PEASANT'S AGRICULTURE IN ASIA

COMPILATORS:
François Houtart
Wen Tiejun

COLECCIÓN SUR-SUR

RUTH CASA EDITORIAL

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FOREWORDS

THE CHALLENGE OF PEASANT AGRICULTURE

François Houtart[1]

To raise the question of peasant agriculture in a seminar[2] organized in China is a real challenge, because of its long tradition in this country. However it has also today a new perspective, because of the rapid urbanization and industrialization process, even if the context is quite different here and in other Asia countries as in the rest of the world.

There are three main reasons for the importance of the topic. First is the necessity of feeding humankind. In the middle of the century, we will have between 9 and 10 billion human beings to feed in an increasing urban proportion, which means that food production will have to be multiplied by two or three. The second reason is to save the planet. This is not only a quantitative question. It means the necessity of developing a type of production respectful of the regenerating capacity of the earth. Every year this capacity is reduced and agriculture, as it is performed

1 (Belgium) A sociologist and professor emeritus of the Catholic University of Louvain, he is the vice-president of the World Forum for Alternatives (WFA).

2 Seminar on Peasant Agriculture in Asia, organized by the Department of Rural Economics of Renmin University (Popular University) of China and the Tricontinental Centre of Louvain-la-Neuve (Belgium), between the 15th and the 17th of November 2010.

today, is part of the problem. Finally the promotion of welfare for about 3 billion people living on agriculture is also at stake. All this is a task for everyone in the planet.

1. The destruction of peasant agriculture

During the last forty years we have been witnesses to an acceleration of the destruction of peasant agriculture in which many factors have intervened. The use of land for agrarian activities has diminished because of a rapid urbanization and industrialization process. Therefore, the rural population has declined relatively. In the year 1970 we had 2.4 billion people in rural areas against 1.3 in urban areas. In 2009, it was respectfully 3.2 billion against 3.5.

At the same time the adoption of a monoculture type of farming has provoked a huge concentration of land, a real counter-land reform, which has been accelerated during the last few years with the new phenomenon of land grabbing, estimated in the southern continents to be between 30 and 40 million ha; and in Africa alone 20 million ha.

This has been linked with the production of cash crops for export. One striking example has been Sri Lanka, where in 1996 a report of the World Bank was proposing to abandon rice production in favor of exports production. The reason is that it was cheaper to buy rice from Thailand and Vietnam than to produce it in Sri Lanka. For more than 3,000 years Sri Lanka has been producing rice as their main staple, but market laws must prevail, without any other consideration.

Therefore the World Bank asked the government to put an end to all regulating measures and institutions for the rice market, to put a tax on irrigation water, increasing the cost of rice

production, privatize the common lands in order to make the peasants able to sell their land to local or international companies. In the face of the resistance of the present government, the World Bank used pressures, namely with international loans. The following government, more inclined to neo-liberalism, produced a paper called "Regaining Sri Lanka," where it accepted the idea, thinking that such a solution would produce cheap manpower for industrial development with foreign capital. But Sri Lanka has been doing this for more than forty years while the working class has struggled for better salaries, social security and pensions. So manpower has become too costly and foreign capital is even leaving the country to go to Vietnam or China, where manpower is cheaper. So the solution was to reduce labor costs by cutting real salaries, dismantling social security and reducing the amount of pensions.

To export cash crops meant also to import cheap agricultural products, especially in many countries of the South which were surpluses of American or European productivist and subsidized agriculture. This in several cases destroyed the local agricultural production, like chicken in Cameroon and beef in Ivory Coast.

Monoculture production developed also a massive use of chemical products and the introduction of genetically modified organisms. All this has been linked with a productivist model of agriculture, legitimated by the growing needs, ignoring all long-term effects and in fact oriented by a profit-making economy.

2. Ecological and social effects

From the ecological point of view, effects are well known. We can mention deforestation (130,000 square km destroyed every year: the equivalent of Greece territory), but also the destruc-

tion of biodiversity. It means an irrational use of water provoking droughts in many regions. It provokes contamination of soils (In Nicaragua certain chemicals products used for sugar cane production take almost a hundred years before dissolving), but also of underground water, of rivers and even of seas. The delta of the Red River in Vietnam has started to be polluted in such a degree that fishing is diminishing. In the Gulf of Mexico, before the Mississippi estuary, there is a phenomenon of "death sea" over an area of 20,000 square kilometers (no more animal or vegetal life), because of the amount of chemical products being swept along by the river, in regions where maize for agrofuel has been massively developed. In many cases the end results in fifty or a hundred years will be desertification.

Social consequences are not less damaging. Food production is displaced toward less fertile lands and in various countries is diminishing. West Africa which was self-sufficient until the 1970s has to import today 25% of its food. Indebtedness and poverty of the peasants are accompanying the development of monocultures under the direction of big companies: small peasants are totally submitted to them for credit, inputs, commercialization, food and consumers goods.

Serious health problems are provoked among the workers and their families, because of the use of chemical products and also because of water pollution. In some cases the premature death of agricultural laborers is common.

Millions of peasants are displaced by force from their land, under various schemes and in certain countries, like Colombia, with the violence of military operations or of paramilitary forces at the service of landlords and agribusiness. In Latin America four million have been displaced in Colombia, six million in Bra-

zil, one million in Paraguay, and in Asia six million in Indonesia. This phenomenon is increasing the migration pressure to foreign countries and creating political problems. A special case is the one of the ethnic minorities, losing their land and the basis of their existence.

3. The case of agrofuel

Mankind is facing the necessity of changing its sources of energy in the next fifty years when fossil energy will be exhausted. Among the new sources, agro energy is supposed to provide a solution, with ethanol from alcohol, coming from maize, wheat, sugarcane and agrodiesel from vegetable oil: palm trees, soya, and jatropha. Because Europe and the USA do not have enough arable land to produce what they need, a phenomenon of land grabbing is taking place in the continents of the South. Local governments are often accomplices, because they see the opportunity of diminishing their fuel bill or to accumulate foreign exchanges. According to plans for 2020 (in Europe, 20% of renewable energy) more than 100 million ha will be transformed for agrofuel and at least 60 million peasants will be expelled from their lands.

Huge extensions of land are planned for such a purpose. Indonesia plans a new extension of 20 million ha for palm trees. Guinea Bissau has a project of 500 000 ha of jatropha (one seventh of the country's territory) financed by the casinos of Macao. An agreement was signed last October in Brasilia, between Brazil and the European Union to develop 4,8 million ha of sugarcane in Mozambique, in order to supply Europe with ethanol. All this involves a tremendous destruction of biodiversity and of social environment.

If agrofuel is not a solution for the climate (because the total process of its production is destructive and produces CO_2) and if is not a real solution for the energy crisis (perhaps 20% with the existing plans), why such a project? Because it is greatly profitable for capital in the short term and so it contributes to alleviate the crisis of accumulation and allow speculative capital to intervene.

4. Peasant resistances

All over the world, peasant movements are resisting. It is the case of the Landless Peasant Movement (MST) in Brazil, of the Indonesian Peasant Movement (SPI), of ROPPA in West Africa, etc. La Via Campesina, an international federation of more than a hundred peasant movements in the world, has been also on the move and has organized several seminars to alert peoples and authorities on the matter. Organizations for the defense of the environment, in favor of organic agriculture (namely in Korea and China) or urban and suburban agriculture (like in Cuba) are acting in the same direction. Finally academic centers of agronomy and social sciences manifest a growing awareness of such a problem and are proposing alternative solutions.

5. The reasons of such a development

The first origin of such a development has to be found in a philosophical approach, the one of a linear conception of progress without end, thanks to science and technology on an inexhaustible planet. Applied to agriculture, this means the "Green Revolution," as we have seen in Asia, particularly in the Philippines and India, with a high productivity, but the concentration

of land, soil and water contamination and growing social inequalities.

The second reason is the logic of the economic principles of capitalism. In this vision, capital is the driving force of the economy and development means accumulation of capital. From there the central character of the rate of profit leads to speculation. Financial capital has played a major role in the food crisis of 2007 and 2008. Capital concentration in the agricultural field means monopolies, such as Cargill, AMD, Monsanto, etc. Agriculture becomes a new frontier of capitalism, especially with the failing profitability of productive capital and the crisis of financial capital.

Such logic of the economic model ignores the "externalities," i.e., the ecological and social damages. They are not paid by capital, but by the collectivities and by the individuals. Liberalization of the exchanges has increased the mercantilization of agricultural products as commodities and encouraged Free Trade Agreements, which in fact are treaties between the shark and the sardines.

6. Necessity of a transformation

Everyone sees that it is not possible to go on with agricultural policies based on the disappearance of peasants. The World Bank published in 2008 a report recognizing the importance of the peasantry to protect nature and to fight against climate changes. It advocates a modernization of peasant agriculture, through mechanization, biotechnologies, genetic modified organisms, etc. It envisages a partnership between the private sector, civil society and peasant organizations. But all this remains within the same philosophy (see the introduction paper of Laurent Delcourt).

No structural transformation is envisaged. It is a transformation within the system. One recent example is the AGRA Program in Africa, promoting hybrid seeds, genetic modified organisms, etc. The project was initiated by Rockefeller and the Bill and Melina Gates Foundation is founding several of the projects, including one of Monsanto's, which received more than 100 million US dollars from the Foundation.

On the contrary, another type of transformation can be envisaged. Very soon after the 2008 report of the World Bank came a report of the "Assessment of Agricultural Knowledge, Sciences and Technology for Development (IAASTD), where the four hundred specialists consulted came to the conclusion that peasant agriculture was not less productive than industrial agriculture and has an added value: its cultural and ecological functions (see Laurent Delcourt).

This raises immediately the question of the conditions necessary for an efficient peasant agriculture. It is no more necessary to prove its agricultural productivity. But there are also other economic, social and cultural conditions to make of village life a dignified and valuable milieu, especially for the youth. It will be also necessary to revise the relations between urban and rural areas. This is what we will discuss in the following documents, after the description of the situation of peasant agriculture in various countries of Asia.

All this also raises a more fundamental question: the necessity of searching for real alternatives and not only an accommodation of the capitalist system. This means a revision of the paradigms of collective life for mankind on the planet: its relation with nature (from exploitation to respect), the production of the bases for life of any kind: physical, social, cultural, spiritual of all

human beings in the world (an economy based on use values and not primarily on exchange values); a generalized democracy for all social relations, including the one between men and women and all institutions; and finally interculturality, which means a possible role of other cultures, knowledge, philosophies, and religions other than the western ones to define development and propose an ethics.

Participants at the Seminar on Peasant Agriculture in Asia, Renmin University (Popular University) of China, November 2010.

UNDERSTANDING PEASANTRY AND LAND REFORM IN ASIA

Wen Tiejun[1]

In the 1930s, the intellectual circles in China went through a period of self-reflection. A group of scholars, focusing on the context of the Chinese situation, started a discussion of the Asiatic mode of production. They referred to the self-reflective writings of Karl Marx (1818-1883) in his late years concerning his limited knowledge of ancient societies in Asia. He admitted that his theory, derived from the tradition of English anthropologist Lewis Henry Morgan (1818–1881) and English natural scientist Charles Robert Darwin (1809–1882) on the five historical epochs, namely primitive communism, slavery, feudalism, capitalism, and lastly, socialism or communism, in the West, was not applicable to the unique character of China. For example, the western institution of slavery never appeared in China.

Self-sufficient communities based on social groups emerged when tribesmen irrigated their land together along the Yellow River and the Yangtze River. The Xia Dynasty (ca. 2070 BC–ca. 1600 BC) that emerged more than 4,000 years ago as the first dynasty in China was a result of Xia Yu's success in developing an irrigation system preventing the flooding of the Yellow River.

1 He is the Executive Dean of the Institute of Advanced Studies for Sustainability of Renmin University, China.

Such historical processes were neither related to class oppression nor pillage.

In ancient countries like China and India, irrigation-intensive agriculture was the primary mode of subsistence. This mode of production required small social groupings such as family or village to be the basic unit of society. Their historical development therefore differs from some western societies which consisted primarily of hunter-gatherers and herdsmen, with the individual being their basic social unit.

China has close to 20% of the world's population, but only 9% of its arable land and a mere 6% of its fresh water. Over the centuries, China had its share of drought or flood-induced famines. But if not for a 6,000-year history of irrigated agriculture, with its related "village rationality" based on traditional indigenous knowledge—which internalizes risks by its multifunctional rural cultures of sustainable self-reliance—China would have been a land of perpetual hunger.

In Asia, unlike India, Indonesia, and the Philippines, China has never been completely colonized by the West. Following the 1949 land revolution in China, all arable land in villages was distributed in the form of use rights to all households according to the number of people in the family. Since there was no private ownership of land and water in rural China, no one could be laid off in the course of the village's economic development, and no one wanted to leave the village because, without private land rights, they would also be leaving their economic security behind. Periodic redistribution of land use rights by village collectives guaranteed the rights for those who had not transferred their residence away from the village. Such a kind of multi-func-

tional right naturally created a rationality that could absorb the cost of external risks through mechanisms within the villages.

Village rationality was originally derived from traditional rural culture that stressed resource sharing, income parity, cooperative solidarity, social justice, and the morality of village elites. Although it is true that village elites and large landholders were not always moral and human relations in villages were frequently far from ideal, these indigenous cultural features were originally created in response to extreme constraints of limited natural resources during the thousands of years of rural China's history of irrigated agriculture.

The rural institutions based on the historical cultural elements, in addition to the equity of village members' use rights to the land, created by the land revolution in the Maoist period, assisted in village resiliency and helped overcome natural disasters. Stemming from the 1980s rapid growth of ownership and township-village enterprises (TVEs), more than eight thousand villages in rural China underwent successful capital accumulation for rural industrialization in the name of a socialist collective system. They benefited from village rationality based on traditional culture, with much lower institutional cost than urban industry.

China has in great part accomplished the historical process of transition from capital accumulation for the formation of high-risk urban industry—although at an extremely heavy internal cost to rural society. It is unique in being the only emerging industrialized nation among the "underdeveloped" countries that has been able to pass through an industrial revolution while retaining an "indigenous" population larger than 100 million.

But China has continued to suffer after entering the period of industrial expansion. Its problems were not just caused by the severe crisis of the mid-1990s, when government debt to GDP was 140 %, and 30 million urban workers were made jobless, hence stirring up a big noise from the Western media about "China collapse." These problems were also related to the impact of the East Asian financial turmoil in the late 1990s, at the same time as China was in the process of joining the World Trade Organization, and thus becoming increasingly integrated into the world competition of financial capital.

In 2007 the Chinese central government issued a national strategic document to transform the industrial capital-oriented economic mode, with its heavy pollution burden, into a new historical period of "Ecological Civilization." The government's long-term agricultural policy in 2008 also followed suit; the new sustainable target became "resource conservation and environmentally-friendly agriculture."

Recently, developed countries with agriculture based on small farms in the European Union or households in Japan and Korea have given up capital-intensive agriculture based on big farms in the United States. They have gradually reformed their policies and now promote both multifunctional agriculture and comprehensive agrarian regional development. There is some emphasis on organic production for food quality and safety, as well as rural ecological environmental protections combined with traditional rural cultural regeneration. Increasingly people understand that traditional agriculture and indigenous knowledge, developed before the domination of modern chemical-intensive agriculture, were derived from experiences in different climatic zones and environments, and were maintained by the

rural households. Although most of these traditional systems have minimal economic returns, they frequently have optimal positive effects in protecting the environment and providing for sustainable livelihoods.

Over thousands of years traditional multifunctional agriculture, originally maintained by village and small household farming, was able to develop and apply what are essentially systems of eco-environmental sustainability. This has been gradually recognized as important, not because of modern education or mainstream institutions, but because of the challenges of global warming in adversely affecting yields and incidents of low food safety and quality.

Most developing countries and regions in Asia, like rural China, have regional agriculture that can be congruent with the characteristics of nature of heterogeneity and diversity that will be essential for an ecological civilization. Some progressive intellectuals in the West also recognized that agriculture in Asia bears the characteristics of sustainability and permanency. In 1909, Franklin Hiram King (1848–1911), an American agricultural scientist, visited China, Korea and Japan and learned about their agricultural practices and customs. Two years later, he published his pioneering book, entitled *Farmers of Forty Centuries or Permanent Agriculture in China, Korea and Japan*. In the first paragraph of the introduction, he criticizes the western industrial agriculture that was imposed on China, Korea and Japan, and then to the world:

> It should be borne in mind that the great factors which today characterize, dominate and determine the agricultural and other industrial operations of western nations were physical impossibilities to them [*referring to China, Korea and Japan*]

one hundred years ago, and until then had been so to all people.

On the other hand, the question of land reform in Asia has never been seriously discussed by Asians: that the land reforms in South Asian countries have not yielded any "successes," even if they have been scientific and legal whereas the land reforms in East Asian countries and regions have not yielded any "failures," whatever ideologies or political systems the countries or regions claim to be.

It is necessary to study the differences of land reform experiences in the different regions of Asia. In South Asia, despite the fact that land reforms "scientifically" set different ceilings to the land holdings and "legally" compensated landowners for the surplus land which was then distributed to landless peasants, the land reforms were conducted for the purpose of land reform only, and so they were part of the unsuccessful policies of the national bourgeoisie which by nature were subordinate to a colonialist economy.

It was a different situation in East Asia. Whether it was the "institutional change by coercion" pushed through with violence by three wars for land in mainland China, or the "institutional change by incentives" practiced in Chinese Taiwan whereby the government compensated landowners with future shares of state industries and commerce, the land reform was a unified policy implemented in the whole country or region, and based on equal distribution of land at the village level. Land reform is never a question of agrarian institution in itself, but the most fundamental core relations of property for the national economy of

the country or region in East Asia to get rid of colonialism and struggle for independence and autonomy.

Hence, land reform for the peasants is simply land to the tillers, but land reform for the country is fundamentally and institutionally building, instrumental to the strengthening of the national economy. In East Asia, it was implemented in countries or regions that claimed to be either "socialist" or "capitalist"—China, Vietnam, Korea, Japan, Chinese Taiwan. The nature of land reform is of democratism and not of socialism. Hence, the success of the land reform in East Asia was not a result of ideology or institutional legislation borrowed from the West. In a word, land reform should not be an independent change of the agrarian institution, but should be a basic component of a comprehensive program for building the national economy.

Chapter 1
EAST ASIA

PEASANT AGRICULTURE IN CHINA

Tsui Sit[1]

1. A historical review

(1.1) Peasant agriculture

Liang Qichao (1873-1929), a renowned modern politician, visited Europe in 1918 and 1919. He had been involved in pushing for western democracy and parliamentary government. But he changed completely after witnessing the destruction wrought by the First World War in Europe. He then went back to study the Chinese traditions again. In *A History of Chinese Culture* (1923), he concluded that Europe was based on urban governance, whereas "China is based on village governance but not urban governance." Village governance is composed of two main factors: small peasantry and village community. He argued that small peasantry has been the nature of China's society for at least two thousand years, which is derived from the practice of dividing up property among family members. He further elaborated that during Qing Dynasty (1644-1911), it was stated legally that family property should be divided up equally among the offspring. In that sense, the majority were small property owners or small landowners.

1 (China) She is a Post-doctorate Researcher, Renmin University of China.

Moreover, Wen Tiejun, one of the most influential experts on rural China, argues that China traditionally has practiced dual land ownership for thousands of years. "Dual structural property rights" means that the villagers can hold the membership right of the village resources as shareholders. He further explains:

> The "separation of rights in land ownership and land use" is a system derived from the internal structural logic of the rural society: on the one hand, the increase in population, which led to a tension of land-population ratio, had prevented the land ownership from falling into the hands of a few. On the other hand, as a result of a high rental rate, the right in land use was limited to kulak and mid farmers, who had the capability to manage agricultural production. These property rights systems maintained a balanced distribution of land resources and rural labor that supported an extremely stable social structure of the Old China for centuries.

Village community is also the cornerstone of rural society. Chinese ancestors lived along two main rivers, i.e., Huanghe (Yellow River) and Changjiang (Yangtze River). The formation of the Xia Dynasty (ca. 2070–ca. 1600 BC), the first dynasty in China, was a result of Xia Yu's success in developing an irrigation system preventing the flooding of the Yellow River. A village or a peasant cannot individually solve the problems of irrigation such as flooding and drought. The driving force of survival requires a cluster of villages along the rivers to work together to discuss public affairs and to deal with the external crisis. So it is about an arrangement of collective labor and a protection of common property. Local governance is derived from village community building that paves the way for the development of nation-

building. Chinese civilization is based on irrigation, agriculture, small-scale peasantry, and village communities.

Moreover, village communities usually contain three crossed layers of relations: kinship (blood), neighborhood (locality), and agricultural fellows (farmers). Village communities not only solve external crises such as natural disasters, but also turn the crisis into the reinforcement of the capacity of crisis management. This nevertheless requires mass mobilization among peasant families and village communities. Thus, the practice of sharing common property as well as solving common problems is inclusive and cooperative.

(1.2)The thread of modernization

Wen Tiejun, in his classic and controversial article "Centenary Reflections on the 'Three Dimensional Problem' of Rural China" (1999), originally published in *Dushu*, a well-known intellectual journal in the mainland, argues that the rural area is always appropriated and exploited for national modernization: "China's problem is the tension aroused by an agrarian society, characterized by overpopulation and limited resources, in the process of internal and primitive accumulation of capital for state industrialization."

Wen explains firstly that rural problems in China cannot be simply treated as an agricultural issue, but should also involve the interrelations between "rural people (income/migration), society (social capital development and multiple socioeconomic and political issues), and production (agricultural vertical integration/township and village enterprises development)." Then he further elaborates two basic paradoxes of China's development: the constraint on land reform under the pressure of high

population density, and the constraint of an agricultural surplus-distribution system under the binary system dividing the urban from the rural. He believes that the essential problem is the means of extracting capital from a highly scattered and low surplus agricultural economy. To put it simply, in Wen's eyes, China is "a cluster of villages" but not "a financial city."

Taking a historical perspective, Wen examines the thread of modernization in China from the middle of the nineteenth century to the present. He summarizes China's development as "four phases of industrialization of a peasant state," with the ultimate aim of becoming a modern powerful state to counter European and Japanese imperialism, and the United States' embargo during the cold war. First, the Westernization Movement initiated by the Qing dynasty from 1850 to 1895; second, the industrialization policy pursued by the Republican government from the 1920s to the 1940s; third, the "State Capitalist Primitive Accumulation" practiced by the Chinese Communist regime from the 1950s to the 1970s; and fourth, Deng Xiaoping's promotion of the reform and open-door policy starting from the 1970s.

Wen not only criticizes the recent policy of market-oriented industry, but also the state policy of industrialization in Mao's period:

> China was forced to carry out an unprecedented self-exploitation led by a highly centralized government: in the villages, they implemented the symbiotic system of people's communes and state monopoly for purchase and marketing, while in the cities they established a system of planned allocation and bureaucratic institution. By controlling all surplus value produced by both rural and urban labor, the central govern-

ment redistributed resources to expand heavy-industry based production.

The desire of erasing the shameful memory of being a defeated semi-colony and the anxiety of lagging behind as a backward peasant country underlie in the drive for modernization. Thus, the exploitation of the rural is rationalized in terms of a vision of building modern China in the world, countering the West. Hence it is not surprising to see that the rural in China is being appropriated for the realization of industrialization which, in view of the pre-emptive measures against communist China during the Cold War era and continuing even up until now, could only find a short cut in the capitalist world market by conceding to it access to China with the Open Door Policy. In other words, industrialization as the means to secure independence and safeguard sovereignty, leads to marketization and the subjection to not only the values of capital but also the dominant discourse and practices of developmentalism that sees the capitalist trade and market as its precondition.

As Wen Tiejun explains, China adopted four kinds of industrialization strategies: (a) extracted surplus value from the agricultural sector through low purchasing prices of agricultural products and high pricing of industrial products; (b) forced the modernization of agriculture to absorb domestic industrial products through rural collectivization; (c) mobilized intensive and massive labor input to substitute for capital factor under conditions of extreme capital scarcity. When faced with economic crises, the Chinese Communist Party (CCP) tried to ride them out by transferring the redundant labor force to the rural sector through ideological mobilization. He even concludes:

> In China's sixty-year history of industrialization, it is observed that as a rule whenever the cost of crisis could be transferred to the rural sector, the capital-intensive urban industry sector could be much abated, allowing it to achieve "soft-landing" thus maintaining the pressure on the existing institutions. Otherwise, a "hard-landing" in the urban sector would be incurable. Consequently, major reforms in the fiscal and even economic systems would become necessary to defense discontent.

Furthermore, according to Kong Xiangzhi's research, the contribution of peasants to nation building in the first sixty years of the People's Republic of China is around RMB 17.3 trillion, made possible by policies such as the instituting of the methods, the price scissors system of agricultural and non-agricultural products, the mobilization of cheap labor, and land acquisition.

Yet despite all these, the peasants are still willing to support the state's industrial policy which exploits peasant labor and land. This is so partly because the CCP had completed Land Reform (1949-1952).

CCP used the traditional slogan of "land to the tillers" to mobilize hundreds of thousands of peasants to fight for land revolutions and the national independent liberation movement. After 1949, CCP took power and then completely implemented land reform. Land is equally distributed among peasants. At least 85% of peasants obtained the benefits of land distribution. Each peasant has a small plot of land. The per capita arable land was 0.11 ha in 2008. In other words, around 900 million small landowners are highly dispersed throughout the whole nation.

Now the total population is 1.3 billion. The total of arable land is around 122 million hectares. Land is mainly for food production in order to maintain self-sufficiency. According to FAO's statistics, of the total cultivated land of China, around 86% was cropped for food. Of these food crops, 78% were cereals (rice, maize, wheat, barley, sorghum), 10% beans, 8% sweet potatoes and 4% other crops. China's arable land, which represents 10% of the total arable land in the world, supports over 20% of the world's population. Although China's agricultural output is the largest in the world, only about 15% of its total land area can be cultivated. There are around 240 million small rural households and 680 thousand villages. Each peasant has a piece of land but is actually managed and controlled by the village committee. As a whole, the majority of the population of China is small property owners or small landowners.

Strictly speaking, the peasant workers are not the proletariats, who have nothing for sale but only their labor power. The peasant workers still have their own small plot of land for survival. They are not landless people. This is absolutely the legacy of the 1949 Revolution: one of its political achievements has been the realization of the material gain for the majority of people, i.e., the peasants. Nowadays, peasants and workers are increasingly suffering from exploitation and social injustice, but the residual socialist practices still more or less prove themselves to be a hindrance to the neo-liberal globalization and its destructive projects of modernization. At present, it is of utmost importance and urgency that we should safeguard the gains of the successful land revolution of 1949 for small peasants.

2. Challenges for peasant agriculture

(1.2) Loss of arable land

In 2010, China stood as the second largest economy after the United States. According to international financial statistics of IMF, China foreign reserves reached 3.1 trillion in March 2011, which accounted for nearly one-third of the share of the world foreign reserves. According to the WTO secretariat, China's GDP was 9.6% in 2008, 9.1% in 2009 and 10.3% in 2010. But this kind of "rise" is achieved at the expense of the small peasantry and rural society.

The loss of arable land is one of the problems. Government estimates that the current amount of arable land is roughly 122 million hectares, which has been unchanged since 2005. According to Tan Shuhou's research, the ratio of construction land in arable land occupation has continuously increased from around 10% in 2002 to 80% in 2008. The Ministry of Land and Resources disclosed that in the loss of arable land 77% goes to construction projects.

According to *2011 China Urban Development Report* by China's Academy of Social Sciences (CASS), currently the number of Chinese peasants who have totally or partially lost their lands amounts to 40-50 million. The number is going to increase by 2-3 million per year. Land expropriation is propelled by local governments and speculative financial capitals. Since 2000, only 20-30% of the capital gain obtained from value added to land has been distributed to the village level and merely 5-10% is eventually allotted to be shared by the peasants as compensation. Local governments take away 20-30% of the added value whereas real estate developers take the lion's share of 40-50%. Sixty percent of peas-

ants' petitions were about land disputes. A third of these cases are about land confiscation. Sixty percent of those surveyed are facing difficult living conditions, particularly related to problems of income, retirement and health care.

Whenever the Chinese government confronts a crisis of deficit, it adopts the policy of decentralization of the tax and revenue system which leads to the local government's dependency on local revenues. In 1984, local governments occupied farmlands for local industrialization to generate income. This period can be named "land for local industrialization." In 1994, the policy of decentralization of the tax and revenue system was further implemented. Most of the banks were in a crisis of deficit. Local governments again appropriated farmlands to invest in commercial projects. This period can be named "land for commercial fortunes." In 2003, local government took farmlands for mortgage loans from commercialized banks. This period can be named "land for mortgage loans."

The National Statistics Bureau announced that according to a sample survey and comprehensive statistics conducted in 31 provinces throughout the nation, in 2010, the total grain production was 54,641 million of tons, which meant an increase of 1,559 million tons, or 2.9%, when compared with 2009. This is the seventh consecutive year of increasing grain production. However, at the same time, the use of chemical fertilizers has increased for over the past 30 years. According to Tan Shuhao's research, the use of chemical fertilizers has increased from around one million tons in 1979 to around 5.5 million tons in 2009.

According to the Ministry of Water Resources, roughly 300 million people do not have access to safe drinking water. According to China's State Environmental Protection Agency (SEPA), in 2006,

60% of the country's rivers suffered from pollution that could not be used as drinking water sources. This crisis is compounded by the perennial problem of water shortages, with 400 out of 600 surveyed Chinese cities reportedly short of drinking water. Continuous polluted emissions are from industrial and municipal sources, as well as from pesticides and fertilizers.

(2.2) Soybean importer

According to Lan Lan's "Battle of the Beans," published on *China Daily*, dated August 23, 2010, international players such as Archer Daniels, Midland, Bunge, Cargill and Louis Dreyfus, and Wilmar together account for over 70% of the oil production plants and nearly 80% of the soybean processing capacity in China.

They largely use imported GM soybeans, which are about RMB 300 to 600 cheaper per ton than non-GM soybeans. China consumes about 10 million tons of soybean oil and about 40 million tons of soybean meal per year, more than 80% of which is imported or made from imported GM soybeans.

In terms of soybeans and its processing sector, China largely depends on the foreign market. According to Chen Xiwen, a national committee member of the Chinese People's Political Consultative Conference (CPPCC) and the director of the Central Rural Work Leading Group, CCP, China has become a country largely depending on the import of soybeans. In 2009, China imported 4,255 million tons of soybeans, accounting for 53% of global soybean trade. In 2010, China imported 5,480 million tons, accounting for 60% of global trade. In February 2012, Chinese powerhouses like China National Cereals, Oils and Foodstuffs Corporation (COFCO Co.), the country's largest state-owned

grain trading house, and China Grain Reserves Corporation (Sinograin), which manages state grain reserves, signed agreements with US grain companies such as Archer Daniels Midland, Bunge and Cargill to buy 8.62 million metric tons of soybeans and then purchase more topping 12 million metric tons.

Before 1995, China was a net exporter of soybeans, but by 2010, it becomes the world's largest soybean importer.

(2.3) An exodus of peasant youths

Moreover, the speedy industrialization and urbanization has led to an exodus of peasant youths. In 1978, Deng Xiaoping started to implement the reform and open-door policy. In that year, rural population and urban population were respectively 82.08% and 17.92%. In 1992, Deng Xiaoping visited south China to urge for commercialization and financial reforms. In that year, the rural population was 72.54% and the urban population was 27.46%. According to the report of "China's Total Population and Structural Changes in 2011", issued by the National Bureau of Statistics of China, the proportion of urban population was more than 50% for the first time. In 2011, the proportion of urban population reached 51.27%, whereas rural population 48.73%. The urban population stood at 690.79 million and rural population 656.56 million.

In the international division of labor, China is then named the "World Factory," as a former German Federal Minister of Environment remarks vividly the role play of the BRIC countries (Brasil, Russia, India, and China): "If China becomes the 'world's workbench,' India casts itself as the 'global service provider,' Russia develops into the 'world's filling pump,' and Brazil as the 'raw materials warehouse' and 'global farmer'…" Nowadays, there are

around 200 million peasant migrant workers in the city. Unlike the former generation seeking for employment in cities, the new generations of peasant workers are no longer contented with meeting the basic need to earn cash to maintain the reproduction of peasant households. Furthermore, cash income needed for expenditure like education and medical care has far exceeded what can be afforded by localized agricultural laboring. The new rural generation's will to settle in the city is in tandem with government's policy of urbanization.

In October 2003, China promulgated a new law on collective arable land distribution. The consequence of this legislation is to exclude those born from that time onwards from being beneficiaries of land distribution. Once arable land is no longer evenly distributed and the peasants no longer have an expectation to share in the benefits of land, the mechanism of risk management through internalization in rural community would be greatly weakened. The behavior of migrant workers from rural regions as such is going to change quite fundamentally.

In view of this, peasant youths are no longer surplus labor from peasant households but in essence are finally evolving into a working class in classic theory. They will play a dominant role in the structural contradiction of China's society and its transition.

(2.4) Raw money power

Since 2003, the Chinese government has started to focus on rural problems. A series of pro-rural poor policies has been carried out: an elimination of agricultural taxes, a comprehensive aid to agriculture, the cooperative medical service system, a cancellation of educational fees for the western poor regions, an in-

crease of governmental investment for public services, and new rural finance polices, among others.

In October 2005, the Chinese government specified "New Rural Development" as a national strategy. The Central Government's No.1 Document, issued in February 2006, illustrated that "the building of a new socialist countryside" is "characterized by enhanced productivity, higher living standards, healthy rural culture, neat and clean villages and democratic administration." Meanwhile, Hu Jintao, General Secretary of the Central Committee of CCP said: "As a resolution of issues concerning agriculture, rural areas and farmers have an overall impact on building a moderately prosperous society. In all respects, we must always make it a top priority in the work of the whole Party." In October 2007, "Ecological Civilization" was set as a national guiding principle.

According to statistics, from 2004 to 2010, the Central Government has increased its investments to RMB 857.97 billion. The yearly increase rate is 21.8%. The investment for grain production has increased from 102.9 billion to 457.5 billion. For example, the ratio of government investments in 2009-2010 is as follows: railway, highway, airport, irrigation systems, and electricity supply systems, 37.5%; reconstruction projects after the Wenchuan Earthquake of 2008, 25%; building low-priced apartments, 10%; water, electricity, road, energy, and housing in the countryside, 9.25%; technological innovations and industrial upgrade projects, 9.25%; environmental improvements and ecological projects, 5.25%; and finally, health care and education, 3.75%.

China has invested the rural society that enabled her to tackle the external crisis. For example, in 2008, when the world finan-

cial crisis happened, 20 million peasant workers of the coastal areas lost their jobs. They immediately went back to their home villages to avoid the crisis of unemployment. It was because they still had a small plot of land, a house and family. In other words, the village property is a peasant worker's "basis of social security."

Apart from the efforts by the government at different levels to solve the rural problems, some villages have negotiated with forces of modernization, marketization, urbanization, atomization and monetization of social relations which are destroying rural society. Huojiagou Village Enterprise of Shanxi Province is an example of practicing the values of equality and solidarity, when facing the forces of individualism and monetization. The village community covers 5 km^2, with 191 households and a population of 776. A small coal mine had become the primordial resource for Huojiagou's industrialization. Later, they invested in a building refinery and power plant which turned out a good business. The village has practiced the values of equality and solidarity through the fair distribution of wealth. For example, in December 2004, the assets of the enterprise were about 500 million RMB. The net asset was worth 300 million, of which 33% was reserved to the village community. The remaining 67% became shares distributed to the villagers, in the name of three parts: individual share, seniority share and post and duty share.

As David Harvey points out, with the advent of capitalism, "money was the power of all powers", referring to the raw money power which dissolves the traditional community. He further elaborates,

> So we move from a world in which "community" is defined in terms of structures of interpersonal social relations to a world

where the community of money prevails. Money used as social power leads to the creation of large landed estates, large sheep-farming enterprises and the like, at the same time as commodity exchange proliferates.

To assert its authority of governance or to reverse the degradation of the rural society, the central government policy or a village committee attempt to address the role money plays in destroying social relations. The focus of their solutions is in terms of money, such as to increase the investment in the rural or to share equally the profit. In that sense, they are not yet critical of the destruction of modernization, or developmentalism.

3. Rural regeneration

(3.1)The rural reconstruction movement of the 1920s

During the 1920s, there was the Rural Reconstruction Movement which re-activated the Chinese tradition of small-scale agriculture and home industry. Liang Shuming (1893-1988) was one of the movement leaders. He was not only a Confucian and a Buddhist, but also a political and social activist. He was involved in the reconciliation project between Kuomingtang and the Chinese Communist Party during the Sino-Japanese War (1939-1945); and he was one of the leaders of the rural reconstruction movement during the Republican China. In 1977, he reflected on his engagement into the rural reconstruction movement during the Republican China: "At the very beginning, I was no more than childishly learned from the West. Shortly afterwards, I was awoken to understanding that it was impossible for China to become a western capitalist society, so I have an idea of village as the national base."

In 1937, Japan, a young capitalist country, invaded China. Liang Shuming was forced to stop his experiments of rural construction. In the same year, his book *Theory of Rural Reconstruction (The Future of the Chinese Nation* as another title*)* was published. In the book, he theorized his working experiences in the Institute of Village Governance in Henan province, central China (1929-1930) and The Research Institute of Rural Construction in Zhouping township, Shandong Province, north China (1931-1937). Encountering European and Japanese imperialism, going against the dominant understanding then, Liang did not urge for complete westernization and industrialization in the way that Japan adopted. Liang not only condemned imperialists, but also those Chinese nationalists and revolutionaries, as he thought that they fundamentally destroyed the rural society. Although Liang was born into an urban intellectual's family, he considered the countryside as the base of Chinese rule and democracy. He proclaimed:

> The base of Chinese society is a village, and its center is also a village. All cultures mainly come from and are used for the rural society—the legal system, secular customs, and commerce, among others. Over the past hundred years, imperialist invasion certainly directly and indirectly destroyed the countryside. And what Chinese people had done, such as those revolutionaries who were involved in the Hundred Days of Reform or the nationalists who promoted national self-salvation, also destroyed the countryside. Therefore, Chinese history, over the last hundred years, is a history of village destruction.

In the face of village destruction, Liang was devoted to the rural construction movement. Liang's experiments included "village school as the basic administrative unit," organization of peasants' association, the setting up of cooperatives, small-scale village industries, and improvement of agricultural technologies, among others.

Liang designed the village school as a learning unit that was composed of local elites, common villagers and the outsiders including intellectuals and professionals. The aim was to activate the communal capacity of solving problems at grass roots level. Therefore, Liang's theorization of the future of China is rooted in the village community. He treats "the rural" as the way out of modern capitalist society.

Liang mentioned that village regeneration is the means of the revival of Chinese culture. Rather than being a conservative and chauvinist Confucius, Liang reinforced the importance of nurturing "new ethics" from the ancient Chinese tradition, which could make one differentiate oneself from the aggressive bourgeois culture and beliefs. He criticized that the powerful development of western culture was based on "conquering Nature and taking advantage of Nature"; and that capitalism is "to be individualized and self-centered."

Liang used a metaphor of "new buds on the old tree" as the rural construction movement. In 1977, he wrote a paper to reflect on his experiences of rural construction, in which he concluded that the rural reconstruction was a question of ethics: "To be positive towards life and to remember the importance of ethics and friendship," which was an answer to the capitalist value system. Furthermore, he explained in regards to the revival of "Chinese culture": "If you ask me, 'what is actually the revival of Chinese cul-

ture in the world in the near future?' I will simply answer that when it proceeds from socialism to communism, religion declines and it is replaced with a self-awaking and self-disciplined morality, national law disappears and it is replaced with social customs."

Another famous leader of the rural reconstruction movement is James Yen (1890-1990). Yen dedicated his life to the education of the ping-min (the common people). He served Chinese coolies working with the Allies in France during World War I. In particular, he helped the illiterate coolies to write letters to their families in mainland China. This experience of working for the poor enabled him to promote the literacy campaign. Returning to China, Yen organized the Mass Education and was involved in the Rural Reconstruction Movement in 1923. The PING (literally meaning "common and ordinary") was the logo of the Mass Education and Rural Reconstruction Movement founded in China in 1923, and is the logo of the International Institute of Rural Reconstruction organized in 1960.

Yen thought that the majority of the poor where the rural people who carried characteristics such as ignorance, poverty, physical weakness, and selfishness. So it was necessary to improve the quality of peasants and then rural society. Yen also saw the basis for a new Chinese nation in the rural reconstruction. His experimental area is Ding County in Hebei Province, some 200 miles south of Beijing. Working together with the village committee and local government, Yen coordinated innovations ranging from hybrid pigs and economic cooperatives to village drama and village health centers. But his work was also disrupted by the Japanese invasion of 1937. He later founded

the International Institute of Rural Reconstruction (IIRR) in the Philippines in 1960.

(3.2) The new rural reconstruction movement

Following Liang and James Yen's spirits of rural regeneration, a new rural reconstruction movement appeared at the beginning of the twenty-first century. Its background was rural degradation to the point of destruction while the export-led nature of China's manufacturing industries and the demand for cheap labor are increasingly undermined by the battered world economy besieged by financial crisis. There was the heated debate about *sannong wenti* (three dimensional aspects of the agrarian issue) in academy and media. Against this background, some intellectuals, NGO development workers, local villagers worked together to explore experiments of regenerating the rural society with some viewing it as part of their poverty alleviation work, while others seeing their commitment as providing for a different mode of modernization other than the urbanization mode of development of the West in the spirit of Liang and Yen. The first one was James Yen's Rural Reconstruction Institute (2004-2007) which provided peasants with free training courses and mobilized university students to work in the countryside. Apart from that, Green Ground Eco-Center is founded in 2006, which promotes an ecological farming and rural-urban cooperation. Little Donkey Farm is established in 2008, comprising 230 ha and situated in Beijing suburb, which is a partnership project between Haidian District Government and Renmin University of China. It promotes community-supported agriculture and facilitates the rural-urban interactions. Liang Shuming Rural Reconstruction

Centre is set up in 2004, and provides university students training programs to work in the countryside.

The above experiments are based on the following perspective: with the advent of capitalist modernization and developmentalism, raw money power has made rural society and local relations gradually deteriorated. The predominating solution usually adopted by the government or village committee is that money can solve it. Hence, cash investment and profit-sharing are typical examples. But human relations to the land and to the community, largely damaged by modernization, are yet to be addressed. In other words, the ultimate concern should be how to rebuild one's tie to Nature and to others.

On the one hand, peasant agriculture is an important way of repairing human relations to the mother earth. Currently, the food system of the world is mainly controlled by the capitalist agribusiness transnational companies which make huge profits through the mechanized and chemical mono-agriculture. Encountering this trend, small peasantry and peasant agriculture which practice organic farming and local knowledge should be protected and promoted. In this way, organic food products can be one of the foundations of rural-urban solidarity. On the other hand, communal capacity should be activated, in terms of the utilization of common resources and also the participation in the process of problem-solving. This undoubtedly requires cooperation between and among grassroots people and intellectuals.

(3.3) Yongji Peasants' Association

Another example of rural regeneration is Yongji Peasants' Association of Shanxi Province. It was formerly the Center for Women's Cultural Activities and Women's Association established in

2003. Now it has 3,865 members from 35 villages in two counties. It organizes six technological services centers, a handcrafts cooperative, steamed buns workshops, and an ecological agriculture zone. Socialized voluntary labor, redistribution of resources, and concern for the young generation are central to these initiatives.

The feeling of solidarity that arises from participation in collective activities rooted within daily practices can be life-transforming, embodying Marx's conception of revolutionary practice as a conjuncture of social and self-change. By devoting labor to social redistribution rather than to capitalist accumulation, peasants take pleasure in helping others as they gain others' respect for their contributions. Working for others through socialized labor may mistakenly be regarded as a residual practice in a rural society, but it is also a radical practice when considered in the face of the forces of globalization and the hegemonic mentality of individualism and entrepreneurship. Building a culture of collectivity through daily practices of voluntary labor and redistribution of profits is a profound mode of being that counteracts the violence of capitalist economic endeavors.

4. Concluding remarks

Since the late Qing Dynasty, no matter what kind of ideological preference, China has always simply borrowed industrial as well as financial capitalism at the expense of the peasants, the majority of China's population. This has led to three dimensional rural issues: peasant, village and agriculture. If "rural China," or rural governance based on small peasantry and village community, for the cultivation of an interdependent and cooperative relation among a community and among neighboring communities, is sustained, it not only protects the livelihood of the majority of

the population, but also functions as "a resistance" to the external crisis derived from western capitalism. In that sense, the current official experiments of building a socialist countryside, or the rural reconstruction movement activists, more or less, are contributing to the defense and justification of a small-scale peasantry and village community, amid the disasters caused by capitalism. To put it simply, China's take-off is based on the exploitation of rural China, but the continuous experiments of rural regeneration more or less provide an alternative to destructive modernization.

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THE CURRENT SITUATION OF THE SOUTH KOREAN AGRICULTURE[1]

Cho Ju Young[2]

Introduction

Since the 1960s, during the rapid developing period led by the export-oriented industrialization, different problems emerged in South Korea as part of the historical transition. Especially after joining the WTO, agriculture was involved in the unlimited international competition and confronted a lot of difficulties. Even though the national economy was keeping on increasing, the rate of the agricultural development was much less than in the industrial sector, and contributed less and less to the national economy.

Structure of agriculture

The most prominent characteristic of the South Korean agriculture is the small number of farmers who have rice as their main staple grain. The average arable land of a farmer is about 1.26 ha, but 57.9% of the farmers own less than 1 ha of arable land. Sixty three point five percent of the arable land is paddy field: an increase of 3.4% compared to ten years ago.

1 Translated by Zhong Fang.

2 (South Korea) She is Vice Chairman of the Cho Global Natural Farming.

Every village household earns 79.6% of net income from agricultural products, in which rice production is 41.1%, poultry 20.3%, and gardening 27.7%. The portion of agricultural products and fisheries in GDP was gradually decreasing, from 26.4% in 1971, 17.4% in 1981-82, to 7.4% in 1992.

The agricultural population was 44.7% in 1970, and decreased to 12.3% in 1993. Among all of the population involved in economic activities, the ratio of agriculture, forest and fishing population was 50.5% and 14.8% at the same time.

Arable land

Policies of protection and expansion of arable land such as cultivation, reclamation, and rural reconstruction areas could not be carried into practice. With the rapid increase of the economy and population, the expansion of the urban areas, the dispersion of the manufacture areas, the construction of the road network and the shrinking of reservoir and dam waters, the area of arable land continued to decline from 22.0% in 1982 to 20.8% in 1992. The utilization of arable land declined substantially from the highest level in 1965 to 122.4% in 1982 and 108.1% in 1992. The reason of this phenomenon is that the second round farming of the land has been quitted due to the decreasing of the agriculture labor.

According to the "Survey on Arable Land in 2009" by the National Statistic Bureau, the total agricultural area was 1,737,000 ha at the end of 2009, reduced in 1.3% (22,000 ha) compared to 1,759,000 ha in 2008. Since 2000, the arable land was reduced 0.9% every year. In 2009, with the large-scale house development and the public facility construction, the arable land was vastly occupied. Espe-

cially, the paddy fields were 1,010,000 ha at the end of 2009, and were reduced 3.4% (36,000 ha) compared to 2008.

In terms of the farming scale, the percentage of the middle/large scale farmers with arable land of more than 1 ha continues to increase; on the contrary, the percentage of small-scale farmers with less than 1 ha of arable land is decreasing. In 1992, the percentage of the farmers with 1-3 ha was 39.8%, while 3.2% had more than 3 ha. Small farmers with less than 1 ha account for 58.8%.

Self-sufficiency

The scale of rice production is decreasing along with the rapid shrinking of grain production. Self-sufficiency continues to be reduced from 93.9% in 1965, 60% in 1970, 53% in 1982, 34.1% in 1992, 28.1% in 2002, and 27.4% in 2005, to 25.3% in 2008.

TABLE 1 SELF-SUFFICIENCY
(A COMPARISON BETWEEN 1970 AND 2009)

	Total	***Rice***	***Barley***	***Bean***	***Wheat***	***Corn***
1970	80.5%	93.1%	106.3%	86.1%	15.4%	18.9%
2009	26.7%	101.2%	41.1%	8.4%	0.5%	1.0%

Agricultural population

The growth rate of the agricultural population decreased from 2.57% in 1965 to 0.99% in 1993, 0.84% in 2000, 0.21% in 2005, 0.26% in 2010. Since a large number of young farmers migrated to the city, the agricultural population decreased from 3,180,000 in 2008 to 3,110,000 in 2009. The proportion of the agricultural population in the total population decreased from 12.3% in 1993 to 6.6% in 2008, and 6.4% in 2009.

In terms of age, in 1970, 84.4% of the agricultural population was under 49 years old, and only 7.9% was beyond 60 years old. However, with the aging of the whole country, in 2006 only 41.0% was under 49 years old. On the contrary, the people over 60 years old account for 40.8%, and the ratio of females is increasing as well. In sum, the number of the agricultural population decreased, meanwhile the ratio of elderly females increased notably, which meant that the quality of agricultural labor decreased.

TABLE 2. THE AGE OF AGRICULTURAL POPULATION (UNIT: 10 THOUSAND; %)

Year	*Total*	*Below 13*	*14~19*	*20~49*	*50~59*	*60~64*	*Above 65*
1970	1,442 (100.0)	150 (43.5)	150 (10.4)	440 (30.5)	111 (7.7)	114 (7.9)	71 (4.9)
1985	652 (100.0)	211 (24.8)	127 (14.9)	283 (33.2)	113 (13.2)	118 (13.8)	
1995	485 (100.0)	68 (14.0)	42 (14.0)	163 (33.5)	67 (17.9)	126 (25.9)	79 (16.2)
2006	330 (100.0)	32 (9.5)	14 (14.4)	90 (27.1)	60 (18.2)	135 (40.8)	102 (30.8)

The most severe problem is that the decreasing trend of the agricultural population will not stop in this period. In the current stage, the urbanization exacerbates the decreasing of the agricultural population. Furthermore, the scarce growth of the income in the countryside is one of the reasons of the population decrease. The average income of a village household was 72.5% of that of the urban labor in 2007. In 2008, it was only 65.3%. Over the past 15 years, the agricultural population decreased from 10.8 million in 1980 to 4.85 million in 1995, above half of

the population. Then in 2006, the whole population was less than 4 million.

Due to the rapid decreasing and aging of the agricultural population, problems such as the insufficiency of the agricultural labor, the weakening of the rural organizations, the recession of rural social capital are becoming the reasons for the collapse of local community. Therefore, the South Korean government launched a rural human resource training program in the 1980s. Furthermore, a technology-intensive agriculture was promoted based on a large-scale agricultural management system. In the "Special Law on the Development of Agricultural Villages" enacted in 1990, the related items on legal representatives and trustee companies were established. In 1992, a training program for professional farmers was promoted in the country.

Following the rural human resource training program promoted by the government, different agricultural management systems were initiated. Around 2000, in order to resolve the problems emerged during the implementation of the training program as well as to improve the management capability, an agricultural management consultancy was supplemented. In order to attract human resources from outside the rural areas, a binary system consisting of the newly-returned agricultural successor and the existing farmer' successor was established. In addition, the management budget was raised to support the prices, thus making possible to manage the returned farmers' issue satisfactorily.

Since 2000, policies were made for professional farmers to ensure funding and management and then to wipe out the unqualified. Training programs on information, accounting and management were provided for farmers, thus improving the

capabilities of operational management, financial management and utilization of information. Agricultural consultancy was also provided by the government.

Supply and demand of fertilizers

The production of fertilizers was beyond the domestic demand and so was exported. However, at the end of the 1980s the production was not depressed and the consumption amount was at a stable level until recently. The production of pesticides was rising, especially pesticides for rice, but the production of raw materials could not meet the demand, and both the raw and synthetic materials relied on importation.

Meanwhile, with the development of the national economy, the consumption of livestock is rising, and the amount of main poultry is rising and so is the amount of small-scale farmers for livestock. With the increasing of the demand of fodder, the proportion of self-supply is decreasing, and the importation of corn, soybean, wheat, etc., is increasing significantly.

Consumer diet

The consumption of grains and cereals has continued to decrease, and this trend will keep in the future except for wheat, yam and corn. At the same time, the demand for vegetables, fruits and livestock was rising, and the consumption of proteins and fat was rising as well. However, compared with the western countries, the consumption of animal proteins and fat was relatively lower. With the urbanization of the country, the efficiency of the transportation, storage and selling of agricultural products should ameliorate.

The international competitiveness of local crops

In 1993, the value of imported crops amounted to 1,754,000,000 USD. The liberalization export-import policy for agricultural products depressed the price and brought benefits to customers. Even though the liberalization of the market was designed to be step by step, however, due to the lower prices at international level, the local farmers were enduring huge stress, which resulted in the weakening of the crops supplying to the domestic market. In order to deal with this difficulty, the utilization of potential resources should be improved to reduce production cost, and so ensure the production and supply of agricultural products.

The weakening of agricultural structure

With the reduction of arable land and labor, salaries and costs of production are increasing. Between 1970-1990, the annual average of arable land was 10,125 ha; however, the utilization decreased 1.35% each year. This trend of the weakening of agricultural structure will become worse in the future. Therefore, the adjustment of agricultural structure and of its infrastructure of construction and mechanization should be pushed in the country.

Commercialization of agricultural products

The agricultural market has been transforming from self-sufficiency into commercialization. Especially after entering the international competition era, the uncertainty and risks of farmers' income were increasing. The function of the circulation of agricultural products is becoming more and more important, so that the farmers' managing capability may contribute more to the income. In order to increase the products' commercialization,

the products should be improved in quality, and the production costs should be lowered.

The unbalance between the countryside and the city

In 1990, the average income of rural families was 97.4% of the urban families. However, this gap has become bigger and bigger in recent years. In 1993, the income of rural families was 95.4% of that of the urban families, at the same time that their debts were rising. Furthermore, culture, welfare, and educational facilities were much undeveloped than those of the urban areas. More and more young people left the countryside and migrated to the cities. The centralization of the urban population and the expansion of urban labor aroused numerous social conflicts and transportation problems. Considering that the resolution of urban problems are based on rural society, detailed plans of agricultural production and rural development should be proposed and promoted in the whole country.

Conclusion

In this background, the following issues should be noticed to improve the Korean agriculture. First, the base of people's livelihood: the demand of food should be met, including food storage for the whole country after the unification of the North and South in future. Second, the countryside should be constructed for farmers to live and work. Third, alongside providing sufficient green space, an extra income besides agriculture should be improved. We should understand the essence and function of agriculture by proposing investments for the countryside and related protecting policies.

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Chapter 2

CENTRAL ASIA

REVIEW OF AGRICULTURAL DEVELOPMENT OF MONGOLIA

Byatshandra Jargal[1] *and Odonchimeg Puntsag*[2]

An archeological excavation find has showed that the history of Mongolian agriculture started at the time of the Bronze Age. Barley, millet, mortar and pestle, along with other findings related to farming were found in the 2,200 years old Hunnu's grave. After a Genghis Khan edict on farming, agriculture developed slowly from year to year. But the boon to progress began with Manchus and at the beginning of the twentieth century 70,000 ha were used for fieldwork.

In spite of the different measures launched by Bogd Khan's rule to develop agriculture, such as feasibility studies of areas favorable for farming (512,400 ha of land located within the basin areas of sixteen rivers were considered favorable for farming), Mongolians cultivated only 20,000 ha.

In 1921, Mongolia declared itself as the second communist country in the world after the Soviet Union. Mongolia had 9.6 million head of livestock in 1918 and 13.8 million head in 1924;

1 (Mongolia) She is Head of the Mongolian Women Farmer's Association.

2 (Mongolia) She is Director of the Information, Education and Communication Centre.

Arad (nomads) ownership was estimated to be 50 to 80 % of all livestock, and monastic and aristocratic ownership to be 20 to 50 %.

Policies designed to force collectivization in the early 1930s met with Arad resistance, including the slaughter of their own animals. As a result, the majority of private livestock was transferred to the collective ownership form. An abortive attempt to collectivize all Arads occurred in the early 1930s; efforts to encourage voluntary cooperatives and Arad producers' associations followed. The reversal of these policies led to a growth in livestock numbers, which peaked in 1941 at 27.5 million head. World War II brought about new commitments to provide food and raw materials for the Soviet war effort. With the levy of taxes in kind, livestock numbers fell to about 20 million in 1945, and they have hovered between 20 million and 24 million head since then. Collectivization and advances in veterinary science have failed to boost livestock production significantly since the late 1940s.

In the 1930s, the government began developing state farms, and by 1940 there were ten state farms and ninety-one agricultural cooperatives. State farms, compared with negdels, had more capital invested, were more highly mechanized, and were generally located in the most productive regions. State farms engaged primarily in crop production. Collectivist management provided various services for herders such as the building of enclosures, the preparation of hay, and the construction of wells.

In 1955 negdels (the state agricultural association) replaced the Arad producers' associations. Negdels, which concentrated on livestock production, were organized into brigad (brigades) and then into suuri (bases), composed of several households. Each suuri had its own equipment and production tasks. Negdels adopted the Soviet system of herding, in which Arad households

lived in permanent settlements rather than traveling with their herds, as in the pastoral tradition.

By 1959 the state had accomplished the collectivization of agriculture. In ten years, agricultural cooperatives had more than doubled, from 139 in 1950 to 354 by 1960. The ownership of livestock and sown areas changed dramatically as a result of collectivization. In 1950, according to Mongolian government statistics, state farms and other state organizations owned approximately 0.9 % of livestock and 37.8 % of sown areas; negdels had about 0.5 % of livestock and no sown lands; and some private owners held 98.3 % of livestock and 62.2 % of sown areas. In 1960 state farms and other state organizations owned 2.7 % of livestock; negdels, 73.8 %; and individual negdel members, 23.5 %. The state sector owned 77.5 % of sown lands, and the cooperative sector the remainder. A negdel was organized into several brigades that were mostly nomadic. The members of a negdel received wages and were entitled to holidays and pensions. Dependent on the geographical location, herders were allowed to keep 10-15 private animals per family member, but no more than 50-75 per family.

By that time 10 big farms, 8 meal factories, about 45 machinery stations for livestock rearing (MSLR), and veterinarians' services were functioning. MSLR supported negdels and farms with technical assistance for building stalls, increasing the crops needed for productivity and quality of livestock, mechanizing some works in the animal husbandries and fieldwork (renting trucks, equipment, assisting in plowing land, in harvesting hay, in artificial inseminations, etc.). The 1955's harvest reached 3,000 tons of hay against 880 tons in 1947. A hundred and seven thousand four hundred hectares were cultivated with crops (corn, wheat,

barley, and potatoes). At that time, Mongolia started also producing an ensilage fodder, a compound feed and establishing the Soums (smaller administrative units, then provinces) Feed Funds.

The Mongolian People's Revolutionary Party (MPRP) undertook two big programs "Virgin land I" and "Virgin land II."

First phase of agricultural development "Virgin land I" (1959-1975)

The development of virgin lands by state farms accounted for most of the expansion of arable land and sown areas. Land reclamation started in 1959 and in total 973,000 ha were developed.

Mechanization of farm operations commenced on a large scale with Soviet assistance. The Soviet Union provided most agricultural machines (2,500 tractors, 550 harvesters, 3,000 trucks, etc.), as well as advice and expertise in mechanization.

Beginning in the 1960s, state farms also pioneered the development of irrigation systems for crops.

In 1970, there were 0.6 ha of arable land and 350 kg of wheat per person. One cornfloor (100,000 tons) and 14 store (capacity of each is 45,000 tons) were built. The main achievement of this program was a wheat harvest for 516,000 tons (1973).

Although sown acreage expanded dramatically between 1960 and 1980, output and crop yields remained stagnant and, in some cases, fell because of natural disasters and poor management.

Second phase of agricultural development "Virgin land II" (1976-1986)

During this phase, the agricultural sector developed intensively. Emphasis was placed on raising crop production and quality by increasing mechanization, improving and expanding acreage, raising crop yields, expanding irrigation, selecting cereal varieties better adapted to natural climatic conditions and better locations for cereal cultivation. It also meant applying greater volumes of organic and mineral fertilizers; building more storage facilities; reducing losses due to pests, weeds, and plant diseases; and preventing soil erosion. Emphasis also was put on improving management of crop production on state farms and negdels as well as on procuring, transport, processing, and storage of agricultural products.

All farms were mechanized. About 90 % of all fieldworks for planting, watering, harvesting potato, carrots and other vegetables were mechanized. For example, in 1985 a hundred percent of all potato planting and 84 % of potato harvesting were mechanized on state farms, compared with 85 % and 35 %, respectively, in negdels. Mongolia had 85,200 ha of available irrigated land, of which 81,600 ha actually were irrigated.

By 1985 there were 52 state farms in Mongolia, 17 fodder supply farms, and 255 negdels.

In the late 1980s, animal husbandry continued to be an important component of the national economy, supplying foodstuffs and raw materials for domestic consumption, to be processed by industry, and for exports. In 1985 there were 22,485,500 head of livestock, of which 58.9 % were sheep; 19.1 %, goats; 10.7 %, cattle; 8.8 %, horses; and 2.5 %, camels. In addition, pigs, poultry, and bees were raised. In 1985 there were 56,100 pigs and

271,300 head of poultry; no figures were available on apiculture. Livestock products included meat and fat from camels, cattle, chickens, horses, goats, pigs and sheep, eggs, honey, milk, wool from camels, cattle, goats, and sheep; and hides and skins from camels, cattle, goats, horses, and sheep. In 1986 exports of livestock products included 15,500 tons of wool, 121,000 large hides, 1,256,000 small hides, and 44,100 tons of meat and meat products.

In 1985 the average negdel had 61,500 head of livestock, 438,500 ha of land (of which 1,200 ha were plowland), 43 tractors, 2 grain harvesters, and 18 motor vehicles; it harvested 500 tons of grain. Individual negdel members were allowed to own livestock. In mountain stepped pasture areas, ten head of livestock per person, up to fifty head per household, were allowed. In desert regions, fifteen head per person, up to seventy-five head per household, were allowed. Private plots also were allowed for negdel farmers.

In 1985 the average state farm employed 500 workers, owned 26,200 head of livestock, 178,600 ha of land (of which 15,400 ha were plowland), 265 tractors, 36 grain harvesters, and 40 motor vehicles; it harvested 12,100 tons of grain.

Mongolia harvested about 720,000 tons of wheat from 700,000 ha in1980 and in 1989 it reached 840,000 tons of wheat from 837,000 ha. In the same year were harvested 155,300 tons of potato, 59,500 tons of vegetables, and 1,027,000 tons of fodder.

In addition to the staple crops mentioned, the state farms also produced small quantities of oil-yielding crops, such as sunflower and rape, and fruits and vegetables, such as sea buckthorn, apples, European black currants, watermelons, muskmelons,

onions, and garlic. Small amounts of alfalfa, soybean, millet, and peas also were grown to provide protein fodder.

In the late 1980s, differences existed in ownership and productivity of livestock among state farms, agricultural cooperatives, and individual cooperative members. For example, in 1985 agricultural cooperatives owned 70.1 % of the "five animals," camels, cattle, goats, horses, and sheep; state farms, 6 %; other state organizations, 1.7 %; and individual cooperative members, 22.2 %. State farms raised 81.4 % of all poultry; other state organizations, 3.3 %; cooperatives, 12.9 %; and individual cooperative members, 2.4 %. State farms accounted for 19.1 % of pig raising; other state organizations, for 34.2 %; agricultural cooperatives, for 12.5 %; and individual cooperative members, for 34.2 %. Survival rates of young livestock were higher in the cooperatives than on state farms; however, state farms produced higher yields of milk and wool. Fodder for livestock in the agricultural cooperatives was supplemented by the production on state fodder supply farms and on state farms, which had higher output and yields.

During this phase Mongolia exported a lot of sheep, wheat, potato and vegetables to the socialist countries.

Collapse of the socialist system (1990)

Despite its economic importance, in the late 1980s animal husbandry faced many problems: labor shortages, stagnant production and yields, inclement weather, poor management, diseases, and the necessity to use breeding stock to meet high export quotas. The state attempted to address some of these problems. To alleviate labor shortages, the Mongolian People's Revolutionary Party called for higher income, increased mechanization, and improved working and cultural conditions in rural areas to

retain animal husbandry workers, particularly those with technical training. Measures to raise productivity included increased mechanization, improved breeding techniques to boost meat, milk, and wool yields and to cut losses from barrenness and miscarriages, and strengthened veterinary services to reduce illness. Additional livestock facilities were to be built to provide shelter from harsh winter weather and to fatten livestock. A more efficient use of fodder was sought through expanding production, improving varieties, and decreasing losses in procurement, shipping, processing, and storage. Pastureland was to be improved by expanding irrigation and by combating pests.

Overcoming poor management was more difficult. Mongolian People's Revolutionary Party, local administrations, and cooperative organizations were admonished to manage animal husbandry more efficiently, and cooperative members were requested to care for collectively owned livestock as if it were their own. In addition, more concrete measures to improve the management and the productivity of animal husbandry were adopted in the late 1980s. The individual livestock holdings of workers, employees, and citizens were increased to eight head per household in major towns, sixteen head in smaller towns, and twenty-five head in rural areas; households were allowed to dispose of surplus produce through the cooperative trade network and through the state procurement system. Auxiliary farms run by factories, offices, and schools were established to raise additional pigs, poultry, and rabbits, as well as to grow some vegetables. Family contracts concluded on a voluntary basis with cooperatives or with state farms were reported by the government to increase high-quality output, to lower production expenses, and to enhance production efficiency.

The collapse of the socialist system, which lasted from 1921 to 1989, brought immense difficulties for Mongolians, because the population had no experience in running private enterprises. The poor infrastructure, unemployment, and poverty forced people into cities; however, all Mongolians were free to settle anywhere they chose in the vast country of more than 1.5 million square kilometers from which it can be concluded that while a decline in the number of farms helps to thin the rural population and pack more people into cities, the expansion of cities tends to reverse the process and bring some people back close to the farm.

The form of communal land tenure had been considered an obstacle to agricultural change and economic development. People tended to be collective when there was coercion or something to make individuals act in their common interest and this argument eventually developed into the "zero contribution thesis." Further collectivism was the same as "prisoner's dilemma games" because members of collective groups began to reduce their contribution if others did not contribute. Collectivism was coercion for most Mongolian herders and they were running away to prevent participating in it. The government made every decision, which economically did not work well.

As a result, all the herds were privatized and all the negdels dissolved. Farms were organized into private companies. Livestock privatization encouraged a rapid increase in the number of herds. But almost all of the former state farms and companies bankrupted.

Third phase of agricultural development "Virgin land III" (2008)

The agriculture sector therefore remains heavily focused on nomadic animal husbandry, which is trying to survive like a wounded animal. About 70 % of the territory of Mongolia suffers desertification. The Mongolian and foreign mining companies destroy the pastures and do not recover the territory disfigured by mining. Away from Ulaanbaatar and the other major cities, Mongolia is still a nomadic herding economy. Mongolia is one of the few countries in Central Asia where people still live a nomadic lifestyle despite the extreme climate.

There are around 185,000 herders in Mongolia. Mongolian herders have faced a precarious situation as they struggle to respond to the momentous political and economic changes of recent years. The extensive and quite sudden social, political, environmental, and economic changes have forced nomadic people to respond and evolve in order to maintain their centuries-old way of life.

Nevertheless, in 2002 the Mongolian government passed a law, which allows owning a small plot of land (0.07 ha), but unfortunately not pastures land or land for farming. Now everybody can see the historical process of transition from pure nomadism to semi-settled and permanent agriculture in the Mongolian countryside. Keeping bigger herds demands more and better grazing lands unless herders use efficient land management and advanced technology. These strategies eventually led nomadic herders to an integrated form of agriculture.

In order to recover the crop production and support the animal husbandry regressed during the transition period, the Mon-

golian government initiated the third program on agricultural development "Virgin land III" in 2008.

Activities: Changes in the legal environment; economical, technical, and technological innovations; supplement Mongolians with Mongolian natural products; to train a new generation of peasants, mechanics, farmers. Whitin the framework of this program, the farmers can buy different kinds of agricultural machines and equipment at low prices. But still many small farmers cannot have them, because of prices and the limited amount. All agricultural machines, equipment, fertilizers, herb protection substances are imported without any taxes.

But in our opinion, the program is only a collection of activities. There are no long-term and short-term objectives, goals, or strategy. If there is no strategy, there is no policy.

The future?...

It seemed that agricultural diversity was a reflection of variations in cultural and environmental factors. A lot of changes have been made in the world of agricultural industry since it started ten thousand years ago. Some of the major changes involve the land using system, a technology revolution, an increase in intensification and commercialization. These changes result in changes of the level of productivity and income. This tendency leads modern farmers towards private and small-to-medium scale farming.

American, Canadian, and Australian farmers traditionally have owned their farms, owned land—whether they homesteaded it, bought it, or inherited it. Farming today is highly commercial; thoroughly market-oriented which is based on product specialization and quality. The highly productive farms,

that dominate Canada's wheat industries, American meat and wheat industries, and Australian meat and wool industries, are increasingly linked with agribusiness, government, (through agricultural policies and programs) and financial institutions for their markets and critical inputs. Nowadays, farmers in highly developed countries have been long using computers to calculate grain feeds and huge advances in technology have improved equipments and fertilizers. Farmers access market information through Internet.

The increasing number of livestock which resulted in the degradation of pastureland, natural disasters, lack of business management, and the land using system challenge nomadic Mongolian herders to have semi-intensive and intensive farming techniques to cope with a market system, which Mongolia has introduced only over the last 20 years.

There are no fences in the Mongolian countryside because of the nomad system, and cows, horses, goat, camels, and sheep wander across it freely. Pasture is considered the country's real wealth for both herders and the government. Nomadic Mongolians share concepts and rules, which are created without formal, governmental jurisdictions to protect nature and if people violate these rules they suffer not only a loss of favor from the animals such as overhunting, overgrazing, and pollution but also social disgrace. The nomadic Mongolians' attitudes of living in harmony with nature, leaving the land undivided as a common heritage, and defining community life in terms of the migration of animals and the phases of nature are the main differences from the western type of livestock farmers who own their "fenced" land.

It is argued that there was no chance to operate agriculture in dry, harsh continental central Asia because it was far away from the ocean and located high above sea level; however, USGS (US Geological Service) (2004) stated that the grasslands of the Mongolian Plateau represent some of the richest agricultural land and the largest expanses of intact native grasslands in the world.

In our opinion, the following measures should be undertaken:

1. Privatization of pasture.
2. A special finance system for the agricultural sector (date, duration, size of loans, rate of interest, collateral, etc.).
3. Special taxes for farmers.
4. A special program on biological fertilizers.
5. A special irrigation program.
6. Support with special machines and equipment stations serving the small farmers.
7. Courses for agricultural workers.
8. E-market.

Chapter 3

SOUTH EAST ASIA

CHALLENGES IN AGRICULTURE AND RURAL DEVELOPMENT. THE EXPERIENCE OF PHILIPPINES

Antonio Tujan[1]

1. The role of agriculture in the Philippine economy

The colonization of the Philippines, first by Spain and then by the US, has shaped the Philippine economy as a source of natural resources, raw materials and agricultural produce. Since its nominal independence in 1946, however, agriculture's share in domestic output has been decreasing from 40% to below one-third in the 1960s, below one-quarter in the 1980s, and below one-fifth in 2000s.[2]

Last year, agriculture only accounted for 18% of Gross Domestic Product (GDP) according to the Bureau of Agricultural Statistics. This is despite the fact that the country registered a 4.01% growth in Gross National Product (GNP) while the GDP expanded by 1.06%.

Low productivity of both labour and land is evident in low real added value per worker and yield per hectare. This explains the decline in agriculture's share in GDP.

In the past decades, the country's productivity, especially involving the main crops, has been decreasing. Rice yields fell from an average of 4.3 metric tons (MT) per hectare during the 1960s

1 (Philippines) He is International Director of IBON, Philippines.

2 IBON Databank.

to 1.2 MT per hectare in the 1991-2003 period. Corn registered a growth rate of 3.2 MT in the 1960s but slid down to 2.8 MT per hectare from 1991 to 2003.

Agriculture's share of total employment peaked at 60% in 1955 and subsequently declined in the following decades reaching 35% in 2007 and 2008, sliding down further to 34% in 2009.

Meanwhile, the country's irrigation development over the decades has also registered a negligible expansion. In 1979-1981, only 14% of the country's total croplands were irrigated compared to 16.4% in Thailand and 24.1% in Vietnam. In 1995-1997, the country had only 16.3% of farmlands irrigated while Thailand had 23.9% and Vietnam 31%.

Philippine agriculture as well as fisheries are predominantly in the hands of small producers—small poor peasants and itinerant farm workers, and small fisherfolk who produce using generally backward technologies. This situation is the result of centuries of feudal and semifeudal structures that have not been addressed except through a succession of sham agrarian reform schemes. But such underproductive and vulnerable agricultural system has been further weakened by an unfair competition due to dumping of subsidized agricultural products from advanced capitalist countries supported by neoliberal policies resulting in the loss of support and protection for the agricultural sector.

Considering the absence of any industrialization that could help foster agricultural modernization, the impact on the lives of rural population is unimaginable. All in all, more than 73% of poor Filipino and 74% of poor families live in agriculture-dependent rural areas. The mass of direct producers of the country's agricultural wealth—the poor peasants, agricultural workers, and small fishers, comprise the majority of the Philippines' rural poor.

The distribution of agricultural employment by class of workers in 2007 reveals that one in two are freelance workers and another 25% are unpaid salary workers. Only 25% are salary and paid workers, making agriculture the top generator of informal jobs in the country.[3] In the rural areas, this means that the majority of those employed in agriculture deal with feudal relations in production to earn a living.

The low level of productivity, agricultural investment and structural problems of feudalism and semi-feudalism combine in producing rural poverty on one hand, and food insecurity on the other. This structural underdevelopment of Philippine agriculture has been further exacerbated by neoliberal reforms since the 1980s.

It is no coincidence that the Philippines became a net food importing country in 1995, when it also became one of the original members of the WTO. The vaunted industrialization program under the Fidel Ramos administration was also responsible for the loss of food stocks under a program that effectively reduced the land allocated for food production. By 2005, the Philippines became the top global importer of rice. Its dependence on rice imports has even contributed to global price spikes in 2007 when it sought to purchase sizable amounts in the face of limited supplies, causing even further food insecurity for those who cannot afford this staple food item.

Rural and agricultural development remains focal issues for the Philippines despite rural to urban migration and the lack of industrialization, which contribute to overall urban and rural poverty. Rural poverty remains the most severe problem and

3 Bureau of Agriculture Statistics, "Facts and Figures," 2007.

continuing contributor to urban poverty and national poverty overall. On the other hand, as the government now belatedly recognizes, food self-sufficiency is an important goal after all, despite its continuing commitment to neoliberal globalization.

2. Unequal distribution and monopoly control of agricultural resources

Land ownership is the core issue surrounding the longstanding feudal relations in the Philippines. Monopoly of agricultural land from the Spanish colonization remains prevalent with the continuous existence and expansion of haciendas (large family plantations) in the country. Even with three agrarian reform programs already implemented in the country, haciendas like those of the Cojuangcos, Floirendos, Almagros, Dimaporos, Yulos and others are still very much operational. On the other hand, multinational corporations (MNCs) like Dole and Del Monte also occupy vast farmlands yet pay nominal rents as part of lease agreements that are renewable for another 75 years and designed to circumvent the constitutional ban on land ownership by foreign nationals.[4]

According to the National Statistics Office, only 13% of the land owners control 60% of the total agricultural land in the country. Furthermore, a very conservative estimate shows that 52% of the farmlands are in the hands of tenants. Of a hundred farmers, 21 are agricultural workers, 28 are unpaid family workers, 26 are tenants; and only 25 have their own land. This leads us to say, therefore, that 7 out of 10 farmers are landless.[5]

4 IBON Foundation, "The Rice Crisis," IBON Facts and Figures Special Release, April 2008, 9.

5 Ibid.

Up to now, the country's more than five centuries old problem with land monopoly breeds various exploitative feudal relations in agriculture. Rent, for instance, ranges from 30% to as high as 200% and makes up more than 20% of the production costs that landless peasants shoulder. Likewise, usury or high interest loan rates can also reach to as high as 75-90% of harvest, pushing farmers further into lifetime indebtedness.

Moreover, land monopoly intensifies as agribusiness corporations, commercial producers and the landlord-elite further expand their landholdings and production for exports. The control of traders and big agribusiness corporations expand through credit, marketing and processing while agricultural trade liberalization further reinforces the export-oriented import-dependent model of Philippine agriculture.

At present, corporations control 7,590 farms with a total area of 214,316 ha in the country. Some 89% of these lands are concentrated in only 534 corporate-run farms.[6] A recent Philippines–China agreement earmarks some two million hectares for agribusiness plantations. These plantations are likely to cut across the country's few remaining forest areas. Aside from plantations, corporate interests are taking over more lands for other purposes such as mining, which targets some 80,000 ha for exploration; most are also in forest areas.

This collusion of foreign governments and MNCs with the local elite further fortifies land monopoly in the country. According to the Philippine Forest Corporation, of the 375,091 ha planted for jatropha, 10,000 have been leased to Teves Co., which

6 IBON Foundation, "Neoliberal Offensive: Impact on Agrarian Reform in the Philippines," in *Neoliberal Subversion of Agrarian Reform*, ed. Ujjaini Hilam (Quezon City: IBON Books, 2006), 60.

is owned by the brother of former Finance Secretary Margarito Teves, a close ally of former President Arroyo. Another 7,450 ha are part of a commitment involving a joint venture with the local government of Camarines Sur, which is headed by the son of another Arroyo ally, Congressman Luis Villafuerte, who has recently expanded his landholdings by grabbing 375 ha of farmlands in San Miguel Bulacan for commercial development.[7]

No less than the US Secretary of Agriculture and twenty American agribusiness firms are coming to the Philippines on a "mission" to form partnerships with two hundred local companies in accordance with the US Agricultural Trade and Assistance Act. In July, South Korean Firm Jeonnam Feedstock Ltd. has leased 94,000 ha of farmland in Mindoro to grow animal feeds.

According to the Kilusang Magbubukid ng Pilipinas (KMP), then President Arroyo was planning to sell 3 million hectares to foreign agro-corporations, reserving 1 million hectares for the Cojuangco-Kuok Group partnership; another 1 million hectares for China-firm Fuhua Co., a hybrid rice corporation; 40,000 ha to the Agriculture Department of Guangxi Zhuang Autonomous Region (ADGZAR) of China; 200,000 ha to the Beijing Hualian Group (BHG) of China; and 60,000 ha to the Pacific Bio-Fields Corp. of Japan.[8]

Aside from land, corporate-run farms in the country have also the monopoly over modern technology, infrastructure and equipment including vital agricultural services like irrigation. The

7 IBON Foundation, "Landlessness and Peasant Woes: A Lingering Calamity," May 2010, retrieved from http://www.ibon.org/ibon_features.php?id=27.

8 Ibid.

agrochemical TNCs in cahoots with local traders and landlords also monopolize production and sales of chemical inputs in collusion with the government that is pushing for high-yield varieties (HYVs or hybrids). In reality, HYVs are "high-input varieties" because they are dependent on chemical inputs and only add to farmers' consumption of chemical inputs. Monsanto, DuPont and Syngenta are the agrochemical TNCs that dominate the world and Philippine markets for chemical inputs.

In this context, the historical partnership between and among domestic elite, foreign governments and corporations explain why the highly skewed distribution of land ownership in the Philippines has barely changed.[9]

3. State policies in agriculture

The poor performance of Philippine agriculture can be traced mainly to two major policy failures: the failure to implement agrarian reform and opening the country to foreign interests through lopsided trade agreement policies.

In the case of agrarian reform, despite several versions that were launched by past administrations, seven out of ten Filipino farmers remain landless while the combined profits of the land-

9 Big landlords who are dominant in the country include: Danding Cojuangco Jr., who owns 30,000 ha in Negros, Isabela, Cagayan, Davao del Sur, Palawan and Cotobato; the Cojuangcos, Faustino Dy and Juan Ponce Enrile, who share among themselves 13,085 ha in Iligan, Isabela; the Zobel-Ayalas, who have more than 12,000 ha of land in Calatagan, Batangas; and the Floreindo Family with 11,048 ha in Davao and Davao del Norte. Ibid.

ed families and foreign agribusiness corporations comprised 12.49% of the agricultural gross domestic product in 2005.[10]

A classic example of this is the Hacienda Luisita, a vast sugarcane plantation owned by President Noynoy Aquino's family since the Spanish colonization. Prior to his election last year, the presidential candidate proclaimed that if elected to power he would distribute the family's land to the farmers. Three months ago, the management of Hacienda Luisita, headed by the President's uncle, implemented another round of the Stock Distribution Option (SDO) scheme—one of the many loopholes in the land reform law through which landlords evade actual land distribution—despite the impending Supreme Court's decision on the farmers' petition for the immediate implementation of land distribution.

More than a thousand farmers and farmworkers lost their livelihoods or faced working hour reductions as a result of Luisita's SDO scheme. Farmers, therefore, continue to seek justice not only for the victims of the November 2004 Hacienda Luisita massacre but also in terms of compensation for sugar farm workers who, for many years, have been taking home measly wages despite being "stockholders" of the hacienda.

With the President's family blatantly evading land distribution, most of the landlords followed suit using different schemes to get around the nominal land reform law, one of which is through land use conversion. Previously, land use and crop conversion had already impacted the production of staple crops. From 1991

10 IBON Foundation, "The Imperative for Genuine Agrarian Reform," *IBON Facts & Figures*, June 2009

to 2002, farm area planted for palay fell by 86,606 ha while area planted for corn contracted by 298,064 ha.[11]

This does not include vast tracts of arable land that are now being eyed for mining exploration that is threatening to displace peasant communities from their farms. Since 1992, the Philippine government has been aggressively promoting the revitalization of the mining industry by opening up 30% of the country's land area to mining exploitation. In 2006, the DENR received 1,953 mining applications, which are currently pending and awaiting approval.

While the government's policies have been denying land for the tillers, it has also been providing all the policies to legitimize plunder by foreign governments and agro-industrial corporations. The Senate's ratification of the General Agreement on Tariffs and Trade (GATT) and subsequently the Agreement on Agriculture of the WTO left the country without any protection for domestic production in agriculture.

To implement the Agreement on Agriculture, the Philippine government passed The Agricultural Tariffication Act (Republic Act 8178). This law repeals existing laws prohibiting the importation of onion, potato, garlic, cabbage (RA 1296) and coffee (RA 2712); and centralizing the importation of beef (RA 1297). It also repeals two laws the small farmers had won through years of struggle: the Magna Carta for Small Farmers (RA 7607) and the Seed Industry Development Act (RA 7308). These laws prohibit the importation of agricultural products and seeds when these are sufficiently produced in the country.

11 Ibid.

At present, food and live animals for food consumption constitute the bulk of agricultural imports. It accounts for about two-thirds of the annual total agricultural import value from1990 onwards. In the first year of the GATT-Uruguay Round Agreements in 1995, import values increased by 38% from the 1991 levels. The second and third largest groups of agricultural imports during 1980-1997 were inedible crude materials and manufactured fertilizers. The values of imports of other commodity groups such as animal and vegetable oils, agricultural chemicals and materials, agricultural machinery and manufactured fertilizers have increased from 1994 to1997. And about 90% of the country's dairy products are imported.

Agriculture was also restructured in line with the increasing liberalization of the sector through a set of other laws and policies. Republic Act 7900, for example, gave incentives, tax holidays and infrastructure support for agribusiness corporations engaged in export crop production.

Cargill, Continental and other US grain giants can sell US corn surpluses in the Philippines at prices equivalent to half the cost of local production. The corn from the US, however, has been produced by farmers who receive subsidies amounting to $29,000 each—more than what any Filipino corn farmer can earn in a lifetime. The result is that, according to conservative estimates of the Department of Agriculture, at least 150,000 metric tons of corns were left rotting in the fields in 1998 because the cost of harvesting the crop would have only added to the losses due to the depressed prices during that crop season. Due to increasing US corn imports, the average income of Filipino corn farmers were estimated to have dropped by 15% in 2000 and by as much as 30% in 2004.

About 35,000 onion growers in Nueva Ecija and Pangasinan provide worse examples. Yearly, the available supply of onion is at 170,000 tons while demand is at 140,000 tons. Locally grown onions cost PhP 40 per kilo. Since 1998, onions from the Netherlands, China, Australia, the US and New Zealand have flooded the market, selling at PhP 18 per kilo. As a result, local onion producers face intermittent sales failures and onions rot unsold in warehouses because of this unfair competition.

On the overall, theUnited Statesis the major trading partner of the Philippines for its coconut oil, desiccated coconut, sugar, coffee, unmanufactured tobacco, abaca, pineapple and pineapple products, tuna and seaweed, and carrageenan in more recent years. Japan is the biggest market for fresh banana, shrimps and prawn, tuna, pineapple and pineapple products. Copra oil cake/meal, seaweed and carrageenan are shipped largely to the European markets.

4. New threats to Philippine agriculture

4.1 Biofuels production

President Gloria Arroyo signed the Biofuels Act (RA 9376) in January 2007. It seeks to encourage domestic biofuel production to partly replace some of the imported fuel requirements of the country and help lower foreign oil dependence. The law mandates a minimum 2% biodiesel blend and 5% bioethanol blend by volume in all diesel and gasoline fuels, respectively, being distributed and sold in the country. Coconut oil and sugarcane are respectively the country's primary feedstock for biodiesel and bioethanol production. Apart from supplying domestic demand, local biofuel production is being developed for its export potential.

At 323 million litres per year, the country's total production capacity for coco-biodiesel is more than double the mandated 2% blending requirement for diesel, and can meet a potential demand even if the mandate were raised to 5%.[12] However, the local production capacity for fuel grade ethanol (40 million litres) is only one-fifth of the 5% gasoline blending requirement of 200 million litres,[13] and would require either a massive importation or the expansion of local manufacturing capacity and feedstock production to meet the mandate. The government also intends to propagate jatropha cultivation in 2 million hectares of "unproductive and idle" public and private lands nationwide.[14] Among other crops being eyed for biofuels are corn, sweet sorghum, and cassava for ethanol.

The expansion of feedstock production for biofuels threatens to displace small farmers besides creating a greater pressure to further stall the land reform program. This is especially threatening for peasant farmers and farm workers in sugar plantations that have yet to be distributed. Overall, the government promotion of agricultural investment in corporate farming rather than social investment will mean that the promotion of biofuel feedstock production will push out domestic food security by diverting land and the already insufficient grain production.

12 Action for Economic Reforms, "Biofuel production overview in the Philippines," 2 April 2009, retrieved from http://www.ibop-asia.net.

13 Ibid.

14 IBON Foundation, "Biofuels Act of 2006: Behind the Hype," IBON Facts and Figures, 31 July 2007, 7.

4. 2 Global land grabbing

Another threat to national food security for developing countries is the widespread acquisition of arable land for corporate interests, whether speculative acquisition or large scale agricultural production such as planting of commercial food crops or biofuel feedstock or for processing and raising livestock and poultry for export.

In 2008, the Republic of the Philippines signed a Memorandum of Understanding with the United Arab Emirates (UAE) to find ways on how the Philippines can help them ensure its food supply. And in September 2010, a $300 million banana export project in Davao del Norte has been finalized between NEH of Bahrain and the AMA Group—a joint venture that will be called RP Harvest Inc. Production of the banana facilities will partly address the demand for Cavendish bananas in Bahrain and in other Gulf countries.

Some deals were disrupted or failed due to the controversy surrounding such large scale acquisitions. These transactions raise the prospect of displacing Phillipine farmers and agricultural production in general besides the fact that the sale of agricultural land to non-nationals is prohibited by the Philippine constitution. This was the case of a planned lease of 1.24 million hectares by China or that of another 100,000 ha by Qatar.

The Comprehensive Agrarian Reform Program (CARP) which was recently extended has a market orientation where beneficiaries are organized into Agrarian Reform Communities (ARCs) that are paired up with corporations. This orientation made it very easy to target ARCs in large corporate agriculture deals. Aside from the infusion of foreign assistance to put up infrastructure support, other countries like those from the Middle East have eyed these

ARCs as their partners in the expansion needs of their agriculture production.

Arabian companies have been the first international group to take interest in the wide tracts of lands now in the control of farmers who were identified as beneficiaries of the CARP. Although distributed as family-sized lands or still undivided plantation lands, but given to farmer cooperatives, these ARCs are given priority for infrastructure and marketing support.

While the CARP aimed at harnessing the collective production potential of these farmer-beneficiaries, the program has also allowed corporations, including foreign investments, to help the ARCs find marketing or agriculture production tie-up to help improve farmers' incomes. While there is now greater scepticism about the "win-win scenario" depicted by investors, host governments, donors and international institutions promoting foreign land acquisitions (FLAs), influential institutions including the World Bank remain optimistic about foreign land deals. Proponents argue that FLAs can be optimized so that their benefits are harnessed and their negative effects are avoided or reduced to a minimum. This managed "win-win" state is to be achieved by instituting procedural and framework improvements, such as better land governance and private property systems in host countries, and through voluntary guidelines or codes of conduct containing principles that investors can adhere to. The latter approach is one that has gained ground internationally. The United Nations Food and Agriculture Organization (FAO), the World Bank Group, the UN Conference on Trade and Development (UNCTAD), and the International Fund for Agriculture and Development (IFAD) have agreed on a set of seven principles for responsible investment in FLAs and have jointly set out a process of generat-

ing support around these among relevant countries and stakeholders.

Food security for resource-poor but cash-rich countries is often identified as the main driver for the land deals. Food security is a valid concern. But analysis of the nature of the land projects and the players involved casts doubt on its primacy. For instance, the World Bank, using available evidence, found that at least 42% of the land projects do not involve food production (21% focus on industrial or cash crops, 21% on biofuels, and another 21% is split between livestock, conservation/game reserve, and plantation forestry).[15] The Bank further found that the bulk of the investments come from agribusiness, industry, and financial institutions. These are entities who are not traditionally involved in upstream food production as their main line of business, and whose forays into foreign land deals are motivated primarily by the interest to acquire control over farmland as a valuable asset. This can be said especially of private financial institutions. Moreover, these are entities whose unchecked patterns of investment and resource use converged to create the food price crisis in the first place, not to mention the energy and financial crises.

UN Special Rapporteur on the right to food, Olivier de Schutter, attributes the FLA trend to problems in the food and agricultural system itself, including unsustainable practices that lead to soil depletion and water exhaustion, and a poorly functioning and unreliable international market for agricultural commodities. In-

15 Percentages drawn from 405 projects with commodity data, out of 464 projects identified from all information posted on the blog farmlandgrab.org between October 1, 2008 and October 31, 2009. World Bank, "Rising Global Interest in Farmland: Can It Yield Sustainable Benefits," 7 September 2010.

deed, the global farmland rush points to an increasingly distressed and insecure food and agricultural system, as land and water resources are being subject to competing interests and agendas. A few rich countries are trying to secure food or energy supplies for their population together with agro-investors/speculators looking for new profit opportunities by taking advantage of cheap land and other resources from desperately poor countries whose populations are even more food insecure—all in the context of a more hostile climate, depleting oil and natural resources, and population growth.

4.2.1 Private investments for speculative financial gains

The flight of capital from unstable financial markets and the anticipation that future farmland values are bound to appreciate is fuelling a rush of private investments in FLAs. Financial players are flocking to tangible assets such as farmlands for safety due to lingering uncertainties in financial markets. In the US, annualized farmland yields since 1951 are reported to be in the region of 10%-12%, which is comparable with stock yields in the S&P 500, but obtained with far less volatility.[16] Moreover, factors such as population growth, economic growth in developing countries, rising demand for food, commodities, and agrofuels, and limited if not shrinking supplies of fertile land are all perceived to drive demand for farmland, and in turn, future farmland prices. The prospect of fertile soil becoming a strategic global asset—perhaps on a par with other scarce resources as oil—has further increased the appeal of FLAs as a profitable long-term investment. Some

16 Brett Arends, "Farmland: The Next Boom?," The Wall Street Journal, 24 September 2010, accessed from http://tinyurl.com/3aecypw

of the prominent private financial institutions that are known to have already snapped up land deals or are actively seeking to do so are Barclays Capital (UK), Goldman Sachs (US), and Morgan Stanley (US). Multilateral institutions, particularly the World Bank's International Financial Corporation (IFC) and the Foreign Investment Advisory Service (FIAS), also support FLAs by providing financing and technical support.[17]

4.2.2 Growing demand for agricultural raw materials for energy generation and manufacturing

A rising demand for agrofuels and access to new sources of raw materials for manufacturing goods is also driving FLAs. The demand for energy crops such as corn and sugarcane has rapidly risen over the past several years as governments of oil-dependent industrialized countries—prominently among them are the US, but also some major developing countries—introduce blending targets for agrofuels into their energy supply, coupled with other forms of government subsidy encouraging agrofuel production. Ethanol production has seen a high annual growth rate of 15% between 2000 and 2006. In 2008, over 17 billion gallons of ethanol were produced globally, of which the US and Brazil accounted for 89%. Biodiesel production meanwhile has been growing 40% per year between 2002 and 2007.[18] The demand for other raw materials such as rubber is also increasing. China, whose share of global rubber consumption is expected to

17 The Oakland Institute, (Mis) Investment in Agriculture: *The Role of the International Finance Corporation in Global Land Grabs (*Oakland, CA: The Oakland Institute, 2010).

18 IBON International, *Primer on Climate Crisis: Roots and Solutions* (Que zon City: IBON, 2010), 29.

grow from 22% in 2008 to 30% in 2020, has secured land deals in Southeast Asia to produce and export back sap from plantations.[19]

4.2.3 Securing food supplies

Wealthy but resources-poor countries facing rising domestic pressures and constraints to their food growing capacity are turning to FLAs for offshore food production to secure long-term food supplies. East Asian countries (e.g., China, South Korea, and Japan) with large economies as well as large or rapidly growing populations fall into this basket. China, for instance, has a huge and still rapidly growing population, and although largely self-sufficient, has seen its limited land resources (9% of world arable land) exhausted and degraded by industrial expansion and urbanization. Another group of countries that fall into this category are the Gulf States (e.g., Bahrain, Qatar, and Saudi Arabia). Being built on desert, these countries grapple with limited land and water resources, and are thus largely dependent on food imports. But they possess plenty of capital, thanks to oil resources, and are pursuing FLAs as a long-term strategy to reduce their dependence on foreign supplies and vulnerability to world market price trends.

4.3 Biotech/Genetically-modified crops

The Philippines is on the front lines of the agro-biotechnology movement. It introduced biotech crops in 1999. It was the first Asian country to approve the commercial cultivation of a

19 The Oakland Institute, *The Great Land Grab: Rush for the World's Farmland Threatens Food Security for the Poor* (Oakland, CA: The Oakland Institute, 2009), 4.

genetically-modified BT corn variety in December 2002, and is still the only Asian country that grows biotech maize commercially. While Indonesia was the first country in the region to commercially grow a biotech crop (BT cotton in 2001) it has been discontinued for various other reasons that are unrelated to the performance of the technology.

In 2009, the Philippines ranked eleventh in the world's top 15 biotech mega-countries, or countries that grow 50,000 ha or more of genetically-modified (GM) crops annually. It grows nearly 500,000 ha of biotech maize grown by some 250,000 farmers.[20] Out of 57 countries that have granted approvals for biotech crops, the country is seventh in terms of number of approvals, behind Japan, the US, Canada, South Korea, Mexico and Australia, and ranked higher than the European Union, New Zealand, and China.[21] Other GM crops that have been approved for direct use as food, feed and for processing are soybean, canola, potato, cotton, sugar beet and alfalfa. The Philippines is also fourth in the world in terms of the proportional growth in global biotech crop area in 2009.[22]

GM crop production in the Philippines has been very controversial especially among farmers and environmentalists. Concerns that have been raised include the danger of increased dependence by farmers on GM crops and chemicals because of

20 Clive James, "Global Status of Commercialized Biotech/GM Crops: 2009," International Service for the Acquisition of Agri-Biotech Applications Brief 41, Executive Summary, retrieved from http://www.isaaa.org/resources/publications/briefs/41/executivesummary/default.asp.

21 Ibid.

22 Ibid.

BOX 1. THE MASIPAG APPROACH

The MASIPAG approach encompasses the following elements:

Bottom-up approach
Decision-making, planning and implementation within the organisation come from the membership. This is coordinated through farmer groups and a decentralised organisational structure.

Farmer-scientist-NGO partnership
The organisation is run as a process of mutual, ongoing learning between farmers, scientists and NGOs.

Farmer-led research
Research, including breeding of new rice varieties, is designed and conducted by farmer-members for farmer-members.

Farmer-to-farmer mode of diffusion
Training in the network is largely conducted by farmer-trainers using a wide range of techniques including trial farms, exchange days and cultural activities.

Opposition to technological fixes
Change needs to be understood in a holistic way including attention to farmer empowerment and farmer knowledge.

Advancing farmers' rights
MASIPAG works within a broader commitment to farmers' rights. Farmers' rights include rights relating to land, seeds and genetic resources, production, biodiversity, politics and decision-making, culture and knowledge, information and research, and sociopolitical factors.

Lifted from Bachmann, Cruzada, and Wright (2009)

reduced diversity when the ecosystem changes in response to GM crops or when farmers limit the range of crops they grow. Concerns have also been raised regarding the resulting greater control by agro-biotech companies of seeds and inputs over agricultural production and the political economy in agriculture.

Environmental concerns relate to the ecological impacts which include the potential for the evolution of increased weeds, extinction of wild relatives, decreased genetic diversity, increased chemical use, harming non-target insects, and evolution of pesticide-resistant pests.

4.4 Climate change

One of the biggest challenges to agricultural and rural development in the Philippines is climate change. The Philippines is projected to be among the top five countries that face the greatest threats from climate change, including rising sea levels and super-typhoons because of its geographic location and features (in the tropics, in the pathway of typhoons, and an archipelago surrounded by water). The threat intensifies considering its level of development especially in the rural areas where infrastructure is generally of poor quality and government support and services are minimal.

Models by the Intergovernmental Panel on Climate Change project surface temperature in the Philippines to rise by between to 2.5 degrees Celsius in 2090-99 against 1980-99 temperatures.[23] The country has experienced temperature spikes brought about by climate change. It has been observed that warming is experienced most in the northern and southern regions of the country. In addition, the regions that have warmed the most (northern Luzon, Mindanao) have also dried the most.[24]

Yet as a middle income developing country, the Philippines' contribution to climate change through greenhouse gas (GHG) emissions is surprisingly insignificant. In 2005, it contributed 211.7 million tons of CO_2 (carbon dioxide equivalent) or 0.48% of total GHG emissions (including land use change and interna-

23 Intergovernmental Panel on Climate Change, "Climate Change 2007: Synthesis Report, Summary for Policy Makers," retrieved from http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm.

24 Presidential Task Force on Climate Change, "Climate Change in the Philippines," retrieved from http://www.doe.gov.ph/cc/ccp.htm.

tional bunkers), 35th in the world in terms of total volume, and 134th in per capita terms (2.5 tons per person).[25]

Hot days and hot nights have become more frequent. Extreme weather conditions have also occurred more frequently since 1980. These include deadly and damaging typhoons, floods, landslides, severe El Niño and La Niña climate events, drought, and forest fires.

Agriculture is the most affected by climate change; heat stress, excessive rainfall, soil erosion and water shortage have decreased crop harvests as well as livestock production. Agriculture is the sector most affected by tropical cyclones. Typhoon damage rose to more than 1% of GDP in 1984, 1988, and 1990 (at 1.17%, the highest). The decline in production and productivity will possibly threaten the country's food security.[26]

The fisheries sector which is an important component of the rural sector and food production for an archipelagic country such as the Philippines will also be hard hit by climate change. More frequent stormy weather and super typhoons have severe impacts on aquaculture as well as on fishing. Coral bleaching destroy reefs and threaten fish stocks.

Add to this the physical threat of rising sea levels on coastal communities including coastal production systems that include agriculture and aquaculture.

The response to climate change, especially for the development of rural communities lies in the promotion of sustainable

25 Climate Analysis Indicators Tool (CAIT) Version 7.0, "Total GHG Emissions in 2005" (Washington, DC: World Resources Institute, 2010).

26 Presidential Task Force on Climate Change, "New Risks and Pressures," retrieved from http://www.doe.gov.ph/cc/nrp.htm.

systems especially agro-ecological systems of food production. As the foundation of adaptation, these systems also respond to demands for mitigation of carbon emissions. These should be combined with sustainable technologies for energy such as solar and other renewable forms within an overall framework of re-vision of economic relations and production systems and technologies.

5. Alternatives

Many initiatives in developing appropriate technologies for democratic rural development have been initiated in the Philippines. A number of non-government organisations (NGOs) have become trailblazers in promoting the overall framework of system change in rural development such as SEARICE and IBON; in promoting agro-ecological technologies, such as MASIPAG and SIBAT; and in undertaking peasant campaigns for agrarian and aquatic reform such as the *bungkalan* initiated by KMP, the peasant movement of the Philippines.

5.1 The MASIPAG approach: reclaiming control of seeds and knowledge

Magsasaka at Siyentipiko para sa Pag-unlad sa Agrikultura (Farmer-Scientist Partnership for Development) or MASIPAG, is a farmer-led network of small-scale farmers, farmers' organisations, scientists and NGOs that promote "*the sustainable use and management of biodiversity through farmers' control of genetic and biological resources, agricultural production and associated knowledge.*"[27]

27 MASIPAG, "Seeds are life: MASIPAG's roots," 14 December 2007, retrieved from http://masipag.org/cms/index.php?option=com_content&task=view&id=12&Itemid=27, emphasis added.

The MASIPAG network traces its roots from a July 1985 conference held to discuss problems associated with high-input and chemically-dependent farming of genetically uniform high-yielding varieties of rice introduced during the Green Revolution in the 1960s and 70s. Farmers attending the conference donated the first 47 rice varieties which became the base of the MASIPAG seed collection.[28]

MASIPAG's formal establishment came with the launch of its first Back Up and Research Farm (BURF) in 1986. The farm became the model and core of the network's rice genetic conservation and improvement program. Farmers and scientists worked in collaboration to put together ecologically-friendly management practices and produce the first MASIPAG lines of rice.[29] Today, MASIPAG holds more than 2,000 local varieties and farmer-bred lines and runs ten regional community seed banks; operates three national backup farms and 272 trial farms; and has a national reach covering 35,000 farming families, 60 NGOs, and 15 scientists from various universities.[30]

MASIPAG promotes an agro-ecological approach in rice production and conservation that includes the use of seed varieties selected and bred by local farmers from local trial farms assisted by farmer-trainers and scientists, restoring control of seeds to farmers; no chemical fertilizers or pesticides; and farmers that are actively involved in the organisation and the community.

28 Ibid.

29 Ibid.

30 Lorenz Bachmann, Elizabeth Cruzada, Sarah Wright, *Food Security and Farmer Empowerment: A study of impacts of farmer-led sustainable agriculture in the Philippines* (Los Baños: MASIPAG, 2009), 6.

MASIPAG describes its approach as "farmer-centred and bottom-up" (see Box 1):

> Farming families are encouraged to learn and work together in groups. These groups, or people's organizations (POs), form the basis of the MASIPAG structure and are the level through which most work gets done, training is conducted and decisions are made. Both technological change (adoption of sustainable agriculture) and social change (increased knowledge, awareness, understanding and the ability to act privately or as a member or leader in the community) are prioritised. Combined, the two aspects lead to tangible ecological and economic benefits, ownership and control of resources, and social empowerment.[31]

Another pillar in the MASIPAG framework distinguishing it from conventional agriculture is its emphasis on local food self-sufficiency rather than producing to sell to the market at all costs. It ranks people's food needs higher than income or profit. This emphasis "provides better food and livelihood security than strategies purely focused on increased incomes."[32]

MASIPAG conducted a study on organic rice-based agricultural systems and on sustainable agriculture in Asia in 2007 and 2008, one of the largest ever undertaken.

The study compared findings from 280 full organic MASIPAG farmers, 280 MASIPAG farmers in conversion to organic agriculture and 280 conventional farmers to act as a reference group. The analysis focuses on food security, income and livelihood,

31 Ibid., 8-9.

32 Ibid, 9.

yields and productivity, environmental outcomes, and farmer knowledge and empowerment. The results are very positive for the farmer-led sustainable agriculture approach across the range of variables.

The study showed the potential of sustainable, farmer-led, and cooperative agriculture to end rural poverty, inequality, and hunger, and contribute to broad-based development. The findings include (see Appendix B):[33]

1. Farmers using sustainable agriculture are much more food secure than those using conventional techniques. They have greater access to food; enjoy safer, more diverse and nutritious diets; have more reliable food sources grown on-farm; and have greater autonomy, self-reliance and control over production.
2. Full organic farmers have greater economic security and better livelihoods than conventional farmers because of significantly lower production costs (no dependence on agricultural inputs), greater total productivity (and not just the productivity of one or two crops), and greater contribution to net agricultural income of production for subsistence consumption.
3. Full organic farmers using farmer-bred varieties of rice enjoy yields that are on a par with conventional farmers using costly, chemical-intensive high-yielding varieties.
4. Full organic farmers practice greater community involvement and cooperation, have high rates of training and skill acquisition, and enjoy increased bargaining power in the market through marketing groups.

33 Ibid., passim.

5. Sustainable agriculture contributes positively to the environment through zero chemical use and better soil management, resulting in greater biodiversity and soil fertility. It also creates more climate-resilient crops at the same time as it contributes to climate change mitigation.

5.2 SIBAT: Alternative technologies for rural development

One of the alternatives being currently developed for sustainable agriculture are Community-Based Sustainable Agriculture (CBSA) and Community-Based Renewable Energy System (CBRES), which is being pioneered by SIBAT or Sibol ng Agham at Teknolohiya, Inc. (Wellspring of Science and Technology). CBSA (with focus on diversified integrated farming systems in respective typological contexts), supported by CBRES, constitute the basic technological components of this model and SIBAT's core technological competencies that are now being initiated in NGO and PO-led development work.

Appropriate Technology (AT) is SIBAT's main tool in pursuing its development mission to target communities. AT is meant to genuinely respond to the needs of poor communities and results in their real socio-economic benefits as well as to the environment.

Presently, SIBAT pursues the development of the village level sustainable development (VLSD) model which is basically a community-based model of integrating AT components spawned by community plans and participatory research through NGO-PO-

SIBAT collaboration in the context of the POs' struggle for land and resources.[34]

5.3 *Bungkalan* movement: farmers reclaiming land

Bungkalan is Philippine for the collective act of cultivation. It is a form of struggle, a form of land occupation where landless farm workers and peasants till idle plantation/hacienda lands which was initiated by the *Kilusang Magbubukid ng Pilipinas* (Peasant Movement of the Philippines, KMP) in recent years.

The most recent example is the famous *Bungkalan* in Hacienda Luisita, as it has been said, a 6,000 ha sugarcane plantation estate owned and managed by the Cojuangco family, whose famous member is Benigno Cojuangco Aquino III, the present President of the Philippines. This hacienda was incorporated in 1988 to qualify for CARP's stock-sharing program and sidestep actual land distribution.

In November 2004, Luisita's plantation and sugar mill workers unions staged a strike to demand, among others, the revocation of the stock distribution option and the distribution of the estate to farm worker beneficiaries. Seven farm workers died on November 16 after a violent attempt by the military and police to break the strike. In 2006, the Luisita management appealed the Presidential Agrarian Reform Council's order in late 2005 to distribute the estate, and was granted a restraining order by the Supreme Court. The land dispute continues today.

Since then, the family-controlled Hacienda Luisita Inc. has managed to plant only 40% of the estate with sugar cane; the rest

34 SIBAT, "Who We Are," retrieved from http://www.sibat.org/whoweare.shtml.

has been seized by individual farmers or remains idle for speculative reasons.[35] After the strike and SDO's revocation in 2005, the farmer beneficiaries launched what they call a "bungkalan" or the cultivation of idle Luisita land.

In June 2005, the plantation and sugar mill workers unions in Luisita started cultivating portions of idle land in the plantation to produce crops and stave off hunger during the rainy season. Using funds provided by management as part of the final agreement ending the strike, the farm workers union has built a cooperative aimed at helping the farm workers and their families to start planting rice and vegetables instead of sugarcane. Since 2005, almost half of the hacienda (or an estimate of 2,000 ha) has been converted to rice and vegetable farms.[36]

The union cooperative provided for the construction of deep wells for irrigation and the acquisition of farm inputs. The cooperative is also starting to acquire farm machineries such as kuliglig (hand tractor) and thresher.[37] The movement allowed farmers to grow their food and earn some income by selling their produce, instead of depending on scarce work, low wages (9.50 pesos or $0.22 per day), and debt as plantation workers in the estate. They grow rice and vegetables such as eggplant, okra, sweet potato,

35 Norimitsu Onishi, "For Philippine Family and Politics, Land Issue Hits Home," The New York Times. 14 March 2010.

36 Dabet Castañeda, "Luisita Farmers Go Back to Basics," Bulatlat, 19-25 August 2007, retrieved from http://www.bulatlat.com/main/2007/08/18/luisita-farmers-go-back-to-basics/.

37 Ibid.

and beans.[38] Before the strike, the farm workers were forbidden to till the land, gather food that was already growing, or catch fish inside the estate.

Another example is the *Bungkalan* in Negros Island in the central Visayas region of the Philippines. Led by KMP–Negros, farmers and farm workers cultivated idle lands in sugar plantations with rice, vegetables and fruits in Bago City, Negros Occidental province.

The movement began in December 2008, not without difficulty because of armed guards hired by landlords. But the farm workers were successful in occupying and tilling the land and the first harvest yielded 80 to 100 cavans (one cavan is 50 kilos) per hectare. Their cultivation was also of less cost as labour has been through cooperative effort or "bayanihan." In addition, the variety they have cultivated was not of those high-yielding or hybrid that required expensive and ecologically harmful chemical inputs.[39]

There have been 24 successful bungkalan sites across Negros. KMP reports that a total of 1,381 ha were occupied and cultivated, benefiting 933 farming households or more than 2,000 farmers.[40]

38 Reyna Mae Tabbada, "Bungkalan in Hacienda Luisita: Dreams Realized, One Tilled Hectare at a Time," Bulatlat, 22-28 October 2010, retrieved from http://www.bulatlat.com/main/2006/10/28/bungkalan-in-hacienda-luisita-dreams-realized-one-tilled-hectare-at-a-time/.

39 Kilusang Magbubukid ng Pilipinas, "Bungkalan campaign of Negros farmers, the concretization of the peasant struggle," 31 October 2010, retrieved from http://www.kilusangmagbubukid.org/resource/bungkalan-campaign-negros-farmers-concretization-peasant-struggle.

40 Ibid.

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Appendix A

Farmer-led approach in MASIPAG trial farms

Lifted from Bachmann et al*., 2009.*

The core element of the MASIPAG approach is the trial farm. People's organisations and NGOs accessing MASIPAG rice seeds are required to set up trial farms with a minimum of 50 MASIPAG lines through which seeds are tested for local adaptability. The trial farm acts as the community seedbank and as a site for PO-managed on-farm research activities. It is housed on the land of a farmer-member, a community organisation or will shift between group members. After two to three croppings at the trial farm, farmers in the locality may select five to ten varieties and verify these results at their own individual farms. Farmers are then encouraged to multiply three to five varieties. Traditional agronomists would probably wonder if such a complex labour-intensive set-up could produce concrete outputs in terms of improved varieties without being too demanding in terms of labour inputs for farmers. Both concerns exist in practice, but have never posed a problem as major adoption constraints.

What explains this success? The trial farm is a very slow process and builds on sound learning. MASIPAG opposes quick training using free incentives to attract farmers. Farmers are not told what to do, but they actively learn what to do and why it works. MASIPAG's pedagogy builds on the fundamental principles of adult education. Adults learn best from self-discovery

and practice. With the trial farm, farmers discover how the rice plant grows, what factors influence growth, and how it flowers and reproduces. In the process, farmers become better observers. At the same time they learn how to influence the process and discover cause-and-effect relationships. While the work can be tedious and slow at first, repeated practice leads to considerable time gains later. Farmers become experts boosting success rates, interest and motivation.

Appendix B

Summary of Results of MASIPAG Study

Lifted from Bachmann et al*., 2009, passim.*

1. Food security

Farmers practicing farmer-led sustainable agriculture are:

More food secure. Eighty-eight percent of organic farmers find their food security better or much better than in 2000 compared to only 44% of conventional farmers. Of conventional farmers, 18% are worse off. Only 2% of full organic farmers are worse off.

Eating an increasingly diverse diet. Organic farmers eat 68% more vegetables, 56% more fruit, 55% more protein-rich staples and 40% more meat than in 2000. This is an increase between 2 and 3.7 times higher than for conventional farmers.

Producing a more diverse range of crops. Organic farmers on average grow 50% more crop types than conventional.

Experiencing better health outcomes. In the full organic group, 85% rate their health today better or much better than in 2000. In the reference group, only 32% rate it positively, while 56% see no change and 13% report worse health.

2. Livelihoods, household income and expenditure

Changes in income are positive for organic farmers. Over the past 7 years, 74% of full organic farmers report increasing incomes. Only 31% of conventional farmers cite an increase while 68% report stagnant or declining incomes.

Net agricultural incomes are significantly higher for MASIPAG farmers. Net agricultural income is 36,093 pesos for full organic farmers and 30,819 for conventional farmers. Per hectare net incomes of the full organic farmers are one and a half times higher than those of conventional farmers.

Livelihood calculations (net income plus subsistence) show major advantages for the full organic farmers. Differences in livelihood are highly statistically significant. Full organic farmers have an average livelihood income of 69,935 pesos, those in conversion 68,351, and conventional farmers 54,915 pesos per annum. Livelihood per hectare for the poorest 25% of organic farmers is 1.5 times that of the poorest.

Annual household cash balance is positive for full organic farmers, negative for conventional farmers. Full organic farmers have, on average, a positive annual cash balance of +4,749 pesos. Conventional farmers have an average negative cash balance of -4,992 pesos.

3. Empowerment and social change

Full organic farmers are actively involved in the organization of the community. Full organic farmers are represented in community level organizations, as farmer trainers and as innovators. Half of all full organic farmers are leaders in peo-

ple's organizations, a third are farmer-trainers or committee members.

A grassroots farmer-led approach leads to high rates of training and adoption of sustainable agriculture techniques. Eighty three percent of full organic farmers are trained in cultural management of rice. MASIPAG farmer-trainers and extension workers are ranked highest by all groups, above government and other NGOs.

Full organic farmers feel empowered and positive. Conventional farmers struggle to see scope for positive change. Full organic farmers list 67 positive outcomes. Conventional farmers list only 35 with the top impact cited as "no change."

Communal labour is used more often for full organic farmers. Thirty-two percent of full organic farmers but only 18% of conventional farmers use communal labour.

Marketing groups lead to higher economic returns. Crop income is 47% higher and livestock income 46% higher for farmers that participate in marketing groups.

4. Rice

Rice yields are on a par between the three groups. Average yields range between 3,287 to 3,478 kg per hectare for the three groups. Differences are not statistically significant. Rice yields for conventional farmers have declined over time. For organic farmers, they have remained steady.

High yields are supported by strong participation in rice breeding and improvement. The network has 67 rice breeders—fourteen percent of all full organic farmers interviewed.

Seed selection is practiced by 77% of organic farmers but only 25% of conventional farmers.

5. Livestock

For most animals, rates of animal ownership are higher for organic farmers. The full organic groups are more likely to own carabaos, cattle, goats and chickens. No clear trends are evident for pigs, ducks or other animals. Livestock rates are generally steady or in decline. Income from livestock is higher for MASIPAG farmers.

6. Environmental outcomes

Full organic farmers have:

Increased on-farm diversity. Organic farmers grow on average 50% more crop types and three times more varieties of rice than the conventional farmers

Decreased chemical fertiliser and pesticide use. Organic farmers have eliminated the use of chemical fertilisers and pesticides and use a variety of organic methods. In contrast 85% of conventional farmers use fertiliser and 80% continue to use pesticides. Ninety-seven percent of the full organic group use alternative pest management.

Increased soil fertility, biodiversity and crop tolerance. Eighty-four percent of organic farmers but just 3% of conventional farmers report increases in soil fertility. Fifty-nine percent of organic farmers but just 6% of conventional farmers report a reduction in soil erosion. Increased tolerance of plant varieties to pests and diseases is reported by 81% of organic

farmers. In contrast, 41% of conventional farmers see the tolerance to pests worsening.

7. Outlook on climate change

Full organic farmers have:

Better climate change outcomes. Increased diversity, enhanced crop tolerance, better soil fertility, an active breeding program and strong social mechanisms combine to make MASIPAG farmers more able to respond to climate stresses. The elimination of pesticide use, good soil and water management, and an emphasis on local markets and on-farm inputs reduces the climate impact of sustainable agriculture.

STRENGTHENING FAMILY FARMING AND ITS CHALLENGE IN INDONESIA

Indra Lubis[1] *and J.J. Polong*[2]

Background

Indonesia is an agrarian country. Around 70% of 230 million people are living in the countryside and their livelihoods depend on farming, fishing and other jobs related to agriculture. The majority lives in poverty and it has been so ever since the independence of Indonesia from the old model of colonialization in 1945. In other words, we can say that after 65 years development just benefits a small percentage of the Indonesian people. Especially for the last 45 years, Indonesia has been following neoliberal policies as the basic platform of the government policies.

To give a brief historical account, the first law was issued just after Indonesian president Soeharto took power, and was the Foreign Investment Law (Law No. 1/1967). Later on followed the laws on plantation, oil and gas and other laws related to agrarian resources or natural wealth. All these policies and political pressure

1 (Indonesia) He was Head of International Relations of Serikat Petani Indonesia (SPI) and now works as a staff of International Operative Secretariat (IOS) La Vía Campesina.

2 (Indonesia) He is a lecturer in Sriwijaya University and one of the Founders of the Association of Indonesian Political Economy (AEPI)

were in contradiction with previous government policies such as agrarian reform, nationalization of foreign companies, democratic elections, etc.

On October 1988—ten years before Soeharto stepped down—the IMF and the World Bank put big pressure on the Indonesian government to implement the Structural Adjustment Program (SAP). The main pillars of SAP were privatization, trade liberalization and governance reform. And later, just after the Asian crisis in October, 1997, Indonesia signed the Letter of Intent (LOI) with the IMF on the macroeconomic policies that would provide the supportive framework for restructuring the financial sector and putting in place wide-ranging structural reforms. Again and again, the structural reforms in LOI with IMF are on Foreign Trade Investment, Deregulation and Privatization, and the Environment and Social Safety Net. In the letter was stated the alleviation of poverty in Indonesia

Before this Indonesia was one of the first countries to join the World Trade Organization (WTO) in 1994 and ratified the conclusions of Uruguay round with Law No. 7/1994 which it started to implement in January 1995. As we all know one agreement in the WTO is the Agreement on Agriculture (AoA) with three main pillars: Increasing market access, reducing domestic support, and export competition.

A specific project on land but related to the neoliberal policies was implemented in Indonesia since 1994. Land Administration Project (LAP) is a project introduced by the World Bank. The basic idea of this project is to implement the land market system in Indonesia.[3]

3 *Struggles towards Genuine Agrarian Reform in Indonesia*, SPI, 2005.

All these policies, over the last 45 years, have always been claimed to be meant to alleviate poverty by increasing economic growth. But the end results until now have been the deep poverty in which the majority of the Indonesian people (which mostly are peasants) live. Peasants lost their means of production (land, water, seeds, biodiversity), shifting to a high cost agriculture production system, increasing the migration of the countryside people to the cities, and to work as domestic workers in many foreign countries. The report of Indonesian Migrant Union (SBMI) states that around 5-6 million Indonesians work as migrant workers of which almost 90% came from rural areas. In Hong Kong more than 100,000 Indonesians work as domestic migrant workers. There is no other choice for them due to the limitation of available land in their villages.[4]

The link of the past policies and the food price crisis

Let us take a look at the current global food price crisis phenomena which is present in Indonesia too and its link with past policies on agriculture. The food crisis became the "kick off" for other crises that later followed such as the climate, energy, and economic crisis.

Regarding the food crises, if we elaborate on it, actually it was not due to the lack of production nor a sudden increase of demand. The real global situation during 2006-2007 was the skyrocketing of the food prices. As we have seen, the price of tortilla in Mexico increased 60%. In Indonesia the price of rice was increased up to 62,5% (from Rp. 4,000 to Rp. 6,500) during the crisis. The price of cooking oil (a product from palm oil) was in-

4 http://infosbmi.blogspot.com/search/label/Media%20Release.

creased up to 43% (up to Rp. 15,000) in Indonesia. For soybean the price skyrocketed up to 200%. It was the highest price during the last 24 years.[5] There are thousands of other cases in many countries. As the case in Mexico, it happened because there is a "competition" between the use of corn as food and as biofuel. The production of corn is in the hands of few TNCs as well.

Let us see it a bit more deeply in the case of soybean in Indonesia. Soybean is one of the staple grains to make meals like tofu and tempe (with fermented soya). National consumption of soybean in Indonesia is 2,015,000 tons and more than a half are imported (1,307,000 tons). The import policy makes Indonesia loose at least Rp. 3 trillion each year (3,34 million USD).[6] This situation appeared after the government reduced their support to soybean farmers during the 1980s and 90s. During the increasing of soybean price, Cargill (US-based TNC)—the company which has the largest soya plantations in Brazil and one of four importer companies in Indonesia—kept more than 13,000 tons of soybeans in their storage at East Java province of Indonesia.[7] Undoubtedly, the price inflation stems partly from speculation by powerful cartels of wholesalers at a time of tightening supplies.

At the beginning, this phenomenon took place in many countries and the UN said that the food crisis was due to weather-

5 Serikat Petani Indonesia (SPI), *Kedaulatan Pangan Jalan Keluar dari Krisis Pangan: Bagikan* Tanah Untuk Petani, 2008.

6 Tajuddin Nur Kadir, Why has the Soya price decreased?, 2009.

7 *Kompas*, Indonesian Newspaper, January 2008.

related problems such as drought. But later many studies and research showed the real situation in the global food system.

As Aileen Kwa from South Centre (2008) said, the high food prices that have sparked riots in many parts of the developing world—from Indonesia, India and Bangladesh to Cameroon, Cote d'Ivoire and Haiti—should come as no surprise. These are only the latest in a series of events many developing countries have suffered as a result of opening their borders and neglecting domestic agriculture.[8]

In the case of Indonesia—as the implication of ratifying the WTO since September 1998-December 1999—before the current crisis the rice import tariff in Indonesia was zero percent (O%) !!! Later the tariff was less then 10%. This tariff policy implies that imported rice floods the local market and destroys the price of domestic production.

Currently, the Indonesian government still maintains this imported rice policy to ensure a cheap rice price and thus make sure the poor in the cities can buy it.

Trade liberalization not only affected the majority of Indonesian peasants but also has caused many countries in Asia as well as other peasants worldwide to suffer, and be malnourished and poor. The state disavowed their obligation to serve the need and the right of peoples under the globalized agriculture model system.[9]

8 Aileen Kwa, Food Crisis Symptom of Dubious Liberalisation, IPS, 2008.

9 Henry Saragih and Ahmad Ya'kub,"The Impact of WTO and Alternatives to Agricultural Trade," Paper presented at the Regional Conference on Agricultural Negotiations in the WTO: Implications for Trade and Agriculture in East Asia, Hongkong, January 12-14, 2004.

Those structural programs and trade liberalization have been heavily criticized for many years for resulting in poverty. In addition, for developing or third world countries, there has been an increased dependency on the richer nations. This is despite the WTO, the IMF, and the World Bank's claim that they will reduce poverty.

The claim is paradoxical with the situation of global food price crises as shown above compared with their claim before.

Ever since a few years before, SPI along with other social movements in Indonesia struggled against the opening market of agriculture products. SPI has risen up to say that the rural crisis is, to a large extent, the result of ongoing neo-liberal structural adjustment policies and trade liberalization pushed especially by the developed countries, which destroy peasant-based food production and turn large numbers of countries from net food producers into net food importers, making them heavily dependent on international markets. This ongoing deregulation of agricultural markets combined with speculative capital coming from financial markets caused huge speculation on food prices. It destabilized domestic markets, throwing millions more into hunger and poverty. Governments have put the dogma of the free market above peoples' needs. It is now evident that this ideology leads only to bankruptcy and poverty.

Increasing investment on land for food

The multiple global crises that have erupted are suddenly originating a new trend to legitimize global policies towards buying up land for outsourced food production. Land as part of the sovereignity symbol of one country is now opening to international investment in many countries especially in developing

countries. Some elements such as the rate of return in agriculture, the global price crisis and an increasing demand in the future have posed a big challenge to many countries and transnational companies to get a big profit from food production.

Basically, landgrabbing or large-scale land acquisition is not really a new trend in the history of world economy. It became a basis of purpose during the colonization era in the past. All of colonial countries used the land in the South to produce materials to serve the needs in their country.

The expansions of plantations in Indonesia started already with the colonization by the Dutch. At the beginning, plantations were meant to produce tobacco, tea, cocoa and rubber. Since the 1970s, large-scale palm oil plantations took over and there was an expansion of rubber plantations, as well. After the deepening of neoliberal policies in Indonesia, more foreign companies started grabbing the land. Now the companies come mostly from Malaysia and Singapore.

Following the previous expansion of palm oil plantations (of which the private companies own now at least 3,3 million ha from a total of 7,125,331 ha), a company from Bin Laden group from Saudi Arabia planned to invest USD 4 billion in Papua and South East and North Sulawesi. But because of huge protests the project has not moved forward yet. The current policies are basically still based on the belief of the importance of foreign investment. As Susilo Bambang Yudhoyono—Indonesian president—said, Indonesia is encouraging foreign and local investors to lease huge swathes of fertile land from the countryside and help make the country

a major food producer. One point six million ha of land has been prepared for lease.[10]

The spirit to serve the global food consumption is contradictory with the land owned by small farmers in Indonesia. In 2003, the Indonesian Statistic Centre Bureau stated that the majority (56,5%) of Indonesian farmers have only 0,5 ha of land. This number has increased 16% during the last 20 years.[11]

The growing of large-scale plantations for agrofuel will have an effect to secure food production and the food price. Henry Saragih of LVC said: "There will be a race between human and machine in the future." However, agrofuels don't just drive up food prices, they concentrate corporate monopoly power and pull our food and fuels system under one giant industrial roof.[12]

SPI believes that this will keep an unjust world. The large-scale land acquisitions can result in local people losing access to the resources on which they depend for their food security and livelihoods. Small family farmers, peasants, indigenous people, fisherfolk and other marginal sectors will lose their basic production means. Local community will be directly dispossessed of the land they live on. In fact for most peasant and indigenous people, land is considered to be the foundation of society, culture and life.

10 The Jakarta Post, Indonesia Aim to be World Breadbasket, January 22, 2010. http://english.kompas.com/read/2010/02/22/0651452/Indonesia.Aims.to.be.Worlds.Breadbasket.

11 SPI, 2008.

12 Eric Holt-Gimenez and Raj Pattel, Food Rebellions, Pambazuka Press, 2009.

The current global tendency on large-scale land acquisition will create a conflict between peasants, small farmers, landless, farmworkers and indigenous people with TNC's. Losing the land under the aforementioned development is on account of the reduction of government support because IFIs policies on structural adjustment, and now other policies in the name of food production and agrofuel, are likely to create a big tension in rural areas.

Agrarian reform, peasant rights and building a sustainable agriculture

Some issues carried by SPI are to encourage the implementation of agrarian reform, promote the rights of the peasants and build an alternative to the current agriculture model system. Agrarian reform is a corrective effort to rearrange the agrarian structure gap, which allows the exploitation of man by his fellow man, to order a new structure based on social justice. The main goal is to achieve a situation where there is no excessive concentration in the control of and using up agrarian resources in the hands of few people.[13]

The struggle on agrarian reform was as basic issue for peasant organizations in Indonesia. As explained above, the unjust situation over the land has created an extensive number of conflicts, especially in the provinces where there are large plantations such as Sumatera, Kalimantan, Java, Sulawesi and Papua. Many peasants have died and been jailed during their struggles. In 2008, there were 63 cases of agrarian conflicts identified by SPI in which 312 people were criminalized because of their struggle.

13 http://www.spi.or.id/?page_id=343

SPI initiated the Declaration of Peasant Rights in the year 2000. Through a national process along with NGOs close to social movements and other organizations, SPI pushed forward this agenda toward the recognition of the rights of the peasants in Indonesia. Together with La Vía Campesina—an International Peasant Movement—SPI led the lobbying process at international level and built the campaign across continent to achieve an International Convention on Rights of the Peasants. Recently, at the beginning of this year, Olivier De Schutter (Special Rapporteur of UN Human Rights Commission) included the Rights of the Peasants as proposed by La Vía Campesina in an annex of his report. Now the draft is being processed in the UN Human Rights Commission.

At the national level, SPI has been striving to gain support from the Ministry of Law and Human Rights. The challenge at the national level is Law no. 39, year 1999, on Human Rights. The peasant is not classified as a vulnerable group to human rights violations. As a national body, KOMNAS HAM (The National Commission on Human Rights) endorses SPI in the struggle to gain a high credibility on the issue of the rights of the peasants. Through its function, SPI expects the commission to produce an academic script that would serve as a recommendation to the revision of National law on Human rights.[14]

As the alternative, one of SPI tasks is to push forward to expand a sustainable farming by establishing Pusdiklat (Centre for Learning and Training) of organic farming and sustainable agriculture. The establishment of Pusdiklat is one of our numberless efforts against the current agribusiness model that is oppressing,

14 Peasants' Update, SPI, May 2009.

destructing the environment, annihilating biodiversity and putting aside local wisdom.[15]

There is a national Pusdiklat base in Bogor West Java. Besides SPI has also set up a training centre in some provinces, i.e., North Sumatera, West Sumatera, and Aceh. The centres at the provincial level have the mission to push forward the expanding of sustainable agriculture and organic farming in their respective provinces.

Training is regularly organized at national level with the participation of SPI members from all provinces. The main national training will take 2 months per period. It is organized 3-4 times a year. Since 2008, the national training system has increased the implementation of organic farming at the local level, Hundreds of cadres are working on their respective farms relying on the experiences gained during their training time.

La Vía Campesina proposal

La Vía Campesina, an international peasant movement, has been working to address the situation globally, with members in 70 countries—this figure includes over 200 million members worldwide. We were there during the WTO ministerial meeting in Seattle, in Cancun and in Hong Kong. We bring the voice of small family farmers, peasants, landless, farm workers, and indigenous people who believe we should feed the world and not the TNCs.

We need a reorientation of the food system towards food sovereignty. We want the peasant model of sustainable food pro-

15 ibid.

duction to be recognized as an answer to the climate and food price crises.[16] Since the beginning of the world struggle against hunger and malnutrition during World Food Summit on 1996, La Vía Campesina has been promoting the concept of food sovereignty.

Food sovereignty is not only the demand of the peasant movement but has already become a common agenda among the social movements since the Nyeleni Forum in Sélingué, Mali on February 2007. Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically, sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations. It defends the interests and inclusion of the next generation. It offers a strategy to resist and dismantle the current corporate trade and food regime, and directions for food, farming, pastoral and fisheries systems determined by local producers and users. Food sovereignty prioritizes local and national economies, and markets, empowering peasant and family farmer-driven agriculture, traditional fishing, pastoralist-led grazing, and food production, distribution and consumption based on environmental, social and economic sustainability. Food sovereignty promotes transparent trade that guarantees just incomes to all peoples as well as the rights of consumers to control their food and nutrition. It ensures that the rights to use and manage lands, territories, waters, seeds, livestock and biodiversity are in the hands of those of us who pro-

16 La Vía Campesina, Position Paper on April 17th, 2009.

duce food. Food sovereignty implies new social relations free of oppression and inequality between men and women, peoples, racial groups, social and economic classes and generations.[17]

17 Declaration of Nyeleni, Forum for Food Sovereignty, Mali 2007.

THE ORGANIC FARMER MARKET IN THAILAND: AN INTERACTIVE PLATFORM FOR PRODUCERS AND CONSUMERS

Qinghua Yuan[1]

Preface

We visited the Organic Farmer Markets (OFMs) in Chiang Mai, in northern Thailand this June.[2] During those four days, we went to many fair markets, regular grocery markets, and the organic counters in the supermarkets across Chiang Mai. We also toured some organic vegetable gardens. From the visits, we realized that the OFMs are meant to meet the needs of the economic development, help the farmers get an easier life than before and, most importantly, have a comprehensive role in the areas of environment protection, food safety and consumer enlightenment. But we also find that there are problems that prevent the major participants, the organic farmers, to grow-up in a sustainable way. For example, they were short-handed, lacked initiative, and relied on assistance from outside. Now, I want to share all my experiences during the visits with those who care about sustainable agriculture, and hope we can drive agriculture to develop in a healthy and sustainable way.

1 (China) is Technology Manager of the Little Donkey Farm, Beijing.

2 I had visited the organic markets with a Thai friend called BaYong earlier this year. Due to the tight schedule, I did not get enough information that time. I tried to find another chance to get a clearer picture of its existence and influence. And the document is based on these two visits.

Part 1: Thai farmers in the globalization

Well known as the "Granary in the southeast Asia," Thailand is listed at the top of the rice exporters, and it is also in the top five list for the agricultural production exporters worldwide. Agriculture takes an important role in the economic and social structure. The agricultural population is about 15 million, takes up 45% in the national labor force, and the per capita land is 1 rai.[3] Thailand runs an export-guided agricultural development strategy and encourages the farmers to increase the productivity and the output. The farmers have had an increase in their incomes due to the expansion of the international market. But 99% of the chemical fertilizers are imported in Thailand, and the short supply of energy and the much higher price of chemical fertilizers cause a production cost increase year by year. Besides the natural disasters and the bad physical conditions caused by pesticides and chemical fertilizers, 80% of the farmers are on debts,[4] and each family has a debt of USD $2,600 on average.[5]

In recent years, the competition has been growing in the international market, and Vietnam, the second rice exporter, has been taking up more and more market shares with lower prices, which brings much pressure to the rice exportation in Thailand

3 1 rai equals to 1600 square meters.

4 The data is provided by DAYCHA, the leader of KHAO KWAN FOUNDATION in Thailand.

5 *Why the farmers broke into the WTO meeting,* from Yazhou Zhoukan, December 2005.

and thus make the living conditions for the farmers even worse.[6] In the meantime, several large agricultural companies, such as the CP group, have taken over almost all of the production, circulation and sales areas, which takes off the profit from the farmers to a large extent.[7]

As part of the globalization market, the farmers are aiming at economic purposes only. Facing the ever-increasing living expenses, the farmers are leading a worse life, and many of them have to sell their land to clear off the debts.[8]

Part 2: A great effort to improve the farmers' lives and promote the Food Safety—Organic Farmer Markets

The OFMs are designed to manage the farmers' planting of organic products and their participation in the selling process, so as to establish a platform where the farmers and the consumer

6 The plague of insects last year and the drought in the first half of this year caused a lost of THB 60 billions (Daily World of Thailand, July 1, 2010). But the price for the rice exported to China has dropped, i.e., the Hom Mali Rice has dropped to USD 950/ton from USD 1080/ton. The Thai white rice has dropped to USD 420/ton from USD 500/ton, because the price for the rice exported from Vietnam is USD 350/ton. The drop of the white rice pulls down the price for aromatic rice (*South Daily of China,* June 7, 2010).

7 Because only a few agricultural companies control livestock in Thailand, the price for eggs is 4 baht each. On July 18, 2010, the president revealed that a new schema would be implemented to settle the problem and try to keep the price below 2.8 baht per egg (*Daily World of Thailand*, July 19, 2010).

8 In Thailand, only some of the land is owned either by the state or the royalty. The rest is totally owned by farmers. Farmers can make loads over the land. You can see the simple tent set up by the farmer who has lost his land.

can communicate face to face. On the other hand, the consumers can buy fresh food at a fair price, and help to ensure that the producer get reasonable profits.

OFMs are all located around the old city of Chiang Mai, and now there are 17 OFMs in total. They are established with the support from a non-governmental institute called ISAC[9] (Institute for Sustainable Agriculture Community). The OFMs vary in size, but are all located in a convenient place for the consumers. The small OFMs can use the place at no charge, while the large ones need to rent some land and build some necessary facilities in which process the costs are covered by ISAC and the participant farmers. Open times for OFMs are scheduled by the ISAC in a periodic way. Now, more than ninety families have joined the OFMs and they are all from villages located in the three counties around Chiang Mai city, 27–100 km away from the OFMs.

The produce sold in the OFMs needs to get certification from the NOSA (The Northern Organic Standard Association).[10]

9 ISAC was built in 1993. Located in Ching Mai, at present there are three kinds of agricultural markets: 1. to encourage the farmers to build an agricultural market for which they produce and sell their own products; 2. to build OFMs in the towns where the farmers can sell their goods; 3. to expand the international market and assist the farmer to sell the goods overseas.

10 The organic certification in Thailand is classified as the domestic official certification and the private certification recognized by the International Market. NOSA is a local certification recognized by a domestic office other than the International Market.

ISAC supports and coordinates the OFMs operation

The first stop of our visit was at an OFM located in an ancient market in the northern city of Chiang Mai, where we had a friendly reception from Jacked, an ISAC member. She gave us a detailed introduction about this OFM. This OFM is the first and the largest one among all the markets, and opens every Wednesday and Saturday from 05:00 a. m. to 10:00 a. m. There are more than thirty families that have joined the OFM now, but there were only about ten when the market was established over ten years ago. To join the OFM, the farmers must be trained by the ISAC with the appropriate technology and theory, and all the products must pass all the qualifications. It takes one year at least to be ready, and ISAC may reject the farmers if the products are not properly qualified. Jacked said that it was the most difficult thing to change their old way of thinking, because the farmers had been used to the simple chemical way of farming. On the other hand, the consumers didn't believe at the early stages that the products were really organic.

Based on the experience in the OFM development, ISAC requires that every family should have ten kinds of vegetables planted, with variable planting scales determined by their own choice, generally from 1 to 10 rai. The ISAC offers them suggestions on the category and the type, because farmers used to work in the past without consideration of the market supply status, which caused an overabundance of some vegetables. Nowadays, the ISAC receives the feedback from the consumers and reply with guidelines to the farmers, to ensure a vegetable variety. Farmers are now more reasonable when planting thus avoiding overabundance, while consumers are offered more choices. In the near future, Jacked said, the OFM would be expanded ac-

cording to the number of families joined. For example, a new big OFM was opened in the Chiang Mai University later that month, and most of the farmers in the market were all new participants. As scheduled, every family will be charged 40 baht[11] every time they attend the market, from which 10 baht is the membership fee, and the remaining 30 baht are reserved for funds to be used to establish new OFMs in the future and to support the markets development.

Standard order and mutual-help

In the OFMs, all the farmers wear uniforms consisting of a white hat, a green apron with a printed CA logo, and a chest placard, so that they look really formal and standardized. Every stall is about 2 meters long, some decorated with the producer's portrait or a board showing the origin information. There are about twenty kinds of vegetables on every stall, and the green vegetables take a great part. Among them there are lots of Thai herbal medicine.[12] You can also find chicken, fish and pork on sale, as well as foods processed with local materials, such as soya milk, fermented soya paste, fried fish and desserts. Jacked emphasized that all the products sold in the market should be produced by the farmers themselves and it is prohibited to buy them from another source. Similar to the planting, it is also prohibited to add any chemical during the process.

11 USD $1 is about 33.47 baht.

12 Thai people are used to eating herbal medicines: the grass on the roads, the plants in the pool, and the leaves and flowers on the trees can be their food, as well.

Most of the stall keepers are women: middle-aged or older. There are two kinds of interpretation to this. First, a English lady we met in the market, who works in the environment protection, told us half playfully that most of the people working in the farms are men and their health has been affected by the chemical fertilizers and the pesticides, so the women have to work now. Second, a young worker from ISAC said this is due to their project arrangement, because they want to provide more chance for the women to take part in the society and the organic market is a very good platform for them to gain more working experience. Though it was just men who participated in the OFMs at the beginning, women have a great natural advantage on selling products. So now men are mainly responsible for the work on the farm, and driving as well.

Because the ISAC coordinates the time when the farmers can participate in the markets, farmers from three to five families living near to each other will group a team, and use the same vehicle to carry their products to the markets. Thus transportation costs are reduced a lot than it used to be before because more than one family use a single vehicle. This kind of cooperation doesn't go beyond transportation: they still work separately when planting and selling. It is a very flexible way of cooperation.

"Short Chain" brings more Interaction between the producer and the consumer

Among the consumers in the OFMs, most are middle-aged women too; they are likely to have a short talk with the stall keeper every time, and soon get familiar with each other. As Jacked said, the majority of the consumers in the market are intellectuals who care about health, such as college teachers and retired

officers at the beginning. After more than ten years, more and more ordinary working people come to the market, and most of them are the residents around. Of course, some consumers come from downtown by car, and also know the producers well and stick to the same stall every time. Sometimes, the ISAC arranges a tour to the organic family to let the consumers know more about the organic production.

We were very lucky to see the purchasers from the vegetarian restaurant in the Asoke community.[13] They say hello to every farmer and choose the vegetables from several stalls. When leaving, they also say goodbye to everyone and the car is almost full of vegetables. It is a kind of warm feeling that the OFM is no longer a traditional market for buying and selling: the people in the markets are no longer separated as producers and consumers. Besides the good relationship built, the OFMs also have a variety of social functions. For example, the English lady mentioned above is working with the OFM to hold an event for the students and their parents, to appeal to them to use the recycled materials and thus reduce waste.[14]

The "long chain consumption" in the traditional market does not allow communication between the producers and the consumers, so they have little attachment and trust to each other:

13 The ASOKE community is a special religious community in Thailand, which was established in 1975, and consists of 29 practicing villages and over 100 centers. The community members follow the strictest practicing principals, propose the lowest consumption of materials, and lead a healthy and organic life. See the article<SANDI ASOKE in Thailand >, by Bei Wu.

14 One week later, I received an email from her, saying the event was very successful, and many people came and joined in.

the producer tries to gain some trust through other resources, such as the packaging and the branding processes. While in the OFMs, the producer and the consumer communicate with each other face to face, a real trust can be established easily on the basis of transparency and understanding. Thus, the OFMs can work as a multi-functional platform, to hold some events and activities like promotion and education.

Obvious advantages from the low cost and the price protection

in the organic markets, products have the same price as those in the regular market, and the prices for all kinds of products are posted for the consumers. As for pricing, according to Jacked, the ISAC instructs the farmers how to calculate the planting cost so they can record their own costs. The records are summarized every three months, and the prices for the products are adjusted according to the cost accounting. The output of organic vegetables are much lower than those from chemical farming and so are the input costs, thus providing a balance between the prices for the organic vegetables and those of the ones treated with chemical products.

With the ISAC-instructed organic farming technology, the farmers use local natural materials, generally free of charge. For example, making insect repellent by steeping several kinds of branches and leaves, or fruits in the water, and making organic fertilizers by using the microbes in the soil. All the farmers need to buy some ancillary materials, which do not cost much generally. In addition, many farmers have established a kind of circular mode by diversified planting or combining planting with raising

animals, to reduce the demands for outside resources and the overall farming cost.

TABLE 1 PRICES FOR THE ORGANIC PRODUCTS (MARCH–JUNE, 2010)

Items	***baht/kg***	***Items***	***baht/kg***
Vegetables		Fruits	
cabbage	25	psidium guajava	15-20
mustard	30	papaw	20
radish	25	banana	10-20
tomato	40	jackfruit	50
cowpea	30	grape	20
organic coarse	38	organic soya	35
organic red rice	42	organic red bean	35

A farmer named Monsong[15] is an example. In his 2 rai organic land, there are more than 60 kinds of plants, including banana trees around the land, vegetables like snap beans, water spinach and pepper, and herbal medicines like lemon grass and peppermint, and many other plants whose names are unknown to me. There are also some chickens they raise for themselves. They ad-

15 Monsong is 54 years old, living in a village called Banbong, 30 km away from Chiang Mai. There are more than 300 families in the village and about 20 families do organic farming. Three years ago, Monsong started to take part in the OFM, and now he and two other families are grouped in a team. He drives and his wife sells every time they go to the market. We have visited his home and garden.

just the types and the amount of each type according to the ISAC suggestions based on the seasons.[16]

Compared to organic farming, the cost for chemical farming is much higher. Taking corn for example, it needs eight bags of chemical fertilizer for each rai, and the price is about 1,000 baht every bag. Adding the money spent on the seeds, the pesticides and the operation, the total cost almost equals the whole income from the sale of the corn produced, and there is no profit for the farmers at all. After joining the OFM, the cost for organic farming is reduced a lot,[17] because all the training from the government and the NGOs are free, the fertilizers and the pesticides are produced by themselves with local natural materials, and they use the seeds produced by their own plants. On the other hand, they can get about 1,000-2,000 baht by selling products on the market every time, and the cost on transportation is about 300 baht which may be shared among several families. So it is obvious that the profit is much higher. Monsong is proud to tell us that organic farming has a great advantage, because their products are almost the best seller on the market, because the organic vegetables taste very good, while the price is on the same level with the chemical vegetables. Their organic vegetables are very popular to the consumer. In the normal markets, the people selling chemical vegetables even "hate" them because their businesses are heavily affected.

16 There are three seasons in Thailand: the hot and dry season from mid-Feb to mid-May, the rainy season from mid-May to mid-October, and the cold season from mid-October to February.

17 The certification is issued by NOSA every year, at a charge of 300-400 baht every rai.

During the visit, we investigated the types and the prices for the vegetables in the organic counter in the supermarkets and the traditional markets. Taking the long cowpea for example, it is about 30 baht/kg in the OFM and the traditional market, and 156 baht/kg in the supermarket. The low price is a great reason to attract more and more ordinary consumers to the OFM (Table 2).

Three Firewalls to Safeguard Good Quality

Quality is the first thing organic consumers care about. According to the introduction from Jacked, many organic products in the traditional markets are fake and therefore consumers are suspicious about all the organic products and hesitate to buy any of them. To gain trust from the consumers, the ISAC sets strict standards on the quality all the products must have to obtain the organic certification from the NOSA. In this regard, the ISAC conducts spot checks on all the products every three months.[18]

In the opinion of Monsong, the organic vegetables do not have a good look in fact, but taste much better, so that they just meet the demands from the consumers who care about health, food safety and high quality. And they do their best to improve the appearance via hard working and farming skills.

18 We were lucky to have the chance to watch the spot check. The workers take about ten kinds of vegetables at random, and then process and test them on-site. The open checks induce many consumers to watch and query. The ISAC members show them a map, and explain that test results appear in different colors, indicating the amount of poisonous elements in the vegetables. The spot check also functions as a public class, providing more information to the consumers.

TABLE 2 DIFFERENT PRICES IN OFMS, REGULAR MARKET AND SUPERMARKETS

Markets	*Types*	*Price*	*CharacterIstics*
OFMs	many types, and local vegetables	fair price for vegetables, and higher prices for meat and eggs	Small in size, green vegetables, insect-bitten, packaged with banana leaves and ropes made from bamboo
Traditional market	many types, and both, vegetables produced in local and other places	cheap	Big in size, variable colors, not insect-bitten, packaged with plastic bags and rubber bands
Organic counter in supermarket	several types, and vegetables produced in other places	expensive	Big in size, variable colors, not insect-bitten, clean and tidy, well packaged with foam boxes and cling film

In conclusion, OFMs safeguard good quality in the following three aspects:

1. The organic families group into fixed teams, and apply mutual supervision in the same village.
2. The ISAC conducts spot checks on all the products in the OFMs every three months, and reveal the test results in the meetings. The farmer will be expelled from the OFM in case of any incompliance found.
3. The NOSA examines the certification of each participant every year.

Chemical fertilizers and pesticides are avoided as much as possible. The farmers themselves are also aware of the importance of their health in production. All of them work together to ensure the products are safe and reliable.

Part 3: Healthy organic foods popular in Chiang Mai

Talking about the benefits of the organic farming, Monsong is very excited, and lists his understanding as follows: 1. money comes easier, and ensured by joining the OFM, 2. I have confidence in the food produced by myself, and most important, it is healthy, 3. it does goodness to provide safe and healthy food to others.[19] The idea is simple and true. We can sum it up in two points: economic guarantee and benefits to both, producers and consumers. Maybe this is why the organic farming develops so well in Chiang Mai. We noticed there were many ways for the organic farmers to sell their products directly to the consumers, and some of them are not under the name of ISAC.

Looking around in the mainstream capital market, the organic farming is too weak. We found some funny and embarrassing scenes during our visit, and the OFMs still have a long way to go.

OFM1: it is located by a hospital and built with bamboo and leaves, with four or five families selling vegetables. Due to the bad weather or the closing time maybe, it looked too quiet and had very few consumers. But the hospital was full of cars and lots of people who came and went. It was just like a miniature of the whole society: people all went to the hospital and spent their

19 Thailand is a Buddhist country, and over 95% of the people believe in Buddhism. Religious events of different forms are part of their daily life. They believe it is doing goodness to provide good things to others.

money on medicines, while few people wanted to have safe and healthy organic food.

OFM2: it is located by a school and run by four families. It has a relatively long history of five years and opens in the afternoon every Friday. A lot of parents and teachers come to the stall and buy organic food, because they care more about the health of the children and their food safety. But ten meters away, the children are in a long row waiting to buy some kind of drinks made from artificial coloring and fried food. After school hours, every child has some snacks from an unknown source. It is almost impossible to abandon selling snacks in and around the school, because the children are addicted to the junk food.

If we say the OFM is a paradise isolated from society, it is because we happened to meet several organic farmers who live free in society because they sell organic vegetables in markets full of chemical products.

The first example was found in a traditional market. It was easy to recognize the two organic families because they wore the green aprons with the certification authority logo, and there was a promotion banner above the stalls which read their products were certified by ISO. There were more than twenty kinds of vegetables on each stall, and the vegetables were packaged as a bundle every 100g with a price of 5 baht, which is just enough for one meal. Compared to the vegetables bought wholesale from other places, the local organic vegetables sell better, though the prices are a little higher, maybe due to the convenient packaging and its reliability.

The second example was found in the public health center of Chiang Mai city. The center has been established for one year now with funding from the government, and it consists of twelve

stalls built up with bamboo and rice straw. It opens every Friday morning, and the organic farmers as well as the chemical farmers mingle with each other in the center. We met four organic farmers on the visit; they were in their uniforms with the NOSA certification logo, and had brought about ten kinds of different vegetables to each stall. Generally, they come to the market every Friday and then go to a school in the east of the city if there are some vegetables left in the morning. They rent a vehicle with 900 baht to carry the products, and each one can make about 1,000 baht everyday. The production cost is also very low, because some of them raise cows and pigs and do not need to buy the dung for compost. They agree that the income is higher than with traditional chemical farming, though the output of the organic products is lower. In the other side of the center, there were some farmers, who probably had green certifications too. The vegetables on their stall were over ten types and one stall sold potted flowers only. I cannot give more details because I just took a look and did not talk to them.

There are lot of similar markets in Chiang Mai with different characteristics: with governmental or non-governmental funding, with or without organic certification. But they have great things in common: a short-chain, healthy and safe food, and regular operation. It is a great progress from the normal markets which aim at profits only.

Part 4: What we learned from the OFMs

Over ten years of development, the OFMs in Chiang Mai have accumulated a rich experience, and we can learn a lot from them. In my opinion,a good development benefits from the following:

1. A complete technical support system. Beside the health and safety aspects, the low cost is most attractive to the farmers. The farmers reduce the capital input and thus gain more profit by utilizing the local natural materials as much as possible.
2. Drive from the ISAC. The ISAC does a lot of work to ensure the quality and the safety of the products, keeps a balance between supply and demand, coordinates the participation and safeguards the interests of both producers and consumers.
3. A certification support from the non-governmental organization NOSA which helps to increase the recognition in the markets and reduce the certification cost for the farm.
4. Appropriate locations. For example, the ISAC chooses convenient places, like sites located by schools and hospitals, to help enlighten the consumers.
5. To shorten the chain to bring producers and consumers face to face. The consumers can get more information about the production, give feedbacks immediately and enhance their understanding and trust with producers. The cost is reduced since the middle links are cut off.
6. Unified pricing considering both the market and the production costs. The interests of the farmers are guaranteed and the price competition is avoided. The farmers focus on the technology and farming skills and improve the quality and the output to gain more profit.
7. Mutual-help teams. It helps to reduce the transportation cost and works in internal supervision.

8. Regulations and laws to promote organic farming,[20] based on the Sufficiency Economy philosophy.[21]

There are also some issues which prevent the organic markets to develop in a sustainable way:

1. Organic farming reduces the amount of farmers on debt to some extent, but it is far from meeting the ever-increasing demands of consumption. Due to the higher demands for the economic and the increasing labor costs in other fields, fewer people want to do farming at the villages. They prefer to work in the city or abroad on high salaries, the young men in particular.[22] The shrinking and the aging

20 Food safety was set as a strategic plan to win the competition in the international market, and 2004 was set as the year of food safety. To speed up the transition of agricultural products and ensure the quality, Thailand enlarges the area for organic planting and makes more efforts to make the farmers aware of organic farming. The agriculture department also established a research institute for organic plants, to carry out scientific examination and research and issues "Thai Organic Product" certification to the companies and farmers producing qualified organic food.

21 King Bhumibol brought up the Sufficiency Economy philosophy in the early 90s, based on the Small Is Beautiful by E. F. Schumacher. It means to develop the economy in an appropriate, reasonable and immune way. And the king got the first Human Development Lifetime Achievement Award from the United Nations in 2006. In practice, the king established several organic farms, and the loyal members visit the farms every year. For more information, see http://www.un.org/apps/sg/sgstats.asp?nid=2048.

22 The brain drain has been very serious in Thailand these years, and uncultivated land is increasing. In many agricultural areas, the work is done by poor farmers who have migrated illegally from Burma and Laos.

of the labor will stop the development of organic farming. For example, Monsong has a son who is a teacher somewhere else and a daughter who is a tailor in the same village, and both of them refuse to give a hand in the farm.

2. Many farmers are "part-time" organic farmers meaning they just plant organic vegetables on part of their land, and on the rest they still use chemical fertilizers and pesticides.[23] The scale of organic farming is limited, because the workload of weeding is heavy without weed killer, and it is more difficult to use machines in farming due to the plants variety.
3. In Thailand, there are OFMs only in Chiang Mai. The ISAC plays a critical role in organic farming. It is hard to develop the OFMs regularly without the ISAC and other social resources.

Can Chinese farmers overcome all the above issues? How is it possible to make way for organic farming in the Chinese specific environment? It might be a hard task for us, because what we see is the development results after ten years in Thailand.

Conclusions

The organic farmer markets are still in the formative stage in China. Most of them are held in the form of events and activities, instead of normal operation, and the participants are limited to farmers in cities and NGOs. Furthermore, the absence of mature organic farming technology, unaffordable high costs on certifi-

23 Monsong has 8 rai in total; he does organic farming on only two rai and chemical farming on the rest. The rice farmers supported by the Khao Kwan foundation also have the same problem, and they try organic farming on just part of their land.

cation, a hard situation for the organic farmers without certification, organic products still oriented to high ends and the limited support from the government, will prevent the growth of organic farming and the OFMs in China.

Facing the great demand of healthy food for a huge population, we believe that organic farming does have a potential opportunity and will have a good development on this land with a 5,000 years heritage. I hope the OFM in Thailand can give us some inspiration, and all of us do something to drive its development in a healthy and sustainable way.

AGRICULTURAL LAND ISSUES IN THE VIETNAMESE INDUSTRIALISATION PERIOD AND ITS IMPACTS ON THE COUNTRYSIDE

Vu Dinh Ton[1]

1. Context

Vietnam is still today an agricultural country with over 70% of the population living in rural areas, of which about 53% are agricultural workers (Vu Dinh Ton *et al*., 2007). In 1986, Vietnam implemented a policy of "Doi Moi" and as from 1989, Vietnam has become a rice-exporting country, ranking third in the world in the late 1990s and second in the 2000s, reaching about 4-5 million tons of rice exported per year. In addition to being a rice exporter, Vietnam is also a large exporter of other commodities such as coffee, fish, rubber, and aquacultural products.

Besides agriculture development, Vietnam has paid a close attention to industrial development, especially after the 1990s until recently. In the early 1990s, Vietnam implemented a policy of industrialization and modernization in agriculture and rural areas aimed to become an industrialized country by 2020 (Communist Party of Vietnam, 2006). Industry has played an important role in the economic development of Vietnam. In 1990, the output of industry and construction accounted for 22.67% of the GDP and it increased up to 40,29% by 2009 (GOS, 2009, 2010). The development of the industry made positive contributions to the

1 (Vietnam) He teaches at the Faculty of Animal Science and Aquaculture, Hanoi University of Agriculture.

economy such as creating a fast economic growth (the average GDP growth of the period 2001-2006 reached more than 7%, in which industry and services reached over 10%). Income per capita has also increased significantly. In 1986, the average income per capita only reached $200 per year but it has reached $1,020 in 2009. With this income, Vietnam has passed from being a poor country to stand in the ranks of the "emerging countries."

Industry development is also creating jobs and increasing incomes for workers in rural areas. However, industrial development has also caused many problems for rural areas such as the loss of agricultural land, many people have no jobs, environment pollution, social problems, and threats to food security.

2. Development of industry in Vietnam in the period 1990-2010

It can be said that the "old style" industrial development policy mainly based on the development of the heavy industry in Vietnam was not successful. The results were that Vietnam was continuously falling in shortage of food during the 1960s, 70s and 80s. Food shortage was the result of many factors such as constant warfare, a low efficient production of agriculture in cooperatives and an important factor was that agriculture had not been prioritized properly. It was only after the policy of "Doi Moi-Innovation," that Vietnam's economy really flourished in regards to both agriculture and industry.

The industrial development policy of Vietnam is now laying more emphasis on the development of the light industry, especially the development of small and medium enterprises. Currently, these businesses have created jobs for workers in the industrial sector (which accounted for over 90%).

With such industrial development policy, Vietnam has created industrial zones. The number of industrial zones is increasing more and more and the area for these zones is also growing (Figure 1).

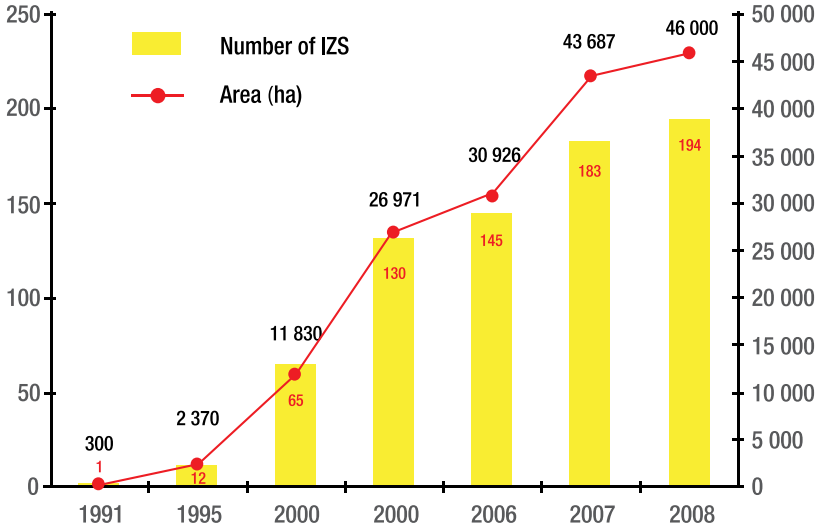

Figure 1: Number and area of industrial zones
(Source: *Journal of Industrial Zones in Vietnam,* 2008)

As can be seen in Figure 1, there was only one industrial zone with an area of 300 ha in 1991. This number increased to 194 industrial zones with 46,000 ha in 2008. The average area was nearly 250 ha for each zone. The number of industrial zones within the past 17 years has increased 194 times and more than 153 times in regards to the area. This is just the area of industrial zones, but agricultural land transferred to other purposes (industrial zones/clusters, construction, road, etc.) is more important.

Since Vietnam is also a country which has attracted foreign investment, in addition to industrial companies and factories of Vietnamese people, there are also a lot of joint ventures between

Vietnam and foreign companies, or companies with 100% foreign capital. In recent years, foreign investment in Vietnam has mainly focused on industry and services. This is also an important factor in helping to promote economic growth in Vietnam. However, foreign investment has its disadvantages, especially when there are economic fluctuations/crises on world markets, these companies (joint ventures or 100% foreign capital companies) are often impacted heavily and this certainly causes no small impact on the economy.

3. Challenges for peasants in the industrial zones and clusters in the perspective of sustainable development

Admittedly, industrial development has brought a very positive impact for the Vietnamese economy in recent years, which is reflected not only in the contribution to a fast growth, creating jobs for a work force in rural areas but also increasing social consumption due to improved people's living standards.

However, most of Vietnam's industrial zones were developed in densely populated areas such as the Red River Delta and the Southeast regions in recent years. This is one of the most important "rice bowls" of Vietnam. This area is equipped with an infrastructure development such as a good transportation system, abundant labor force, and located in the vicinity of ports which is convenient for import and export activities. According to statistics of the Ministry of Natural Resources and Environment, in the period of 2001-2005, 366,000 ha of agricultural land have been transferred to be used as non-agricultural land, accounting for 3.9% of the total agricultural land area. Thus the average agricultural land lost was about 73,000 ha per year. Also during this pe-

riod, the agricultural land pertaining to over 300,000 households in the Red River Delta region and 100,000 households in the Southeast region were also transferred (Mai Xuan Nghiem, 2008).

3.1 Living conditions

It can be realized that most households in the industrial zone have higher living standards through improved income resources. Farmers will receive some compensation after transferring their land for industrial zones. This amount depends on the region and the different periods, but generally these compensation levels are much lower than the actual value of the land. Most farmers used their compensation money to renovate their buildings, purchase appliances such as a TV set, a motorcycle, and to make a very limited investment in production. According to the research of Vu Dinh Ton *et al*. (2007) in the Red River Delta, the use of farmer's compensation is as follows: over 50% of households used it to repair their houses and purchase households' equipments (TVs, refrigerators, motorcycles, etc.), about 40% of them were invested in production such as livestock development, fish ponds, or develop other industries (carpentry, repair of family equipments and trade, etc.), 15-20% of them deposited their money in the banks for interests and only about 10% of households used the money to invest in education for their children. In addition, there are some households (10%) that use the money for unreasonable expenses such as gambling, drug addiction, etc.

According to another study in Long An province, there are 63.93% of households which use their money in shopping for household utensils, 45.26% of households used it for targets of economic development and only 14.76 % of households used it

in vocational training for their family members (ADB, 2006). So how to pay compensation for land and expenses orientation is also an important question to limit unreasonable expenditures as well as improving the lives of people in industrial areas.

The report of the Asian Development Bank (ADB, 2006) showed that 61.15% of households in the Mekong River Delta region have been improved with regard to their lives compared before and after their loss of land for industrial zones: 16.52% of households said that their lives remained as before and up to 23.33% of households said their lives were more difficult in the past. The number of households having better living standards is often considered in regards to the dynamic of households with young work force who find jobs in the industrial zones. Households that have more difficulties than before are often little dynamic because they find it difficult to develop new professionals, or they cannot find jobs in the industrial zones because of their old age (most farmers over 35 find it very difficult to obtain a job in industrial areas), or have a low education level that does not meet the requirements of the enterprises. According to another study in the Red River Delta, most of the workers have a low education level [16.49% are primary school graduated, 66.81% are secondary school graduated, 8.68% are high-school graduated, only 3.9% were trained in vocational schools and 4.12% in technical training schools, college or university level (Vu Dinh Ton *et al.*, 2007)] while most of the enterprises require the labor force to be graduated at least from high school level or higher. Thus, only about 15% of rural workers would be accepted in the industrial zone.

Besides the disadvantages when looking for a job as well as adapting to a new job or a new working environment (employ-

ees in enterprises), farmers also face many other issues as most of the industrial zones undergo a delayed process after the land transfer has been already committed: the percentage of suspended industrial parks plans is considerable because enterprises renege on their commitments to receive local labor. According to a survey of twelve industrial zones and export processing zones of the Ministry of Natural Resources & Environment, only about 50% of the land in industrial areas was used and particularly the land use ratio of some industrial zones was only 10% (Mai Xuan Nghiem, 2008). The industrial zones, after occupying the land, were often slow in using it and this has caused a huge waste because the farmers have no land for production and workers have no jobs while industrial land remains unused. That is one of the problems causing instability in the countryside where there are industrial zones operating not efficiently. The farmers asked to increase the compensation and even prevent the construction of the enterprises.

There are also many problems in recruiting labor. According to the research by Vu Dinh Ton *et al.* (2007), only 67.8% of households had been offered commitments from the enterprises to receive their labor force after industrial zones were put into operation. But in reality, only 28.8% of households have received the labor contracts with enterprises. This is a very low percentage of workers employed in enterprises locally established. There are many reasons for this such as a low demand of labor, worker's qualifications do not meet business requirements and many enterprises do not want to employ local people because they think local labor will give up easily their jobs. This has an influence on the production activities of enterprises.

Farmers in industrialized regions are mainly working in the agricultural sector. According to a research by Mai Xuan Nghiem (2008), 67% of workers still work in agriculture, 20% of workers have no stable jobs and only 13% of workers find jobs in industrial zones. Another study in the Red River Delta region also showed similar figures of this situation: 40% of workers in industrial zones still work in agriculture, 22% in non-agricultural work, 25% of workers work in a combination of agricultural production and non-agricultural jobs, and only 13% of workers work in industrial areas (Nguyen Thi Dien *et al.*, 2010).

Industrial development basically has improved the lives of farmers, but also have risks related to the instability of employment, sources of income and food security issues. As mentioned above, because of the drive for industrial development in order to obtain a faster economic growth, in recent years most of the industrial parks have been built in the delta region which provides a major food source for the country. Therefore, the food crisis in 2007-2008 had no small impacts on Vietnam which is the second largest exporting country of rice in the world. In the first months of 2008, rice price increased a great deal in Vietnam, even increasing 50-60% overnight.

This shows that the level of food supply is precarious. Currently, many localities in the Red River Delta have strategies of industrial development and still ensure food security. However, in reality this is not easy to carry out because many enterprises have negotiated with farmers to buy more land for expanding their area, or the authorities in the localities allow entrepreneurs to use their land due to their income increasing expectations. According to Nguyen Vinh Hai, food security for the regions that lost about one-third of their land area can almost no longer be

guaranteed. According to another research in the Red River Delta, the number of households in the industrial zones that had to buy food (rice) accounts for 70-80% (Nguyen Thi Dien et al, 2010).

According to Pham Thi Bich Ngoc (2010), because of the enterprises located in the region, the agricultural area has been reduced, and crop yield in the vicinity of industrial zones was also reduced considerably because of either degraded irrigation systems or environmental pollution. In addition, in most of the industrial zones, the fields have been usually separated by industrial clusters, which are called "xoi do" (sticky rice with beans), meaning that there has been no planned vision when installing industrial zones/clusters. The lack of development planning has caused a negative impact on the irrigation system, even making this system inoperative. Fields are either drought or flooded due to no drainage. The development of these industrial parks creates a negatively favourable environment to the proliferation of harmful animals, especially rats which destroy crops. In addition, the remaining land around the industrial zones do not continue to produce food any more but switch to other crops with higher financial benefits, such as growing vegetables or flowers for the industrial zones. All these factors threaten the food security and the livelihood for people in the industrialized regions.

Industrial development has been influenced greatly by the crisis in the world such as the financial crisis in 2008-2009, especially in joint ventures or enterprises with 100% foreign capital. These enterprises have been more influenced in comparison with others because their products are mainly used for export, so when the demands of the world market decrease, the enterprises cannot continue to produce anymore. During this time, thousands of workers lost their jobs or there was a lack of employment in

industrial areas. Thousands of workers in industrial areas had to return to their homes to engage in agricultural production during the financial crisis period. So far, though the financial crisis is almost over, businesses have resumed their production activities but the demand of workers is still very limited.

3.2 Social issues

- In provinces of industrialized regions, infrastructures are upgraded basically. This promotes the development of different kinds of services. Population density is often increased by the mechanics of population growth. According to Nguyen Thi Dien *et al* (2010), the population of a village around Tan Quang Industrial Zone (Hung Yen) has doubled. Such overpopulation influences localities in a negative way. Many social problems arise from an excessive population growth.

- The social differentiation: the development of industrial parks sometimes offer opportunities for a part of the residents who are usually considered active people. They develop services for industrial zones, such as house construction for rent, food services, entertainment services and sometimes land accumulation. On account of obtaining know-how and capital, these households have purchased and converted agricultural land into building land thus making a huge profit. The remaining parts owning small amounts of capital find difficulties in economic development; they are mainly employed or work at local firms. Finally, the development of industrial zones has led to a greater differentiation in the industrialized regions.

- Sanitation: There is a dramatic demand for rental housing, so inns are built. This accommodation for workers does not ensure proper hygiene standards as well as other conditions; in several

regions, they are even built in the fields near factories. The construction of this type does not only affect the sanitation of the surrounding environment but also causes a loss of social order and security conditions because of the absence of good management on the part of the renters.

- Social order issue: many enterprises do not use the same labor force for a long time and its replacement is a frequent issue. This leads to disadvantages of labor force management within the area. It is this thing itself what has brought about other social evils in this area commonly. Moreover, there has not been an effective policy of labor management. The local governments have almost no coordination with entrepreneurs to manage the work force. Most businesses do not pay attention to housing construction for their workers, but are interested in using them. Therefore, the workers must manage themselves without any support from enterprises as well as local governments.

- Access to poverty social services: due to the fast industrial growth and the drive to attract more businesses to invest, most provinces are mainly interested in developing the infrastructure for production, but provide little attention to the social services for these industrial zones. Sometimes industrial zones grow in the fields, away from surrounding residential areas, away from the social service facilities such as health clinics, markets, schools, and so on. This has a high impact on the lives of workers, especially when the population density of these areas is very large. This not only causes difficulties for the employees but also for both companies and enterprises on the use of labor resources. Lacking good living conditions for the labor force, the labor resources of these industrial zones are mainly young unmarried people who do not want to work for a long time in these indus-

trial zones. This leads to difficulties for the enterprises in making up teams of skilled workers.

- The rights of workers are not guaranteed: today, in many factories, workers only know about working and receiving their wages, but very few know about their rights, especially the right of social insurance. Both sides are accountable for this: the employer for not wanting to buy insurance to reduce costs, and the workers due to their lack of understanding that they need it, or because of their mentality of working just temporarily without a long-term plan. Therefore, there are a lot of breaches concerning labor contracts between enterprises and employees. There are even cases of employees who do not sign any labor contract, so in the case of problems such as accidents or finding themselves forced to resign, it is the workers who suffer the damages.

3.3 Environmental issues

Environmental pollution in the industrial zones is now one of the emerging problems in Vietnam. The development of industrial parks not only causes noise pollution, air pollution by dust, but also water and soil pollution. Many of the industrial zones produce waste that causes serious environmental pollution, and do not have waste treatment systems in production operations so as to reduce production costs.

According to a research by Vu Dinh Ton *et al* (2007), over 65% of households interviewed in the study area are concerned about environmental pollution such as surface and ground water as well as dust and noise. According to the people, waste water is dumped without treatment directly into rivers. Water pollution has adverse effects to human health as well as in reducing crop yields and can affect the quality of agricultural products by the

use of waste water. Waste-water pollution also causes a serious impact to aquaculture development. Surrounded by industrial areas, farmers say that their aquaculture activities are seriously affected. In many areas, aquaculture has been unable to continue because the level of water pollution is too heavy.

Recently, a series of lawsuits have been brought by farmers demanding enterprises that cause environmental pollution and which must pay compensation in Vietnam. The most typical event is Vedan company that had to pay compensation to a total amount of 11.5 million USD for the three southern provinces of Vietnam, because the company had dumped untreated waste into rivers. This affected seriously production and the lives of farmers in Dong Nai province, Ho Chi Minh City and Ba Ria-Vung Tau province (*Labor* newspaper, 2010).

In most industrial areas of northern Vietnam, the situation of environmental pollution is common. According to The Thiennhien Net (2010), Hai Duong province had 66 enterprises polluting the environment of which 11 enterprises caused serious pollution; especially, the discharge of waste into rivers without treatment from a large aluminum production company. The corresponding government agency compelled this company to stop operations for a relatively long time in order to conduct an investigation. At present, the Government is requesting this company to compensate for losses due to environmental pollution caused to the people in surrounding areas.

According to Nguyen Thi Dien *et al* (2010) who conducted a research in the Red River Delta, 69.6% of the communes' people in industrialized regions said that their water sources were polluted, especially in the communes with a high industrialization level; 72.6% of people said that they were polluted by smoke

and dust from the industrial areas, 80.7% of people said that they were polluted by smell and 69, 6% of people that they were polluted by waste from industrial zones.

Another study in the industrial zones in central Vietnam also shows similar results such as industrial areas that have caused environmental pollution and affected the health of people in surrounding areas (Pham Thi Bich Ngoc, 2010).

4. Peasants' strategies in the industrial zones

Farmers in particular and Vietnamese in general are very active and they always find ways to adapt to different circumstances. This has been shown clearly in the agricultural development of the past three decades. Rising from a rice importing country, Vietnam has become a major rice exporter in the world. It is certainly true that Vietnamese farmers have made contributions as direct agricultural producers and have had an effect on policy changes. Farmers are creative; they have found new ways to organize production and management more efficiently. Farmers not only decided to choose applying the technologies to improve productivity but also created advanced techniques and these techniques are highly appreciated because they match the production conditions of farmers at a low cost. Under industrialization, farmers are still dynamic to avoid being excluded from society, so they can be integrated positively to ensure a better life. According to a research by Vu Dinh Ton *et al* (2007), there has been a process of converted occupations depending on the levels of land loss by households as shown in Table 1.

TABLE 1. OCCUPATION CHANGES OF FARMER HOUSEHOLDS IN INDUSTRIALIZED AREAS

	Loss under 50% of land				Loss over 50% of land			
	Before land loss		After land loss		Before land loss		After land loss	
Types of occupation	No. of House-holds	%	No. of House-holds	%	No. of House-holds	%	No. of House-holds	%
Agriculture	25	69,44	12	33,33	59	71,95	19	23,17
Agriculture + an extra job	7	19,45	14	38,89	13	15,85	42	51,22
Non-Agri-culture	4	11,11	10	27,78	10	12,20	12	14,63
Total	36	100	36	100	82	100	82	100

It is clear from Table 1 that the occupations changed significantly before and after land loss. Before loss of land, the number of farmer households made up a very high percentage of approximately 70%, but the number of farmer households that lost less than or over 50% of cultivation land fell down to just over 30% and slightly over 20% respectively. The households that lost their land and turned to do agriculture had just searched other production activities besides agricultural production, but the number of households changing to non-agricultural jobs accounted for only a small percentage. This showed that the diversification of economic activities had always been the priority of farmers.

Due to such an occupation change, the structure of income also changed. Households that did not lose their land had a relatively high percentage of income from agricultural production (52.54%) while the households that lost less than 50 % of

land only had 37.58% of their income from agricultural production. The households that lost more than 50% of land have only 21.38% of their income from agriculture (Vu Dinh Ton *et al*, 2007).

4.1 Diversification of the economic activities

- Livestock Development: livestock development is the choice of many households in industrial areas. The reason for this selection (swine and poultry production) is because these animals do not need land, their cycles are short, and can be produced in large quantities. Moreover, as mentioned above, the population density of industrial zones is often very high due to the mechanics of the population growth. On the other hand, their income is usually higher than that of farmers' so they also demand more meat. Many households doing only a small-scale farming before have increased to a very high scale in the direction of industrial livestock to meet market demands.

- Development of VAC model: the development of a synthetic VAC (garden-pond-cage) model is one of specific characteristics in Vietnam. The components of the VAC system are closely tied together through the values of other components in the system. This model is not only valuable in raising the income per area unit but also improve production efficiency through the reduction of production costs, and of risks by producing a variety of products per area unit. In addition, this model also reduces pollution by reusing waste among the components in the system. According to a research by Le Thi Bich Lien in 2010, the VAC model has created a higher level of income from 6-8-10 times per area unit compared with that of rice growing.

- Currently, this model is undergoing a diverse and thriving process in provinces in the Red River Delta due to the existence

of favorable water resources for aquaculture development, supplies of inputs as well as outputs of consumables.

- Development of crops with high economic value: as mentioned above, farmers living in industrialized regions often have stopped growing rice in their areas due to a low efficiency or irrigation problems. Farmers often choose to grow vegetables or flowers to cater to the industrial parks.

4.2 Development of non-agricultural activities

- Development of services: services development is the choice of many households in industrialized areas while agricultural land is limited. Services are diversified such as daily utensils shops, building materials shops, restaurants or the construction of boarding-houses for workers. These activities are not too difficult and farmers have the capital from land compensation, and the demand for services is very high in these areas, as well.

- Labor force in the industrial zones: finding jobs in industrial parks is almost only possible for people under 35 years old. At this age, it is easier to get a job in industrial parks and they often have a higher level of education than older age groups. Seeking employment in industrial zones is not necessary only in the commune or somewhere else, but for most of the people who want to work near their homes so that they can reduce part of their living costs and also get a part-time job, even in agricultural production.

- New vocations development: new vocations in rural areas such as construction, carpentry and agro-processing related primarily to the demands of society. These occupations have grown rapidly in recent years due to society's great demand for con-

struction. They are practiced either locally or sometimes in other localities.

- Employment: it is relatively easy to look for a job today amidst the process of industrialization and urbanization. However, in urban areas farmers mainly find simple jobs without training such as selling or working as domestics. These tasks are not well paid and do not require skilled workers. Besides, there are many workers employed in rural areas. Almost all their jobs are related to agricultural or aquacultural labors which are seasonal and have a poor stability.

- Labor export: in recent years, a lot of farmers in many rural areas of Vietnam are sent to work abroad and that number has now reached one million. It is also an important economic activity for rural households as well as a job solution for many rural areas, especially in industrialized areas where agricultural land has been shrinking. The export of labor is relatively easy for households in the industrial zone as they can invest their compensation of agricultural land loss in an overseas job. In addition, exportable labor resources are also diverse: the group of labor who are professional or trained will select appropriate jobs; farmers choose simple jobs and just need a crash training course before going abroad. With just health and money, people can participate in this activity.

4.3 Consolidating the city-countryside linkage

Retaining the land: although agricultural production is not highly effective, most farmers still keep a very small area of agricultural land even after they have other jobs somewhere else. The reason is that when there is a risk to their new occupation, their life will be always ensured or they can go back to live there

as needed. This was seen very clearly when a financial crisis occurred in 2008: unemployment forced the workers to come back to their homes to turn again to agricultural production. Even when the enterprises retrieve their business, some of the jobless workers do not come back and continue to do their agricultural activities. Another thing that guarantees the lives of married farmers when they face difficulties in their jobs is that one member of the couple works out of the house and the other does the farming. Thus their lives are less volatile when they loose their jobs at an enterprise.

Strengthening the relationships with the rural: almost all Vietnamese people love their native villages. This love partly springs from their customs and other sources considered to be strong family and neighbour relationships. For this reason, most people working away from home for a long time return to live in their motherland when they retire. They consider their motherland as the moral support to themselves. This itself creates a relationship between far-from-home people and their villagers which manifest itself in commitments of assistance to each other. The typical assistance may be seeking opportunities for their fellow villagers to work outside, contributions to the development of their homeland such as public works of traffic, village halls, mobility funds, and so on. An annual meeting is regularly organised in many localities for people living and working far from their homelands in order to strengthen their relationship and call for their support to the rural development of their homeland.

Conclusion

Land issues in the rural is always the most vital thing to an agricultural and largely populated country. Although industrial

development has contributed greatly to the development of the country as well as of the rural areas, some problems have arisen such as loss of agricultural land, unemployment, environmental pollution and social problems. It is vital to pay attention to the way we develop industry in order to avoid harms to our future, and thus ensure food security, food safety, social stability and a sustainable environment.

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Chapter 4
SOUTH ASIA

ENSURING THE EFFICACY OF PEASANT AGRICULTURE CALLS FOR GENUINE AGRARIAN REFORM. THE CASE OF INDIA

Dr. Ujjaini Halim[1]

1. Introduction: Poor peasants in Asia are facing the worst form of exploitation,: i.e., hunger

Hunger is the worst form of exploitation and the majority of poor peasants in South Asia are deprived of the right to food. In today's world the majority of poor peasants, who are victims of chronic hunger, live in rural poor households and derive their livelihoods from agriculture. These poor peasants are predominantly from Asia, mainly from South Asia, where agriculture has remained the single largest source of employment in the rural belt, despite the rapid industrial growth taking place in a few countries of this region.

Time and again social researchers have attempted to explain the root causes behind constraints faced by small-scale producers in the rural belt of poor and developing countries. A key concern has always been the structural inequity manifested in class, caste, gender-based discriminatory practices in the rural belt which results in an unequal distribution of resources (natural, economic, social or cultural) and various forms of exploitations.

1 (India) She is the coordinator of FoodFirst Information and Action Network, West Bengal.

In the neo-liberal era, due to a large-scale integration (increased dependence) into the market, several other new factors have added to the existing concerns in peasant agriculture, like fluctuations in crop price in the global market, unequal competition with larger production units (agribusiness corporations, MNCs), discriminatory global policies (e.g. trade) leading to a price hike of inputs and the destruction of the livelihoods of small peasants in poor countries. Neo-liberalisation has intensified land-grabbing by powerful actors, has fostered the jobless growth and has contributed to the creation of poor employments (disguised unemployment) in the agrarian sector.

Global experiences reveal that poverty and hunger in today's world are signs of faulty development policies and priorities, and have little to do with the total amount of food produced in the world. In other words, food insecurity and hunger are manifestations of a development crisis. The question is not how much is produced but who are controlling the production process and the distribution mechanisms, and how food is being produced. Thus the fundamental question is about political and economic power relations and the dominant production relations, which are fuelling the problem of food insecurity among peasant households. Access to food (or capacity to purchase food) determines hunger in the globe today and that is why hunger coexists with abundant food production. It has been further observed that the mode of production of food and the quantum of production are equally important in determining the efficacy of a model of agriculture. This concern is intensified due to an increased attention to climate change threats on the people and the planet. Therefore the need to redefine an efficient agriculture from the peoples' perspective (rights perspective) is felt worldwide. Thus the

discourse of food sovereignty has become increasingly popular globally wherein food sovereignty is described as

"*The RIGHT of peoples, communities, and countries to define their own agricultural, labour, fishing, food and land policies which are ecologically, socially, economically and culturally appropriate to their unique circumstances. It includes the true right to food and to produce food, which means that all people have the right to safe, nutritious and culturally appropriate food and to food-producing resources and the ability to sustain themselves and their societies.*" (IPC 2004)

There is a dominant discourse that productions in small holdings cannot be economically viable and efficient. This argument stems from the neo-liberal perception of 'Profit' and prescription of 'Market based solution' to all problems. This paper, while acknowledging the problems faced by peasant agriculture today, has challenged the above faulty notion. It has drawn examples from the experiences of Indian peasantry and has highlighted the fact that the future of our civilisation lies upon the wisdom and foresight of small holders, who are safeguarding and promoting efficient small-scale agricultural practices worldwide. The paper has recommended some necessary steps to be considered by various actors in order to ensure the efficacy of peasant agriculture in the long run.

2. Factors that deprive peasants in India from enjoying food security/sovereignty

India still lives in villages and agriculture is the primary occupation of the majority of rural dwellers. Despite a significant GDP growth, the poverty gap has increased in India and the job-

less growth has become a matter of serious concern in the country. A recent estimate confirms that approximately 28.6 % of the people in India live below poverty level and almost 80% live with less than US $2 a day (Census 2001 and NSS 2006-2007). Poverty in India has a rural dimension, as around 30% of the rural population suffers from poverty compared to 26% of poor who live in urban areas. In recent times, a growing displacement and evictions in the name of 'development' have worsened the hunger scenario in the country and increased rural-urban migration of poor. NSS data confirms that between 1951-1990 total displaced people in India (the majority from the rural belt) was 21.3 million and other statistics revealed that less than 1% of these displaced people had been effectively rehabilitated.

2.1 Poor peasants are often landless or near landless

Landlessness and the concentration of land in the hands of a few is a longstanding concern in rural India. More than 15 million rural households in India are landless. Another 45 million rural families own some land, less than 0.10 acre each, which is not at all adequate to make them self-reliant. A RDI survey suggests that 340 million people in India who are landless, depend largely on agricultural wage labour and earn US $1 or less a day. Landholding distribution is highly skewed in rural India. According to government data compiled from sources such as the All India Report on Agriculture Census 1991-2000, in 1995-96 land holding patterns in rural India were as follows:

- One point two of landholdings in the country accounted for 14.8 % of the total operational holdings with large holdings of 10 ha and above (average holding: 17.21 ha).

- Six point one of holdings accounted for 25.3 % of the total operational holdings with medium holdings of 4 to 10 ha (average holding: 5.8 ha).
- Twelve point three of holdings accounted for 23.8 % of the total operational holdings with semi-medium holdings of 2 to 4 ha (average holding: 2.73 ha).
- Eighteen point seven of holdings accounted for 19.8 % of the total operational holdings with holdings of 1 to 2 ha (average holding: 1.42 ha).
- As many as 61.2 % of holdings accounted for only 17.2 % of the total operational holdings. On average, the size of these marginal holdings was 0.4 ha.

According to the India Rural Development Report of 1992, 43% of the country's rural population was absolutely or near landless. Landless agricultural labour makes up almost half of those living below the poverty line in rural India. Landlessness is very intensive among the disadvantaged groups (women, scheduled castes[2] and indigenous groups). The government describes such marginal landowners as 'mere landless' (those who own less than 0.002 ha) and 'near landless' (those who own between 0.002 and 0.2 ha). According to the draft paper of the Ninth Five-Year Plan, 77% of dalits and 90% of adivasis (indigenous) are either 'absolute landless' (own no land) or 'mere landless' (PACS 2007). As rural populations grow, plots cultivated are becoming smaller per capita and per household. In India, the average landholding size fell from 2.6 ha in 1960 to 1.4 ha in 2000 and continues to decline.

2 Castes or indigenous peoples who are included in a list of vulnerable social groups protected by law.

2.2 Peasants suffer due to tenure insecurity and defects in the system

Small and marginal peasants as well as share croppers in India also suffer due to defects in the tenancy system, which the country has inherited from the colonial period. The main problem in the tenancy structure is the insecurity of tenure and high rents charged by the land-owners. Traditionally tenants in India could be divided into three broad groups: occupancy tenants, tenants at will and subtenants. The most secured tenants were the occupancy tenants who enjoyed permanent and heritable rights on land. They had security of tenure and could claim compensation from the land-owners (landlords) for any improvement that affected the land. 'Tenants at will' did not have security of tenure and landlords could evict them anytime. They were also made to pay an exorbitant rent to the landlords. The subtenants were appointed by the occupancy tenants and they were the most vulnerable without any formal rights over land. In India exploitation of tenants remained very high in rural areas and 50% of the produce was the normal rent under 'Batai' or sharecropping. On several occasions, the peasants had to forgo even two thirds of the produce as rent. The National Sample Survey (8th round) had estimated that in 1953-54 about 90% of agriculture land was under the tenancy system. Besides this open tenancy, there was a considerable amount of land leased out on the basis of oral or hidden tenancy that accounts for anything between 35-40 % of the total cultivated area (Bhatt 2007). In this backdrop, tenancy reform was introduced in India. It had three major elements: regulation of rent, security of tenure and ownership rights to tenants. But due to lack of political will, resistance from

powerful actors, lack of adequate infrastructure support and also due to a gradual shift of the development paradigm to an open market globalization regime, the tenancy reforms met with limited success and in general small and marginal peasants in India continue to suffer from a high degree of tenure insecurity.

2.3 Unemployment and disguised unemployment in agriculture

Another growing concern in India is the disappearance of small holders in the rural belt and a significant increase in wage labourers. According to the 2001 population census, the proportion of agricultural labourers to agricultural workers increased from 37.8 % in 1971 to 45.6 % by 2001. In the meantime (1971-2001) the number of agricultural labourers (in absolute terms) increased from 47.5 million to 106.8 million thereby recording an annual compound growth rate of 2.74 % p.a. compared with a growth rate of 2.079 % p.a. for the total agricultural workers. Over time an increasing proportion of rural households are becoming labour households and most of them are engaged in agriculture. In 1999-00 nearly 40% of the rural households were rural labour households compared to 30% in 1977-78. In the meantime, the proportion of agricultural households to total rural households had increased from 25.3 % to 32.2 %. This rapid growth of agricultural labourers is mainly due to the fact that the increasing workforce in India is unable to find employment in non-agricultural occupations in rural or urban areas. These facts clearly explode the development paradigm myth that surplus labour in agriculture would be absorbed gainfully in the expanding industrial and tertiary sectors with the higher rate of growth of the GDP (Bandyopadhyay 2010). In addition, the lack of education

and skills of the agricultural workers act as serious impediments to their upward mobility in the labour market.

The disguised unemployment in the agrarian sector in the country indicates the existence of huge idle 'productive' labour forces in this sector and the sad reality is that there is no effective policy in place to release this idle labour in order to increase efficiency of small-scale agriculture. To make the situation worse the entry of big capital, whether Indian or foreign, through contract farming and retail trade is hastening the process of making peasantry redundant in the country. The big investors in agriculture (MNCs) control the agricultural market both vertically and horizontally (the input supply and the processing and marketing chains) to a great extent, thereby disempowering poor peasants further.

Thus today another worrying phenomenon is the increasing marginalization of the peasant community. The NSSO's size-class surveys in India show that the percentage of marginal households among the cultivators increased from 66.64 % in 1982 to 79.60 % in 2003.

This changing equation is not an isolated case in India; rather it is the dominant trend in the world, particularly in developing nations. This trend however, indicates a grave future in which the hunger situation will worsen due to further economic instability in general and in the agrarian sector in particular. The need of the hour is to critically reflect on the existing policies of development, identifying challenges and shortcomings and initiating a constructive debate on how to overcome these challenges through the promotion of appropriate alternative policy measures, which would recognise the rights of small holders in food

production and would promote efficient models of peasant agriculture and prioritize the people and the planet over profit.

3. Pre-liberalization and post-liberalization agricultural policies in India, leading to the present-day crisis

The present crisis of peasantry in India is rooted in the past history of the country. Structural discriminations and other forms of exploitations, which disempowered poor peasants, could be traced back to the medieval period and to the colonial past of the nation. However, the process of disempowerment intensified in the post-.independence period, with the introduction of the Structural Adjustment Programme (SAP) during the 1980s and 1990s. The SAP, which was imposed by World Bank (WB), International Monetary Fund (IMF) had forced India to undergo structural adjustments of various natures, which affected the entire economy of the country and the impact on small-scale agriculture was particularly disastrous in the long run.

3.1 Agricultural policies in post-independent India: pros and cons

In the post-independence era, a major challenge in India was to bridge the gap between need and production of food grains to guarantee food security for all. Another aspect was also ensuring a basic infrastructure for proper distribution of food. To ensure an increase in agricultural production, India tried to follow a path of planned development for some years, with a focus on food security. Though the planned development tried to implement land reform programmes, the attempt was halfhearted due to political and power relations (semi-feudal and capitalist relations in agrarian economy). The planned agricultural economy

of India emphasised more on development of infrastructure in agriculture during the 1950s and early '60s. The first five year plan focused on land reform, with the objective of eliminating intermediaries and bringing about a greater degree of equality in land distribution but the implementation was very limited. The plan further concentrated on a high degree of public investment in developing infrastructure for agriculture (irrigation, power, etc.). Large-scale subsidies were provided to peasants for using irrigation facilities and power. Large investments were also undertaken for the development of a research system under the supervision of the Indian Council of Agricultural Research and the State Agricultural Universities. At the same time a well designed extension network was instituted for the dissemination of new agricultural technologies for cultivators. From the 1950s to the '70s, community development programmes and a network of extension services were the main instruments in transforming traditional agriculture and the introduction of the Green Revolution techniques; which was manifested in the rapid increase of land under high yielding varieties during this period.

The agriculture price policy of the government at the beginning aimed at keeping food grain prices low for food security of consumers. Price policy further provided incentives to farmers to increase production by establishing remunerative prices and assuring minimum support prices. Another important component of the policy during the planned era was the establishment of a comprehensive management system for the procurement, storage, public distribution of food grains etc. Sufficient food stocks were kept for running the Public Distribution System (PDS) and also to help stabilise the prices through open market operations. The planned policy tightly controlled trade and exchange rates in

order to protect domestic agriculture and except for a few traditional commercial crops, the sector was insulated from the world market through the almost total control of exports and imports. Finally the policy attempted to mobilise resources for public sector expenditures and for public investments. A system was created to extend cooperative and institutional credits to the rural sector thus facilitating private investment in infrastructure and encouraging the adoption of new technologies.

This agricultural policy was only partly successful. The advent of the Green Revolution in the mid 1960s marked a turning point in the technological upgrading of Indian agriculture. The focus of agricultural policy shifted to the modernisation of agriculture through extending seed-fertilizer technologies to many parts of the country. However, little measures were taken to involve small holders in this new development (which was also not possible in absence of land reforms) and the Green Revolution techniques were mainly adopted by privileged farmers. Moreover, the Green Revolution introduced chemical fertilizers and pesticides intensive production practices which resulted into a large-scale loss of biodiversity and an increased environmental pollution to a great extent. Success of land reforms was modest and the land ceiling legislation was not successful due to various reasons. The planned policy however, succeeded in accelerating the growth of agriculture and food grains production with the large-scale use of HYVs. Increased food production made India gradually self-sufficient in food grains over the 1960s and '70s. Despite apparent successes, this very agricultural policy initiated the process of liberalisation in agriculture, following the main economic trend of liberalisation in line with SAP, which was then the main economic order of the nation. With time, the gaps and problems in

the above agricultural policy became evident and it became clear how the planned policy failed to empower tillers of the soil and how it increased inequality in the rural belt. While India achieved food security to a great extent, following the above policy measures, the huge subsidies provided by the government in agriculture failed to support poor peasants and eventually became unsustainable. Land reform was not successfully accomplished and thus failed to bring about an equitable distribution of land and as a consequence, very large inequalities continue to exist in the rural belt. Also the new Green Revolution technologies were more appropriate for richly endowed irrigated regions of India, thus the Green Revolution promoted an unequal agricultural growth in the country and intensified regional imbalances (in productivity and income). Moreover, as mentioned before, new technologies gave rise to intense ecological problems in pockets where the Green Revolution flourished in India. Economists and agricultural scientists further pointed out that measures like land reform and providing support services to small peasants failed during the Green Revolution period because a more intensive focus was given on rapid industrialisation, which shifted resources from small-scale agriculture development to industry. Even the price protection policy was not good enough for peasants who embraced new technologies as they had to invest a lot more in agriculture due to high costs of inputs needed for 'modern' agriculture. These criticisms pointed out the fact that in absence of a genuine land reform process, mere infrastructure building and support services failed to address the agrarian crisis (inequality, poverty, and ensuring an economically viable production) in India and paved the way to a further liberalisation of Indian agriculture.

3.2 New Economic Policy of India intensified the liberalisation process in agriculture

During the early 1990s the New Economic policy (NEP) was introduced in India, which intensified the liberalisation process. Withdrawal of subsidies on fertilizers, electricity and irrigation was an important component in reducing fiscal deficit under NEP, which negatively affected the growth of agriculture production in the country. The small holders who were trying to cope with new patterns of agriculture (which was dependent on new technologies) were the worst hit. During the early 1990s a nominal devaluation of the rupee made exports of many agricultural commodities more competitive. To find a quick solution to the crisis, many farmers increased cash crop production at the cost of food crops and also against the demand and interest of local markets. Even this strategy yielded poor results due to an uneven and unregulated competition in the global market. Following NEP, the rural credit structure was overhauled, subsidised rural credit was abolished and many regional rural banks were closed. These measures affected poor peasants negatively, who were completely left out in the unequal competition.

This was the time when small holders in rural India started losing control over their land and even the beneficiaries of the land reform programme (which was very limited) failed to retain their land or became unable to pursue agriculture in a viable way. Also during this time, the price protection for food crops, aiming to keep the price of food crops low and affordable, was gradually abolished; instead incentives were provided to those farmers who were able to invest in increasingly expensive inputs for agriculture. The NEP obviously resulted into high inflation, which

in turn affected even the privileged farmers, who managed to invest more in agriculture and embraced new technologies. This was because competitiveness of several agricultural commodities produced in India was gradually being eroded due to high inflation, fluctuations in the international prices of agricultural commodities and the open market policy of the state.

An important component of NEP was trade liberalisation. India was forced to either phase out or eliminate the quantitative restrictions on agricultural commodities and products by early 2000. The country thus opened its market and in turn made the farming community vulnerable to the imports of highly subsidised products. As in the developed countries, clever manipulations were made to increase subsidy in agriculture; India experienced dumping of cheap food grains and other agricultural commodities from abroad, which ruined the local producers (a threefold increase in agriculture imports between 1995 and 2000). Gradually other liberalisation measures were imposed. Introduction of IPR in the agricultural sector has denied the peasants their traditional rights to nurture, preserve and exchange knowledge regarding agriculture. Introduction of GM varieties of crops with the package of pesticides and fertilizers has extremely disturbed the ecological balance, leading to gross crop failure or overproduction. The small peasants in the country are increasingly becoming contract farmers of big agribusiness companies, and they are forced to take all the risks in production, while the companies enjoy the profits. Peasants in India today are increasingly in a debt trap which is showcased in the incidence of ongoing farmers' suicides in Maharashtra, Punjab and elsewhere in India. Earlier cotton farmers of Andhra Pradesh in India also committed suicides in large numbers due to crop failure of GM vari-

ety BT cotton and subsequent high indebtedness to the MNCs. Recent government statistics revealed that 48.6 % of farm households in rural India are highly indebted and the indebtedness is higher in poverty stricken pockets of the country. The report further stated that 80% of indebted households belong to small and marginal categories. Trade liberalisation also affected PDS in India and the country witnessed a gradual collapse of food self-sufficiency as the PDS system was dismantled

Thus the liberalisation of economy has led to corporatization of agriculture and it has systematically displaced the small and marginal peasants from food crop production by making their production economically not viable. Mechanization and corporatization of agriculture has further increased the commercial pressure on land, reduced the poor's access to common property resources, intensified a disguised unemployment in agricultural, degraded ecology etc. leading to the destruction of food security of the nation.

3.3 Neo-liberalisation and increase in land-grabbing demanding a special attention

In the present neo-liberal era the commercial pressure on land has increased significantly in India (like in many other countries) which reminds us about the urgency of fulfilling the unfinished tasks of the Genuine Agrarian Reform (GAR). In India export-driven agricultural policies have focused on large-scale farming/ plantations to produce food, energy (agro-fuel) and cash crops. Land concentration in the hands of a privileged few, along with expansion of a long supply chain have introduced a dominant model of agricultural development, which favours large-scale producers who have the capacity to meet the market demands

(both in volume and standards) and who are well connected with markets.

The state-promoted policies to produce bio-fuel in the recent past in India have triggered off an unequal competition between large-scale producers, MNCs, TNCs and local resource users; in other words, peasant communities. Governments of many poor countries are competing with each other to attract foreign direct investments which in the era of liberalisation would enable these countries to ensure growth and India is no exception. In doing so, many governments, including the government of India, are increasingly expropriating agricultural lands from poor peasants and developing industrial zones or special economic zones in these lands. These zones are virtually foreign enclaves in a country where foreign investors enjoy special benefits and tax holidays, etc. Such expropriation of land and the competition for land give rise to a series of conflicts in the rural belt and these conflicts often lead to the disempowerment of local communities. In his recent report on access to land, Special Rapporteur on RTF Prof D. Schutter, emphasised the issue of land conversion. He cited examples from World Bank and mentioned that as per WB listing three hundred eighty nine large-scale acquisitions or long-term leases of land in 80 countries, only 37% of the investment projects are intended to produce food (crops and livestock), while agro fuels represent 35% of such projects. The Special Rapporteur has strongly criticised the arbitrary conversion of land use, from food crop cultivation to fuel or other cash crop and recommended that investments implying a shift in land rights should be treated with great caution: a position which he also shared at the thirty-sixth session of the Committee on World Food Security, at FAO in Rome.

The severity of the impact of liberalisation of Indian economy clearly illustrates that the liberalisation policy aims at eliminating the hungry and not hunger; it destroys livelihoods of small and marginal peasants and challenges food sovereignty of poor nations. The liberalisation policy jeopardises the agenda of GAR as the focus is on finding a market-based solution of poverty and inequality. During the liberalisation regime the land redistribution policy has given way to a policy of land concentration in the hands of MNCs and private investors for large-scale corporate farming. Therefore to make small-scale agriculture efficient, it is imperative to challenge the dominating development paradigm which deprives small holders from their right to access land and their right to access adequate infrastructure facilities. It is important to promote such policies which recognise the rights of small peasants to access land, their rights to preserve and promote traditional agro-ecological production techniques and their rights to determine their production priorities, which in turn would ensure the economic viability of productions in small holdings creating effective livelihood opportunities in peasant agriculture. The elements of such a model could be found in various national and international human rights commitments, treaties, guidelines related to agriculture and the right to food and in the notion of food sovereignty in general.

4. Agrarian reform for ensuring food security and beyond

The discussion above has elaborated that the future of human civilisation and the planet lies in the hands of small-scale producers and not in agribusiness. In a country like India, increasing production and making production profitable in small holdings

would only be possible when the idle productive labour in this sector could be released. To achieve this, it is important to ensure that small holders have access to land and other productive resources, that they have an adequate influence on the decision-making process regarding local land governance and that the macroeconomic policy of the nation supports the strengthening of the micro economy of the agrarian sector, through the enactment and implementation of peasant agriculture-friendly policies and by refraining from imposing such neo-liberal policies, which could further weaken the peasantry.

Agrarian reform is a step towards addressing the inherent structural inequality and injustice in the agrarian scenario in a developing country like India. Agrarian reform induces significant transformations in the rural economy and society. Land reform, which is the first phase of the agrarian reforms, brings about egalitarianism in an otherwise skewed pattern of land-ownership and thus broadens the rural assets base. It also brings about a change in production relations and ensures security of tenure. In a narrow sense land reform could be defined as a process of distribution of land to landless/near landless tillers thus enabling them to produce food. In a broader sense however, land reform should be complemented by other steps like tenancy reform, providing support measures for agriculture like inputs and infrastructure through various agricultural service institutions promoted by the state. These comprehensive efforts could be termed as agrarian reform. Thus agrarian reform is primarily about changing relationships. First, it aims to change access and tenure relationships. Second, it aims to change the culture of exclusion so that the poor gain access to credit, technology, market and other productive services. Third, it aims for the poor to be ac-

tive participants in the development programmes affecting their communities and livelihoods (Bandapadhyay 2010).

The assured access to productive resources like land and access to other support services entail poor to benefit and be empowered economically, socially and politically. Access to land means access to assets on which small peasants can fall back upon in emergency situation. Thus access to land reduces the vulnerability of rural poor households too. Moreover land is the source of social prestige in an agrarian society and determines the social position of a household. The synergies of these impacts empower and articulate the rural poor and encourage them to pursue agricultural activities with a long term vision of sustainability. It is thus often said that the scope of land reform goes far beyond the reform of land distribution patterns or the tenancy system and it brings reform in the lives of those who cultivate lands. Land reforms create paths for the poor to take an effective part in local governance and to take decisions regarding their development priorities.

5. Land reform: myths and realities

In poor countries the state usually undertakes land reforms to unleash the potential forces of production, reduce poverty and eliminate the control of the non-cultivating classes over the land. But often such reform efforts encounter powerful resistance from the privileged classes, who stand to lose in the process. So, the will to carry out such reforms is conditioned by a combination of political factors and the success or failure of agrarian reforms depends largely on the capacity of a regime to generate and sustain political will. The history of land reform in India confirms the lack of political will of various state governments in imple-

menting GAR in the country. This trend of ignoring land reform/ GAR continued after independence and has intensified in the neo-liberal era. Whenever small holders demand for land reform, various arguments are made to avoid such policies or to contest the whole idea of agrarian reform in general. Concerned social researchers have time and again presented these fictions and argued with facts in favour of state-led land reform and agrarian reform, as a precondition to make small-scale agriculture efficient and viable. It is worthwhile to have a closer look at these arguments and counter-arguments to see why agrarian reform is a means to increase the efficiency of the small holders productions in agriculture.

a. It is argued that land reform leads to conflicts as the process involves the expropriation of land from landlords and there are often issues related to compensation, etc. It is further said that land reform can never be fully successful as it goes against the interests of powerful actors of a country and in many instances these powerful elites are the policymakers (members of parliaments). So it is difficult to ensure a genuine political will for land reform. Though this argument holds truth, it is equally true that in such cases the government pursued its agrarian reform policies with strength and conviction and always received the popular support of the common masses, which posed a challenge to the existing power structure and changed the equation of power relations over a period of time. It is to be remembered that the state is accountable to its people in terms of rights and not to the 'Elites' only. In this context, it is important to highlight that

the implementation of GAR is a human rights obligation of nation states under Right to Food.

b. The second argument challenging the notion of agrarian reform, favours the trickle-down theory of development and calls for investments in the powerful and more entrepreneurial parts of the society i.e., in large holdings, to achieve a fast growth through export earnings. This, according to the champions of this theory, will ensure a long-term development for society, which in the long run will also benefit the poorest of the poor. The Indian experience tells us this is neither true nor valid, particularly in the context of the poor developing nations. Even in developed countries poverty is on the rise. Many years have passed since India initiated trade liberalisation, but the market magic is yet to work in the country to ensure food security for all and to promote sustainable and efficient agricultural practices. On the contrary, poverty and hunger are on the rise in rural and urban areas.

c. The third and one of the most significant arguments against GAR is put forward by the neo-liberal development regime, which advocates for market-based solutions of poverty and hunger. It emphasises on global trade and comparative advantages of different nations in agricultural productions. However, in reality neo-liberal policies have weakened the poor peasants in developing nations by exposing them to an unequal and unregulated competition with the privileged farmers of the North. The 'profit and growth'-oriented agricultural model has heightened land alienation of the poor, intensified the corporatization of agriculture and increased the environmental cri-

sis in developing nations. Altogether neo-liberal policies have created an extreme unfavourable environment for poor peasants in the South and have adversely affected the progress of Genuine Agrarian Reform processes in many countries. Moreover, a major point of concern is the introduction of a "market-based Agrarian Reform" model in which land redistribution is directly linked with land market and land is seen as a commodity, which if needed could be used as a collateral for credits, etc. The champions of neo-liberal policies have argued in favour of a market-driven land reform model (land registration and titling) ostensibly because they believe that successful land markets would ensure an efficient land allocation and intensify the economic growth, which will reduce poverty and food insecurity of rural dwellers. However, practical experiences reveal that such land reform measures have given rise to various problems and failed to bring any significant change in land holding patterns in the rural belt. This new model of land reform favours 'more efficient producers' thus excluding the so-called non-viable small holdings from its purview. In fact we have seen that land sales (under market-based land reform) obviously favour those who have access to capital and can purchase land and not necessarily those who could utilise the land most efficiently (small holders). Therefore, it is evident that market-based land reform is nothing but an attempt to dilute the significance of GAR (as a human rights obligation of the state) and it is an attempt to find a halfhearted solution to land-related discriminations.

d. Finally a very common but repeatedly used argument against land reform is that it supports small holding agriculture, while for ensuring food security of an ever-increasing global population, a rapid growth in agricultural production is required. This growth in production could only be achieved through mechanization, the introduction of new agricultural technologies and by promoting large holdings which would ensure the efficient use of these technologies. In this context it is very important to recall that a country like India, which has a surplus food production, also has a high number of hungry people and the present-day world food crisis is more a food price crisis than a food production crisis. The fact that growth in food production does not ensure increasing food security of poor households is established in many researches today. The problem lies in the power relationship which determines peoples' access to food and food producing resources. Another myth is that small holdings are generally economically non-viable. To make any farm viable a certain infrastructure support is required and it is the human rights obligation of nation states to provide those supports to small holders. In the absence of a comprehensive support mechanism for small holders, it cannot be concluded that small holdings are economically not profitable. At the same time those who favour large-scale farming with modern techniques, fail to answer about the fate of those who become the victims of such production model, in terms of losing access to land, other natural resources, access to infrastructure and market etc. Referring

to the trickle-down theory is not the answer to that pressing question.

In this context it has to be further understood that the implementation of GAR is a state obligation under human rights and nation states are obliged to take a proactive role in mobilising the maximum available resources for this purpose. Following human rights argument, GAR is high on priority, as hunger cannot wait for a trickle-down development process and it needs to be addressed immediately at all levels.

In the words of the special Rapporteur on RTF:

"*There are strong arguments, however, in favour of land reform as contributing to the progressive realization of the human right to food, at least in contexts characterized by (a) a high degree of concentration of land ownership (such as a level of inequality higher than a Gini coefficient of 0.65), combined with (b) a significant level of rural poverty attributable to landlessness or the cultivation of excessively small plots of land by smallholders. The implication is that States should monitor existing inequalities in terms of access to land and, where both circumstances are present, should allocate the maximum available resources to agrarian reform schemes and implement those programmes in accordance with the principles of participation, transparency and accountability, to protect them from being appropriated by local elites. Where States fail to establish land redistribution schemes, they should provide justifications for not having done so.*" (Schutter 2010 pp 18)

7. Conclusion: Land Reform, the need for a right perspective

For the rural poor, a secure access to land provides the most realistic opportunities to improve their livelihoods and develop assets that can improve their resilience to shocks (This must also include tenancy reforms). Drawing on the lessons from decades of experiences in agrarian sector in various countries, social researchers have emphasised the importance of land redistribution as a first key step to enable small holders to be self-reliant and ensure an efficient agriculture. The history of failure of land reform could sometime mislead us and we have to be very careful about that. Land reform alone is not the solution but the means to find a solution, and policymakers as well as peasants can overcome the shortcomings of the past through experiences gathered from the failures as well.

The entire issue of land reform or an efficient agriculture should be seen in the context of the specific development model. In general food security has two aspects about it, one deals with production compared to needs and the other deals with distribution (access). We have seen that the second aspect plays a significant role in determining household food security nowadays, when the production of large amounts of food is no more an impossible target to meet. Prof A. Bose, a well-known economist of India explained how Indian agricultural policy in the early 1950s manipulated the demand for food among poor actors and thus created "food surplus" which in reality was only on paper. To address food security concerns and meet the production gap (as per need) in the early 1950s the government of India embraced the easy way of emphasising on increasing production and avoided implementation of GAR, which further intensified rural

poverty and resulted in the reduction of income and hence demand (thus artificially showing surplus) among the actual tillers. The statistics during this phase clearly indicated an increasing trend of land concentration in the hands of rural elites in India. It is this land concentration that explained why a dramatic increase in food grain production, leading to almost eliminating the gap between need and production, could coexist with a massive increase in the number of hungry people in the country, as was evident from various government statistics. The then policymakers in India opted for such policies, which would allow hunger to remain concentrated mainly among poor peasants, who are the actual tillers of the soil. That was the main reason why land reform agenda took a back seat and was not successfully implemented during the planned agricultural development period in post-independent India. Not only land reform was neglected, all forms of peasant movements were also brutally repressed by the state and the elite groups. As mentioned earlier, India embraced the path of neo-liberal development and as a consequence, today Indian peasantry is severely marginalized and Indian economy is quite dependent on foreign capital for growth, leading to the loss of sovereignty and increasing the ecological instability (due to the intensification of unsustainable production practices by MNCs).

To explain why small holders found agriculture not viable and often failed to retain land, social researchers further investigated the roots of contradictions in Indian development policies and illustrated how the form of capitalism developed by the Indian ruling class since independence, coexisted with internal feudal forces and foreign imperialism (until today). This 'dependent capitalism' was on the one hand unable to release the

huge idle productive forces through land reform and GAR and on the other hand was equally unable to motivate the working people to work hard for the development of their own country. It is therefore, no wonder that the Indian rulers became unable to generate sufficient resources to pay for imports and to repay the debt they incurred, which in turn forced them to accept more means of liberalisation as imposed by IMF and WB. This exactly is the vicious cycle for a developing nation like India, the economy of which is predominantly agrarian and marked with inequality. It is this vicious cycle, which has made agriculture unprofitable for poor peasants and has claimed that only large-scale production could be efficient.

The task ahead of us is to break this vicious cycle and we can only break it when we get to acknowledge our past mistakes and recognise that our capitalist perception (and the nature of our economy) of 'resources' itself is a constraint before us to resolve the crisis which is limiting our ability to strengthen our food sovereignty. Bose explained how the capitalist model of development has imposed a market-oriented profitability criterion on everything (related to production) and has judged the contributions of small and marginal holdings in food production as a viable livelihood opportunity from that perspective, thus rendering peasant agriculture unprofitable as per the capitalist understanding. The need of the hour is to break this profitability criterion imposed on us by the dominant development model. It is only then when we shall be able to use the whole of our resources to maximise a sustainable satisfaction of all our people by replacing a 'profit-centred capital based society' by a 'sustainable mass satisfaction centred labour based society' (Bose 1998).

Thus social researchers and activists argued in favour of land reform as the starting point to find a solution of the ongoing crisis in our agrarian sector. Land reform itself will change the people's choice of technology (due to a shift in priorities and perceptions) and will ensure a conducive environment for using huge existing unused labour days (disguised unemployment) for strengthening the small-scale agriculture (Bose 1998). The new model of agriculture could be free from any dependence on foreign capital or on global trade. This new society can be based on principles of food sovereignty which among others include the following:

- Food production for domestic and local markets.
- A genuine Agrarian Reform and other reforms to ensure access to land, water and forest, and the recognition and promotion of the women's role in food production.
- Community control over productive resources in opposition to corporate ownership of Common Property Resources.
- Protecting seeds and banning GM crops

Implementing land reform to develop a labour-based economy will not only guarantee food security for all (in our countries) and make our economy self-reliant, by freeing enough resources to become free from any perpetual dependence on foreign capital, but it may also lay the foundation for turning over the current capitalist globalisation to its opposite (an alternative globalisation based on toiling people)[3] and can promote the notion of food sovereignty to its fullest scope.

While in India the policymakers are largely ignoring both the 'philosophy and pragmatism' of land reforms as an instrument

3 Bose (1998)

for social and economic development, on the international level there has been a renewed interest on the subject (Bandyopadhyay 2010). The International Conference on Agrarian Reform and Rural Development has adopted a declaration. In this declaration it is clearly stated that the Genuine Agrarian Reform should be a priority for the nation states, that the rural poor must be given access to land and water resources, agricultural inputs and services, extension and research facilities; they must be permitted to participate in the design, implementation and evaluation of rural development programmes. Growth is necessary but not at the cost of equity and above all growth should be all encompassing and should ensure the people's participation. It is high time to emphasise the fact that there are no separate crises. All crises are one and the same, the manifestation of the failures of the neo-liberal paradigm. The single most important and common plan of action thus would be the call for ending the inequitable distribution of wealth, the lack of access by the poor to productive resources, the inadequate participation by the poor in the decisions which shape their daily lives, and the need for reform in micro and macro-economic policies that undermine the rights of the poor.

To conclude it is important to reemphasise the fact that land reforms are essentially a political process as they involve the intervention in local power relations. This means an intense conflict between the landed groups and the rural poor at least at the initial stages of redistributive land reforms. Bandyopadhyay has asked the most pertinent question in this regard "Are the political parties in India, including the "mainstream" left, prepared for it?" He has also rightly captured the general perception in this regard as he illustrates that "the mainstream left parties have

now developed an ambiguous relationship with the countryside. They have largely succumbed to the logic of capital, either to obtain state power or to retain state power after obtaining it through compromise. As a result a "third wave" of left politics has emerged apparently to fill up the neo-liberal political vacuum." History will tell us whether they will be successful in creating any sustained impact. Meanwhile, we look forward with hope towards a series of civil society movements, which are emerging in India, to fill the vacuum. Through these movements poor peasants are claiming rights proactively. We have observed how some of these movements (e.g., Singur and Nandigram movements of peasants in West Bengal, India have led to discussions on amendments of Land Acquisition Act at central level in India) have not only been successful in resolving immediate conflicts (mostly related to land occupation, redistribution, access etc.) but have been instrumental in changing the dominant neo-liberal agrarian policies in favour of more pro-peasant agrarian policies, which is certainly a step forward to GAR. Therefore, in future it would be very important to strengthen civil society movements for rights, justice and equity, which will ensure an inclusive and good governance at grassroots, will enable small holders to practice their livelihoods gainfully and will promote food sovereignty in our country.

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SMALL PEASANT AGRICULTURE AND LAND REFORM IN NEPAL: POLITICS OF CONTESTATIONS AND CONTRADICTIONS

PhD Netra Prasad Timsina [1]

Introduction

Nepal is predominantly an agricultural country and hence it is extremely important to develop this sector in order to promote equity and justice in this country. Nepal has a total population of 28 million: 84% are rural. The percentage of GDP generated from agricultural activities was 33% (2009), and per capita GDP was US$ 272 (2005 estimate). The agricultural productivity is low, with an average cereal crop yield (1999-2001) of 2089 kg per hectare (world average is 3,096 kg per ha), and average roots and tubers crop yield (1996-1998) was 7,958 kg per ha (world average is 12,958 kg per ha) (Teijun and Kinchi, 2008).

This sector plays the main role in the country's economy in terms of providing employment opportunities at the village level, as the potential overall food security of the country and as the main resource for a potential industrial growth. Agriculture development is the very foundation for a sustainable economic development and the main source of income for the people. The

1 (Nepal) He is the President of NGO Federation of Nepal.

rather insignificant per capita growth in the country's predominant economic sector employing more than 80 % of the economically active population and contributing about two-thirds to the gross domestic product (GDP is quite inadequate to absorb the nearly 400,000 new entrants to the labor force each year, and to meet the country's growing food demand).

Agriculture in Nepal has long been based on subsistence farming. The majority of the peasants derive their living from fragmented plots of land. Government programs to introduce irrigation facilities and fertilizers have proved inadequate; their delivery has been hampered by the mountainous terrain. Population increases and environmental degradation have rendered minimal gains in agricultural production which have been obtained more due to the extension of arable land than to the improvements in farming practices. Production of crops has been consistently decreased: particularly rice production has been decreased by 11 % in 2009/10. Once an exporter country of rice, Nepal now has a food deficit.

Most exports consist of primary agricultural produce which goes to India. In general, the majority of Nepalese farmers are subsistence farmers and do not export surplus but this does not prevent a minority in the fertile southern Tarai region from being able to do so. Most of the country is mountainous, and there are pockets of food-deficit areas. The difficulties of transportation make it far easier to export across the border to India than to transport surplus to remote mountain regions within Nepal. There is a considerable livestock population of cattle, goats, and poultry, but the quality is poor and produces insufficient food for local needs.

Pattern and trend of small peasant agriculture in Nepal

The ownership of land and the agenda of land reform have been the major issues in relation to agrarian reform in Nepal. According to agriculture census 2001, there is a total of 4,253,222 households in Nepal and out of this 3,364,100 are farming households. The size of farming families based on land ownership is given in table 1.

Table 1- Land ownership and distribution in Nepal as of 2001

Size of holding	***Households***			***Area (Ha)***		
	No	%	Total %	Area (Ha)	%	Total %
Landless households	26,700	0.79	-		-	-
Land holding households	3,337,400	99.21	-	2,653,919	100	-
Total	3,364,100	100	-	2,653,919	100	-
< 0.1 ha=	260,574	7.81	7.81	13,241.6	0.50	0.50
0.1-0.2 ha	346,112	10.37	18.88	49,864.20	1.88	2.38
0.2-0.5 ha	972,259	29.13	47.31	327,060.8	12.32	14.70
0.5-1.0 ha	915,674	27.44	74.75	641,659.3	24.18	38.88
1.0-2.0 ha	588,649	17.64	92.38	791,965	29.84	68.72
2.0-3.0 ha	157,062	4.70	97.09	371,253	13.99	82.71
3.0-4.0 ha	51,573	1.55	98.63	175,690.5	6.62	89.33
4.0-5.0 ha	20,241	0.60	99.24	89,257.5	3.36	92.69
5.0-10.0 ha=	21,575	0.65	99.89	139,750.2	5.27	97.96
>10.0 ha	3,783	0.11	100	54,206.7	2.04	100

Adapted from the report of High Level Commission on Scientific Land Reform 2010

The average availability of agriculture land is 0.789 ha. The highest availability is in Teari, 0.944 ha followed by high hills, 0.655 ha and mid hills, 0.633 ha.

Table 1 shows that most rural families do not have enough land to even subsist on. A startling proportion of rural households still do not have enough land to live on (Wily et al 2008). Forty-seven point thirty-one percent of holdings are marginal[2], too small to meet even subsistence. Marginal farmers in fact averaged only 0.24 ha or 7 kattha in 2001, certainly not enough to live from. An extraordinary 58.9% of the total population according to NPC are functionally landless in terms of agriculture (less than a 0.4 ha). About 2.3 million people or 481,938 households are landless (Wily et al 2008).

Table 2-Categorization of households based on the size of land ownership

Household category	***Total of households***	***Size of land ownership (ha)***
Landless farmers	287100	0-0.1
Marginal farmers	670000	0.1-0.3
Small farmers	648000	0.3-0.5
Medium farmers	1131560	0.5-3.0
Large farmers	93700	3.0-10.0
Extra large farmers	3800	>10.0

Source: Adapted from the report of High Level Commission on Scientific Land Reform 2010

2 Marginal farmers are defined by the Agriculture Census Survey (NSAC) 2001 as holdings under half a hectare (0.5 ha, or 15 Kattha or 0.75 bigha).

Various evidences show that Dalit[3] and minority groups fall under the landless and marginal farmers' categories. In average, marginal farmers families have food availability only for six months. The landless families are deprived from social and political rights just because of not having land ownership. The landlessness also exacerbates the exploitative labor relationship as the landless families are compelled to work on low wages, and receive loans with high interests that put them in indebtedness (Wiley et al 2008).

Box 1: Land holding size and agriculture production

Arable land in Nepal is only 21% of the total land area in Nepal, concentrated in the southern terai (plain) region. Despite rich water resources in Nepal with over 6,000 big and small rivers, irrigation facilities are minimal, and the investment of modern means of production on the land is only 1%; ninety-nine percent of investments are on the land, human power, animal husbandry and primitive tools. Land distribution is uneven: in 2001/02, 0.76% households had more than 5 ha of land, and occupied 7.31% of the land area; top 5% of land-owning households owned more than 37% of the land, while 47% of land-owning households owned only 15% of the land. Only 10% of women owned some land: on average less than 0.1 ha (Adhikari 2006: 4). Inequality in land distribution as measured by Gini Coefficient was 0.544 in 2001.[4] Fifty-one percent of households holding 1 ha of land faced food insufficiency.[5] Furthermore, across the country there

3 Dalit is a scheduled caste and considered to be untouchable, and has a very low social status. In Nepal, Dalit groups comprise a population of around 15 million people.

4 UNDP Human Development Report, 2004, p.43, 164

5 Nepal Agricultural Census 2001, quoted in Adhikari 2006: 9-10

were over 1.2 million landless peasants, amounting to over one-third of all peasants.[6] Some of them are tenants; statistics vary as to the number of tenants. According to one survey in 2003-04, about 7% of peasants work just as tenants, and about 31% of peasants (about 1 million) work as tenants and have their own land for cultivation, as well.[7] The land cultivated by tenants amounted to 9-12 % of the land.[8] It must also be noted that despite the shortage of arable land, the amount of land lying fallow (especially land owned by absentee landowners) was quite substantial. It was reported that about 25% of arable land was lying fallow. [9]

Source: Tiejun and Kinchi 2008, Land Reforms and National Development in Nepal

Issues on agriculture development in Nepal

i. Ownership and access over productive resources

The major issue of Nepal's conflict including the People's War launched by the Communist Party of Nepal Maoist (NCP-Maoist) has been the skewed access to natural resources particularly the distribution of land. Landlordism has been considered as the major feudal characteristic of society where the majority of the peo-

6 According to Agricultural Census 2001, of the approximately 4.235 million households in the whole country, 3.3 million were rural, and 1.2 million landless.

7 The Second Nepal Living Standard Survey 2003-04 (NLSS-II), quoted in Adhikari 2006: 14.

8 The 1994 figure presented by the Badal Commission was 12%, and the 2001 figure given by the Agricultural Census 2001 was 9%; quoted in Adhikari 2006: 14

9 According to CSRC 2004, 2,968,017 ha of land are cultivated, while 986,898 ha remain fallow; quoted in Adhikari 2006: 15.

ple remain without access to resources particularly suffering a lack of land ownership (Teijun and Kinchi 2008).

Since land is the main economic resource for all classes of people, the major and inherent conflict since long back in Nepali society remains being the ownership of land. Land has been the major property to grab and accumulate which has resulted in the peasants with small holdings becoming more and more vulnerable to become landless as they can not retain the land that they own. The political elites and the land owning classes[10] continue to control the land. A significant area of arable land until recently was controlled by the members of the Royal family and the Rana Family, who have been the rulers of Nepal since the formation of the modern Nepali state. This became evident when the Ministry of Land Reform and Management issued a statement about the land registered in the name of the royal family (August 4 2006, Kantipur Daily). These classes have been the absentee landlords, who usually do not live in the villages where their lands are situated. They only extract the income from the land. Most of the cultivators, on the other hand, have been landless—and propertyless. Although the labour relation in Nepal is rapidly changing, in the case of tenants' agriculture it is mostly exploitative as most of the labour force works on low wages.

ii. Political economy of food scarcity/deficit and agriculture policy

People have been deprived of enough food which has resulted in poor health, no education, poor shelter and lack of social dignity. Food deficit in remote and rural areas has been reported

10 These classes include politicians, high-ranking bureaucrats, as well as members of the army and the police.

everyday in the media. The causes of food deficit are not only draught, floods, and any other natural causes: state polices in relation to agriculture production, its distribution and consumption are mainly the causes of the inequitable distribution of resources and social injustice.

Let us take the example of food deficit in Karnali[11] region. Karnali region was perceived to have a food deficit about 30 years ago and the Nepali state introduced a food policy particularly supplying rice to the districts of Karnali region by airlift. Rice grains from around the world have been imported for Karnali and international agencies have also joined hands to support the supply of rice. With the rice grains supplied in the Karnali region, the food habits of the people have also been changed. Slowly, the cultivation of indigenous crops has fallen off in the priorities of local people and the production of other cereal crops has drastically decreased. Local people have been increasingly depending on the rice grain supplied by government and other agencies in the region for their food needs. The political economy of supplying imported rice grains is accounted for by the business that represents for suppliers such as the owners of airlines, commissions for the people who deal with the government, jobs and other interests for international agencies, commissions for food corporations and food-related companies. Government subscribes to all these interests in one or more ways with the influence of the stakeholders who are engaged with the food economy.

Priority on the production of local crops, support services and access to local natural resources including land has not been included in the government policies and programmes for the last

11 Karnali is a mountainous area of the Midwest region with a difficult terrain and ranking with the highest food deficit in Nepal.

thirty years. Had the government seriously strengthened the local production and distribution system, the Karnail region would have not experienced a food deficit.

The supply of rice grain has also had a cultural impact at large in the region. The rice grains have been popularized to the extent that those who consume rice are considered to be civilized and prestigious people and families in the society. Other staple crops are perceived to be low-grade and those who use them as their main food are considered to be poor and with a low prestige in the society. This cultural perception has caused, to some extent, the discontinuation of the cultivation and consumption of the local crops as food.

Also the supply of rice grains has altered the food habits of local people. Rice appears to be smooth and tasty in eating as compared to other local food grains and is considered to be the main course of their meals. Local people think that if they do not have rice, they do not have the full course of the food they need.

In fact, what we are experiencing now in the form of a food deficit in the region, it is in fact not a deficit of food but a policy deficit and rights deficit. It is a policy deficit in the sense that the state or government promotes the supply of rice grain rather than the promotion of a local food production, distribution and consumption system. It is a deficit of rights in the sense that local people do not have access to productive resources, support services, and markets.

iii. Counterproductive education: agriculture is a hated occupation

The education system seems to be counterproductive for agricultural development in Nepal which has alienated the rural

youth from agriculture. Agriculture has been perceived as the lowest grade occupation as the youth mostly want to be dissociated from agriculture activities. The majority of the rural youth migrate to urban areas or abroad in search of a job even in a more risky environment. The government policy in agriculture development remains to be the major factor for the alienation of the youth from agriculture.

iv. Lack of a support system (inputs and services)

Nepali farmers often face a crisis of agriculture inputs and other services in the period of crops planting and a lack of market in the period of the collection of farm produce to be sold. This has been a routine phenomenon for many years. Most of the small farms are rain fed and the agriculture production depends on the availability of the rainfall in that particular year. Government's subsidies and other incentives in agriculture remain to be almost nil.

The agriculture market in Nepal is largely influenced by the market in India since this nation has a much larger economy in relation to that of Nepal, and is also the principal buyer of Nepal's farm products. The prices of the agricultural inputs in the Indian market largely influence the availability of agricultural inputs, particularly fertilizers and seeds.

An inadequacy of agricultural credit facilities is generally reported. The problem is more pronounced for the smaller and marginal farmers. As a result, the farmers have to depend on the local moneylenders who charge high interest rates. Those farmers who received bank loans also expressed their dissatisfaction over the lengthy procedure and the need for repeated visits to the bank before a loan approval.

v. Migration and feminization of agriculture

As indicated above, the agricultural support system in Nepal is very primitive and feudal in its form. The low productivity is due to the lack of comprehensive policies for agrarian reform. Agriculture has not been perceived as a prestigious work and the major trend in rural Nepal is that youth leaves their villages to go to work in urban areas. While the majority of agricultural lands are small (even not sufficient for the subsistence of the family), the trend of the agricultural lands remaining fallow[12] is increasing. The most recent phenomenon is the feminization of agriculture. Since agriculture has not created opportunities for rural people, most of the youth have migrated to city centres and outside the country in search of jobs. This has created a shortage of labour force leaving only senior citizens, women and children in the villages creating two main problems in rural Nepal: i) the reduction of the agricultural production ii) an increase in the burden for women and children.

Most of the rural families live with meagre resources in villages and lack income and employment and hence households encourage their members to go to city centres and/or to foreign countries to seek work. Also family members migrate to city centres during the time of the year when there is no farm work or other employment opportunities in the village—in order to cope with the food lean season. Many households in rural Nepal

12 Teijun and Kin Chi (2008) have also reported that a significant area of land remain fallow while the availability of land to the small farmers is very limited. One of the reasons for the land to remain fallow these days is the migration of people from rural areas to urban areas, particularly the smallholder peasants

these days have at least one of their family members living elsewhere. The extreme poor families and well-to-do families tend to participate less in this process—each with their own status or economic-class specific reasons. As reported by Seddon et al (2001), migration to foreign lands has continued to increase. A foreign job has been considered as an alternative employment strategy, especially for the economically and socially disadvantaged groups. However, this option has produced mixed results for the families in the study sites. For a number of families, their migrant members have not been able to send back remittances even to repay the loans taken to meet the costs of their migration. Migration—whether it be long-term or seasonal—seems to be a common economic strategy adopted by many poor families in rural Nepal today.

vi. Effect of climate change in agriculture

As a constant declining in crop and livestock productions have been observed, local communities have identified climate change as the cause of the increasing impact on the agriculture production. Nepal's vulnerable subsistence farming economy faces a risk due to changes in the reliability of stream flows, a more intense and potentially erratic monsoon rainfall and the impacts of flooding. Decline in rainfall from November to April adversely affects the winter and spring crops. Rice yields are particularly sensitive to climatic conditions and this could threaten the food security of the marginal and small farmers (Ministry of Environment 2010).

vii. Fragile ecosystem and agriculture: a compulsion for livelihoods

Nepal's main environmental issues are related to the country's excessive dependence on the already overstretched natural resource base amidst a high rate of population growth and the predominance of a literally stagnating subsistence agriculture, along with a growing urbanization. From the policy perspective, on the other hand, it is a result of the lack of recognition of the people's proven ingenuity in managing the fragile eco-system, and the limitations of the public sector's capacity in directly managing the common resources. Although the Government of Nepal (GoN) had diagnosed some of these underlying problems as early as the late 1950's and early 1960's, with some isolated and generally fragmentary efforts to address them, an earnest realization of the urgency of some of the environmental issues facing the country had to wait until the beginning of the Fifth Plan period (1975-80).

The failure in achieving a reasonable and sustained growth rate in the agricultural sector means that farmers and the landless labourers in the rural areas have to continuously expand cultivation in the economically less productive and environmentally fragile lands which otherwise would remain under some kind of permanent vegetation. It also means that farm sizes have continuously been fragmented, and there is less food available per household which has adversely affected their food security.

The expansion of cultivation on ecologically sensitive uplands has led to an accelerated erosion of productive soils, undermining the productivity of farm land, and increasing sedimentation in downstream areas.

Although much of the Tarai region and valley bottoms in the hills have a high potential for increased food production, this has not been realized due to a variety of reasons. These reasons include the failure in the past to adopt a clear and consistent policy in favor of the transformation of the agricultural sector, and to direct the limited physical, financial, institutional and trained manpower resources to a well-defined priority package of actions and interventions.

Around 84% of the population reside in the rural areas whose primary occupation is agriculture and related activities, and practically no growth is occurring in those areas. It is hence not surprising that the problem of growing poverty and worsening environmental health of the country have become mutually reinforcing.

Contestation and contradictions in relation to land ownership, agriculture and agrarian reform

i) Political economy of land reform

Nepal, since its formation, has been in contestation and contradiction in relation to land ownership and agrarian reform as the country's political economy is based on the agricultural or land economy (Regmi, 1999). The history of Nepal's agriculture began with the land owned by one class and cultivated by another class. This feudal system deliberately precluded ordinary people from owning land. Non-farmer elites began to accumulate considerable land holdings as a form of security and status which precipitated the well-established class structure of landlordism today: a dismal system whereby those who work the land have little ownership over it (Basnet, 2010). Land has become so important since without the possession of a land certificate,

people are denied access to many government services such as banking, electricity, telephone and potable water. As more and more people become landless; there will be more and more violation of citizen rights.

Nepal's land governance has remained subject of political contentions since 1950s. A number of efforts in terms of land reforms have been made since then as the political regimes keep changing; they have not been put into practice and become only rituals and political slogans. The 1964 Land Act remains at the heart of Nepal's land reform legislation even today. In fact, land reform policies in Nepal have failed to significantly redistribute land, improve agricultural productivity or realign socio-economic power imbalances.

Even for Nepal's peace accord, the power sharing negotiation between the Communist Party of Nepal (Maoist) and other parties, the land issues have been the major issues to be settled as a part of the peace process. The Comprehensive Peace Accord (November 2006), clauses include the returning seized land and properties to leaders of political parties, activists and civilians and the policy to implement a scientific land reform programme to be adopted. Nevertheless, the progress towards the land issues have not positively moved forward, as it remains to be one of the most contested issue in Nepal's peace process and constitution building process.

It is abundantly clear that the best approaches to land reform are those that integrate security of ownership, livelihood, resource management, agriculture input and community empowerment and mobilisation. Land reform must include the restructure in land distribution accompanied by a support structure to sustain productivity.

ii. Current constitutional debate in Nepal related to land distribution

The land reform issue in Nepal is being highly debated in the process of constitution drafting. The constitution assembly thematic committee on Natural Resources, Economic Rights and Revenue Distribution has prepared a draft report amid the disagreement among the members of the committee. The members representing different parties have taken different positions. Some have opted for revolutionary land reform and some have gone for scientific land reform with their specific interpretation and mechanisms related to land ceiling and land distribution. Particularly, the regional parties have taken a position in which the issues of land reform should be left to the authority of the state or province to be developed through state restructuring. The debate of the land reform also revolves around without and with compensations to be provided to the landlords who will have the land above the criteria of upper ceiling, although criteria are yet to be developed. Specifically, the UCPN (Maoist) have taken the position for not paying the compensations, while others are in favour of paying compensation to the landlords who possess the land above the ceiling. Because of these conflicting interests of political parties, the new draft report of the thematic committee on NRM has also failed to clearly define the rights of local people as commons on common property resources such as land, forest, water, grazing land, minerals, etc. Access of the small peasants and landless to natural resources, particularly land is vital for a democracy to be realized at local level.

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PEASANT AGRICULTURE IN SRI LANKA

Sarath Fernando[1]

State of small farm agriculture in Sri Lanka

In Sri Lanka the overwhelming majority of rural farmers are small farmers. They encompass about 1.8 million families. This is about half the population of the country. They are the main domestic food producers. Although the climatic conditions, geographical terrain, environmental and ecological conditions and some social conditions have been ideal for small-scale farming, and the policies adopted by pre-colonial governments as well as those in power in the subsequent decades after independence have been helpful, the changes that have been introduced during the colonial rule as well as those of the last three decades have made it almost nonviable for such small farmers to continue. This situation has created serious economic, social, and political crises in the country.

Before the colonial period, the main form of the economy of the country was small-scale farming by rural farmers. The British gave priority to plantation crop farming for export and the ordinary people were left to look after their food production which was largely ignored by the state in its economic policy. They were not assisted in any way for much of the British rule.

1 (Sri Lanka) He is the Director of MONLAR.

Private ownership of land did not exist in Sri Lanka until the British introduced it, to obtain land available for their privately owned plantations. This was achieved by the British through the introduction of the Waste Lands Ordinance and the Forest Lands Ordinance of the 1830s.

Some interests in improving domestic food production surfaced under the British due to the food shortages during the war in the 1930s. The initiatives taken by the British rule to revive irrigated agriculture for the production of rice was more intensely continued by all governments after independence. During the first three decades after independence, the governments assisted small farmer-based food production heavily and there was much emphasis in social welfare. Sri Lanka achieved a very positive social development during this period. The governments had a consistent policy of retaining the small farmer structure in the land ownership, and land accumulation in a few hands was prevented by this policy except in the plantation sector. The food situation in the country was then not unsatisfactory. On the whole, governments since Independence in 1948 until 1977 did not support capitalist accumulation in a large extent. Food produced by the rural small-scale farmers was purchased with the state intervention and was distributed to all at affordable prices.

The introduction of green revolution strategies in the mid 1960s were initially seen as a very positive step forward to increase food production and reduce hunger.

The use of external inputs such as hybridized seeds, chemical fertilizers, pesticides, weedicides and machinery, and a larger requirement of water and irrigation resulted from this introduction. The World Bank was one of the key promoters of this strategy and gave a lot of loans to expand the green revolution package of ag-

riculture. A large network of agricultural research and extension, setting up government farms for production of high yielding varieties of hybridized seeds were the results assisted largely then by the World Bank with loans. A large development of irrigation was another outcome. With these interventions, domestic agricultural production increased a lot in the initial phases.

Positive features of traditional farming

Among the peasantry, in addition to paddy farming under irrigation, there were other small farmers too. Some of them did not have irrigation facilities and practiced rain-fed agriculture thus cultivating rice only during one season of the year. This was the Maha season when the rainfall was heavier. During the other season, when there was only a lesser rainfall, farmers cultivated highland crops which was also called "chena" cultivation. Growing millet was an important activity among farmers with less or no irrigation at all, and rice and millet were a combination of the main food crops.

In the previous type of peasant farming there were many features that enabled the farmers to make use of nature's ways and contribution to carry out an effective farming, without needing much financial capital. Chena farmers cultivated other food crops such as cereals, pulses, vegetables, spices and yams etc. They selected their seasonal crops to match the rainfall, sunshine and weather patterns and they timed their cropping calendars so as to synchronize them with the weather conditions ('Kal Yal Bala Govithen Kireema' is a traditional practice of deciding on the dates of farming activity with a proper understanding of the weather patterns). They had their fields ready when the rainfalls came in and timing of sowing was done so that the rice got ripe

before the water ran dry. In doing this, they also knew that by making use of the periods of thunder and lightning properly nitrogen fixation could be better achieved and losses due to dry season could be avoided. This timing was also a way of avoiding major pest attacks.

They had various traditional practices (rituals) to show that they respected nature as their guardian and protector and as ways of expressing this respect. They knew the animals that assisted them in farming and they loved and respected them too. There were rituals to ask for gods' blessings and protection before they started their farming seasons and also ceremonies to give thanks after harvesting. There were many practices to prevent erosion of soil as well as practices of using leaves, straw and other organic matter to fertilize the soil. Combining cattle with farming was a common practice since cattle provided work as farm animals, as well as cow dung and urine which were essential components in sustaining natural soil fertility in addition to providing milk for food. In India cows are respected as God, while in Sri Lanka the cow is respected with gratitude since it provided such a valuable service in farming activity. Thus killing cows and cattle for beef was rare in both countries.

People had many traditions of helping each other since farming activities required more labour at times: when clearing the land before sowing, erecting fences, ploughing, replanting, harvesting, etc. This practice of helping each other named "aththam" helped people to reduce costs and to do work more effectively.

However, another impact of the green revolution technology development was that farmers began to be much more dependent on external inputs.

By the 1970s, food-producing agriculture was almost entirely transformed into this technique of using New High Yielding Varieties (NHYV) of seeds, external inputs such as fertilizers, pesticides, weedicides, the use of tractors and much of the rice farming depended on irrigation. The agriculture department was restructured to guide this process.

This transformation was pushed aggressively through government policies and programmes. In some countries this strategy led to further marginalization of smaller farmers whereas the larger and richer farmers benefited and grew in size.

However, in Sri Lanka all governments continued a policy of sustaining and supporting small farmer agriculture and had many schemes in place to sustain small farmers in production, while adopting the green revolution package. The services and subsidies provided by the state to small farming were quite extensive at the beginning. This was necessary since these rural farmers made up a very large proportion of the voters and about 70% of the population depended on this farming for their livelihoods. During elections the major political parties declared their policies that included support to small farmers in order to be elected: some of these promises had to be implemented too. The governments then considered the strategy of sustaining small farming as a means of preventing people from being radicalized and thus preventing them from joining the more radical left political parties.

Policies on ownership of land

The policies and the situation in Sri Lanka related to land ownership has some peculiar features. It is assumed by many that in Sri Lanka all land belonged to the King and there was no pri-

vate ownership. Some land was granted by the rulers to temples and to particular services provided by people. They were called "Nindagam and Devalagam." In other areas people were free to go into any state-owned land and use them for farming. Once people had settled on such land and developed it as well as its irrigation system and other requirements for human settlement, the government had a practice of investigating into the state of development. When they were satisfied with the development of any specific area as human settlements, then they had land kachcheries, called for applications from such settlers and distributed the land to such regular settlers with the corresponding ownership documents. The department set up for this task was called the Land Regularization Department.

The other way of granting land was through the Land Development Ordinance (LDO), which was the way in which land was granted to settlers under irrigated agricultural settlements. In all these cases land that was granted by the state could not be sold outside the family. The system provided the transfer of ownership of the land to the eldest son of the family. This was, in a way, a method of guaranteeing that these people continued to have possession of the land and so prevent them from selling away the land at emergencies thus becoming landless destitute once more.

These supportive policies included the following:

1. Land was granted to landless farmers under irrigated schemes and they were provided some assistance in settling down too.
2. Water and irrigation development was considered a task of the government carried out with government expenditure.

3. Research and extension was carried out as a government responsibility by setting up several research centres, seed farms, and a very extensive network of extension workers paid by the state.
4. Development of seeds and providing certified seeds to farmers was a government responsibility.
5. Providing agricultural credit to farmers at low interest rates was another policy. In doing this, the government had a scheme of refinancing 75% of the agricultural loans given so that the compulsion on farmers was to pay back only 25% of the loans taken.
6. Fertilizer was provided at subsidized rates while prices of other inputs were also kept low by government policy.
7. Purchasing of farmers produce providing them with a reasonable price was undertaken by the government. In case of paddy it was through the Paddy Marketing Board (PMB) and in case of vegetables etc., there was the Marketing Development Board. The Cooperatives Department too played a role in this. The same type of intervention was done in the case of fish with the National Fisheries Corporation and for milk through the National Milk Board.
8. This intervention in marketing was done with another purpose, to provide essential food to consumers at affordable prices.
9. 8. When it became difficult for the government to spend on importing food, it adopted a policy of restricting imports which was also a policy of supporting and protecting domestic production of food.

Governments since independence have come to this decision repeatedly from time to time when faced with economic difficul-

ties although the World Bank and the IMF, since the 1980s, have continued to discourage this adoption of a supportive and protective policy towards small farmer-based food production and wanted the government to have markets handle all production and marketing. Governments have given into this pressure often, but they have had to reverse back to this supportive policy since the World Bank advocated strategies did not bring results.

These policies had an overall objective of providing people with sufficient social welfare. Thus it enabled the governments to keep the prices of essential food at affordable costs to all people, including the urban population.

These policies were initially approved by the World Bank since they were necessary in expanding the green revolution agriculture within the structure of agriculture in Sri Lanka which was comprised largely of small farmers. However, these policies only intended to keep the farmers pacified and did not have the purpose of making them strong enough to be on their own.

Therefore the opportunities available to small farmers to be economically independent and to meet their new needs were very few. The only way they could think of improving themselves economically and become socially strong was to have the younger generations reach a higher education level and leave rural areas and agriculture as their livelihoods.

Since educational facilities were available even in rural areas, free of charge, almost every family thought of having their children educated enough to find other livelihoods. Social recognition and respect given to farming was very low too. Since the rural agricultural livelihoods did not expand their scope to cater to the new and increasing demands, the youth who had higher aspirations were bent on finding new ways for social change and

were becoming radicalised in their thinking. These processes finally led to a radical youth movement fighting for social revolution. This movement named itself the JVP (Janatha Vimukthi Peramuna–People's Liberation Front)

The youth uprising that took place in 1971 was violently suppressed leading to around 10,000 young people killed and over 25,000 imprisoned for years. The party in government when this uprising took place was the most progressive political party among the capitalist parties with the older left parties in coalition. Due to the unpopularity of this party due to its repression they lost the next elections, bringing the more right-wing capitalist party (UNP) into power with a four-fifths majority. This situation provided the UNP, the most right-wing party, with an opportunity to introduce a full package of policies designed to make the capitalist class much more stronger and to set up a political process that reversed almost entirely the gains that were reached by all previous governments and also to weaken the people's movement that had been built earlier.

The impact of this policy and economic strategy change was really drastic in the case of Sri Lanka. In a way it reversed almost all processes that Sri Lanka had adopted from the time of independence and also from earlier times that had allowed the country to a little more humanitarianism and democracy.

Policies over the last thirty three years and their impact on the peasantry

The governments over the last thirty three years have adopted a policy of protecting and supporting the rich and have consciously adopted policies to enhance inequalities and social and economic discrepancies. In order to do this the process has

been one of having the poor people subsidize the rich, by way of transferring the burdens of loans and concessions given to the rich to the ordinary people, although the declared policy was one of having the richness trickle down and reduce poverty.

The private sector was given large and increasing incentives, considering it the «engine of growth» with the hope that the private sector would help the country to achieve a much faster rate of growth in the economy.

However, looking at the results obtained over several decades, it is evident that this process has not worked. Even the World Bank that guided these policies through pressure brought in with the loans, admitted that the country had not achieved the expected growth rates and there had been hardly any trickle down. Instead a small minority of rich elites and businesses have become very rich and social and economic disparities have increased tremendously. The burdens of the debts contracted continuously, largely due to provide incentives and attractions to the foreign investors have been transferred to the poorer ordinary people. The debt burden today is so heavy that an individual owes around Rs 175,000 on an average. The beneficiaries of these loans, those who benefit from massive infrastructure developments enjoy long periods of 100% tax holiday, and thus they do not contribute to pay back these loans.

The most tragic part of this story is that when governments see that the above strategy of growth orientation is not working what they do is not look at the other options available. Instead the incentives are further increased with more borrowings.

This was very clear when the growth rates slowed down in 2002–2004: the government advised by the World Bank introduced a new package of economic reforms, which was first

called by President Chandrika, «Connecting to Growth: regaining Sri Lanka.» The same strategy and the policy document were adopted by Ranil Wickramasinghe, the leader of the biggest opposition party when he became Prime Minister and renamed it as «Future: regaining Sri Lanka.»

More of the same policies for faster growth

This package contained proposals on the same lines which intended to follow the same strategy more aggressively. By 1992 the whole country had been declared an export processing zone. This was done under President Premadasa. «Regaining Sri Lanka» included proposals of providing infrastructure facilities to make the whole country attractive to foreign investments. It included proposals of an extensive network of express highways. The first plan had four express highways while the next ten year plans had a much bigger network of seventeen express highways with connections to an Asian network of express highways building a bridge across to India. It included an expansion of the existing airports with proposals for new international airports in other places such as Hambantota, Hingurakgoda and so on. There were proposals for building thermal power stations, some of which have already begun. Cleaning the city of the slum and shanty dwellers is another proposal; water privatisation was to be pushed through and inviting big private companies to undertake water distribution was intended.

The proposals contained in this package for peasant farming were even more disastrous. In 1996 there were already proposals for the complete privatisation of domestic agriculture inviting foreign investments into agriculture and agro-based industries. It also had policies that aimed at having small-scale farmers in

rural areas sell their land and also the irrigation water which they inherited.

Policy recommendations of the World Bank in 1996 stated that farmers had to be discouraged from growing paddy and other low value crops and that as long as they obtained free irrigation they would not move out of paddy farming. To go even further, these recommendations said that to shift agriculture from low value (domestic food) to high value (export) crops it would be necessary to create a free land market there by encouraging small-scale farmers who were occupying much of the rural land to sell their land and move out of agriculture. It also predicted that when this was done the land ownership pattern would change and the urban to rural population rate would become 50:50.

Thus it was clear that the increased rural-to-urban migration that was happening in other countries was to be engineered in Sri Lanka as a policy. The combined effect of all these changes on the peasantry and poor was tremendous.

One important policy change introduced in this package to promote exports was to adjust the exchange rates. Governments prior to 1977 had adopted a policy of controlled exchange rates as a way of reducing imports and to keep the cost of living at affordable rates. In 1977 the exchange rate was Rs 8 for 1 US dollar. With the change of government at the first budget of 1978 the exchange rate increased to Rs 16 = 1 US dollar.

Then currency was floated and it has now increased over the years reaching Rs 115 = 1 US dollar. This was done with the intention of making our exports internationally competitive. However, our imports have increased more than threefold compared to the increase in exports, so that we finally pay much more for

our imports than what we earn through exports. The impact of this on the domestic consumers has been unparalleled: a tremendous increase in prices of all items in the country including the essentials such as food, medicine, fuel and agricultural inputs etc. that we import.

The impact on the poor, the majority of whom were peasants, was a simultaneous removal of subsidies and services, removal of all protection given to their products by the liberalisation of imports, a tremendous price increases on cost of inputs and cost of daily requirements, giving a free hand to private traders in deciding on their prices of food and other essentials. Pushing them to sell their land and to move out of agriculture were all done simultaneously.

By the 1990s the situation became so bad that Sri Lanka became one of the worst countries in the world on many counts:

1. The UN Committee for Involuntary Disappearances that visited Sri Lanka reported that it was the country with the highest number of disappearances in their record since this committee was established in the 1940s. The British Parliamentary delegation visiting Sri Lanka in 1991 said that their assessment of the number of youth disappearances was around 60,000.

A study conducted by IFAD (UN) reported that Sri Lanka had the sharpest increase in rural poverty among 114 countries studied by them in their study of "State of World Rural Poverty" (1992).

2. World Development Report of the World Bank in 1990 listing the countries with the highest income disparities said that Sri Lanka was only next to Brazil in income disparities among countries listed by them.

3. In the same period Sri Lanka had one of the highest rates of suicides and many of them were of rural farmers due to debt. Many governments had promised that they would cancel the unpaid agricultural loans taken from banks. However, the new policy changes did away with this debt cancellation and the refinancing facility, and the farmers were asked to pay back all their previous debts including those taken under the previous policies. This was one of the reasons for mass farmer suicides in 1994.

4. The IMF identified Sri Lanka as one of the countries eligible for its proposals of targeted poverty alleviation programme and Sri Lanka then identified 2.1 million families as poor eligible to receive these grants.

5. The main income earners of the country today are the migrant workers working as housemaids in Middle East countries, although they have to work under tremendously degrading and insecure conditions. It is reported that the number of dead bodies of workers being brought back to the country from Middle East averages around one per day. Still women have to keep going out for employment since rural economy does not give them any worthwhile income anymore.

7. Domestic food production has been depleted so much that the country still depends heavily on imported food. When international food prices increased around 2007 and 2008, the price increases of essential food in Sri Lanka were much higher than the world price increases. This was partly due to the government's policy of giving up emphasis on domestic food production, giving priority to export-oriented agriculture and partly due to the sale of food in the country being entirely in the hands of private companies.

8. All this has to be considered along with other price increases of education, health, transport, postal charges, electricity and so on. While the organized labour had possibilities for fighting for salary increases, the rural peasants had no way of bargaining for higher incomes. Since many of them were already indebted during the period of farming for inputs, labour and also to sustain their families, they were often compelled to sell away their harvests as soon as they were ready in order to pay back their debts. The lenders often compelled them to sell their produce at whatever prices the lenders decided.

9 This situation of desperation often had an impact on their political role too. When you are extremely dependent on somebody, you often have to take political decisions that are acceptable to those whom you depend on. This had been a long practice in Sri Lankan politics where the rural elite who were in control of the rural economy and social structures also had the possibility of providing political leadership profiting from this situation of dependency. The major political parties depended on this elitist control to have the political support of the rural poor for their elections. The governments and the elites in regions strengthened each other and obtained privileges from their power. In fact this elitist structure was utilized even during the British rule when they recruited much of the rural elite into the British system of administration giving them positions of power. Both the UNP as well as the SLFP utilized this possibility in forming their party structures at national level. In the recent decades this system was consciously revived and strengthened further, since the policies adopted were no longer popular.

Farmer protests and resistances

The farmers and farmer organizations have not taken up these negative impacts without any protests. There were many instances when farmers put forward their demands in an organized manner. In the early decades after independence farmers could have a voice in the political decisions of the country mainly through the policy influences of political parties mainly during elections. Most social welfare measures were due to such influences. Almost all the concessions that small farmers obtained were due to such policy pressures. During this period in addition to such policy measures, farmers campaigned for drought and flood relief, better prices for their produce, etc.

Since the policies changed in support of foreign investments, farmer movements had their campaigns against the adverse effects of such policies. In the early 1980s when the government declared its policy of inviting foreign investors for agriculture and agro-based industries, farmer organizations raised a nationwide campaign against the policy of granting land to foreign investments. It was around a petition submitted to President Jayawardane for which about 60,000 signatures were collected. Another demand included in this petition was to regularize ownership of the land occupied by unauthorized settler farmers. When the government went ahead inviting foreign companies to initiate sugar plantations and to set up sugar factories, the farmer organizations of Monaragala district carried out a resistance campaign against these sugar multinationals for four years in a row, and succeeded in attaining the withdrawal of two of the three sugar companies that had plans to come in.

In the mid 1980s the government tried to introduce a water tax (tax on irrigation). There was a protest that succeeded in hav-

ing the governments give up this policy of taxing for irrigation. This tax was later named "maintenance and management charges." Though this policy of direct taxation on irrigation has been held down so far, now these charges are indirectly introduced in the form of membership fees from farmers under irrigation, in a scenario in which all farmers are expected to be members of farmer organizations once they obtain irrigation facilities. The World Bank and the IMF have been constantly pushing the government to undertake cost recovery from water taxes at all levels including those given to farmers.

In most places where it had been attempted to give large acreages of land to big commercial companies for industrial farming, the rural farmers who would have lost their land have protested and these struggles have prevented many of such companies from coming in. Among these struggles were the prominent struggles launched by the farmers movements in collaboration with other people's movements such as the struggle to protect the phosphate deposits in Eppawela.

In Eppawela, in the heart of the ancient irrigation systems in the North Central Province, a major deposit of rock phosphate was discovered in 1971. It was estimated that this deposit was sufficient for local fertile needs for at least 800 years. It was planned to hand over this deposit to a US mining company called Free Port Mc Moran (65%) and to a Japanese company named Tomen (15%) to be extracted within thirty years to produce higher grade fertilizers that were not so much used in Sri Lanka. The government was to be paid only 5% of the value of the raw rock phosphate. People resisted this for over four years and finally the courts reached a decision against the sale of this deposit. Now

the fertilizer is used to manufacture phosphor-compost used for local agriculture.

There were other instances of farmer resistance when a large foreign company was to come for pineapple planting in Bibile and Cashew plantations in Thanthirimale. In recent years there was a proposal to again invite big sugar companies for sugar cane planting in Uva Wellassa granting them 65,000 acres of land. The overall plan was to invite five other companies to other agricultural districts. There was a suspicion about a hidden agenda that this was a move to grow much sugar cane for manufacture of alcohol and subsequently for ethanol as fuel. This again raised much protest and the proposal seems to be at stand still at the moment.

The World Bank's strategy to acquire rural agricultural land

It may be due to these difficulties that the World Bank recommended a different strategy to make these lands available for commercial farming. In 1996, the World Bank presented its policy recommendations for the non-plantation sector in the form of a policy document titled "Non-Plantation Sector Policy Alternatives" (June 1995) authored by two World Bank experts, Robert Hunt and Douglas Lister. In this recommendation they said a free land market had to be created in the country. This was aimed to have those who had obtained government land grants to sell their land by removing the legal restrictions against marketing of this land. By 1996 there were 1.2 million families who had such land grants. It was estimated that when this was done many of these farmers (who were all very indebted and poor) would be able or indirectly compelled to sell their land and migrate into cities. This recommendation involved allowing farmers to sell

their water entitlements and also the removal of all assistance provided to small farmers to continue their agriculture activities and to produce domestic food.

Farmer movements have protested against these too and have prevented them to some degree.

Much of the involvement of Agribusiness TNCs in Sri Lanka is by becoming involved in controlling and directing the type of farming carried out by small farmers. The use of input dependent agriculture is very widespread and is promoted by the agriculture department, all agricultural education in universities, agriculture training institutes and also with a lot of propaganda and advertising. This has been the main form in which agribusinesses have made their money. The cost of agricultural inputs has been on the rise continuously. Some agribusinesses have a tremendous influence on the work of the agriculture department. Very often government agriculture officers have been utilized as promoters and distributors of chemical inputs and seeds from private companies. When fertilizer prices increased tremendously a few years ago, the government decided to grant a big subsidy on fertilizers to paddy farmers. Presently, the market price of chemical fertilizers is around Rs 6,000 to Rs 7,000 per bag of 50 kg. The government buys fertilizer at this price and distributes the same to all paddy farmers in the country at Rs 350 per bag. The government annually loses around Rs 80 billion on this fertilizer subsidy.

Similarly the seed market is largely controlled by private companies who sell expensive seeds to farmers. Generally seeds sold by the private sector are all hybrid seeds. Many vegetable and fruit seeds, and also maize seeds are F-1 variety whose harvest seeds farmers cannot use for the next season. Thus, the potential in the country for indigenous seeds is being fastly destroyed.

Genetically modified seeds are not yet widespread in Sri Lanka. This may be due to the fact that the small farmers of the type we have in Sri Lanka are too poor to be involved in such farming. This may be the intention of the World Bank whereas the government's policy of encouraging land accumulation and transforming the small farmer character of domestic agriculture may be to enable richer farmers to emerge, who would be able to fit into these types of modern technology.

The way out for farmers and for agriculture in Sri Lanka

The farmers and farmer organizations have begun to discover that ecological farming is one of the best ways to escape these traps. Home gardening is a very popular activity of all households. People plant whatever useful plants they can find on their small plots. This has been a general practice of most people who depend on the surroundings for most of their needs in food and medicinal plants, fertilizers, timber and fodder. This however, is not yet done by most farmers as a systematic income generating activity. It is generally done for household food and other needs. But, experiences have shown that this form of ecological home gardening can be a very effective way of transforming the small farming activities in Sri Lanka into a more profitable and beneficial form in many other respects.

Many farmer organizations and NGOs working with rural communities have begun to promote this type of ecological farming as a way of improving the food security and nutrition of small farmers. This has been found to be one of the best ways of helping farmer families to improve their situation with very little initial financial investment.

The common features of ecological agriculture are based on the main concern of utilizing nature's benefits to the maximum and of recovering the regenerative ability of nature. Therefore, the following aspects are of special concern:

1. Prevention of soil erosion by building ridges on sloping land or utilizing SALT (Sloping Agricultural Land Technology) systems and mulching, keeping the soil covered with organic matter.
2. Live fencing using the fences for growing useful plants such as gliricidia for fodder, fertilizer or energy and other food plants.
3. Mixed cropping instead of monocultures, growing trees and plants to different canopies to utilize the maximum absorption of sunlight.
4. Complete recycling of all organic matter and organic waste to improve the fertility of the top soil and maximize the microbial activity. Use of cow dung, cow urine and other animal waste improves soil fertility and microbial activity.
5. Enhancing microbial activity by avoiding the use of chemical inputs such as chemical fertilizers, pesticides and weedicides.
6. Mixed cropping is a way of reducing pest damages and of enhancing natural pest control.
7. Growing food diversity and other products such as medicinal plants, fodder, timber and fuel wood.

Home gardens are planned to maximize all these effects since they cut the costs of production by reducing external inputs. They make the best use of microbial activity and of earthworms,

etc., thus reducing the cost of labour for land preparation. They improve top soil and its ability to retain water so that drought losses are minimized. Healthy soil also gives healthy plants. The presence of sunlight throughout the year is a great advantage and so is eliminating the expenses on fertilizer.

Agroforestry is a technique used to improve the forest cover in places where it has been depleted due to deforestation. Some of these techniques are absolutely necessary in some places such as the hilly countryside where deforestation has created a massive problem of erosion and non-retention of water. The recovery of this is a necessity to prevent erosion which is one of the largest environmental problems in the country.

In a survey conducted by MONLAR in 2004 which was updated in 2008, it was found that there were around 532 organisations in the country that were engaged in introducing and promoting this form of small-scale ecological home gardening and agroforestry. This ecological/regenerative agriculture is being done in the case of paddy too and this is more applicable in the use of indigenous paddy seeds. The cost of production in such cases of indigenous paddy has been found to be half that of using hybrid varieties using external chemical inputs. This form of ecological/regenerative agriculture is applicable in all agroecological zones in Sri Lanka.

These organisations were located in the following districts:

District	***Number of organisations***
Ampara	23
Anuradhapura	19
Badulla	31

Gampaha	17
Galle	11
Hambantota	143
Kandy	23
Kurunegala	65
Matara	35
Matale	14
Monaragala	46
NuwaraEliya	24
Puttalam	06
Kegalle	43
Polonnaruwa	17
Ratnapura	10
Trincomalee	05
Total	532

The summary of activities in ecological agriculture conducted by these organizations is as follows:

No.	***Type of activity***	***No. of home gardens***
1.	No. of villages covered	2005
2	Ecological home gardens	49,522
3	Ecological gardens (commercial scale–one or more acres)	729
4	Nawa Kekulama system of ecological rice farming	319
5	System of Rice intensification (SRI System)	258

6	Integrated Pest Management (IPM) in rice farming	212
7	Integrated Pest Management (IPM) in other crops	228
9	Use of natural/organic fertilizer	39,625
9	Liquid fertilizers (natural)	19,852
10	Traditional farming practices	217
11	Traditional “Kem” systems	154
12	Soil conservation (stone ridges)	19,325
13	Soil conservation (earth ridges)	27,654
14	Use of indigenous seeds	32,836
15	Production of seeds	2,164
16	Mulching	25,443
17	Growing medicinal plants	40,772
18	Biodynamic agriculture	268
19	Live fencing	23,034
20	Animal husbandry	17,018
21	Plant nurseries	1,110
22	Model farms	37
23	Agroforests	3,772

This approach, applied in the hilly countryside, has enough potential of reducing floods and of reducing drought losses if applied also in dryer areas. Another very important advantage is the reduction of diseases caused by chemical farming due to pollution of water, soil, atmosphere and food. In recent years it has been found that the diseases caused by unhealthy food and unhealthy water has become very widespread. The very widespread kidney diseases in Rajarata (North Central Province) have been found to be caused by the presence of heavy metals in water due to the excessive use of chemical fertilizers. Other diseases such as diabetes, cancer, heart diseases, etc., have become more common too.

Finally the possibility of adopting these approaches in the rural development and poverty alleviation programmes of the government is very high. The programme "Api Wawamu Rata Nagamu" envisages building four million home gardens. This intends to have each of the families in the country build their own home gardens. Samurdhi Movement is a similar programme where this is quite possible. It involves 2.1 million families identified as the poorest families. The other programmes with a similar orientation such as "Gama Neguma" (Village reawakening), Gemi Diriya (courage of the village) a programme supported by the World Bank and so on, can easily adopt these. These programmes cover around 5,000 villages in each of the phases. The financial allocations made for these programmes as well as the number of agricultural instructors paid by the government are quite sufficient to do this, if the government has the political will.

Some results of such programmes conducted by voluntary organizations can be sighted. The New Era (New Environmental Resources Alliance) in Hambantota has achieved the following results in about five years in a dry area in Hambantota District (annexed).

ANNEX

Case study of one organisation. Hambantota New Era Project-result report 2008 (summary)

BIO-DIVERSITY CONSERVATION & ECOLOGICAL AGRICULTURE PROJECT

Description of Programme

1. Educating members of households of the chosen villages (by providing them with knowledge on the basics of current environmental problems, situations and suggestions to work on).
2. List out contacts of the persons who wish to join the programme.
3. A community-based organization is established with the participation of the members, out of whom animators are chosen to undertake work on behalf of each village on a voluntary basis.
4. The animators are empowered through further education.
5. Chosen member households are assessed for their prevalent standard of living through a research that also includes a field map of the home garden plot.

6. The field map contains a detailed sketch of the contour lines, the terraces, the state of soil erosion and also the already existing trees.

7. A model map of the projected development of the home garden plot is drawn according to the existing one.

8. The new model field plan for an ecological home-garden plot should include the detail and sketch of activities with regard to:

- Soil conservation.
- Waste management.
- Short-term vegetable cropping.
- Planting done on the agroforestry model.
- Erection of the live fence.
- Compost fertilizer production.
- Crop diversity.

9. Conducting similar mapping for each and every home garden plot.

10. A community action plan is drawn through consensus of the full participation of the member households in deciding future activities.

11. The activities of the project are worked out to an organized year plan with a set time frame for each scheduled activity.

12. The acceptance of this community work plan by the member households of the village acts as an agreement between the institution and the community.

13. Accordingly, each item of work is carried out with facilitation for training when necessary.

14. A progress review meeting is held at the end of the month with the chosen animators of each village, where the activities scheduled for the month are discussed to assess how they were achieved, the obstructions experienced and the solutions perceived.

Statistics

- No. of farmer families in the project: 1285
- No. of acres belonging to the farmer families: 1003
- Short-term vegetable crops:

Many kinds of short term vegetable crops are now grown in the many home gardens by the member families for their own consumption. Many of the crops are rain-fed and are timed accordingly.

There are some vegetable plots with short-term vegetable crops which are irrigated. Therefore, it is very difficult to put them down in statistics.

A statistical review of the activities of the project up to now

	Description	***2005***	***2006***	***2007***	***2008***
01	Organizations	08	10	23	23
02	Farmer families	260	453	975	985
03	Villages	08	17	31	32
04	Members	-	2,062	4,178	4,281
05	Ridges constructed (meters)	-	-	480,204	70,350
06	Organic bunds (meters)	-	-	286	700

07	Rain water conservation (SALT)	-	-	7,997	19,126
08	Live fencing (meters)	-	-	91,653	112,192
09	Mulching (Sq. meters)	-	-	6,787	12,579
10	Compost (kg)	-	-	32,319	67,119
11	Natural Liquid Fertilizer (Liters)	-	-	31,553	61,524
12	Families growing herbal plants	-	-	585	758
13	Families engaged in Bee-keeping	-	-	04	24
14	Families engaged in Poultry	-	-	09	24
15	Families raising cattle	-	05	27	37
16	Rural vegetable stalls	-	-	01	03
17	Animators/Volunteers	-	08	21	19
18	Area under Agroforestry (Acres)	-	275.22	429	480.79
19	Financial expenditure per/plot	Rs 13,800	Rs 7,060	Rs 5,330	Rs 5,070

- Activity 05–16 were completed to a certain extent in the year 2006. Exact numbers are not available.
- The financial per home-garden plot is the amount in rupees of the total budget of the project for a year divided by the total number of family units involved in the programme. This includes office expenses, salaries, plant nursery costs, and field visits, etc.

BIO-DIVERSITY CONSERVATION AND ECOLOGICAL AGRICULTURE PROJECT, Hambantota

Types of crops planted and yield

Crop type	*Total plants cultivated*	*Plants in an acre*	*Total area cultivated*	*Annual yield per acre*	*Annual yield for the total cultivated area*
01 Lime	5,260	500	10.52	10,000 kg	105,200 kg
02 Orange	2,849	250	11.4	Nos. 8,750	Nos. 783,750
03 Coconut	7,499	60	125	Nos. 3,000	Nos. 375,000
04 Pomegranate	3 ,817	500	7.6	Nos. 60,000	Nos. 456,000
05 Cashew	1,049	60	17.5	900 kg	15,750 kg
06 Jackfruit	2,373	50	47.5	Nos. 2,200	Nos. 104,500
07 Mango	3,493	40	87	Nos. 18,000	Nos. 1,566,000
08 Papaya	4,551	640	07	Nos. 22,400	Nos. 156,800
09 Banana	10,727	675	16	8,100 kg	129,600 kg
10 Bilin fruit	231	300	0.75	-	-
11 Spondias	1,425	70	20	20,000 kg	400,000 kg
12 Granadila	300	450	0.66	-	-
13 Ceylon Olive	41	60	0.68	-	-
14 Swan pea	564	-	-	-	-
15 Woodapple	846	60	14	6,000 kg	84,000 kg
16 Tamarind	347	40	8.7	2,500 kg	21,750 kg
17 Star fruit	36	300	0.12	-	-
18 Arecanut	487	-	-	-	-

19 Guava	3,728	110	34	Nos. 13,750	Nos. 467,500
20 Other	17,306	-	-	-	-
Total	66,929	-	-	-	-

Rural-urban relationship in Sri Lanka

In Sri Lanka the rural-urban relationship has been close since there is a good network of roads linking the rural areas to the urban areas island-wide. Many people living in rural areas travel to urban areas regularly for their employments and other needs. Marketing of rural agricultural produce in the cities is common and is presently handled largely by private traders.

Most of the rural agricultural products are sold in rural markets and purchasing of these products in the village markets is done by private traders visiting the rural areas at these rural markets to which villagers bring their produce.

In the earlier decades after independence the governments promoted cooperative societies that competed with traders in buying these products, and cooperative societies was a mechanism that enabled better trading arrangements for the benefit of both producers as well as consumers. However, with the weakening of the policy of supportive intervention in marketing the role of the cooperatives weakened too and the middlemen traders could adopt methods that were profitable to them but were disadvantageous both to producers as well as to consumers.

The role of government institutions to play an advantageous role for producers as well as for consumers weakened too.

So, while reviving the production of food and other agricultural needs by small farmers it is also necessary to provide them

with alternative arrangements for their marketing too by linking them more directly with the urban consumers through mechanisms such as cooperatives. There has to be a government policy of strengthening such arrangements, this should be further strengthened by assisting producer farmers to improve value addition through processing of products. In Sri Lanka where the rural producers are poor and weak, it is necessary for the government to intervene in supportive arrangements.

Although the governments have proposals of building express highways to improve connectivity, these policies intend to provide infrastructure improvement to big investors. This, as envisaged, would be done in a way that the small-scale farmers would be further weakened and pushed out allowing the big companies to push them out of their productive resources. This should be prevented. The overall policy should be one of protecting and strengthening the small-scale producers and also the weaker consumers by strengthening direct linkages between the rural producers with urban consumers, by eliminating the damaging role presently played by the middlemen traders.

Another important necessity is to improve some of the modern facilities that are attracting the rural people, particularly the youth to cities. These include modern information technology, communication, entertainment and sports etc. Improving the rural economy is a need to achieve these too.

The present policies seem to be irrational since while they try to remove the urban poor people from cities to make space for modernization and further commercialization, it also simultaneously tries to encourage or push the rural small holders to sell their land and move into cities. This migration however is not envisaged as a result of economic improvement but a result of

further destitution that would compel the rural small farmers to sell their land due to debt and increased poverty. This is bound to lead to a very dangerous situation where people would be compelled to rebel once more since they can not find proper space to fit into.

CONCLUSIONS

TOWARD A SUSTAINABLE PEASANT AGRICULTURE IN ASIA

François Houtart[1]

Based upon the analyses of various Asian countries, the conditions for an efficient peasant agriculture have been envisaged during the Beijing meeting at Renmin University. The first introductory question was to define what peasant agriculture meant in Asia, before going into the economic, social and cultural conditions and defining what kind of relations should exist between cities and rural areas.

1. What is peasant agriculture in Asia?

Various denominations are used: peasant, domestic, family, small-scale agriculture. All of them have in common the following characteristics: it is an agricultural activity based on small holders (1-2 ha), according to various legal statuses (individual property, contracts with the State or commune, collective property redistributed on a yearly base, cooperatives, etc.) The agricultural production and the animal husbandry are for their own subsistence or for the local market and not dependent on agribusiness firms. The production is diversified, mostly organic. It is inserted in historical social structures (when they still exist) and

1 (Belgium) A sociologist and professor emeritus of the Catholic University of Louvain, he is the vice-president of the World Forum for Alternatives (WFA).

forms a solid base for the defense of the rights of peasants (food security and sovereignty, decent work, etc.).

As explained before in the description of the situation of many Asian countries, this type of agriculture has suffered in Asia a systematic destruction. Agribusiness optimizing cash flow and cash profit has provoked a concentration of land, the expelling of small peasants from their original settlements, pushing them to migrate to cities or abroad, organizing slave work for the ones remaining or total submission of the small holders to national or international companies. These are oriented toward a small number of profitable products (among them lately for agrofuel) and the way they produce is destroying nature, families and communities. Big companies are controlling the markets. Fast and not planned urbanization and industrialization, and the extension of international tourism are diminishing the available land.

International financial organizations such as the World Bank and the IMF, as well as regional banks have promoted such a model: to reduce rural population, to impose the laws of the market as the sole criteria, and to promote cash crop for exportation. The Doha Round of the WTO liberalizing agricultural markets corresponds with the same logic. Many local governments are following the same philosophy and encourage companies, by tax exemptions and other incentives.

In China and Vietnam, the situation has been different, with land reforms based largely on peasant agriculture. However the reforms of the 1980s have pushed industrialization and urbanization and introduced a productivist logic through the market, absorbing an important number of peasants in the process. This has provoked the problem of internal migration, with all its social and cultural consequences. Peasant agriculture has not been de-

stroyed as in the other cases by agribusiness, which allowed the impact of the financial crisis to be met by a reverse flow of migrants toward the rural areas (at least 20 million in China). However the extensive use of chemical products has provoked grave environmental damages.

Peasant movements and organizations are resisting against the model of productivist agriculture and many initiatives of organic agriculture are taking place in the various countries of Asia. It is not a question of developing a romantic approach to peasant agriculture, nor to idealize the past. The problem is to develop a holistic approach to the question, trying to envisage all the aspects of reality: an effective agricultural production, a sound social environment, protection of natural environment and cultural achievement.

2. Economic conditions

In order to be sustainable, peasant agriculture must be productive. It has been established that in the middle and long terms it is more productive than the monoculture type of agriculture, when considering ecological destruction. The 2008 Report of the IAASTD (International Assessment of Agricultural Knowledge, Science and Technology for Development) has showed it clearly.

A first requisite is a land reform. Of course this is much more than land distribution: it means a new social and economic construction. Of course circumstances and motivations may be very different. In South Korea and Taiwan, it took place under a capitalist perspective of producing cheap labor for the rapid increasing industry. In other countries it has been to abolish a system of landlords, and in others the motivations were mixed. It is, of course, the responsibility of the State.

Land reform has to create security of the land tenure for the peasants and the State today should protect them against land-grabbing. The lack of land reform has provoked a dramatic situation for the youth, like the various youth uprisings and massacres in Sri Lanka, in the last forty years.

The historical context is important for the realization of land reforms. It will succeed more easily if there is a link with traditional structures. So in North Vietnam the collective organization of agricultural production after land reform has been built on the traditional village structure (lang). This allowed people's participation in the process.

Once that land reform has been achieved, the development of adequate infrastructures is the next step: irrigation systems, electricity, access to credit, collective institutions, like schools, health (with also the use of traditional medicine, herbs and plants), public libraries, training centers (today for computer's use), transportation, access to on-line information, etc.

Diversity of economic activities in the village is also necessary to absorb surplus labor and to promote social life. Local commerce and local workshops or small industries for furniture, carpentry, etc. can be envisaged for so far they have proved they can compete with bigger industries. The same applies to production of biogas for local energy and natural fertilizers and also agro and solar energy. Exchanges between villages will also be the result of such orientation, even using local currency for this purpose.

The organization of the economic activities on the base of co-operatives, under various forms, has proved to be effective. It can be the basis for exchanges with urban cooperatives. As a general orientation, solidarity is the main value to organize economy and

not competition. Internal solidarity may help also to combat any form of local occasional poverty.

A permanent exchange between Governmental policies and local decision's power is necessary. Governments have to regulate the main food markets in order to assure basic income to the peasants, as well as access to food for the most vulnerable sections of the population.

3. Social conditions

Social functions of peasant agriculture are numerous: food security and sovereignty, sustainable economic and social development, people's participation, protection of nature, ecotourism, security, family protection, and relations with urban migrants. Their possible realization is a condition of efficiency for the whole system.

Local democracy should be assured by some form of village council and of collective organization of economic activities: cooperatives, micro-credit, etc. The role of women will be guarantied by women's organizations and equal representations in the various bodies of collective organization: cooperatives, school boards, etc.

4. Cultural conditions

Rural societies have been often considered as backward and conservative by "progressive" thinking and groups. Present youth see such social environment as boring and lacking opportunities. New ideas are not accepted and for them life in farms is not attractive. They see the cities as the expression of modernity, consumption possibilities, cultural opportunities and as the

place of building a future. An increase in education is encouraging such a vision.

To a great extent, this is the reality, because of the lack of positive economic, social and cultural conditions in the rural areas. However it is also the result of a certain vision of modernity, linked with what some are calling "the American model" and which has been the result of the central role given to market economy. Such a vision has ignored the "externalities" of the development model, i.e., the ecological and social damages, which are external to the capitalist (private or State) market logic, but which have brought humankind to a fundamental crisis.

A change of mentality is necessary in order to express new values: a symbiosis with nature and human solidarity is the base for the survival both of the planet and human beings. Renewal of rural life and of peasant agriculture may play a role in this direction.

It has been experimented in many countries of Asia, that ecological farming is very creative: high yield, less consumption of resources, good for the health, not based primarily on profit, and a source of pride. The exchange of experiences is wide rich. A process of education by farmers themselves has been initiated. All this means a new philosophical approach to agriculture, seen first of all as a survival activity of human beings and conditioned by the renewal of rural society, diversified and equipped with modern facilities. Approaches of the great philosophies and of religions may contribute to such development.

Collective cultural activities, also based on traditional festivals may help to create a new climate: festivals commemorating the relation with nature, cultural competitions, songs, dances between villages for the celebration of natural products, etc.

Outside actors are also requested, hence the role of the academy for ecological, economic, social, political, cultural research and interdisciplinary reflection. Intellectuals of rural origin are particularly useful. Specific institutions busy with rural and agricultural questions are also useful (defense of nature, ecological promotion, people's science movements, etc.).

To create, inside and outside, the conditions for a revival of peasant's agriculture is a fundamental task for the future. The analyses presented in this volume have shown the urgent necessity of challenging the orientations of a productivist agriculture provoking enormous ecological and social damages. The experiences mentioned of various forms of organic and peasant's agriculture are proving, not only that it is feasible, but that it means a solution for feeding the next generations and putting an end to the desertification of the planet.

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