

FOOD SECURITY: A CHALLENGE FOR THE FUTURE

Reshmi Banerjee

Post-Doctoral Research Fellow,
Department of International Relations, University of Indonesia
Email: reshmi@chakraborty@yahoo.in

ABSTRACT

This article looks at food security in India and Indonesia by looking at the three parameters of food security: availability, accessibility, and absorption of food. It will also be examining the Indonesian agrarian scene and looking at the similarities in the problems of the two countries. Finally, the article makes recommendations based on the above parameters that can be useful and relevant for India and Indonesia in the future.

Keywords: Food availability, Food accessibility, Food absorption, Sustainable rural development

JEL classification: Q010, Q180

I. INTRODUCTION

Food is a nutritional, economic, and political commodity, and because it is so essential for human survival, it is also a source of power. Food is a powerful resource that can be used to influence, manipulate or enforce one's will on others. Those who have less than adequate food and are vulnerable, become easy targets of control and domination by those who control the supply of food. For the poor and the needy, food is, however, an end in itself. Jos Mooij comments that 'this characterizes the fundamental inequality: the means of some are the ends of others. Food distribution affects the distribution of calories, of economic benefits, and of power' (Mooij,

1999: 37–38). Their daily lives are spent ensuring there are meals for their families. One of the most important entitlements that any person needs is food, which, along with water, is the foundation for our survival. The right to food is paramount and it is at the heart of the FAO's mandate to ensure a world free from hunger.

At the World Food Summit in 1996, 186 countries including India signed a declaration making a commitment to ensure food security for all. Food security was defined as 'physical and economic access, at all times, to sufficient, safe, and nutritious food (for people) to meet their dietary needs and food preferences for an active and healthy life (Swaminathan, 2003). Food

availability is an integral part of the food security chain and is a function of grain food production and imports and exports. Domestic production is the main source of food in an agrarian economy and imports are used to ensure that food prices do not rise if domestic food production falls short of requirements. Also ecology must be taken into account because it affects long-term food availability. Production of surplus food will not ensure the total eradication of malnutrition. Food production has to be complemented by the generation of sufficient employment opportunities so that all households have the purchasing power to ensure that they have food enough for their needs. Thus livelihood security or employment security is an essential element of a comprehensive strategy for food security.

In the Food insecurity atlas of rural India, it is stated that food availability by itself does not ensure that everyone gets enough though adequate food availability is necessary for food accessibility. If people can gain a livelihood, they would have access to food and nutrition (World Food Programme, 2001: 5). The study of agriculture thus becomes essential, especially in examining food security because agriculture not only provides food for the people, but also employs or provides a livelihood for most of the population. This is especially true in agrarian countries like India and Indonesia. The performance of agri-

culture is crucial for food availability and accessibility.

The third parameter of food security is food absorption, which means being able to assimilate the food consumed to enjoy a healthy life. The assimilation of food or absorption of food into the body is the final step in achieving food security for a healthy and long life. Food absorption depends upon the state of health of the individual, environmental sanitation, hygiene and safe drinking water, balanced diet, knowledge of nutrition and good dietary practices (World Food Programme, 2001: 73). The better the condition of these human development parameters or indicators, the better the chances of food security are because food and nutritional security are nothing, but human security in the long run. Rural economic growth and rural development policies are intrinsically linked to food security and poverty alleviation.

There are various schemes that can improve food security—most of which also improve the lives of rural people, like poverty alleviating and employment generating programmes, rural infrastructure programmes, and schemes for rejuvenating natural resources. Finally, there is the need for efficiency in governance. Good governance, decentralised systems of policy making and implementation, efforts of grassroots democratic institutions and coordination between the local, provincial or state and central govern-

ment ultimately helps in attaining the goal of food security for the nation. The political commitment and will of the state and the government, along with the consciousness of the people concerned, can make all the difference.

This article looks at food security in India and Indonesia by examining the three parameters of food security. It will also be examining the Indonesian agrarian scene and looking at the similarities in the problems of the two countries in terms of food availability, food accessibility, and food absorption. Finally, the article makes recommendations based on these three parameters, which can be useful and relevant for India and Indonesia in the future.

II. FOOD SECURITY IN INDIA

In India, agriculture is not merely an occupation, but a way of life and the foundation of an age-old civilisation. Mahatma Gandhi said, 'Agriculture is the soul of India and is the most crucial sector of the economy for it provides food security, generates employment, helps to alleviate poverty and is a major contributor to country's export (Mohanty, 2002: 68). The Nehruvian era gave a lot of importance to agrarian reforms and community development projects at the village level. Five Year Plans were launched after independence along with land reforms, tenancy reforms, and emphasis on Panchayati Raj institutions (PRI), which are the democratic, grassroots

institutions at the village level. The Green Revolution in 1966 made India self-sufficient in food, increased productivity and production rates as well as increasing the incomes of the farmers. The 1970s saw the agrarian issues being thrown into the national arena for the first time and the 1980s witnessed a new agrarianism which was accompanied by changes in cropping practices.

Everything changed in the 1990s. In 1991, India launched the economic liberalisation programme, which resulted in a decline in public investment in agriculture because budget deficits had to be reduced. Also, in 1994, the signing of the Agreement on Agriculture (AOA) of GATT made India a party to the World Trade Organization (WTO) negotiations in agriculture that, in the long run, were not really beneficial for India. The clauses of the AOA, especially those to do with market access, domestic support, and export subsidies, created conflicts of interest between the developed and the developing nations. The removal of quantitative restrictions exposed Indian farmers to unfair trade and to global recessionary trends. The decision to shift from growing food crops to cash crops in the early 1990s also did not serve the interests of farmers well because prices crashed at the end of 1990s and left many of them bankrupt and in debt—many committed suicide.

2.1 Food Availability in India

Triggered by a fall in the production of wheat and rice, the total food grain production declined from 212.9 million tonnes to 204.6 million tonnes between 2001–2002 and 2004–2005 (Government of India, 2006a: 157). Yields also declined during the same period. There was an exhaustion of technological resources. The decline in the rate of food grain production was sharper than that of other grains. The availability of cereals declined and the per capita availability of food grains also declined from 179.7 kg per year in 2002 to 159.2 kg per year in the year 2003 (Government of India, 2004: 140). Indian food grain production and food availability has also always been affected by the unpredictability of the monsoons, which are a lifeline for Indian agriculture.

For three years, 2005–06 to 2007–08, food grain production recorded an average annual increase of over 10 million tonnes. The production of food grains in 2008–09 was estimated to be 229.85 million tonnes, which was, however, lower than the target of 233 million tonnes set for that year. The overall production of cereals in 2008–09 declined by 0.2 per cent over 2007–08 and there was a shortfall of 0.8 per cent in the target for the year (Government of India, 2009: 172).

Meanwhile in 2001, the M. S. Swaminathan Research Foundation and the UN's World Food Programme produced food insecurity atlas of rural

India. This important publication reveals that every state in the country has its own strengths and weaknesses in relation to the five major dimensions considered in the analyses. These are the availability of food, access to food, absorption of food, vulnerability to transient hunger which is related to natural and man-made calamities and disasters, and sustainability of production which is influenced by the extent of attention to the ecological foundations essential for advances in production. The Atlas makes clear that non-food factors like livelihood and income-earning opportunities, health-care facilities, education, sanitation and environmental hygiene, are important for food security for everyone (Swaminathan, 1992: 109).

The Atlas of the sustainability of food security in India was released at the National Food Security Summit on 5 February 2004. The Atlas has a 'sustainable food security compact', a nine-point action plan for every state and union territory. The action plan points to population stabilisation, land resources conservation and improvement, ensuring water security systems, conserving and restoring forests with community participation, strengthening biodiversity, managing common property resources, intensifying crop and animal production in a sustainable way, and forming a coalition for sustainable food security in every state (MSSRF, 2004: 28–32). The emphasis that the Atlas puts on ecology reiterates the

attention and importance that one needs to give to ecology and ecological problems. India has been suffering from various problems; water-logged agricultural land, soil salinity, micro-nutrient deficiencies, excessive ground-water exploitation, deforestation and soil erosion. According to the Food insecurity atlas of rural India, some of the reasons for the overexploitation of ground water are the availability of cheap electricity for agriculture and lack of other sources of water for households and industries—but water management has been poor in India (World Food Programme, 2001: 18). For the preceding reasons, ecology matters for future and sustainable food availability.

2.2 Food Accessibility in India

When one examines food accessibility, one needs to look at poverty and employment statistics along with the opportunities provided by land and the non-farm sector. Poverty figures have always been open to debate and discussion. There is one group that believes that poverty declined between 1993–94 and 1999–2000, but there is

another that believes that poverty is much greater than the official figures. Rural poverty in 1999–2000 was 27 per cent and urban poverty 23.6 per cent compared with the 37.3 per cent and 32.4 per cent in rural and urban areas respectively during 1993–94. According to 2004–2005 government statistics, the all-India poverty rate is 21.8 per cent (rural poverty is 21.8 per cent and urban poverty is 21.7 per cent as presented in Table 1) (Government of India, 2005a: 247).

Some states like Bihar and Uttar Pradesh still suffer from high rates of poverty whereas Kerala, Maharashtra, Gujarat, are better off. As far as employment is concerned, rural employment grew very slowly; 0.5 per cent each year between 1993–94 and 1999–2000. High rates of poverty and low rates of rural employment are definite hindrances in creating ideal food accessibility because they adversely affect the purchasing power of the vast Indian rural masses. Also the public distribution system (PDS) has had various problems; the inability to reach the poor effectively, a bias in favour of the rich and urban dwellers, storage

Table 1. The Mid-term Appraisal of the Tenth Five Year plan on Poverty Reduction in India (%)

Year	Rural Poverty	Urban Poverty
1993–1994	37.3	32.4
1999–2000	27.0	23.6
2004–2005	21.8	21.7

Source: Government of India, 2005a: 247

losses, lack of transparency in selecting beneficiaries, lack of political commitment and administrative cynicism.

As far as employment is concerned, it is projected that 58 million jobs will be created in the current Five Year Plan (the 11th). This would be greater than the projected increase in the labour force and would lead to a reduction in the unemployment rate to below 5 per cent by the last year of the plan. It is expected that the agricultural sector might not contribute to an increase in employment during the life of this plan. Hence, the employment generation strategy of the eleventh Five Year Plan is based on the reduction of underemployment and movement of surplus labour in the agricultural sector to higher wage and more gainful employment in other sectors. Emphasis has been given to skill development and the thrust will be on creating a pool of skilled personnel in appropriate numbers. Such an effort is considered necessary to support the increased employment envisaged as a result of inclusive growth including, in particular, the shift of surplus labour from agriculture to other parts of the economy (Government of India, 2009: 264–266).

The institutional structure for coordinated action for skill development involves the Prime Minister's Council on Skill Development for policy direction to be supported by the National Skill Development Coordination Board (NSDCB) chaired

by the Deputy Chairman of the Planning Commission. To promote private sector initiatives for skill development, an institutional arrangement in the form of a non-profit corporation called the National Skill Development Corporation (NSDC) has been set up in the Ministry of Finance. The institutional framework has been put in place and the state governments are being encouraged to set up similar, state-level coordination bodies for skill development (Government of India, 2009: 266).

Land and the non-farm sector are normally regarded in India as the two avenues to decent employment. The living standards of the poor in rural India depend on their access to land or employment, which is their principal sources of income and the accessibility of food depends on the purchasing power of this income. The percentage of cultivators has declined from 71.9 per cent in 1951 to 54.4 per cent in 2001. At the same time, agricultural labourers have increased from 28.1 per cent in 1951 to 45.6 per cent in 2001 (Government of India, 2004: 6). Many agricultural labourers, who are very poor, tend to shift to the non-farm sector.

The non-farm sector and its growth is important from the employment point of view. Chadha (2002) points out that the prospects for non-farm sector growth critically depend on the performance of the agricultural sector. The increase in farm incomes

stimulates demand for a wide variety of consumer goods, which might be produced by the non-farm sector. Also a growing agricultural sector requires inputs that might be produced by local non-farm enterprises (Chadha, 2002: 245). Chadha further points out that the army of self-employed non-agricultural workers cannot grow beyond specified limits, therefore, greater reliance on wage paid jobs would be inevitable in any future scheme of non-farm expansion and thus education is a crucial input for employment planning in India (Chadha, 1997: 209).

Land and the non-farm sector have suffered as a result of increasing globalisation. The non-farm sector has faced stiff competition from imported goods whereas landlessness has increased. Many cultivators have moved to the non-farm sector to increase their incomes and the younger generation has moved out of farming because they do not find farming attractive any more. The number of landless labourers has increased and this group happens to be the poorest and the most vulnerable to any future food shortage.

The sharp cutback in the government's development expenditure in 1990s, especially in the rural areas, along with trade liberalisation that entailed the removal of quantitative restrictions for foreign goods entering Indian markets, has placed the vulnerable small and marginal farmers at the receiving end of unfair and inequitable

trade practices. Developed countries provide much higher subsidies to their farmers than that of Indian farmers receive from the Indian Government, and the developed countries have restricted access for Indian products entering their markets. This discrimination affects the farmers in a negative way. Moreover, the lack of reasonably priced inputs, credit, marketing, and information systems has placed the small and marginal farmers in India in the hands of intermediaries who exploit them and take away the profits.

2.3 Food Absorption in India

Finally, the food absorption parameter in India is also affected by and is dependent on the prevalence of high rates of malnutrition, anaemia, vitamin A deficiency, and the like (World Food Programme, 2001: 73). The infant mortality rate, maternal mortality rate, and under-5 mortality rate continue to be exceptionally high even today. A person's nutritional condition has a bearing on the efficiency and productivity of their labour and hence their wages and incomes, too. Sanitation is very poor and providing safe drinking water is a must. The fiscal crisis, along with the privatisation of the health facilities, has made it difficult for the poor to get health care. In the words of Amartya Sen and Jean Dreze, 'the capability to be nourished depends crucially on other characteristics of a person that are influenced by such non-food factors as medical atten-

tion, health services, basic education, sanitary arrangements, provision of clean water, eradication of infectious diseases, and so on (Shariff, Ghosh, and Sharma, 2004: 26). Mere improvement in the economic status might not result in an improvement in nutrition. It is important to identify all the factors of malnutrition and rectify them, which can take a lot of planning, programme implementation and time.

In India, nutritional poverty has declined at a lower pace than the official poverty. The headcount ratio in 1999–2000 of nutritional poverty was 38.8 per cent in the rural population, and 27.5 per cent in the urban population (in contrast with the official poverty ratios of 21.1 per cent and 23.6 per cent in rural and urban populations respectively for the same period). Between 1993–1994 and 1999–2000, the decline in nutritional poverty has been approximately 6 percentage points as against the 10 percentage points decline in official poverty (Government of India, 2005: 27–28).

However, the incidence of hunger, estimated from the National Sample Survey data for 2004–05 in terms of households having inadequate food, is seen to be affecting 1.9 per cent of households nationally. It is also concentrated in such states as West Bengal, Orissa, and Assam in the eastern part of India, though again in a small way. Although poverty rates have declined significantly, malnutrition has remained

stubbornly high. Malnutrition, measured by the percentage of underweight children below the age of three years, has remained much higher according to the National Family Health Survey 2005–06 and stands at 45.9 per cent. It has not declined much from 47 per cent in 1998–99 (Government of India, 2009: 262). Malnutrition cannot be entirely explained by poverty though it is an important determinant. Although the ability to access food depends on household income and is addressed by various governmental programmes, there are other factors which are equally important, are but ignored.

Household and family knowledge and information about locally available food is useful from the nutrition perspective. This knowledge is traditional knowledge and is supplemented by literacy coupled with the availability of appropriate reading material on nutrition, and by communication media such as newspapers, radio, and television (Government of India, 2009: 263). The Indian Government has launched various schemes for tackling food security and many are running quite successfully. It is trying to improve the conditions for farmers as producers as well as for consumers. Rural landless labourers, marginal and small farmers, rural women, the urban poor, small-scale rural businesses and enterprises are receiving the benefits of these programmes.

III. GOVERNMENT POLICIES TOWARDS FOOD SECURITY

The Government of India adopted the National Policy for Farmers in 2007 and the major policy provisions include asset reforms, water-use efficiency, use of technology, inputs and services like soil health, good quality seeds, disease-free planting material, credit insurance, and many more. Provision has also been made for the National Agricultural Biosecurity System. Agricultural research should collaborate with farmer's groups—each group representing an area so that the programmes can be chalked out depending on the inputs from the farmers. For improving food availability, the National Food Security Mission (NFSM) and the Rashtriya Krishi Vikas Yojana are being implemented. The National Food Security Mission is being implemented in 312 districts of 17 states of the country. The NFSM-Rice includes interventions such as demonstrations of improved practices, systems for intensive rice cultivation, promotion of hybrid rice production and distribution, distribution of seed of high-yielding varieties, seed minikits, multicrop planters, farmers' field schools, and mass media campaigns. The NFSM-Wheat is also being implemented. Under the Rashtriya Krishi Vikas Yojana (RKVY), the following broad activities have been identified for focused attention: agriculture mechanisation, soil health and

productivity, development of rain-fed farming systems, integrated development of food crops including coarse cereals, minor millets and pulses, market infrastructure and more (Government of India, 2009: 181–182).

Moreover, in recent years the Indian Government has taken notable steps to improve credit facilities. The Farm Credit Package announced in June 2004 was to double the flow of institutional credit for agriculture in the following three years. Kisan credit card schemes have been implemented and the government also announced in the Union Budget for 2008–2009, agricultural-debt waivers and debt relief for farmers. About 808 lakh kisan credit cards have been issued to 28 February 2009.¹ This scheme was introduced in August 1998 to provide adequate and prompt credit support from the banking system to the farmers for their cultivation needs, including purchases of all inputs flexibly and cost effectively. Agriculture clinics, agriculture business centres and kisan (agricultural worker) call centres have been launched to provide adequate agricultural information to the farmers. Agriculture clinics and the Agriculture Business Centres Scheme were launched in April 2002. The scheme encourages unemployed agriculture graduates to set up agriculture clinics and business centres that supplement the public extension systems and serve as supplementary sources of input

¹ A lakh is an amount of 100,000.

supply and services to needy farmers. The Kisan Call Centres scheme was launched on 21 January 2004 to provide agricultural information to the farming community through a toll-free, countrywide phone number and over 32.7 lakh calls were received up to March 2009 by the 25 call centres. The Kisan Knowledge Management System (KKMS) is being developed to provide information promptly to the call centre agents for their replies to farmers' queries. The responsibility of updating and validating the KKMS at regular intervals would be the state agricultural universities (Government of India, 2009: 188–191).

Programmes like the Accelerated Irrigation Benefit Programme, National Horticulture Mission, Livestock Insurance Scheme, and the Seed Village Programme have all been undertaken to improve production and productivity in India. The Accelerated Irrigation Benefit Programme was initiated in 1996–97 for extending assistance for the completion of irrigation schemes and in 2008–09 INR2791 crore was released for major and medium irrigation schemes.² Also during 2008–09, under the Seed Village Programme, more than 25,000 seed villages were organised across the country (Government of India, 2009: 177). The National Horticulture Mission, which was launched with effect from 2005–06, aims at bringing about a holistic development of the horticulture sector

and at increasing horticulture production through area-based, regionally differentiated strategies to improve nutritional security and income support to farm households, to establish convergence and synergy among ongoing programmes for horticulture and to develop, promote, and disseminate technologies (Government of India, 2009: 183).

Because most of the farms are small and their owners on marginal incomes, the need to improve the productivity of these farms is a must. As Swaminathan (2005: 3) says, 'increasing the productivity and profitability of small farms in an ecologically sustainable manner is the single most effective step for reducing poverty and hunger in our country'. More money needs to be pumped in to improve or to upgrade technology and for agricultural research. A knowledge revolution is needed for the farming men and women—which would combine education on sustainable agrarian practices and technology and throwing options to the farmers to invent their own ideas for agricultural transformation to increase incomes, reduce poverty, and help in the movement from farm to non-farm sectors.

Subsidies and minimum support prices for the farmers need to be provided, but they should be rationalised, keeping in mind the rise in input costs and production costs respectively. Ecology also needs to be protected, for which the Government

² A crore is an amount of 10,000,000.

of India has implemented many programmes: the Drought Prone Areas Programme, Desert Development Programme, and the Integrated Wastelands Development Programme. All these programmes have two basic aims: controlling the adverse effects of drought and desertification on the production of crops and livestock and restoring the ecological balance by harnessing, conserving, and developing natural resources: land, water, and vegetation cover and thereby raising land productivity.

Poverty can be reduced with better rural employment strategies and programmes. These programmes need to be implemented with people's participation and not imposed in a bureaucratic manner. The National Employment Guarantee Scheme has created quite some excitement in the rural areas because it is to give not less than 100 days of guaranteed employment to people in the rural areas who are willing to do unskilled manual work. The work programmes are to address the causes of chronic poverty like drought, deforestation and soil erosion. This programme involves the grassroots institutions and work is to be provided within five kilometres of a community along with an unemployment allowance if work is not provided within 15 days.

The scheme has now been extended to all districts of the country and more than four crore households were provided employment in 2008–

09. An allocation of INR30,100 crore was made in the government's interim budget for 2009–10. Along with this scheme, there are other rural development schemes like the Swarnajayanti Gram Swarozgar Yojana for self-employment, Pradhan Mantri Gram Sadak Yojana for rural roads, Bharat Nirman for building rural infrastructure, Total Sanitation Programme, Sarva Shiksha Abhiyan for education, and the National Rural Health Mission for rural health.

The Swarnajayanti Gram Swarozgar Yojana is the only self-employment programme for the rural poor and the objective is to assist the swarozgaris (self-employed person) and lift them above the poverty line by providing them with income-generating assets through bank credit and government subsidies. Up to March 2009, 34 lakh self-help groups had been formed and 120.89 lakh swarozgaris had been assisted. The Pradhan Mantri Gram Sadak Yojana scheme, launched in 2000, is a nationwide plan in India to provide good all-weather road connectivity to unconnected villages in rural areas, and the Bharat Nirman programme (launched in 2005–06) was aimed at building infrastructure and basic amenities in rural areas, such as rural housing, irrigation potential, drinking water, roads, electrification, and rural telephone services. The Total Sanitation Campaign is one of the important programmes of the government and it has been sanctioned in

593 rural districts of the country at a total outlay of INR17,885 crore. Because of the efforts of the government in this regard, there has been a tremendous increase in the availability of sanitation services (lavatories) to rural households. The sanitation coverage among rural households has increased from 21.9 per cent in 2001 to 27.3 per cent in 2004 and has more than doubled since then to 63.91 per cent (of 2001 census households) at 20 May 2009 (Government of India, 2009: 268–270).

The National Rural Health Mission (NRHM) was launched in 2005 to provide accessible, affordable, and good quality health services to the poorest households in the remotest rural areas, and has been operated throughout the country with special focus on 18 states. It is to bridge the gap in rural health-care services by creating a cadre of Accredited Social Health Activists and by improving hospital care, decentralising programmes to district level to improve intra and inter-sectoral convergence and effective use of resources. The expected outcomes of the mission include reducing infant mortality rates to below 30 per 1000 live births and maternal mortality rates to below 100 per 100,000 live births (Government of India, 2009: 273).

One needs to place food security in the framework or context of rural development and rural-oriented economic growth. Rural development

will help in providing secure livelihoods, which is crucial for achieving food security for India. A developing country like India with agriculture as its backbone has necessarily to include rural development as a part of its strategy of economic development. Food security can be ensured when the efforts of the central government, the state, and the local governments are in accord. Vyas comments that ‘ensuring nutritional security requires that three institutions—the state, the market, and civil society, each recognizes its role and responsibility in warding off hunger and ensuring food security (Vyas, 2000: 4402). Also the panchayats, popularly known as the PRI (the democratic grassroots village institutions), the cooperatives and the NGOs must coordinate their activities and help implement these policies systematically.

More administrative and financial powers should be devolved to the PRIs and they should, along with the NGOs, continue to monitor the working of the public distribution system and the poverty-alleviating and employment-generating schemes, to help in improving the working of the health systems, assure safe drinking water and sanitation facilities, create awareness of nutrition, promote primary education and other community improvements. Banks that are co-operatives should get priority in future, and farmers’ associations and similar organisations should be encouraged.

Nira Ramachandran comments that 'a sustainable livelihood approach to food security is necessarily people-centred and must begin with an investigation of the assets which people have, the objectives that they hope to achieve and the livelihood strategies that they adopt to achieve them (Ramachandran, 2001: 208). The Right to Food Campaign and the Right to Information Act have generated not only awareness and deeper, meaningful consciousness for the Indian people, but also fruitful participation. This has to continue.

India also released its National Action Plan on Climate Change on 30 June 2008 to outline its strategy to meet the challenge of climate change. India also needs to encourage land reforms, the amalgamation of numerous similar schemes to avoid duplication and ensure that sustainable agrarian practices are enabled. Finally, the Indian Government needs to protect its national interests when it comes to World Trade Organization negotiations vis-à-vis agriculture. India has observed that developing countries should be allowed to maintain tariffs (to protect the interests of the Indian farmers and their products) commensurate with their development and trade needs. Thamarajakshi (2002: 24) states that 'the situation in developing countries with the bulk of the population in agriculture having low incomes requires not a purely market oriented approach, but a market plus approach

to take care of employment generation and food security for the poor'. India, along with other like-minded Third World nations, should assert its sovereign right to protect farming and the rural communities that depend on agriculture for their very survival.

IV. COMPARATIVE ANALYSIS OF INDIA AND INDONESIA

Indonesia, like India, wants to ensure food availability for its citizens and for that it requires to achieve a sustainable food production. Like the Indians, Indonesians also depend heavily on the agricultural sector for their livelihood and their agriculture is also similar to the Indians in terms of the majority of the farms being less than 0.5 hectares in size. Also in both the countries, the poorest in the rural areas happen to be agricultural labourers. Women tend to be more disadvantaged in both the countries, not only because of their gender, but also because they have to attend to both household and agricultural work. They are often not part of and decision making process.

The remote eastern islands of Indonesia happen to be also the poorest areas and poverty is caused in these areas because of isolation as well as by unsustainable livelihood systems. In many provinces of eastern Indonesia, farmers are not able to achieve self sufficiency in terms of food and they survive by harvesting on a single crop on dry land. Many of them live in

such remote upland areas that these areas are not easily accessible and can be reached only by foot, or by a small boat or a small plane. Even the people in the coastal areas are disadvantaged as these coastal areas suffer from major environmental problems (International Fund for Agricultural Development, 2007).

Before 1997, Indonesia had achieved food security through a combination of market and non-market interventions. The effort to achieve food security included a rice self sufficiency oriented agricultural development effort, stabilisation of rice price, investment in rural infrastructure, human resource development, labour intensive industrialisation, and the creation of small holder food crop technology. Dillon (1999: 1) comments that the per capita food availability went from 2000 calories per day in 1960 to around 2700 calories per day in the early 1990s and there was a dramatic decline of poor households from 44 per cent in 1970s to 11 per cent in 1996.

Up to the mid-1990s, the agricultural sector absorbed more than 50 per cent of the Indonesian labour population. This number increased enormously in 1997 when Indonesia was hit by the acute financial crisis and the worst affected were rural people. At the same time, like India, Indonesia tried to compete in the international arena by lobbying international trade organisations, including GATT, to libe-

ralise trade in agricultural products. It agreed to introduce tariff reductions and gradually link all agricultural products to GATT. However, it retained high tariffs on rice, meat, several kinds of fruits and vegetables, tea, sugar, and some other items. The Indonesian Government rightly insists on its demands for special and differential treatment and the need to address 'non-trade concerns', for example food security, poverty alleviation, and rural development among others (Hidayat, 2010).

As far as tariffs are concerned, Indonesia has committed to either bind tariffs on agricultural items, or to bind at a ceiling rate. In the case of two products, dairy items and cloves, tariffs are to be bound by tariffication (that is, the price gap between domestic and foreign products will be charged as a tariff). Tariffs are to be bound at ceiling rates for the following products: rice, meat, some fruits and vegetables, tea, coffee, spices, sugar, alcoholic beverages and cigarettes. Moreover, Indonesia has committed itself to reduce the tariffication level on all agricultural items, including those subject to tariffication, by an overall 24% over a 10 year period. Indonesia has used the Special Safeguard Mechanism for milk and cream, buttermilk, milk fat, and cloves. The effort to reduce export subsidies were undertaken for rice only as no other commodity is listed as benefiting from export support (Suryana and Erwidodo, 2010).

Indonesia's challenge is now not only to increase food production and its availability to all its people, but also to meet concerns about food safety, nutrition, and the environmental effects of its agricultural production. Rice and other farmers are mostly from poor households in rural areas and are highly sensitive to price changes. The global food–fuel crisis in 2007–08, which pushed rice prices to over USD1000 a metric ton (tonne) and oil prices to over USD150 a barrel, affected some Asian countries that are dependent on food imports. However, the food self-sufficiency policy and the favourable climatic conditions brought about a good harvest in 2007 and in 2008 with predicted increases of 4.96 per cent and 5.46 per cent respectively, which amounted to 32.4 and 34.1 million tonnes of rice and was sufficient to meet domestic demand for food. Never theless, Indonesia still had to cope with the overall price increase of 10 to 14 per cent for consumption goods, which was caused by the increase in fuel prices by 28 per cent in the first quarter of 2008 (Apriyantono, 2008).

Looking at the statistics for food crops in Indonesia (Table 2), it can be seen that the production of paddy increased from 57,157,435 tonnes (2007) to 64,398,890 tonnes (2009), cassava from 19,988,058 tonnes (2007) to 22,039,145 tonnes (2009), maize from 13,287,527 tonnes (2007) to 17,629,748 tonnes (2009), soya

bean from 592,534 tonnes (2007) to 974,512 tonnes (2009) and similarly for other food crops.³

Table 2. Food Crops in Indonesia
2007–2009, (tonnes)

Food crops	2007	2009
Paddy	57,157,435	64,398,890
Cassava	19,988,058	22,039,145
Maize	13,287,527	17,629,748
Soya bean	592,534	974,512

Food production seems to be going well, but Indonesia still lacks access to more sophisticated fertilisers, which are needed to increase productivity. Also land availability for agricultural or plantation needs is a problem, especially finding new land for plantations because there are many cases of land being owned by multiple entities. Moreover, according to the Ministry for Agriculture, seed demand in 2008 was expected to reach 220 million tonnes, but Indonesia could only produce 160 million tonnes from its seven licensed seed producers and required approximately 60 million tonnes to be imported (Syafriel, 2008). Thus good seed and fertilisers are needed to improve agricultural productivity.

The percentage of population below the poverty line was 17.75 per cent in 2006, 16.58 per cent in 2007,

³ These and other relevant food-crop statistics are to be found at <http://dds.bps.go.id/index.php?news=778>, a page in the Web site of the Indonesian Central Bureau of Statistics (Biro Pusat Statistik).

and 15.42 per cent in 2008. Thus, it is a positive sign that the percentage of the population below the poverty line is decreasing. The unemployment rate has declined from 9.86 per cent in 2004 to 8.39 per cent in 2008 (August) and to 8.14 per cent (February 2009).⁴ The figures cited above with regard to poverty and employment are good for food availability. As far as the parameter of food absorption is concerned, nutrition and health standards still need a lot of improvement although the infant mortality rate in 2008 was 26.8 per 1000 live births (27.5 per 1000 in 2007) and life expectancy was 70.5 years in 2008. Statistics for the nutrition of children under the age of five show that for the year 2005, the percentage of well nourished children was 3.48, the percentage of malnourished children was 19.24, the percentage of severely malnourished was 8.80 and the percentage of moderately well nourished was 68.48 (BPS, 2010).

Also like India, Indonesia faces the challenge of supporting and developing the growth of small and medium enterprises. There has been a rise of these small and medium enterprises on account of the shift from the farm to the non-farm sector. The SMEs usually have vast knowledge of the local resources, supply patterns and purchasing trends. They employ from the community and rely on it for doing their business. They can

constitute an important source of local supply and service provision to larger corporations. These SMEs are important source of livelihood as they provide employment to the low skilled workers as well as women and young people who usually make up the greatest proportion of the unemployed in emerging economies. The SMEs provide goods and services to the local people and caters to their needs at costs which are affordable for the local people (WBCSD, 2007).

In Indonesia, most SMEs operate along traditional lines in production and marketing. Lack of capital, lack of skills and problems in business development are some of the problems they have, but internal limitations, old equipment and outdated technology have hindered their development as well (Indarti and Langenberg, 2004). In India, too, SMEs, which constitute more than 80 per cent of industrial enterprises and form the backbone of industrial development, suffer from problems of sub-optimal scale of operation and technological obsolescence. Inadequate management skills are often the cause of non-competitiveness of small enterprises. The Indian Ministry of Small Scale Industries has been promoting the use of information technology in SMEs and the Small Enterprises Network (SENET) project was launched to ensure electronic services for SMEs through Web-based applications (Kacker, 2005).

⁴ BPS (2010).

India and Indonesia both face increasing demand on land use from the pressure of land conversion from agriculture to other uses. India, in the recent past has seen violent conflicts over land rights. The draft of the fifth and final report submitted by the National Commission on Farmers in India pointed out that prime agricultural farmland must be conserved for agriculture and should not be diverted for other purposes or for programmes like the Special Economic Zone (SEZ). Wherever feasible, the households of landless labourers should be provided with at least one acre each because ownership of a small plot of land will go a long way to help improve household income and nutrition (Government of India, 2006b).

India and Indonesia have implemented various programmes over the years for better rural development and priority has been given to creating food-secure nations. Food prices, especially wheat and rice prices in India and rice prices in Indonesia, have a major effect on the number of people living below the poverty line and on the quality of their diet. Just like India, food security, articulated as self-sufficiency in rice production, has become a political issue in Indonesia, that is, whether rice imports should be banned. In India, wheat imports have become controversial in the recent past.

In Indonesia, the formulation of the Food Security Policy was synchro-

nised with the agreement on Millennium Development Goals (MDG), in particular MDG1, on reducing poverty and hunger by 50 per cent by 2015 compared to 1990. To implement the programme, Indonesian Government established a Food Security Council (DKP) in 2001 whose tasks are (a) to formulate a national food security policy that covers availability, distribution, consumption, quality, nutrition and food safety and (b) to implement evaluation and management schemes with the goal of national food security stabilisation. In 2002, a government agency, the Food Security Agency (BKP), was established to serve as a secretariat to the DKP (Rusastra, Napitupulu, and Bourgeois, 2008: 7). There are four main government programmes for the poor: the Rice Programme for the Poor; the Public Works Programme; the Empowerment Programme for Micro, Small and Medium Enterprises; and the Low Income Assistance Funds Disbursement Scheme. The government is also implementing a sustainable food security paradigm through seven community empowerment programmes. These food security programmes have contributed to the reduction of relative poverty from 24.2 per cent to 16.7 per cent over the period 1998 to 2004 (Rusastra, Napitupulu, and Bourgeois, 2008).

The Indonesian Government has also instituted a social safety-net programme, which covers around 19.1 million poor households and

has a budget of some IDR60 trillion to cover (a) the distribution of subsidised rice (at a 70 per cent price subsidy for 15 kg a month per household), (b) cash transfers (IDR100,000 a month per household), and (c) subsidised education costs especially for primary and secondary education. The National Programme on Community Empowerment has been implemented and in 2008 it involved 40 million people in 36,000 villages; 10,000 villages are supported with a 'rural agribusiness development programme', and 825 villages are supported with a 'food self-reliance programme'. This programme is helping poor communities to develop economic activities, create jobs, and increase productivity (Apriyantono, 2008). Indonesia has also initiated a regional collaboration programme, the ASEAN Networking for Agriculture Vulnerability to Exceptional Climate. The activities include implementing sustainable agricultural development, improving land and water resources by applying the appropriate technology, improving tropical forest management, resource assessment, and law enforcement as well as promoting community organisations for tree planting and water conservation (Apriyantono, 2008).

The National Medium Term Policy Framework (NMTPF) for Indonesia's primary industries sector (including forestry and fisheries) for 2010–2014 has been prepared and developed based on the following principles.

- 1) It should reflect needs of the agricultural sector including forestry and fishing.
- 2) It should contain technically sound Strategic Priority Areas (SPA), which would require external assistance.
- 3) A demand driven, clients and beneficiaries, problem-solving approach should be used in assessing and selecting the SPA.

Agricultural Development Strategy has three stages: (1) The Priority Ultimate Strategy, which consists of one component, that is, the revitalisation of agricultural competitiveness in the national and global economy. (2) The Priority Core Strategy has four components: to ensure food security, producer profitability, consumer safety and nutritious diet, to develop sustainable agriculture in a climate-changing environment using green technology and best practices, to facilitate decent and 'green' employment and a rural renaissance through agribusiness entrepreneurship for small farmers and the poor, and to optimise disaster preparedness and emergency management. (3) The priority Support Strategy has four components: policy and strategy development, programme planning and design, and regulation enforcement; governance, rural organisation reform and women and community empowerment; providing producers with good quality inputs support, improved infrastructure and

agricultural services; and promoting tacit knowledge management and sharing for agricultural education and organisational learning Government of Indonesia (2009).

India and Indonesia are both emphasising the following:

- 1) Protecting their own national interests but at the same time increasing their competitiveness in the global economy.
- 2) Ensuring food security and developing sustainable agrarian practices. The famous Indian agrarian scientist, M.S. Swaminathan, always comments that 'think nationally, but plan and act locally' is the relevant method for promoting sustainability in farming (Swaminathan, 2001: 183). Climate change, ecology, and disaster management are starting to get much more attention in both countries.
- 3) Small and marginal farmers, who are the poorest, should be given priority and links should be developed for them; forward and backward links so that they can utilise opportunities and bring about rural change. Knowledge sharing and community learning is being held as the key. For example, in India, Gyan Choupals are becoming popular. (Gyan means knowledge.) These are small village gatherings where farmers can share their experiences, discuss their problems and come out

with innovative solutions to local problems.

- 4) Programme planning and implementation is being given importance.
- 5) Community empowerment holds a special role in food security and rural development. An aware rural community can act not only to influence the local administration, but can also act as a feedback mechanism for it. The local people know best the ground conditions and their feedback can be invaluable for designing and implementing the policies and programmes.

The goal is to have policies that benefit poor farmers and create employment opportunities for them. It is important to create sustainable policies that can be beneficial for small and marginal farmers. Economic growth and development have to be accompanied by welfare. Equity, sustainability, fairness, inclusion, transparency, and accountability are crucial and the role of the state in creating these conditions is essential. Good governance becomes all the more needed today when our domestic policies are affected by the forces of globalisation through WTO-related policies. The Indian and Indonesian Governments have been taking numerous steps in recent years to ensure stable agricultural conditions and food security. Both need to come together in the

future to plan common strategies for tackling agrarian issues, which are becoming more and more global, and to learn from their differences as well.

V. CONCLUSION

To achieve a food-secure nation, we need to strengthen our agriculture, which not only provides us with food, but also gives us employment which improves our capability to buy that food. Agriculture can be a source of growth for the national economy and of livelihoods. According to the World Development Report 2008, agriculture can be a provider of investment opportunities for the private sector and a prime driver of agriculture-related industries and the rural non-farm economy. The aim should be not at slowing agricultural development but at seeking more sustainable production systems. Making the farming systems of the rural poor less vulnerable to climate change is imperative (World Bank, 2008: 2–4). Agricultural growth has powers to reduce poverty and cross-country estimates show that GDP growth originating in agriculture is at least twice as effective in reducing poverty as GDP growth from outside agriculture (World Bank, 2008: 6).

The farming communities in the developing countries like India and Indonesia are facing the challenges of increasing costs of inputs, an interconnected but not necessarily a fair global economy, which makes them

vulnerable to global volatility, global warming and connected ecological problems, limited land and water resources, increasing population (which increases the pressure on land), food–fuel conflict, lack of bargaining power of the small and marginal farmers. Democratisation and the rise of participatory democratic policymaking have increased the possibilities of small-holders and the rural poor to raise their political voice.

However, there is still a long way to go. A multisectoral approach must capture the synergies between technologies, sustainable water and soil management, institutional services and human capital development. Community driven development can harness the potential of rural communities—their knowledge, creativity, and social capital. Access to financial services, innovation through science and technology, risk management systems, public market information systems, proper and systematic extension and marketing links are all the need of the hour. India and Indonesia are all set to become powerful players on the world platform and no country can afford to ignore their economic and political resilience. These two countries need to cooperate and use each other's strengths and influence. A meaningful engagement and a willingness to learn from each other can start from the very important aspect of food security and agricultural development.

REFERENCES

- Apriyantono, A. 2008. Indonesia response to food–fuel and financial crisis: with a perspective of the second green revolution. Paper presented at High-level Regional Policy Dialogue, Organized by UN-ESCAP and Government of Indonesia, Bali, 9-10 December. Retrieved on July 7, 2010 from <http://www.unescap.org/LDCCU/Meetings/HighLevel-RPD-food-fuel-crisis/Paper-Presentations/RoundTableDiscussion/IndonesiaResponseTOFFFCrisis-doc.pdf>
- Badan Pusat Statistik (BPS). 2010. Statistik kemiskinan dan Tanaman Pangan. Retrieved on October 7, 2010 from <http://dds.bps.go.id/>.
- Chadha, G.K. 1997. Access of rural households to non-farm employment: trends, constraints and possibilities. In (eds) GK Chadha and Alakh Sharma. *Growth, employment and poverty: change and continuity in rural India*. New Delhi: Vikas.
- Chadha, G.K. 2002. Non farm employment for India's rural households: looking ahead through recent setbacks. In (eds) Raj Kumar Sen and Biswajit Chatterjee. *Indian economy: agenda for the 21st century: essays in honour of P.R.Brahmananda*. New Delhi: Deep and Deep.
- Dillon, H.S. 1999. 'Trade and food security: the case of Indonesia?'. Paper presented at the IAMA Conference, 14-15 June, Florence, Italy.
- Government of India. 2004. *Agricultural statistics at a glance*. New Delhi: Government of India. Ministry of Agriculture.
- Government of India. 2005a. *The mid term appraisal of the tenth Five Year plan (2002–2007)*. New Delhi: Government of India. Planning Commission.
- Government of India. 2005b. *Financing and delivery of healthcare services, background papers of the National Commission on Macroeconomics and Health (2005)*. New Delhi: Government of India. Ministry of Health and Family Welfare.
- Government of India. 2006a. *Economic survey (2005–2006)*. New Delhi: Government of India. Ministry of Finance.
- Government of India. 2006b. *Serving Farmers and Saving Farming, Fifth and Final Report of the National Commission on Farmers (2006)*. New Delhi: Government of India. Ministry of Agriculture.
- Government of India. 2009. *Economic survey (2008–2009)*. New Delhi: Government of India. Ministry of Finance.
- Government of Indonesia. 2009. *National Medium-Term Priority Framework (NMTPF) 2010–2014 for Indonesia's external assistance in the agriculture sector (incl. forestry & fisheries)*. Jakarta: National Development Planning Agency, Ministry of Agriculture, Ministry of Forestry and Ministry of Marine Affairs & Fisheries. Retrieved on July 18, 2010 from <ftp://ftp.fao.org/TC/TCA/NMTPF/Country%20NMTPF/Indonesia/Status/NMTPF.pdf>
- Hidayat, N. 2010. *WTO, Indonesian agriculture, and food security*. Paper presented at AFTINET seminar on Alternatives to the WTO, Sydney, 8 November. Retrieved on December 5, 2010 from <http://aftinet.org.au/papers/hidayat1.html>
- Indarti, N., & Langenberg, M. 2004. *Factors affecting business success among SMEs*.

- empirical evidence from Indonesia. Paper presented at the Second Bi-annual European Summer University 2004, University of Twente, The Netherlands, 19-21 September. Retrieved on August 20, 2010 from <http://www.utwente.nl/mb/nikos/archief/esu2004/papers/indartilangenberg.pdf>
- International Fund for Agricultural Development. 2007. Rural poverty in Indonesia Retrieved on July 8, 2010 from <http://www.ruralpovertyportal.org/web/guest/country/home/tags/indonesia>
- Kacker, S. 2005. Overcoming barriers to innovation for Indian SMEs. Paper presented at the INSME Annual Meeting on International Cooperation to Seize Innovation Opportunities for SMEs, Barcelona, Spain, 13–15 April. Retrieved on July 18, 2010 from www.annualmeeting2005.insme.org
- Mohanty, J.C. 2002. WTO and Implications for Indian agriculture'. Administrative Change, Volume 29, No.2 and Volume 30, No.1, Jan–Dec.
- Mooij, J. 1999. Food policy and the Indian state—PDS in South India. Delhi: Oxford.
- MSSRF. 2004. Towards a food secure India, National Food Security Summit (2004). Chennai: M.S. Swaminathan Research Foundation, February 4–5.
- Ramachandran, N. 2001. Sustainable livelihood and economic access to food. In (eds) MD Asthana and Pedro Medrano. Towards hunger free India: agenda and imperatives. New Delhi: Manohar.
- Rusastra, I.W, Napitupulu, T.A., & Bourgeois, R. 2008. The impact of support for imports on food security in Indonesia. Bogor: UNESCAP-CAPSA. (CAPSA working paper 101)
- Shariff, A., Ghosh P.K., & Sharma, A. 2004. Food and nutritional status of the poor in India: a state level analysis'. In (eds) MS Swaminathan and Pedro Medrano. Towards hunger free India: from vision to action. Chennai: EastWest Books
- Suryana, A., & Erwidodo. 1996. Agricultural policy reforms in Indonesia: accelerating growth with equity. Taipei: Food and Fertilizer Technology Center. Retrieved on September 4, 2010 from <http://www.agnet.org/library/eb/434/>
- Swaminathan, M.S. 2001. Achieving sustainability and extending the Green Revolution. In (eds) KS Dhindsa and Anju Sharma. Dynamics of agricultural development (vol. 2). New Delhi: Concept.
- Swaminathan, M.S. 2002. From Rio de Janeiro to Johannesburg: action today and not just promises for tomorrow. Chennai: East West Books.
- Swaminathan, M. 2003. Strategies towards food security. Social scientist, 31(9-10): 58.
- Swaminathan, M.S. 2005. India's greatest living industry: hundred years later. IARI Centenary Lecture. New Delhi, Indian Agricultural Research Institute, 16 March.
- Syafriel, A. 2008. Increasing national food production? Easier said than done. Jakarta post. 14 May. Retrieved on July 12, 2010 from <http://www.thejakartapost.com/news/2008/05/14/increasing-national-food-production-e>
- Thamarajakshi, R. 2002. Doha Declaration and agriculture in developing countries. Economic and political weekly, 5 January.
- Vyas, V.S. 2000. Ensuring food security. Economic And Political Weekly, 9 December.
- WBCSD. 2007. Promoting small and medium enterprises for sustainable development. Geneva: World Business Council for Sustainable Development and SNV. Retrieved on August 12, 2010 from http://www.wbcd.org/DocRoot/pZgjPEvxdGu6hk9noQUM/PromotingSMEs_latest.pdf

World Bank. 2008. The World Development Report (2008): Agriculture for development. Washington DC: World Bank.

World Food Programme. 2001. Food insecurity atlas of rural India (2001). Chennai: World Food Programme and M.S. Swaminathan Research Foundation.