

A NEW WORLD THROUGH COOPERATIVES

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FOOD SECURITY AND THE ROLE OF COOPERATIVES

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Introduction

According to the World Food Summit, food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Achieving food security means ensuring that sufficient food is available, that supplies are relatively stable and that those in need of food can obtain it. Although over the years governments, with support from FAO and other developmental agencies, have addressed food security and its related elements, in many ways, today some 800 million people in developing countries (about 20 percent of their total population) are chronically undernourished. With a growing world population present figure of 5.7 million is expected to rise 8.3 million by the year 2025, this situation will come to pass unless very determined and well targeted actions are taken to improve food security.

Causes for food insecurity

Chronic undernutrition and food insecurity are principally caused by:

- (i) Low productivity in agriculture, frequently caused, is part by policy, institutional and technological constraints.
- (ii) High seasonal and year to year variability in food supplies, also result of unreliable rainfall and insufficient water for crops and livestock production.
- (iii) Lack of off-farm unemployment opportunities contributing to low and uncertain incomes in urban and rural areas.

The cause and consequences of food insecurity and poverty are inextricably linked. One way to break the vicious circle of poverty and food insecurity is to increase agricultural productivity, particularly where gains, can be achieved by small farmers who are often among the poorest. As the world's population and living standards rise, the need for food will grow, and the availability of under utilised arable land will continue to decrease. Therefore, it is important to intensify production on land with agricultural potential currently in use using sustainable methods, rather than to encroach on land that is only marginally suitable for cultivation.

The underlying assumption is that in most developing countries viable and sustainable means of increasing food availability exist but are not realised because of range of constraints that prevent farmers from responding to needs and opportunities.

By organising farmers to identify and resolve such constraints whether they are of a technical, economic, social, institutional or policy nature and demonstrate ways of increasing production the cooperatives could be the way for improved productivity and broader food access.

Conservation of Natural Resources

The future of food security depends on the conservation and care of arable land, through attention to soil health and replacements of fertility, and the conservation and careful management of all water sources, so that more crops can be produced.

The world's future food production depends upon the availability of adequate and sustainable water resources. Water covers three quarters of the earth, but only a small fraction is accessible as freshwater. Indeed, water is a precious but finite resource. Agriculture is responsible for 70 percent of all the freshwater withdrawn. So, we can expect that more and more water will be used for irrigation, as world food production increases. Some water scarce nations are already withdrawing water supplies faster than they can be renewed.

At the global level, there is enough water available but some countries and regions will face severe water shortages. And by 2030, many developing countries will have increased, water withdrawals for irrigation; most countries have sufficient water resources to do so, however, one in five developing countries will be suffering water shortage.

At the same time, there is growing competition between water needed for agriculture and water for domestic use is burgeoning in cities and ever expanding industrial developments. So, today the world must act wisely to conserve, preserve and improve water supplies.

Community centred and managed land, water and biodiversity care movements, supported by appropriate legal provisions, will ultimately be the most effective in conserving and improving the ecological foundations essential for sustained productivity advance (M.S. Swaminathan).

Box 1

The African Development Fund (ADF) financing soil conservation projects having the objectives of the sensitisation of the population to organise themselves in economic community cooperatives and associations and the training of beneficiaries on soil conservation, new techniques/farming and agricultural produce conservation method.

Natural Resources and Environmental Economists throughout the world have identified 'cooperatives' as the core institutional intervention mechanism to preserve the natural resources. The economic dimension of natural resources viz., valuation of non market goods and putting monetary values on the environment for sustainable economic growth and development could be realised only through cooperative organisations irrigation and soil conservation cooperatives with the assistance of Government and non governmental organisation play a vital role in agricultural production

Box 2

In Turkey, there are four types of management structure for ground water irrigation viz., irrigation cooperatives, irrigation by public institutions, Ground water supplied by the General Directorate of state Hydraulic works (DSI) and irrigation by individual members. Groused water activities conserving irrigation cooperatives are jointly carried out by the DSI and the General Directorate of Rural Services(GDRS). Hydrological surveying, preparing feasibility reports, drilling groundwater wells, providing and mounting of motopumps, and building electrification systems are the responsibility of DSI. Foundations of cooperatives, construction of irrigation systems, and on farm development are conducted by GDRS.

The constructions of all schemes-wells, motopumps, electrification systems, irrigation systems are financed by the state but all investment costs except for irrigation systems are refused by the users with in 15 years. This three year grace period is assumed to be a time for development. Cooperatives make payments over 12 years in equal shares without any interest. Operation and maintenance services are performed by cooperatives according to operation and maintenance regulation. In case of high cost of maintenance for repair services the DSI can pay incurred cost and recovers this amount in certain period time.

Land Tenure

Land is a resource in agricultural production, but is ultimately fixed in supply. Ownership structure of land determines permanent improvement in land. Land reform policy of many countries addressed the issue of legal or constricted form of land tenure. Land tenure rights to the tillers improve their social status and sense of pride. Such land holding rights facilitate the farmers to be a member of cooperative society and to avail the services. Land redistribution and land resettlement of many countries paved the way for organisation of cooperative collective farming societies socialistic societies and collective farms as panacea for all social, economic, cultural and political evils.

Collective farms of kolkhozes are large scale farms organised by the Soviet state to bring households together is an attempt to apply modern agricultural technology and, thereby increase agricultural output. Collective farms and state farms still occupy 80 percent of the total cropland sown in Russia and the Ukraine.

Box 3

Approximately eighty percent of agricultural output in Israel is produced on cooperative and communal farms, the rest is produced by privately owned enterprises. There are four major forms of agricultural cooperatives in Israel. Kibbutzim, moshavim, communal moshavim and secondary service cooperatives.

A kibbutz (pl. kibbutzim) is a village of 200-2000 people. Today there are 269 kibbutzim in Israel. Basically the kibbutz is a commune in which members work on the collective farm and in the non farm enterprises manufacturing and services. Consumption (food, lodging, clothing, education, health care, etc.,) is provided on egalitarian principles and "according to needs". Strictly speaking and by conventional definitions, the kibbutzim are not cooperatives, but they are an integral part of the institutional setting of agriculture in Israel and their story complements the examination of the development of the farm cooperatives.

A moshav (pl. Moshavim) is a cooperative village made of 60-120 member families. There are 411 moshavim in Israel. The farms in the moshav are private, but all farmers are members of the village cooperative and provided by it with local services: marketing, provision of inputs, finance and municipal services.

A communal moshav is a village where the farm or non farm enterprises are run collectively, kibbutz style, while families own their dwellings. Members receive equal pay for working in the village enterprises, but run their own households privately. There are 45 communal moshavim in Israel.

Most of the secondary cooperatives are regional organisations, the members of which are either kibbutzim or moshavim (seldom both in the same cooperatives) the services they provide are produce collecting, sorting, storage, transportation, cotton ginning and financial services.

For years, cooperation and collective in Israel. The instruments of development of agriculture in Israel. By mid 1985 the accelerating inflation was reaching more than 500 percent on an annual basis. The crisis hit hard, it imposed costs in terms of interest charges and financial starvation that even strong economic entities could hardly sustain. Government intervention is debt resettlement bailed out the cooperatives and facilitated continued functioning of agriculture in Israel.

Agricultural credit

Credit is sometimes confused with capital, and it is also occasionally confused with farm inputs. Credit is not capital, but it can be used amongst other things, to make an investment such as buying an irrigation pump, which is capital. Credit is not an input into farms production like seeds, fertilizers, pesticides, or labour hours. However, it can be used amongst other things, to improve ability of farmers in critical times of the year to buy these inputs. Credit can be used to buy today what would otherwise not possible to buy until tomorrow. This purchase might be for consumption or for production.

Adequate credit to the farming community at affordable rate of interest (subsidised if possible) in their locality at the time of necessity will certainly transform the agricultural operations from conservative/traditional production practices to scientific farming. Though there are many sources of credit to farming community, cooperatives are widely acknowledged as an appropriate institution for the provision of agricultural credit both for investment and working capital.

Green Revolution in India is the cause for attaining food self sufficiency. The Green Revolution schemes were implemented through the agricultural credit cooperatives. Investment credit by the Agricultural and Rural Development Banks, crops loans by the Primary Agricultural Credit Societies transformed the entire agricultural scenario from subsistence to surplus production. Due to social control and nationalisation of a commercial banks, agency approach to rural credit gained momentum. But still the cooperative credit structure in India is the core sector cater to the needs of small farming community throughout the nation, thanks to the government patronage. Reforming, revitalising, restructuring and recapitalising cooperatives by the government deserves special appreciation from the food economists.

Mechanisation

Mechanisation is defined as the use of non-human sources of power for undertaking agricultural tasks. Three basic types of mechanical technology are identified as:

- (a) Hand tools or implements that increase the effectiveness of human power.
- (b) Drought animals/machines or equipment which make use of animal power, and use of mechanical power.
- (c) Engine or motor driven machines, which make use of mechanical power

Mechanisation improves the efficiency of farming activity and increases the agricultural productivity and production. Knowledge /information era depends more on mechanised, scientific and viable farming than uneconomic practices. Farmers wants to speed up the farming operations either by purchasing the machine on their own or availing the series on ranteil basis. Huge investments for mechanisation to not possible to the small farmers in developing countries.

The successful operations of Agro-Engineering cooperative societies in India deserves special mention. They undertake;

- (a) purchase and sale of farm tools and machines
- (b) extending the services of tractors and threshers on rental basis.

Existence of Agro-Engineering cooperatives are possible only if they coordinate with the Primary Agricultural Credit Societies and the Agricultural Marketing cooperatives. No one can deny the fact that the continuous use of tractors by the farming community in India is materialised because of cooperatives. Developing countries wants to increase agricultural production can consider this as model.

Agricultural inputs

New seeds, fertilizers and irrigation water are complementary inputs. This means that the highest levels of yield are only achieved by the simultaneous increase of all there types of variable input in correct proportions. Green Revolution package of developing countries envisages a major role for the state. Investment in public irrigation schemes, delivery to farmers of certified seeds together with the appropriate quantities of fertilizers and other farm chemicals, provision of credit, and advice concerning the proper agronomic practices to put into effect. The package approach to inputs has become less prevalent in the liberalisation, privatisation & Globalisation era. Cooperatives were used as a tool for implementing green revolution schemes. Still the cooperatives are doing the same to increase agricultural productivity. Even the developed countries big farmers depends on the input services provided by cooperatives.

Box 4

The Indian Farmers Fertilizer Cooperative Limited (IFFCO), the largest fertilizer sector cooperative, was established in 1967, with the primary objective of increasing agricultural productivity and improving the rural economy by producing quality fertilizers and promoting the balanced use of these fertilisers. It is a multi unit cooperative a federation of approximately 30,000 societies from village to national level. IFFCO has also established 174 Farmers service centres where fertilizers, seed and agrochemicals are supplied under one roof and where farmers receive technical advice on the use of these agricultural inputs. The cooperative has far reaching national linkages with farmers, researchers, extensionists, the private sector and government.

Since 1992 IFFCO has launched as Integrated Plant Nutrition System (IPNS) programme in response to the identified need for more balanced nutrient application in Indian agriculture. The main objective of the programme is to improve soil fertility and productivity at farmers level in order to increase agricultural production and farmers income.

Agricultural Marketing

Marketing is concerned with those productive activities that add time, place, and form utility to agricultural commodities. The existence of marketing is a result of specialisation and trade in the economic system

The agricultural producer really sells his output directly to consumers. Usually there are several stages in the marketing process, and it is generally conceded that the cooperative marketing societies are necessary in some of the states.

There are undoubted and major success of cooperative organisations in both East Africa and India at two levels. Some very big and flourishing organisations have been built up the lake Victoria cotton cooperatives (Mwanza, Tanzania), the Anand dairy (Gujarat, India), or some of the Maharashtra(India) sugar cooperatives. In such cases, the two major factors seem to have been: (i) a clear economic advantage, and an indivisible (process by ginnery, dairy or sugar factory); and (ii) strong and competent business management, although sometimes marred by corruption.

Cooperatives play a major role in Kenya's widely diversified agricultural economy. Cooperatives at all levels are essential to the production of coffee, Kenya's main export crop. Coffee arabica-unlike robusta-has to be processed immediately after picking. The small farmers delivers the coffee cherry to the cooperative society and is paid according to the weight of the cherry. After processing, the society delivers the parchment-via the district union to the Kenya planters cooperative union (KPCU).

Korea has made phenomenal economic advances and the cooperatives have been an important component. In 1961, a three tier structure including the National Agricultural Cooperative Federation(NACF) was established to take over all functions of the cooperative movement. The overall objectives of the agricultural cooperatives are threefold:(I) to increase agricultural productivity;(ii) to improve the social and economic status of its members; and (iii) to promote the balanced development of the national economy. To achieve these objectives cooperatives are engaged in banking, marketing, farm supplies, insurance, processing, farm guidance, research, education and public relations Government has given its support in a practical influence on cooperative policies.

Conclusion

Around 80 percent of the people in developing countries are depending on agriculture, and often victims of famine, drought and so on so forth. Death due to poverty is a common phenomena in many pockets of developing countries. The identified causes of poverty are low yield and misdistribution of wealth. Only cooperatives are panacea for all evils. And considered as an instrument of socio economic change, cooperatives throughout the world particularly in the developing countries concentrate more on agricultural production. Success stories so far discussed in this paper depicts the strength of cooperatives in developing countries particularly in relation to food production.

Large farms of developed countries can produce more with the agricultural support system, but its flow to the developing countries affects small farmers and creates dependency syndrome. Food security of a nation should be achieved on their own efforts and resources. Optimum utilisation of resources through cooperatives will certainly ensure food security to the suppressed and depressed community of the world. Now a days many developing countries enjoy the sense of pride in food self sufficiency, because of its agricultural cooperatives. Hence the paper strongly recommend the continuous patronage of governments to cooperatives to achieve food security.

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