

POLITICAL ECONOMY OF FOOD SECURITY IN LEAST DEVELOPED NATIONS: A REVIEW

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ABSTRACT

Conversion of many least developed nations from food exporter to net food importer along with sectoral improvement of other sectors of national economy with international trade liberalization has raised concerns about efficacy of international trade policies to uplift food security condition of such nations. The paper has reviewed literatures emphasizing on political economy of international food and agriculture agreements. Different efforts to restore food security in LDCs are explained together with the logics behind failure of such multinational initiatives to address food insecurity in those nations. Globalization and agro-biodiversity are explained in relevance to food security. The paper concludes that international economic efforts should focus on tackling food insecurity problems with trade policies emphasizing agro-biodiversity promotion in LDCs where majority of citizens are not solvent economically. Similarly, the paper stresses on analysis of food security in LDCs as a sub-component of whole development paradigm in regional and global level.

Key Words: Agro-biodiversity, Food Security, Least Developed Countries (LDCs), Trade.

INTRODUCTION

According to the United Nations, the least developed nations possess lowest indicators of socio-economic development and lowest human development index among the countries in the world. Currently, there are 48 least developed nations. Among 48 countries, 34 LDCs are located in Africa followed by 13 in Asia continent and 1 in South America. They comprise about 880 million people but less than 1 percent of global trade in goods. The lower level of economic development comprises of low human and institutional capacities, unequally distributed income, internal and external conflicts. The least developed nations are primarily agrarian in nature but the agriculture sector is of low productivity type.

Food security is a turn in policies in national as well as in international level which appeared before thirty years ago (FAO, 2003). Food security is said to exist when all the people have access to enough, nutritious and safe food, at every time that meets the requirement for active and healthy life (World Summit on Food, 1996). The opposite of food security is food insecurity or starvation. In words of Noble laureate Amartya Sen, starvation is a characteristic of some people not having enough food and is not the characteristic of there being not enough to eat (Sen, 1981).

The direct meaning of security is the protection from harmful activities, usually employed in societal and political issues. However, it is interesting to understand the integration of two words food and security. After the conclusion of the Second World War, many multinational organizations were established in order to promote global peace and prosperity. With the expansion of working boundaries of such organizations and the decreasing role of states accompanied by the increase in

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performances of civil societies and different groups, the food stopped to be matter of business between farmers and consumers. Rather it started to be a matter of international trading business and eco- politics. Nowadays, this practice has been fueled by the climate change, resource limitation and strategies adopted by different nations as per economic diplomacy. Ultimately, such issues have resulted in the concept of food security (Brown, 2012).

Together with such issues, the issue of food and agriculture system is being lengthy relatively. Before the trade liberalization policies, the agricultural and food system was limited on production only. However, with the increasing dominance of sub-national actors, issues like equity, ecological health and inclusion of marginal people have received vital places in the system. Therefore, such crucial issues have shifted the analysis of food system from mere production to whole food chain (Vermulean, 2012). Therefore, policies and policy makers need to consider these facts as well.

In the multinational level, the food and agricultural system are not addressed properly partly due to lack of political dedication and issue of national sovereignty (Paula, 2013). Perception in least developing nations and developed nations regarding multinational agencies like the World Bank, FAO and WTO as supplement of political agenda of developed nations and low level of access of least developed nations and complexity in decision making by consensus in those agencies have caused stagnation in international agreements regarding food security. Due to this fact, corporate and business organizations are trying to fill this gap in the least developed nations (Paula, 2013). Thus, it is crucial time to restructure the global preferences for least developed nations in sector of food security and international trade.

The scope of the paper is to explain the political economy of food security and various agricultural trade negotiations that are directly affecting the food security condition in least developed nations like Nepal. Almost all of the least developed countries are dependent upon agriculture for sustaining their economy and that is proved by the greater involvement of population in agriculture and higher contribution of agriculture in national GDP. Despite of these statistics, many of the LDCs are food insecure. In this context, the paper has reviewed various available literatures focusing on food security in international political and policy level.

METHODOLOGY

The paper is review paper and summarizes various literatures explaining the food security status and international trade agreements related to agriculture. Similarly, the paper summarizes the literatures that have explained the reasons behind failure of multinational initiatives to ensure food security in LDCs. In addition, the paper also explains the short comings of reports by High Level Panel of Experts on Food Security and Nutrition, in relevance to ensuring food security in least developed nations. Necessary linkages between different issues affecting food security are accordingly formulated according to the available literatures.

RESULTS AND DISCUSSIONS

FOOD SECURITY STATUS IN LEAST DEVELOPED NATIONS

The most important problem that least developed countries now facing are food insecurity and poverty (UNCTAD, 2011). LDCs are primarily agricultural nations absorbing about seventy percentage of population in agriculture. However, agriculture in least developed countries is of low productivity type. The major problems faced by the farmers in such nations are land fragmentation due to unmanaged population, lack of proper irrigation, lack to timely availability of input resources and breakdown of traditional agriculture systems in the name of commercialization. Condition has been aggravated by the low level of assistance from the governments to the producers in such nations where 3 to 5 percentages of the total budget are spent in agriculture, representing imbalance in terms of contribution of sector in national economies and absorption of manpower (UNCTAD, 2011).

Majority of the least developed countries are located in Africa and South Asia. Food security in Africa has been worsened since 1970 with the percentage of malnourished people ranging from 33 to 35 percentages (Mwaniki, 2004). Almost about seventy percentages of food insecure people in Africa live in rural area and ironically fifty percentages of that population is accounted by the smallholder farmers who supply about ninety percentages of total food supply in the continent (Mwaniki, 2004).

In case of South Asia, it is one of the worst affected regions in the world in terms of food insecurity. According to the World Bank report published in 1996, South Asia is the place where majority of the poor people live with relatively high level of incidence of malnutrition (UNICEF, 1996).

According to a report by UNCTAD, the least developed nations are in opposite direction of development as represented by their increasing urban population and degradation of agricultural production (UNCTAD, 2010). According to the report, the increase in food price in least developed countries has caused serious threats but this has not helped to raise the farm income of farmers due to marketing inefficiencies. The threat is complex in poor nations in Africa where people have lost their food purchasing power by 25 percentages over last 25 years and the annual income of farming communities being limited to \$200.

Therefore, literatures shows that with the passing of time and liberalization in international trade, the people in least developed nations are being affected negatively. Thus, it is a crucial time to change the agricultural development pattern in those nations.

ECONOMICS OF FOOD SECURITY IN LEAST DEVELOPED NATIONS

Access to resources, ecological setting, accessibility, marketing opportunities, availability of common property resources, family size and composition, ethnicity, gender, social network, education and political assertiveness are regarded as the key determinants of food security condition (Adhikari and Bohle, 1999). However

more importance is given to family size, operational land holdings and livestock holdings (Joshi et al., 2012). Due to lack of one or more of those determinants, many of the least developed countries in South Asia and Saharan Africa are gradually being food importer. Furthermore, political instability prevalent throughout such nations is fueling the market volatility thus increasing the consumer price of food. Similarly frequent rise in food price index as reported by the FAO represents the dwindling trend in purchasing power of food by poor people across the world. No doubt, least developed nations in Sub-Saharan Africa and South Asia will be affected as citizens earning less than a dollar, are in huge proportion (Shekhar & Bhatt, 2012). Moreover, in lack of proper endogenous strategies for coping with negative problems resulted due to international food price fluctuations in food access condition, poor nations are not able to combat socio-economic effects resulted due to any price changes in food in international level.

In domestic market, food prices are increasing at rapid rate than prices of general commodities. The food price index (FDI) has been gradually increasing the consumer price index (CPI) whose annual derivation gives the inflation rate. According to the CIA world fact book, the inflation in almost majority of least developed nations are in double digits and ranking far below the average. One of the ironic conditions that almost all least developed nations are facing is that they have converted to net importer from being food exporter with the international trade liberalization (Ivory, 2009). The condition is that percentage of food imported by the developing nations rose by 122%, though some countries have shifted their domestic production areas, after the Marrakesh agreement (Ivory, 2009) indicating the decimation of LDCs agriculture after international trade liberalization (UNCTAD, 2011). It becomes obvious to write about import of agricultural stuffs by least developed nations. Almost all of the LDCs import about 90% of agrochemicals. But with the increase in international price hike in fossil fuels used in preparing agrochemicals, the LDCs are more vulnerable to food security and increasing economic burden becomes obvious (FAO, 2011). In contrast to import, LDCs are exporting only fewer items and their export is determined by the quotas given in limited percentage by biggest economies. Mostly agricultural items exported by the LDCs in the markets include raw organic agricultural products and geography specific stuffs which account for less than 1 percentage of the total global output (WTO, 2011). Therefore, it is crucial time to review the international policies regarding the food security in poor nations in the world.

FOOD PRICE VOLATILITY IN THE LEAST DEVELOPED NATIONS AND TRADE LIBERALIZATION

Agricultural markets are highly fluctuating in nature irrespective of the inelastic nature of its demand for majority of agricultural products. Fluctuation in production of food commodities arise due to changes in weather pattern while that in consumption arise due to the changes in income of the consumers, price of substitute commodities. The level to which production and consumption fluctuations result into food price volatility depends upon demand and supply elasticity of food commodities and ultimately exposing the responsibility of consumers and producers to fluctuate the food prices (Gilbert and Morgan, 2010).

High and volatile food prices are persistent in nature due to increasing population and scarce natural resources (FAO, 2011). Similarly, the persistent nature of high food price volatility is also explained by the stronger relationship between energy production markets and agricultural markets in developed nations. Least developed countries being incapable to manage population growth, food price volatility seems to hit poor citizens in those nations harder and that is fueled by the poor human capital status to manage the scarce natural resources. In another case, farmers in least developed nations spend larger fraction of their budget on food thus, any increments in food price volatility in food market decreases the real income of farmers in such nations. In addition, small scale farmers are less likely to invest in agricultures for their comparatively advantageous agri farming and food production markets when the price of food in the market is erratic.

There are debates about the effect of international trade policies on food price volatility. Trueblood and Shapouri (2002) suggests that international trade policies are likely to increase the international food price volatility making food import by the least developed countries burdensome as variation in price volatility has direct effect on production variation.

FOOD PRICE VOLATILITY AND FOOD INSECURITY IN LEAST DEVELOPED NATIONS

If the international agreements related with food security envelopes price stability, the food insecurity in least developed nations represents that international economic and monetary institutions have not formulated proper policies which could act as a panacea against price volatility in those nations. The global food crisis in 2008 drew global attention to tackle its negative effects in societal and political level. Albeit, the food prices returned to its normal level after the food crisis in 2008 and the food prices again rose to its peak in 2010 (UNCCD, 2011).

The effect of food price spike depends upon self-sufficiency of nations in terms of foods. Increase in food price is good for those nations who are food surplus which improves their terms of trade. While the increase in food price is detrimental for those nations which are net food importers affecting balance of payments and affecting their macroeconomic stability (FAO, 2010). It is ironic that almost all of the least developed nations are net food importers.

The high level panel of experts on food security and nutrition has given three elements related to food prices and food insecurity. That can be summarized as; a) Food price fluctuations b) Investment in agriculture and food and c) Limitation of natural resources (HLPE, 2011). It is relevant to explain these linkages briefly to elucidate the effect on domestic markets in least developed nations.

Food price fluctuation

Report by high level panel of experts on food and nutrition has revealed that the food insecurity and volatility in food price to be natural in nature, indicating that food insecurity and price volatility to be long lasting. Food price fluctuation has been higher in last 5 years in comparison to last two decades. Because of the trade liberalization, food price in a nation has ceased to be under its sole affair,

ultimately depending upon international market prices. The report has elucidated on elasticity of food demand, international trade policies and contemplation.

Various fiscal and monetary tools are employed in order to stabilize food prices in one way and protecting domestic agribusiness strategically in the another way. OECD and developing nations employ tools like subsidies in the production of agricultural products, ban on exports, quota fixation and fixing percentages of bio-fuels. In fact, these tools help to maintain food prices at normal level in the domestic markets of the developed and developing nations while the food becomes scarce in international market, increasing food price in international level. The direct victims of such policies are the least developed nations unless capacity development and competitiveness are not generated.

In contrast to developed and developing nations, least developed nations have little financial resources to provide subsidies. Moreover, their subsidy amount is quite dwarf in comparison to that provided by the developed nations of same region. This is one of the reasons why the least developed nations are rarely benefiting from the liberal food trade.

Investment in food and agriculture

This issue stresses that food insecurity and food prices in the least developed nations are the result of investment in food and agriculture. Higher prices of agricultural outputs results into increase in investment lowering the food price. But in most of the least developed nations, the marketing margin is high leading to increase in food price. In addition, agricultural sectors in least developed nations have been considered as an inactive partner in development process, lowering the total investment in the sector (UNCTAD, 2011).

Albeit government and public investment are not only the sole reasons for ensuring food security by lessening the food price spike, but they are very important in harnessing the food security (Fan, 2008). Maintaining the food price level to normal level is a key step in increasing food availability in rural households but not if the controlling mechanism increase the price uncertainty in international food market. Ideally increase in food price is benign for farmers as price increase suggests the higher return to scale. But due to wider marketing margin and lack of institutionalization in agricultural marketing in least developed nations, the majority of farmers are not getting profit as expected. As a result, the farmers undergo food insecurity condition with the increase in food price. This fact is important to analyze in international level. Almost all of the LDCs went into being net food importer from food exporter in 1990 with the establishment of WTO, leading to commercialization of food stuffs and subsidized overproduction in developed nations. In spite of the provision of special and differential treatment granted to LDCs, liberalization fails to explain the benefits of LDCs in enhancing food security in domestic markets of least developed nations.

Limitations in natural resources

The food scarcity in least developed nations is also related to the extent of production of bio-fuels in the developed economies. In another word, the high food price relative to the income of the citizens in such nations is related to the price of oil due to dependence of traditional agriculture in fossil fuels in such nations

(Altieri, 2002). It becomes important to understand the dynamics of international trade liberalization to get some ideas about above facts. With the increase in oil price in international level, to convert the food crops land into oil crops land becomes wise option from the business perspective (Babcock, 2011). Even at the normal price of oil, USA produced 272 million tons of food grains of which 42% was used for production of ethanol for fuel purpose, thus increasing the food price in international level and ultimately affecting the food security condition in least developed nations (Earth Policy, 2012).

It seems that all the linkages are analyzed from the traditional approaches, which employ the breaking up of certain issue under consideration into many simple parts. However inductive method of analysis focuses on relationship between the issues under consideration with other systems of governance. The latter approach is very beneficial to analyze very complex issues and interlinked issues like food security condition and increasing food prices in least developed nations.

When reviewing the report of high level panel of experts on food and nutrition, it seems that food insecurity and food induced inflation in least developed nations are studied from deductive approach. All of these linkages seem to be fallacy when taken into consideration separately. The reports suggest that the three key pillars of food security in least developed nations are complementary to each other. But the report fails to explain the extent of complementarity between the linkages to address the food security condition and food induced inflation in those nations. In addition, the report fails to reveal the effect of trade liberalization on food security in those nations provided the reports of conversion of least developed countries from being net food exporter to net food importer in the beginning of 1990s are evident. Entry of food security and food induced prices within the wider framework of policy formulation would give pragmatic approach to deal with food insecurity in such nations. Similarly, the effect of trade expansion and such policies on agro-biodiversity aspect of food security in such nations are rarely highlighted. This paper will try to review the effect of some international trade liberalizing policies tools on the food security by employing the wider approach.

EVALUATION OF TRADE LIBERALIZING POLICIES FOR FOOD SECURITY IN LEAST DEVELOPED NATIONS.

Biodiversity is the extent of variation of life in the earth while agro-biodiversity is a subset of biodiversity which explains the degree of variations of life in agricultural sector. Some examples of agro-biodiversity are local seeds of crops and indigenous breeds of livestock. The contribution of agro-biodiversity is vital for ensuring food security in case of traditional and small scale farming which are prevalent throughout the least developed nations. In addition, local agro-biodiversity has strong relation to local community owing to its cultural inheritance in nature. Local cultures and farming trends in communities help to empower both the resilience of the farming communities and to improve the living standards by tackling the changes against the existing practices in farming system (FAO, 2011). Agricultural biodiversity is habitat of large number of locally adopted crop varieties which ensures food security in case of upheavals. Similarly conservation of local crop

genetic resources helps to maintain seed security in case of stresses in the least developed communities.

The central element for food security is restoration of food sovereignty. Food sovereignty is the capacity or right of each household to produce sufficient food required by the household members. If the same definition is applied in national level, it becomes the national food sovereignty which means right of each nation to produce enough staple foods required to feed its own citizens. The issues of national food sovereignty go in line with the promotion of regional and global food security (Lee, 2007). Increasing reliance on small number of crops in poor nations is promoting genetic erosions and increased incidence of plant diseases. A report published by FAO in 2010 reveals that the genetic erosion is in higher rate in least developed nations and is high in cereal crops (FAO, 2010). The study was carried out in 104 countries. The predominance of genetic erosion of cereals in least developed countries has indicated the incidence of chronic nutritious food and seed insecurity. Food insecurity in the sense, protein rich food costs higher in least developed nations and lower income people can't afford that price and ultimately increasing the food insecure population but its degree may lower with crops of higher productivity. Similarly, seed insecurity increases due to replacement of local seeds conserved by farmers and their groups by multinational seed corporate.

Small scale farmers who account for almost 95% of the total global farmers' population grow local seeds for economic, cultural, religious and social reasons and acts as insurance against any fluctuation in markets and agricultural practices (Quaas, 2009).

The positive impacts of international trade policies have been exposed extensively while the policies like WTO agreement of agriculture that have negative impacts on food security in least developed nations, have less exposed (Gonzalez, 2004). Such policies have been dwindling the food sovereignty of individual of least developed nations. Moreover, the food security condition and food induced inflation in less developed nations need to be monitored continuously. For that global collaboration is a must factor, but not in the cost of domestic food sovereignty. Therefore, the study about impact of international agricultural policies needs to consider agrobiodiversity as a key factor.

The WTO agreement on agriculture is aimed to promote international and regional food trade. However, the developed nations continued to produce subsidized food products while lowering the tariff enforcing capabilities of the less developed nation which they employed to protect small farmers (Gonzalez, 2002). As a result, the trade liberalization affected the millions of small scale farmers in developing and less developed nations.

Albeit, agriculture development and food security fall as major interest area of the Doha development round of development, the negotiators of the round failed to consider today's critical condition in least developed nations due to trade liberalization (Ahmad, 2011). In addition, the major hurdles in entry of newer problems faced by the developing and least developed nations, in WTO agenda have

been created by continuing disputes among the major economies (Fergusson, 2008). If food security and agriculture have been forgotten issues in the international policies, there is doubt that the linkages between agro-biodiversity and food security in least developed countries would get important space in international political agenda.

There has been a shift from complex agricultural system to narrow system. That is evinced by the narrowing down the numbers of staple crops to countable. With the liberalization in international trade, the number of staple crops has been limited to 15, which supply about 90% of the global food supply. In fact, this has negative effect on both food and seed security of millions of small scale farmers across the least developed nations unless plant genetic resources are preserved by their respective domestic law.

If the analysis of relationship between agriculture, food security and WTO measures on trade liberalization is impossible then it is beyond the resources of less developed nations to think about the linkages between policies and agro-biodiversity. A report published by CBD highlighted several methodological and technical gaps in analyzing that in least developed nations (CBD, 2005).

According to WTO, the domestic supports in trade are trade warping in nature (WTO, 2001). Therefore, WTO has been working to reduce the domestic supports in all of the WTO members (WTO, 2003) excluding LDCs WTO member with S and D treatments. However, the support rate is impractical in case of developing and less developed nations while innovation and technological factors are taken into consideration.

Government of each nation has right to conserve or destruct own agro-biodiversity. Certainly their decision power has been influenced on the international regulations. Taxes and subsidies have been fruitful economic tool to promote agro-biodiversity. Governments can attract investment in agro-biodiversity maintenance or conservation while needs to repel the ecology degrading programs. Payments for agro-biodiversity conservation scheme promote the private benefits by utilizing the crop varieties on farm (Narloch et al. 2011). A report published by FAO in 2011 suggests that Indonesian government's initiative on integrated pest management effort in rice resulted in ban of number of pesticides. This concluded in seventy five percentage decrease in pesticide use in rice while increasing the production by twenty five percentages (FAO, 2011). Therefore, internationalization of such beneficial practices across all of the least developed nations needs to be discussed.

CONCLUSION

There have been less economic studies on relation between agro biodiversity and food security in least developed nations. Regarding the present international trade liberalization policies, food trading business issues should come only after the food security and biodiversity conservation as food is a basic human right while international trade is a secondary phenomenon. In other words, trade should be a platform to fulfill needs but not an end in itself. Particularly, the agreement of

WTO on agriculture can't compensate the international trade of least developed countries as its sole aim is to eliminate the trade barriers in order to promote free mobility of agricultural goods. In that case, conservation of agro-biodiversity can prove itself as a safety net against negative results originated due to trade liberalization and heavy subsidization in developed nations. Protection of small scale farming business which is the general characteristics of least developed nations, and increasing the standards of production have not been considered. As small scale farming is the general characteristics of the less developed nations, their condition needs to be given clear emphasis on trade policies. Policies conserving the local agro-biodiversity are one of the options for increasing benefits and enhancing food security in such nations. Restructuring the policies that govern the international trade requires the continuous collaboration among wide array of countries. One way to get that can be leaving the protectionist policies when employed to ensure food security. But, restructuring the whole concept of WTO whose main objective is trade liberalization is difficult to materialize at least from the perspective of citizen of a least developed nation.

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