooperation) was launched. The foreign ministers at this conference also adopted a Declaration on Regional Cooperation, formally beginning an organization known as South Asian Regional Cooperation (SARC).

Following the New Delhi meeting, three more meetings of the foreign ministers were held at Male (July 10-11, 1984), Thimpu (May 13-14, 1985), and Dhaka (December 5, 1985) to finalize details and determine a date and place for the first meeting of South Asian heads of state. At the Dhaka foreign ministers' meeting, a decision was taken to change the name of the organization from South Asian Regional Cooperation (SARC) to South Asian Association for Regional Cooperation (SAARC). Finally, the first summit meeting of the heads of state or government of South Asian countries was held at Dhaka from December 7-8, 1985.

## 1.2 Aims and Objectives of SAARC

The South Asian Association for Regional Cooperation (SAARC) was basically perceived as an economic grouping to work together for accelerating the pace of socio-economic and cultural development. The objectives of the association as defined in the SAARC Charter are:

- To promote and strengthen collective self-reliance among the countries of South Asia;
- To contribute to develop mutual trust, understanding and appreciation of one another's problem;
- To promote active collaboration and mutual assistance in the economic, social, cultural, technical and scientific fields;
- To strengthen cooperation with other developing countries;
- To strengthen cooperation among themselves in international forums on matters of common interest; and
- To cooperate with international and regional organizations with similar aims and purposes

### 1.3 Membership and governance structure of SAARC

The key mechanisms that run and direct regional cooperation under SAARC are the Charter Bodies. They are as follows:

The annual **Meetings of the Heads of State or Government** (Summit) of Member States is the highest decision making authority under SAARC. The bi-annual **Council of Ministers** consists of Foreign Ministers who meet to formulate policies, review progress, decide on new areas of cooperation, establish additional mechanisms for cooperation and decide on matters of general interests.

**The Standing Committee** consists of Foreign Secretaries reporting to the Council of Ministers. The Standing Committee monitors, coordinates, and approves projects and programs; determines inter-sectoral priorities; mobilizes regional and external resources and identifies new areas of cooperation based on appropriate studies. Moreover, it meets prior to the meetings of the Council of Ministers during a Summit and during the Inter-Summit Session of the Council of Ministers. It may set up Action Committees comprising Member States concerned with implementation of projects involving more than two but not all Member States.

**Technical Committees** comprising representatives of Member States are responsible for implementation, coordination and monitoring of programs in their respective areas of cooperation. In addition, Working Groups take forward collaboration in new and emerging areas.

The Technical Committees formulate specialized programs and prepare projects in their respective fields under the IPA. They are responsible for monitoring the implementation of such activities and submit their reports to the Standing Committee through the Programming Committee. Under the new SAARC Integrated Programme of Action (SIPA), the number of Technical Committees has been reduced from eleven to seven mainly through the amalgamation of the different sectors covered by the various Technical Committees and eliminating overlapping, duplication and waste. The seven Technical Committees under SIPA now cover:

1. Agriculture and Development
2. Communications and Transport

3. Social Development
4. Environment, Meteorology and Forestry
5. Science and Technology
6. Human Resources Development, and
7. Energy

**The Secretariat** was established in 1987 in Kathmandu, Nepal. The main role of the SAARC Secretariat is to coordinate and monitor the implementation of SAARC activities and service the meetings of the association. The Secretariat also develops projects and programs and identifies the sources of funding. In carrying out its mandate, the Secretariat works closely with the Charter Bodies, Ministerial processes, National Focal Points, Sectoral Focal Points, Regional Centres, other SAARC institutions, Observers and International Organizations. Among others, it services meetings of the Association; prepares the documentation and reports of SAARC meetings; coordinates and monitors the implementation of SAARC activities; provides clarification and guidance on directives and decisions taken by SAARC bodies, rules, regulations, procedures; and serves as the institutional bank for the entire SAARC process. It also engages with Observers to SAARC and UN and other International Organizations with regard to implementation of agreed activities/projects.

#### **1.4 Methodology**

This research paper is based on a comprehensive literature review. Available literature from SAARC website and related links were reviewed, as well as some materials and documents from civil society organizations who are engaging with SAARC .

### **FINDINGS**

#### **1. History of SAARC**

SAARC is an association, established in 1985 by the seven member states of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. Afghanistan became a member of SAARC during the fourteenth SAARC Summit held in Delhi, India in April 2007. Until 2009 China, Japan, Republic of Korea, USA, Iran, Mauritius, Australia, Myanmar and the European Union have joined SAARC as Observers. These seven countries differ greatly in land area, GDP, and population.

The analysis of theories of globalism and regionalism, leads to find out the rationale for regional cooperation in South Asia. In addition, it is desirable to look at the evolutionary process of regional cooperation in South Asia. It includes the different four phases: Conception (1977-80), The Meeting of Foreign Secretaries (1981-83), The Meeting of Foreign Ministers (1983-85), and The Summits (1985-2004). Late president of Bangladesh, Ziaur Rahman, initiated the proposal for establishing a framework for regional cooperation in South Asia, on May 2, 1980. The idea of regional cooperation in South Asia was discussed in different conferences: the Asian Relations Conference in New Delhi in April 1947, the Baguio Conference in the Philippines in May 1950, and the Colombo Powers Conference in April 1954 (Malik, 1993). Since 1977, the Bangladesh president seemed to have been working on the idea of an ASEAN-like organization in South Asia. During his visit to India in December 1977, Ziaur Rahman discussed the issue of regional cooperation with the new Indian Prime Minister, Morarji Desai. King Birendra of Nepal gave a call for close regional cooperation among South Asian countries in sharing river waters in the inaugural speech to the Colombo Plan Consultative Committee which met in Kathmandu in December 1977; President Ziaur Rahman welcomed the King's call during the former's visit to Bangladesh in January 1978. President Ziaur Rahman had also informally discussed the idea of regional cooperation with the leaders of South Asian countries during the Commonwealth Summit in Lusaka (1979) and the Non-Aligned Summit in Havana (1979). However, the Bangladesh president seemed to have given a concrete shape to the proposal after his visit to Sri Lanka and discussion with the Sri Lankan president, J.R. Jayawardene, in November 1979. Several factors seemed to have influenced President Ziaur Rahman's thinking about establishing a regional organization in South Asia during 1975-1979: (1) change in the political leadership in South Asian countries; (2) an acute balance of payment crisis of almost all South Asian countries which was further aggravated by the second oil crisis in 1979; (3) failure of the North-South dialogues, and increasing protectionism by the developed countries;(Muni,1984) and (4) publication of an extremely useful background report by the Committee on Studies for Cooperation in Development in South Asia (CSCD), identifying many feasible areas of cooperation;(Thornton,1991). During this critical period, President Ziaur Rahman's initiative for establishing a regional organization which would give the leaders of South Asian countries an opportunity to improve their understanding of one another's problems and to deal with conflicts before they turned into crisis, became much more appealing.

While the Bangladesh proposal was promptly endorsed by Nepal, Sri Lanka, the Maldives and Bhutan, India and Pakistan were skeptical initially. India's main concern was the proposal's reference to the security matters in South Asia. Indian policy-makers also feared that Ziaur Rahman's proposal for a regional organization might provide an opportunity for new smaller neighbours to regionalize all bilateral issues and to join with each other to gang up against India. Pakistan assumed that it might be an Indian strategy to organize the other South Asian countries against Pakistan and ensure a regional market for Indian products, thereby consolidating and further strengthening India's economic dominance in the region. However, after a series of quiet diplomatic consultations between South Asian foreign ministers at the UN headquarters in New York from August to September 1980, it was agreed that Bangladesh would prepare the draft of a working paper for discussion among the foreign secretaries of South Asian countries. Between 1980 and 1983, four meetings at the foreign secretary level (April 21-23, 1981, Colombo; November 2-4, 1981, Kathmandu; August 7-8, 1982, Islamabad; March 28-30, 1983, Dhaka) took place to establish the principles of organization and identify areas for cooperation. After three years of preparatory discussions at the official level, the focus of discussion shifted to the political level in 1983. The first South Asian foreign ministers' conference was held in New Delhi from August 1-3, 1983, where the Integrated Programme of Action (IPA) on mutually agreed areas of cooperation (i.e., agriculture, rural development, telecommunications, meteorology, health and population control, transport, sports, arts and culture, postal services and scientific and technical cooperation) was launched. The foreign ministers at this conference also adopted a Declaration on Regional Cooperation, formally beginning an organization known as South Asian Regional Cooperation (SARC).

Following the New Delhi meeting, three more meetings of the foreign ministers were held at Male (July 10-11, 1984), Thimpu (May 13-14, 1985), and Dhaka (December 5, 1985) to finalize details and determine a date and place for the first meeting of South Asian heads of state. At the Dhaka foreign ministers' meeting, a decision was taken to change the name of the organization from South Asian Regional Cooperation (SARC) to South Asian Association for Regional Cooperation (SAARC). Finally, the first summit meeting of the heads of state or government of South Asian countries was held at Dhaka from December 7-8, 1985.

## 2. Aims and Objectives of SAARC

The South Asian Association for Regional Cooperation (SAARC) was basically perceived as an economic grouping to work together for accelerating the pace of socio-economic and cultural development. The objectives of the association as defined in the SAARC Charter are:

- To promote and strengthen collective self-reliance among the countries of South Asia;
- To contribute to develop mutual trust, understanding and appreciation of one another's problem;
- To promote active collaboration and mutual assistance in the economic, social, cultural, technical and scientific fields;
- To strengthen cooperation with other developing countries;
- To strengthen cooperation among themselves in international forums on matters of common interest; and
- To cooperate with international and regional organizations with similar aims and purposes

## 3. Membership and governance structure of SAARC

The key mechanisms that run and direct regional cooperation under SAARC are the Charter Bodies. They are as follows:

a. The annual **Meetings of the Heads of State or Government** (Summit) of Member States is the highest decision making authority under SAARC. The bi-annual **Council of Ministers** consists of Foreign Ministers who meet to formulate policies, review progress, decide on new areas of cooperation, establish additional mechanisms for cooperation and decide on matters of general interests.

b. **The Standing Committee** consists of Foreign Secretaries reporting to the Council of Ministers. The Standing Committee monitors, coordinates, and approves projects and programs; determines inter-sectoral priorities; mobilizes regional and external resources and identifies new areas of cooperation based on appropriate studies. Moreover, it meets prior to the meetings of the Council of Ministers during a Summit and during the Inter-Summit Session of the Council of Ministers. It may set up Action Committees

comprising Member States concerned with implementation of projects involving more than two but not all Member States .

**c. Technical Committees** comprising representatives of Member States are responsible for implementation, coordination and monitoring of programs in their respective areas of cooperation. In addition, Working Groups take forward collaboration in new and emerging areas.

The Technical Committees formulate specialized programs and prepare projects in their respective fields under the IPA. They are responsible for monitoring the implementation of such activities and submit their reports to the Standing Committee through the Programming Committee. Under the new SAARC Integrated Programme of Action (SIPA), the number of Technical Committees has been reduced from eleven to seven mainly through the amalgamation of the different sectors covered by the various Technical Committees and eliminating overlapping, duplication and waste. The seven Technical Committees under SIPA now cover:

1. Agriculture and Development
2. Communications and Transport
3. Social Development
4. Environment, Meteorology and Forestry
5. Science and Technology
6. Energy

**The Secretariat** was established in 1987 in Kathmandu, Nepal. The main role of the SAARC Secretariat is to coordinate and monitor the implementation of SAARC activities and service the meetings of the association. The Secretariat also develops projects and programs and identifies the sources of funding. In carrying out its mandate, the Secretariat works closely with the Charter Bodies, Ministerial processes, National Focal Points, Sectoral Focal Points, Regional Centres, other SAARC institutions, Observers and International Organizations. Among others, it services meetings of the Association; prepares the documentation and reports of SAARC meetings; coordinates and monitors the implementation of SAARC activities; provides clarification and guidance on directives and decisions taken by SAARC bodies, rules, regulations, procedures; and serves as the institutional bank for the entire SAARC process. It also

engages with Observers to SAARC and UN and other International Organizations with regard to implementation of agreed activities/projects.

#### **4. Main policies and Program of SAARC with regards to Agriculture and in particular, on seed banks and food banks**

According to a World Bank report, by 2050 , South Asia's population, currently in which 70 percent lives in rural areas, is likely to exceed 2.2 billion from 1.5 billion (World Bank,2009). Most of the rural poor depend on agriculture for their livelihoods. Member States of the South Asian Association for Regional Cooperation (SAARC) — comprising Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka— have a major challenge to use agriculture as a means to improve their livelihood conditions and reduce poverty.

##### **4.1 Seed Bank**

Recognizing the importance of regional and sub regional collective self reliance in Agriculture with attaining self security as a means of ensuring food security, particularly addressing the adverse effect of natural and manmade calamities , the agreement of establishing SAARC Seed Bank was signed by the foreign ministers of the eight member states in Addu, Maldives summit held on November, 2011. In the SAARC Seed Bank Agreement , as administered by the SAARC Seed Bank Board (Article I), South Asian governments have recognized “the importance of regional and sub-regional collective self reliance in agriculture with respect to attaining seed security as a means of food security”.

The establishment of such a seed bank contributes to the objective of harmonized seed testing and certification and facilitates seed trade within the region.

Three objectives of the SAARC Seed Bank:

- Provide regional support to national seed security efforts; address regional seed shortages through collective actions; and foster inter-country partnerships.

- Increase seed replacement rate 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.

#### **4.1.1 Seed reserve and its quality**

It helps for the maintenance of the Seed Reserve under the Seed Bank, consisting of quality seeds of common varieties of rice, wheat, maize, pulses and oilseeds (Article VI). The Agreement mentions that initially, governments would collaborate on the availability of rice, wheat, pulses and oilseeds, and gradually other crops may be considered.

#### **4.1.2 Seed replacement rate and common varieties**

The Agreement requires SAARC Member States to undertake a planned approach to increase the seed replacement rate (SRR) at a faster rate and produce quality seed beyond the quantity planned to meet the SRR and the seed reserve (Article III). In addition, agreement also address Member States shall collaborate to develop a list of common variety(ies) of major priority/identified crops while recognizing the need to preserve local/indigenous varieties (Article IV). In this process, they have to conduct adaptive trials in agreed/ identified agro-ecological zones in the region.

#### **4.1.3 Maintaining seed quality**

The Agreement states that the quality of all assigned seeds will have to fulfill the quality standards/requirements of the recipient Member State. The Member State has to provide adequate seed storage facilities; inspect the quality seed stock periodically; apply appropriate quality control measures; and replace seeds that do not meet the required quality standards. In this context, each Member State has to undertake all efforts to comply with any guidelines on seed procedures and preservation methods or quality control measures adopted by the SAARC Seed Bank Board (Article VI).

#### **4.1.4 Determination of price**

The determination of prices of seeds that will be released will be the subject of direct negotiations between the Member States concerned. Such determination will have to

be based on the guidelines to be approved by the Board, and will be done in accordance with the Board's principles:

- Price shall be representative of the market, both domestic and international, and may be adjusted suitably to reflect seasonal variations and the price movements in the recent past;
- Price quoted, in general, shall be lower than prices generally charged or quoted for countries beyond the region;
- A responding Member State shall endeavor to accord, as far as possible, national treatment in respect of calculating the cost components, for example, related to storage, internal freight, interests, insurance and overhead charges, margin of losses, etc.;
- Provision of deferred payment may be made.

#### **4.1.5 Institutional arrangements**

SAARC Seed Bank Board administered the functioning of the Bank and its policy making. The Board consists of one member from each Member State, one farmers' representative on a rotational basis from a Member State, and two members from the private sector (from SAARC Seed Forum and not from outside). The Board is tasked to meet at least once a year or, more often, as considered necessary (Article XII). The different functions of Board are: to undertake activities to develop a list of common varieties, quality testing method, and Common Seed Certification Standards and Procedures, to facilitate harmonization of legislative measures concerning seed system, and undertake a periodic review and assessment of the SRR (seed replacement rate) and prospects in the region, including factors such as production, consumption, trade, process, quality and stocks of seeds

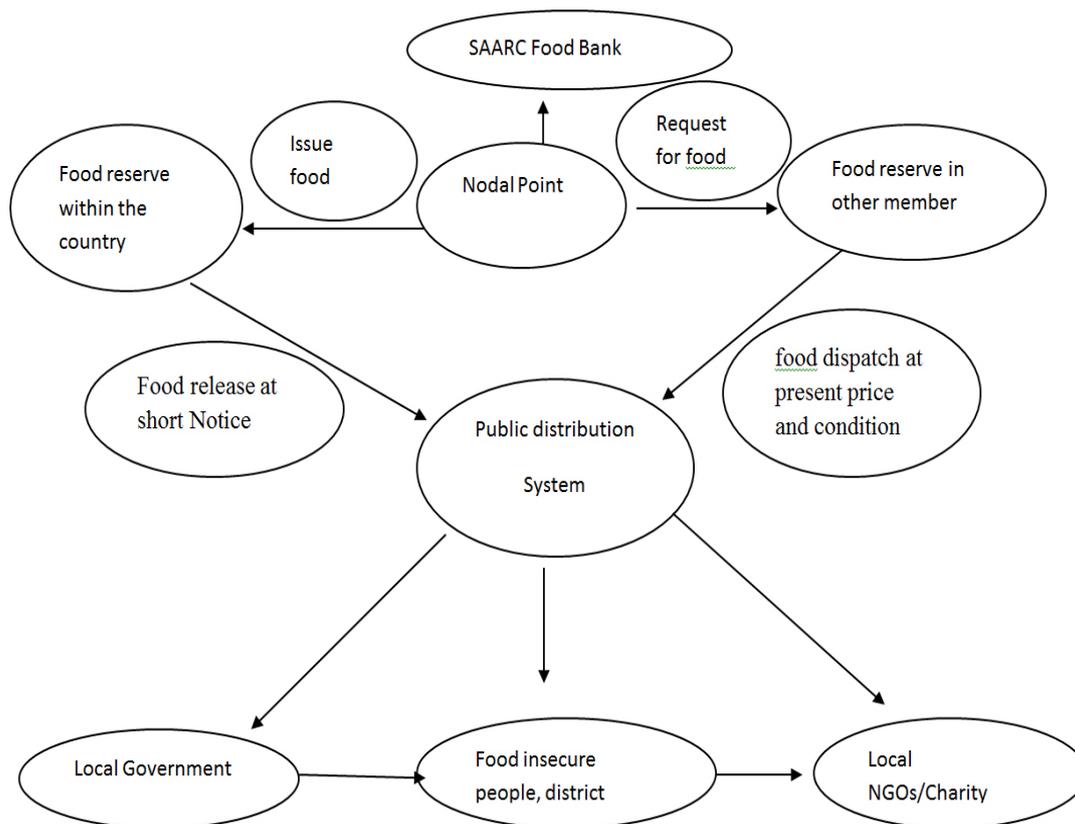
#### **4.2 SAARC Food Bank**

The SAARC Food Bank, established in April 2007, is an improved version of its non-functional predecessor, the SAARC Food Security Reserve which was established in 1988. , The Food Security Reserve was to address the problem of food insecurity in the region by building up a food buffer stock that could reduce food security risks, particularly after natural disasters. But it could not achieve complete success. But the

importance of regional and sub-regional collective self reliance with respect to food security was highlighted by Member States. They saw the imperative to make a Food Bank more operational and effective. For this, issues of food grain pricing, operational guidelines and delivery systems needed to be tackled or addressed. The effective operationalization of the Food Security Bank was seen as a first step in building an efficient regional response mechanism to food inflation in South Asia (Carrasco and Mukhopadhyay, 2012).

The objectives of the SAARC Food Security Bank were to meet the needs of food security in the region and to act as a regional food security reserve (of wheat and rice) for the SAARC Member Countries during normal time, food shortages and emergencies; to provide regional support to national food security efforts; foster inter- country partnerships and regional integration; and solve regional food shortages through collective action. However, in the context of establishment of a SAARC Food Bank the development had been slow and attempts were in progress to make it operational (ICRIER, 2009). The different factors are responsible for the slow progress on the Food security Bank like: a) absence, inadequacy and/or poor conditions of essential infrastructure (storage capacity, roads; and quality certification facilities etc); b) lack of political cohesion and economic coordination; c) limited complementarities to provide basis for such cooperation; d) failure of states of the region to emerge as established food exporter; e) delay in deciding various modalities.

In summary, it can be concluded that food security is a highly sensitive matter because of poverty and will be politically too risky to be left on the regional fora. It needs to authorize Nodal Points of the member countries to use food check in order to decide, at short notice, whether to draw the food grain from its own reserve. The food needs to be released immediately after getting the food checked by the authority that holds the food grain. The Nodal Point needs full authority to request other Nodal Points to release the food (Figure 1).



**Figure 1: Coordination for operation of SAARC Food Bank**

The member country should follow Article IX, Determination of Price, as mentioned in Agreement on Establishing the SAARC Food Bank. The Board needs to set a pre-established mechanism for pricing, releasing, transportation, border crossing and distribution of the food grain at any time when a member feels that its people are suffering from food insecurity. In developing pre-established pricing mechanisms, care should be given so that no member can increase the food price by incorporating its inefficiency in production, storage, and handling .

The Board needs to simplify the conditions for replenishing food after the harvest, so that it will actually function like a bank. The Board needs to carry out further study, in order to better understand the effects of food release from the bank on food security, on the local food market, on food trade and on food production.

### 5. Examples of food banks and seed banks policies at national level in SAARC countries

The different countries under the SAARC have different policies on food banks and seed banks. Some of the available policies are listed in the table below:

**Table 1: Seed bank and Food bank policies in different South Asia**

Country	Seed Bank	Food Bank
Nepal	<ul style="list-style-type: none"> <li>-Seed Act (1988,in force)</li> <li>-Plant Variety and farmers Right Bill (2004), National Seed Policy (2000)</li> </ul>	<ul style="list-style-type: none"> <li>-Agriculture and Food Security Three-year plan approach paper (2013-2016)</li> <li>-Food and Nutrition Security Plan</li> <li>-Food Security Phase Classification System in partnership with FAO,</li> <li>-20-year Agriculture Perspectives Plan (APP), 1995-2015</li> <li>-The National Agricultural Policy (NAP) (2004)</li> <li>-National Agriculture Sector Development Priority plan (NASDP) (2011-2015)</li> </ul>

<p>Bangladesh</p>	<p>-Plant Varieties Act of Bangladesh 1998</p> <p>-Biodiversity and community Knowledge Protection Act 1998</p>	<p>-National Food Policy Action Plan 2008-2015</p> <p>-The Country Investment Plan 2010,</p> <p>-The Disaster Management Plan</p> <p>-The Food Safety Program</p>
<p>India</p>	<p>-Protection of Plant Varieties and Farmer's Rights Act 2001</p> <p>-Karnataka Community Intellectual Rights Bill (1994 drafted)</p> <p>-Community Intellectual Rights Act (1994, draft)</p> <p>-Protection of plant varieties and farmers rights (criteria for DUS for registration) Regulations, 2009</p> <p>-Protection of Plant Varieties and Farmers; Rights Regulatios, 2006</p> <p>-Biological Diversity Act 2002</p> <p>-India Seeds Bill 2004</p>	

<p>Pakistan</p>	<ul style="list-style-type: none"> <li>-Plant Breeders' Rights Ordinance (2000, draft)</li>   <li>-Draft Law on Access and Community Rights (2004, draft)</li> </ul>	<ul style="list-style-type: none"> <li>-National Income Support Programme,</li>   <li>-The National Task Force on Food Security</li>   <li>-Intervention mechanisms for rice and pulse prices</li>   <li>-A specialized program for food security</li>   <li>-Enhanced food grain storage and subsidized food items through official utility stores.</li> </ul>
-----------------	--	---

<p>Srilanka</p>	<p>-Draft bill on Protection of New Plant Varieties (Plant Breeders' Rights bill) (2010)</p> <p>-Seed Act 2003</p>	<p>-The Samurdhi programme</p> <p>-The Thripasha programme, recent programme the Government invested in called "Life fitness"</p> <p>-Universal ration scheme for rice, 1954</p> <p>-Food stamp scheme , 1979</p> <p>-Janasaviya poverty alleviation programme, 1989</p> <p>- Mahinda Chintana –Vision for the Future 2010</p> <p>-National Agriculture Policy 2007 ,</p> <p>National Livestock Development Policy 2011</p>
<p>Bhutan</p>	<p>-Seed acts of Bhutan, 2000</p>	<p>-Land Act of Bhutan, 2007</p> <p>-Food Act of Bhutan 2005</p> <p>-National Forest Policy of Bhutan</p>

Maldives		<p>-An Agriculture Development Master Plan (ADMP) with the assistance of FAO</p> <p>- Commercialization Plan assisted by ADB and</p> <p>-National Forestry Policy Assistance by FAO</p>
Afghanistan		-Afghanistan National Development Strategy 2008

## 6. Food security situation in context with SAARC

In 1983, FAO analysis focused on food access, leading to a definition emphasizing the balance between the demand and supply side of food security with the demand side being highlighted in terms of economic accessibility:

*“Ensuring that all people at all times have both physical and economic access to the basic food that they need”* (FAO 1983).

*“food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”* (World Food Summit, 1996).

Definition encompasses four dimensions: availability, access, nutritional status (food utilization) and stability.

**Availability of Food:** Domestic production, imports, food assistance, and releases from public stocks during a certain year add to food availability while exports, additions to public stock, wastages of food produce during post harvest operations, input as seed, and nonhuman usages reduce the quantity of food items available for human consumption. In turn, availability is affected by a number of factors including production, processing, storage, distribution and marketing systems and technologies.

**Accessibility to Food:** The accessibility to food depends on factors like incomes, sources of income including remittances, income disparities, real food prices, landlessness, gender, literacy, and employment status. In the context of South Asia this is an important factor explaining why with improved food availability both indicators of hunger and malnutrition have shown only marginal improvements.

**Food Utilization (Nutritional Aspect):** This involves the effective biological utilization (food absorption) through adequate food, clean water, sanitation and healthcare for attainment of nutritional well-being that meets all the physiological needs of an active and healthy life. Thus food absorption has public health and education dimension attached to the concept.

**Stability:** This implies that the people have at all times access to adequate food without involving any risk of losing physical availability and economic access to it as a result of economic shocks and resulting higher prices, natural disaster (floods, droughts, earthquakes, cyclones, and tsunamis), and wars.

### 6.1 Major Causes of Food Insecurity in South Asia

Agricultural production in South Asia is also prone to high risks resulting from high variations in weather. The future projections of climate change indicate that South Asia is very likely to be affected by warming during this century. The availability of freshwater is projected to decrease and coastal areas will be at greatest risk due to increased flooding from the sea and rivers. It is predicted that a rise in temperature may reduce yields of rice, wheat, other cereals, and certain cash significantly (ICRIER et al 2009). The process of urbanization is a potential threat to food security in the region. Though population growth has slowed down, it is still high in relation to output growth.

An important reason for the persistent food insecurity in the region is the low productivity of crops and livestock as compared to that in many developed countries. The investment made in agriculture research as a percentage of agricultural GDP has been declining, from a very low base, in many of the South Asian countries. India and Pakistan have badly neglected investment for maintaining their vital irrigation infrastructure which has led to its rapid deterioration (Etienne, 2009). The different factors include rapidly growing population, skewed distribution of assets and income,

degradation of the natural resource base and unsustainable management of land and water resources, which include increased and imbalanced use of plant nutrient, loss of soil fertility and growing use of pesticides (SAARC/FAO, 2006). Cyclones and floods in Bangladesh and coastal parts of India are quite frequent. Recurring droughts are a common feature in the arid and semi-arid parts of India and Pakistan. The situation of food security also varies in SAARC countries due to heterogeneity in their physical and natural resources endowments, biodiversity, socio-economic conditions, climatic factors, and dominance of agricultural sector

## 6.2 Broad Trends in Factors Influencing Food Security

Agriculture is the dominant sector of economies of South Asia. The agriculture contribution is depleting in every country of SAARC in every year interval.

**Table 2: Share of Agriculture in GDP (%)**

Year	Bangladesh	India	Nepal	Pakistan	Sri Lanka
1990	30.25	29.28	51.63	25.98	26.32
2000	25.51	23.35	40.82	25.93	17.60
2005	20.14	19.10	36.35	21.47	13.50
2008	19.00	17.60	33.10	20.20	15.20

*Source: ADB (2009) and other issues*

Majority of the people of South Asia reside in rural areas and directly or indirectly depend on agriculture for their livelihood.

**Table 3: Rural population (% of total population)**

Year	Bangladesh	India	Nepal	Pakistan	Sri Lanka
1991	80	74	91	69	83
2000	77	72	87	67	84
2006	75	71	84	65	85

*Source: ADB (2008) & WDI (2008)*

Since 1995, the agricultural sector has grown at an average rate of about three percent or more in, Bangladesh, India, Nepal, and Pakistan. However, average growth rate of agriculture was 2.6 percent in case of Sri Lanka during the same period (Table 4).

**Table 4: Growth rates of agriculture real value added**

Year	Bangladesh	India	Nepal	Pakistan	Sri Lanka
1995	-0.3	-0.7	-0.9	6.6	3.4
2000	7.4	-0.2	4.9	6.1	2.3
2005	2.2	5.8	3.5	6.5	2.9
2006	4.9	4.0	1.8	6.3	7.2
2007	4.6	4.9	1.0	4.1	2.8
2008	3.2	1.6	4.7	1.1	9.5

Source: ADB (2009)

### 6.3 Food Availability

With significant differences in fluctuations and trends in per capita production for cereals (wheat and rice) the overall per capita production index for SAARC shows no significant or sustained increase.

**Table 5: Per Capita Production Index (1990=100) for Cereals (Wheat and Rice)**

Year	Bangladesh	India	Nepal	Pakistan	Sri Lanka	SAARC
1991	100.00	102.58	91.39	98.61	92.98	101.56
1992	98.55	99.39	74.43	101.71	90.00	99.01
1993	95.52	104.05	89.81	106.15	97.76	103.05
1994	87.38	105.08	80.84	96.17	101.04	101.68
1995	90.18	104.25	91.34	105.47	104.79	102.65
1996	94.52	102.67	94.28	103.91	76.23	101.58

1997	92.99	106.68	92.49	100.16	82.18	104.02
1998	97.57	104.89	89.29	108.82	98.14	104.27
1999	110.01	108.91	91.74	104.36	103.51	108.24
2000	116.74	107.60	98.32	115.25	103.05	109.41
2001	109.90	106.35	94.73	100.14	96.64	105.85
2002	111.14	93.57	94.80	97.17	102.08	96.16
2003	110.66	97.45	95.01	101.02	109.20	99.53
2004	101.84	96.94	98.88	101.30	93.07	98.16
2005	108.10	98.23	95.85	110.24	114.47	100.99
2006	114.70	97.76	91.69	106.46	117.32	100.89
2007	112.84	102.24	85.66	114.05	106.18	104.33
2008	124.07	109.32	90.76	105.57	124.29	110.29

Source: FAO, 2009

**Table 6: Major cereal production in SAARC countries in 2010**

Country	Paddy (1000 tons)	Wheat (1000 tons)	Maize (1000 tons)
Afghanistan	672 (0.36)	4,532 (4.08)	301 (1.46)
Bangladesh	49,355 (26.50)	901 (0.81)	887 (4.29)
Bhutan	62 (0.03)	4 (0.00)	55 (0.27)
India	120,620 (64.76)	80,710 (72.70)	14,060 (68.05)
Maldives	0 (0.00)	0 (0.00)	0 (0.00)
Nepal	4,024 (2.16)	1,557 (1.40)	1,855 (8.98)
Pakistan	7,235 (3.88)	23,311 (21.00)	3,341 (16.17)
Sri Lanka	4,301 (2.31)	0 (0.00)	162 (0.78)
Total	186,268 (100)	111,015 (100)	20,662 (100)

Notes: Figures in parentheses are percent to the total production in the region.

Source: FAOSTAT, 2010.

The analysis shows that food production is prone to fluctuation in South Asia and the increase in food production has been mainly offset by high population growth in the region. Increasing productivity in sustainable manner is the only way possible to feed the increasing population. The different factors affect the production such as small size of landholdings, shrinking supplies of irrigation water, low productivity, poor marketing and transport infrastructure resulting in high post-harvest losses. This problematic situation gets further worsened in the wake of the fact that some areas are prone to a number of natural disasters like floods, droughts and cyclones.

Food production and net food imports are translated into food availability in terms of calorie and protein intake. South Asia has made some progress in terms of average per capita daily intake of calories since 1990. The average consumption increased from 2280 Kcal/person/day in 1990-92 to 2340 Kcal/person/day during 2003-05. However, it has lagged far behind the world average (2770 Kcal/person/day), the average consumption of calories achieved in developed (3380 Kcal/person/day) and in developing countries (2620 Kcal/person/day).

The major cereals imported in South Asia are wheat and rice. Major share of cereal imports of Bangladesh (over 50 %), Sri Lanka (25 %) and Nepal (100%) are imports from within the region while India and Pakistan import only a small percentage (not more than two percent) of their total cereal imports.

#### 6.4 Accessibility

The real per capita GDP depicted a positive average growth rate since 1991 in almost all the countries of the region. The real per capita incomes grew at a relatively rapid rate in Bhutan, India, Maldives, and Sri Lanka as compared to that in Bangladesh, Nepal, and Pakistan (Table 7).

**Table 7: Per Capita GDP growth (%)**

Years	Bangladesh	India	Nepal	Pakistan	Sri Lanka
1991	1	-1	4	2	3
1992	3	3	2	5	3
1993	2	3	1	-1	6
1994	2	6	6	1	4
1995	3	7.3	1	2	5.5

1996	2	8.0	3	2	3.8
1997	3	4.3	3	-1	6.4
1998	3	6.7	1	0	4.8
1999	3	6.4	2	1	4.3
2000	4	4.4	4	2	6.0
2001	3	5.8	3	-1	-1.4
2002	2	3.8	-3	1	4.0
2003	3	8.5	1	2	5.9
2004	4	7.5	2	4	5.4
2005	4	9.5	1	5	6.2
2006 <sup>a</sup>	5.2	8.0	1.1	3.9	6.5
2007 <sup>a</sup>	5.0	7.5	1.1	4.9	6.1
2008 <sup>a</sup>	4.9	7.2	3.0	2.3	5.0
Average	3.17	5.88	2.01	1.95	4.69

*Source: World Development Indicators, 2008*

In terms of relative poverty based on the US \$ 1.25 per day indicator Pakistan's poverty level is much lower than the other countries except Sri Lanka where the level has been consistently lower throughout the period. (Table 8).

**Table 8: Population Living Below the National Poverty Line and Below \$ 1.25 (% of Population)**

Years	Bangladesh	India	Nepal	Pakistan	Sri Lanka
1991	68.8	51.3(1990)		22.1/64.7)	20.0/(15.0) 1990
1994	58.2 (1992)/ 59.4(1995)	36.00	68.4(1995)	28.6(1993)	16.3(1995)
1996	51.00	46.6	41.76	48.1	25.00
1997				31.00	
1999				32.60	
2000	49.80/57.8	28.60		35.9	
2001				34.36	
2002		43.9	55.1 (2003)		22.70/14.0
2004			30.90	22.6	
2005	40.0/49.6	27.5/41.6		22.3(2006)	15.2 (2007)

*Source: ESCAP, 2008 and FAO, 2009*

## 6.5 Food Utilization

Food utilization is related to factors like nutrition education, health awareness, gender disparities, sanitation, access to safe drinking water, food preparation practices, eating habits, food safety, and health services and infrastructure. The indicators like immunization coverage, infant mortality, child mortality, prevalence of undernourishment, life expectancy, access to safe drinking water and sanitation facilities, availability of doctors/nurses, and public investment in health are the determinants of food absorption capacity of the population.

The prevalence of undernourishment in Bangladesh, Pakistan, Sri Lanka, India, and Nepal was respectively 30, 24, 22, 20, and 17 percent during 2004 showing improvement overtime (Table 9). The prevalence of malnutrition was lower in Sri Lanka than that in India, Nepal, Bangladesh and Pakistan during the last 15 years (Table 10). A decline was observed in malnutrition in all the countries however it was observed among nearly 40 percent of children (under 5 years) in India, Nepal and Bangladesh during 2005-2006.

**Table 9: Prevalence of undernourishment (% of population)**

Years	Bangladesh	India	Maldives	Nepal	Pakistan	Sri Lanka
1992	35	25	17	20	24	28
1997	40	21	15	26	19	26
2003	30	20	11	17	23	22
2004	30	20	10	17	24	22

*Source: WDI 2008*

**Table 10: Malnutrition prevalence, weight for age (% of children under 5)**

Years	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka
1990	66	..	64	..	..	..	..
1991	..	..	..	..	..	40	..
1992	68	..	61	..	..	..	..
1993	..	..	53	..	..	..	38
1994	..	..	..	39	..	40	..
1995	..	..	..	43	49	38	33
1996	57	..	..	..	47	..	..
1997	56	..	..	..	..	..	..

1998	62	..	..	45	47	..	..
1999	61	19	47	..	..	..	..
2001	52	..	..	30	48	35	30
2002	..	..	..	..	..	38	29
2006	39.2		43.5		38.3	31.3	22.8

Source: WDI 2008

## 7. Liberalization of regional trade

The intra-regional trade among SAARC countries is very low, at about 5.0 percent of their total trade. Indeed, as a recent study points out, South Asia is the least integrated region in the world. This study identifies cross-country conflict as the most important reason for this very low level of integration. (Ghani and Ahmed, 2009). Intra-regional trade in South Asia is 0.8 per cent of GDP in contrast to East Asia's nearly 28 per cent. (Rodrigo, 2008).

**Table 11: Intra Regional Trade for SAARC Regional average over 2002 to 06**

Country	Intra Regional Export			Intra Regional Imports		
	Avg.value \$ million	Region	Share in own Total Exports	Avg.value \$ million	Region	Share in own Total Imports
Afghanistan	83	1.2	41.9	896	13.2	39.8
Bangladesh	145	2.1	1.8	1836	27.1	15.2
India	4474	66.2	5.5	984	14.5	0.9
Maldives	17	0.2	13.9	127	1.9	20.0
Nepal	319	4.7	51.9	762	11.2	45.9
Pakistan	1209	17.9	8.9	573	8.5	2.8
Sri Lanka	508	7.5	8.7	1598	23.6	19.4
SAARC Region	6754	100.0	6.2	6776	100.0	4.4

Source: Kumar and Singh (2009).

### 7.1 Trade in Food Grains - wheat

Trade theory would hold that allowing freer trade in food grains between countries would stimulate increases in productivity and growth in food production primarily as

a result of an increase in the size of the market as well as help stabilize prices. The basic instinct of governments in the face of food shortages or high export prices is to clamp import duties or ban exports to ensure food grain availability for its population. On food grains the region needs to be sub-divided. There is considerable movement in food grains between India-Bangladesh-Nepal and between Pakistan and Afghanistan. The scope for trade depends upon factors like comparative advantage, exportable surplus, complementarities in bilateral trade, seasonality factor, and most importantly political cohesion. India and Pakistan have rice surplus while other countries in the region are net importers. However, Pakistan till recently has been a net importer of wheat; India has surplus wheat but not on very consistent basis; this constrains her emergence as established wheat exporter. All other countries are net importers of wheat. The region's export of wheat fall short of region's imports.

## **8. Main CSOS who have engaged with SAARC on agriculture policies**

Civil society refers to the realm of individuals and groups, operating at the national or transnational levels, which aims to democratize and redistribute power in the state and regional institutions (Kaldor, 2002). Leaders of SAARC had signed the Social Charter in 2004, and acknowledged the vital role of CSOs in “driving forward the implementation of the Social Charter and directed the NCCs (National Coordination Committees) to mobilize civil society organizations. Civil society involvement in SAARC can be divided into two periods: the restricted engagement period (1985-1996) and increasing engagement period (1997 to present).

### **8.1 Restricted Engagement Period (1985-1996)**

This period covers the first decade of existence of SAARC. The seven (7) SAARC Summits held during the period addressed the most relevant issues and concerns for South Asian people. Some of the issues discussed in the Summits during this period include rights and welfare of the child, satisfaction of basic needs, population planning, environmental protection, human development and poverty alleviation. The seventh summit held in Dhaka in April 1993, where consensus on the eradication of poverty was arrived at, was significant because it also highlighted the importance of “people-to-people contact”. The anniversary of SAARC's first decade of existence was marked by a declaration from South Asian leaders in the 8th SAARC Summit in 1995 that people-to-people contact has already been taking place through various fora within and outside

the SAARC. People-to-people contact that SAARC was referring to was facilitated mainly through SAARC Chamber of Commerce and Industry and SAARC Law. Grassroots South Asian CSOs, then and now, remain to be marginalized from SAARC processes.

## **8.2 Increasing Engagement Period (1997 to present)**

The 9th SAARC Summit held in Male in 1997 was important in terms of civil society involvement in SAARC processes as this meeting called for the creation of the “Group of Eminent Persons (GEP)”. This group, with the SAARC Secretary-General as resource person, was tasked to “undertake a comprehensive appraisal of SAARC, and identify measures including mechanisms to further vitalize and enhance the effectiveness of the Association in achieving its objectives”. Furthermore, SAARC leaders declared that the GEP “may develop a long-range vision and formulate a perspective plan of action including a SAARC Agenda for 2000 and Beyond which will spell out the target that can and must be achieved by the year 2020” (Male Declaration, 1997).

CSOs, have enough documentation on success stories and experiences in pursuing land rights advocacies and programs. These experiences may be brought to the attention of SAARC as models for land-rights programs aimed at poverty eradication, agricultural productivity, food security and sustainable development.

## **8.3 Highlights of Past Declarations of People’s SAARC Meetings**

### **8.3.1 Declaration of People’s SAARC, Kathmandu from 23rd to 25th March 2007 (Strengthening South Asian People’s Solidarity for Democracy, Justice and Peace)**

Agriculture along with related activities is the mainstay for millions of people in South Asia. A vast majority of the population of almost all countries in the region survive on subsistence and small-scale agriculture. The current economic trends have plunged agriculture into a crisis and particularly the cultivating peasantry is in deep distress. Corporate logic, single cash crops, dependence of corporate seeds, fertilizers, and pesticides as well as vulnerability makes a peasant fall into a debt trap that often becomes a death trap. Millions are forced to sell off their lands and become urban

destitutes in search of any means of livelihood. The forcible acquisition of land of the peasants in the name of development compounds this problem. The increased over-urbanisation in South Asia is an indicator of agrarian destitution and transfer of the poor from the countryside to the cities.

### Demand

- Address environmental sustainability as an urgent priority
- Protect biodiversity, water, forests, fisheries and other natural resources from which the majority of the people derive their livelihood; protect indigenous community wisdom
- Guarantee women's rights to be free from all kinds of discrimination and live a life without any form of violence
- Guarantee sovereign rights of the people for food

### **8.3.2 People's SAARC Declarations, People's SAARC Memorandum 2011 submitted to the 17th official SAARC process**

- People's movements to protect the forests, lands, the rivers, and other natural resources from which their livelihood is derived are often brutally repressed by the state. Peoples land is acquired for a relatively paltry sum in the name of development, and their rehabilitation is well below international standards. The states must devise a system of checks and balances for its elites who have repeatedly demonstrated the tendency to succumb to the lure of the powerful development giants. We call the SAARC governments to ensure development processes that must be pro-poor people, consultative and consensus driven with human rights as the basic fundamental.
- Fisher peoples' rights to fish in territorial waters be recognized and legally protected through proper mechanisms. Innocent fisher folk incarcerated for wandering into neighboring, sometimes disputed, territorial waters be immediately released and the presence of deep sea trawlers and foreign vessels should be banned as these are continuously depleting fish stock and pursuing an unsustainable path apart from severely diminishing the catch of the ordinary fisher folk.
- Climate change and ecological degradation have become a threat to the very survival of all life on the planet. Melting of snow in the Himalayas, desertification and sea

level rise are the stark phenomena that South Asian states are facing simultaneously. Unfortunately, the South Asian governments have taken no urgent steps towards reversing ecological degradation, the reduction of greenhouse gases, adaptation initiatives, all necessitating more sustainable forms of transport, construction, workers and peasants conditions and mining among others. It is imperative that vast areas of Bangladesh, parts of India and island states in the Indian Ocean are not submerged because of a lack of commitment by the states to address environmental concerns.

- There is a need for alternate regional trade and economic framework that meets the needs and aspirations of small and medium producers and laborers. The SAARC states need to work out fair trade relations within South Asia as a precondition for fair trade relations with the rest of the world. This would also provide a democratic alternative to exploitative and regressive free trade arrangements.
- The SAARC states must extend recognition of health, education, housing, adequate food, water and energy poverty as critical to maintain basic living standards of the people of the region. Increased and accelerated investment in the social sector by states is essential for a more equitable, peaceful, corruption-free and sustainable society. The billions of dollars spent on ‘national defense’ not only foster aggressive militarism but also take away scarce resources otherwise available for the investment in social sector and basic human rights promotion.
- Food banks also should aim at delivering the essential food grains to the victims of natural calamity through a rapid response mechanism. Remunerative prices must be given to farmers for their produce. The poor must be provided food at subsidized prices. GM seeds should be entirely banned. Agricultural inputs such as seeds, fertilizers and pesticides must be provided at subsidized prices, along with necessary energy. Urgent steps should be taken for the forest dwellers that should have a right to the forest resources, and food and other subsidies in times of drought and other hardships.
- South Asian Governments and civil society must work together and lead the world in the struggle for climate justice demanding legally enforceable international standards on the lines of and beyond the Kyoto Protocol and not succumb to the machinations of the perpetrators who want to push for accords in place of treaties.
- An independent Climate Commission should be constituted with a view to promote more effective mitigation and adaptation programme to climate change to ensure environmental protection and sustainable development at the regional level.

- Fully funded national plans to achieve universal health, education, water and sanitation, rights to food and housing, rights to productive employment amongst others as a core part of the constitutional arrangements should be ensured.
- The large numbers of the poor and the vulnerable in South Asia need to be freed of poverty and the attendant loss of dignity, social protection and their rights to health, education and productive livelihoods.

### **8.3.3 Declaration of People's SAARC, Kathmandu from 26th to 27th NOV 2014 (Deeper Integration for Peace and Prosperity)**

The Heads of State or Government agreed to increase investment, promote research and development, facilitate technical cooperation and apply innovative, appropriate and reliable technologies in the agriculture sector for enhancing productivity to ensure food and nutritional security in the region. They also underscored the importance of promoting sustainable agriculture. The Leaders directed to eliminate the threshold criteria from the SAARC Food Bank Agreement so as to enable the Member States to avail food grains, during both emergency and normal time food difficulty. The Leaders urged for early ratification of the SAARC Seed Bank Agreement and directed to constitute the Seed Bank Board, pending completion of ratification by all Member States. The Leaders also directed the relevant SAARC bodies to finalize the establishment of Regional Vaccine Bank and Regional Livestock Gene Bank.

### **References**

- Asian Development Bank (2008). Key Indicators for Asia and Pacific, 2008.
- Asian Development Bank (2009). Key Indicators for Asia and Pacific, 2009.
- Carrasco, B., and H. Mukhopadhyay. 2012. —Food Price Escalation in South Asia—A Serious and Growing Concern. Working Paper Series 10. Manila: Asian Development Bank.
- Etienne, Gilbert (October 2009). Agriculture and the Rural Economy of Pakistan: Towards a
- FAO (1983), World food Security: a Reappraisal of the Concepts and Approaches. Director General's Report, Rome
- FAO, 2007, FAOSTAT, <http://www.fao.org>
- Ghani, Ejaz and Sadiq Ahmed (2009) ed. Accelerating Growth and Job Creation in South Asia, Oxford

- Hafeez Malik, ed., 1993. *Dilemmas of National Security and Cooperation in India and Pakistan*, Martin's Press, New York: St. p. 276.
- ICRIER (September 2009). *Food Security in South Asia: Issues and Opportunities* by Mittal, Surabhi and Deepti Sethi. Indian Council for Research on International Economic Relations, Working paper No. 240
- ICRIER, 2009. *Food Security in South Asia: Issues and Opportunities* by Mittal, relations, working paper No. 240.
- Integration. ADB Working Paper Series on Regional Integration, ADB, Manila
- Kumar, Rajiv and Manjeeta Singh (2009). *India's Role in South Asian Trade and Investment Possible Future.*
- People's SAARC Declarations (2007,2011,2014)
- S.D. Muni, 1984. *Regional Cooperation in South Asia* , New Delhi: National Publishing House. Pp.29-31
- SAARC/FAO (2006). *Support for the Preparation of Regional Programme on Food Security – Project Document (SPFP/RAS/6702)* SAARC/FAO, Kathmandu/Bangkok
- Surabhi and Deepti Sethi, 1991. Indian Council for Research on International Economic Thomas Perry Thornton, "Regional Organization in Conflict Management," *The Annals of the American Academy of Political and Social Science*, Vol.518. p.136.
- World Bank. 2009. *South Asia: Shared views on development and climate change*. Washington, D.C.: The World Bank.
- World Food Summit (1996). *Declaration on World Food Security*.

# PEOPLE'S SAARC

## **Activate SAARC Seed Bank | Ensure Farmers' Rights**

The SAARC Seed Bank Agreement has been signed by the South Asian leaders in 2011 with a view of ensuring food security in SAARC countries through enhancing seed replacement with appropriate varieties, addressing seed shortage in the region and acting as seed storage for member countries. The policymakers pledged several times to activate Seed Bank in short. But after 4 years of the agreement, the Seed Bank is yet to be established.

The Agreement recognises the local and indigenous procedures and varieties of seeds, but doesn't pledge to protect them in this global intellectual property regime which has been expanding to affect traditional seed systems and limit farmers' rights to save, use, exchange and sell seeds. Besides, there is no mechanism of recognition and procedure to conserve, collect or transfer these indigenous varieties.

The Seed Bank Board has 11 members. Among them only 1 Farmer can participate from a member country by rotation. But the private sector is to get 2 members in the board. Till the date, only SAARC Seed Forum, which is a forum of corporate seed companies, has access in the Board. Moreover, there is no mechanism to select a real farmer from country level. So, there lies a doubt of political and corporate domination in selection of the farmer representative from respective country.

There is a serious lack of transparency in the Seed Bank mechanism. Information of only Indian national designated authority is open for all. People are in dark about national mechanisms of all other countries. Only

the corporate companies will be benefited by such lack of transparency and accountability.

The agreement calls for maintaining quality standard of seeds under the Seed Bank system but under what terms and conditions of quality standards the farmers' varieties will be included within the Seed Bank system is yet to be clear. So, it remains a major constraint for local and poor farmers.

There are provisions for the withdrawal, release and replenishment of seeds. But how country-specific situation would be considered is critical to addressing the issue of fair pricing and adequate supply of seeds is not clear.

There is no reflection of UNCBD and UNDRIP in the Seed Bank Agreement. There should be a balance between WTO, TRIPs and CBD in the Agreement to protect the rights of indigenous and local farmers on the genetic resources.

Most of the seed demands of farmers in South Asia are still being met through local exchange. Such exchange and use still contribute 70%–90% to total seed supply. But those are not recognized under the

Materials Transfer Agreement under the Agreement.

So, we are in anxiety that the Seed Bank is going to be a paper tiger like SAARC Food Bank!

■  
Activate SAARC Seed Bank  
immediately

■  
Ensure rights of farmers to  
conserve, use, share and sell  
local and indigenous seeds

■  
Stop corporate companies from  
using indigenous seeds without  
free and prior informed consent  
of the farmers

■  
Involve at least 1 real farmer  
from each of the member  
countries in SAARC Seed Bank  
Board

■  
Engage 1 civil society member in  
the allocated private sector  
representatives in the Seed Bank  
Board

■  
Define 'standard' of local seeds  
and ensure profitable price for  
the farmers.

**Raise your Voice for Farmers' Rights | Ensure Food Security in SAARC Region!**

**KHANI Bangladesh**



কেন্দ্রীয় কৃষক নেতৃত্ব  
**KKM**  
কৃষকের অধিকার আদায়ের সোচ্চার



CONTACT: [khanibangladesh@gmail.com](mailto:khanibangladesh@gmail.com), [unayan\\_dhara@yahoo.com](mailto:unayan_dhara@yahoo.com)



Established in 2002, Asian Farmers' Association for Sustainable Rural Development (AFA) is a regional alliance of national farmers' organizations, with 17 member organizations in 13 countries (Philippines, Indonesia, Thailand, Cambodia, Myanmar, Vietnam, South Korea, Taiwan, Japan, Nepal, Bangladesh, Mongolia, Kyrgyzstan), with a combined membership of around 12 million women and men small-scale farmers, fishers and indigenous peoples. It works at local and regional levels, facilitating knowledge sharing and learning; conducting policy consultations and building consensus on various policy issues; representing small-scale farmers in Asia in regional and international gatherings and building member organizations' capacities on organizational development, sustainable agriculture and farmer-led agro enterprises.



The World Rural Forum (WRF) is a forum for meeting, analyzing and observing rural development. It has established agreements with universities and other educational or research centers, with farmers' associations and with NGOs which have solid links with grassroots organizations. As a result of this work, it avails itself of reliable information which enables it to analyze the problems of women and men farmers, stock-breeders and the inhabitants of rural areas throughout the world and then draw up proposals for courses of action. The WRF spearheaded, led and coordinated a successful campaign for a UN declaration of the International Year of Family Farming, drawing the support of 360 civil society organizations from 60 countries.

**Asian Farmers' Association for Sustainable Rural Development (AFA)**

Rm 206, Partnership Center

59 C. Salvador St., Loyola Heights, Quezon City 1108 Philippines

**Tel/fax:** 436-4640

**Email:** [afa@asianfarmers.org](mailto:afa@asianfarmers.org)

**URL:** [www.asianfarmers.org](http://www.asianfarmers.org)

**Facebook:** [afa@asianfarmers.org](https://www.facebook.com/afa@asianfarmers.org)

**Twitter:** [asianfarmers](https://twitter.com/asianfarmers)