HARVESTING THE SEEDS OF STRUCTURAL ADJUSTMENT

A SYNTHESIS REPORT ON THE IMPACT OF SAPS ON FOOD SECURITY IN THE PHILIPPINES

1. Introduction

The Citizens Assessment of Structural Adjustment (CASA) process is a review exercise of Structural Adjustment Programs (SAPs) led by NGO's and people's organizations in several countries including the Philippines. This review process is parallel to that of the Structural Adjustment Participatory Review Initiative (SAPRI), a trilateral review of SAPs conducted by civil society organizations, the World Bank and National Governments who accepted to take part in the initiative. Although the Philippines was one of ten countries initially chosen by the Joint Steering Committee for the SAPRI exercise, the refusal of the Philippine Government to participate in the review led to the removal of the Philippines from the list of official participating countries. As a consequence, a parallel review process conducted exclusively by civil society groups was created for those countries whose governments had refused to participate in the SAPRI initiative. This parallel process was eventually named CASA.

On March 18-19, 1998, the First National Assembly of Philippine CASA was held in Baguio City. Participants decided to form six Thematic Working Groups which would prepare, coordinate and ensure the process of assessment and review of policy issues within their chosen themes of concern. One of the Thematic Working Groups focused on SAPs, Agrarian Reform, Rural Development & Food Security. This Thematic Working Group (TWG) further defined the areas of inquiry for the review through a series of consultations and meetings.

Even though it was clear that food security was the main focus of the TWG, the choice of sector to be analyzed required thorough discussions and lengthened the process of coming up with a final research proposal. Given the variety of interests within the group

and the participatory character of the CASA process, it was decided that the research should tackle as much as possible all the concerns raised in the discussions. Therefore, the TWG finally decided to include two sectors in the research, rice and fishery. As a result, two sub-groups were established, each of them in charge of coming up with a hypothesis for each of the sectors under scrutiny. Although this created conceptual and methodological difficulties, for each group selected different SAP-induced policies and units of analysis, the possibility of excluding one of the sectors from the research was felt much less preferable.

Both sub-groups, as it has happened with other CASA Thematic Working Groups in the Philippines, chose to focus on one specific SAP-induced policy, rather than looking at SAPs as a package of policies. Given the time and resources constraints, the "specific policy" approach was thought of as more feasible than the "policy package" approach. At the same time, the different degree of implementation of SAP-induced policies in different sectors also played in favor of a "specific policy" approach. For instance, trade liberalization, which is a typical component of a SAP policy package, does not directly apply to the rice sector, since rice continues to be a protected commodity in the Philippines.

As such, the sub-group on rice decided to consider the impact of SAP-induced tight fiscal policies on the rice industry, as a proxy to its impact on food security at the macro level and on the food security of small rice farmers. However, the sub-group on fishery chose to assess the impact of SAP-induced export promotion policies on the food security of coastal communities.

This paper is an attempt to synthesize both the rice and fishery components of the CASA Food Security research under a single theoretical framework, as well as to present in summary form the findings and conclusions of the research. The next section explores the general analytical framework under which both case studies approach the issue of food security, and outlines how this framework is operationalized in both components of the research. Section 3 gives a brief account of SAPs in the Philippines and how they are

linked to the case studies, and summarizes the results of the researches for both the rice and fishery components.

2. Understanding Hunger through the Entitlement Approach¹

In the last few years, Food Security has become an increasingly important issue in development thinking, both at the policy and the project level. This interest was partly boosted by the World Food Summit, held in Rome in November 1996. The Rome Declaration agreed upon by participating countries in the Summit calls upon the international community to reduce by half the number of chronically undernourished people on the Earth by the year 2015.

According to the World Food Summit Plan of Action, food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. We adopt the above stated formalization of the concept of food security as a working definition for the purpose of the study. This definition stems from a framework which places the issue of "access" at the center of the "food problem": the entitlement approach.

If you go to a restaurant without money in your pockets, no matter how much food there is available in the pots, you won't eat². This rather simple example illustrates the heart of the entitlement approach, in the sense that: "What we eat depends on what food we are able to acquire. The mere presence of food in the economy, or in the market, does not entitle a person to consume it" (Dreze and Sen, 1989:9). As Sen put it in the first lines of his book *Poverty and Famines* (1981):

¹ This section draws heavily on chapters 1, 5 and 10 of *Poverty and Famines* (Sen, 1981) and chapter 1 of *Hunger and Public Action* (Dreze and Sen, 1989).

² Unless, of course, you commit some kind of illegal act, or the owner of the restaurant takes pity on you.

Starvation is the characteristic of some people not *having* enough food to eat. It is not the characteristic of there *being* not enough food to eat. While the latter can be a cause of the former, it is but one of many *possible* causes. (Sen, 1981:1)

The "entitlement" of a person is defined as the set of alternative commodity bundles that this person can acquire through legal means available in society. The entitlement approach states that this person will go hungry if he or she fails to establish command over a commodity bundle with enough food.

The ways through which people establish command over a bundle of commodities vary in each society, depending on the prevailing legal, political, social and economic environment. In a market economy, which is the case in most countries including the Philippines, a person's entitlements can be characterized as depending on two factors: first, his endowment or, in other words, his initial ownership of resources (e. g. labor power or land); second, his exchange entitlement mapping, that is to say, the relation that specifies what he can acquire through exchange, whether in the form of trade (exchange with others) or production (exchange with nature), for each particular endowment. Various influences determine a person's exchange entitlement mapping, including employment opportunities, wage rate, the cost of productive resources, the value of what she can sell, the price of what she may wish to buy, as well as social security and taxation provisions.

For example, a jeepney driver owns his labor power and, let us assume, he also owns the jeepney he drives. Both his labor power and his jeepney, neither of which he can eat, constitute his endowment. He has to exchange the transport service he can provide for an income, with which he will be able to buy food. There may occur some changes, either in his endowment (e.g., loss of his jeepney due to accident or loss of labor power due to illness) or in his exchange entitlement mapping (e.g., reduction in the price he receives for his service, increase in gas prices, increase in food prices), which affect his exchange entitlement. If he cannot find another job or access social security benefit, these changes might reduce his income up to the point where he will no longer be able to establish

command over any commodity bundle with enough food. He will then go hungry, even if there happens to be enough food supplies in the economy.

Similarly, a peasant owns his labor power, a piece of land and some other assets. With this endowment, he can produce food that he will own. He can then keep part of the harvest for his own consumption and sell the rest in the market to obtain cash that he can use to acquire other commodities. If his endowment declines, through alienation of land or loss of labor power, or his exchange entitlement mapping shifts to a less favorable situation, for example through low prices for his product or a crop failure, he may fall below the starvation level.

According to Sen, entitlement relations "connect one set of ownerships to another through certain rules of legitimacy" (1981:1). He identified four types of entitlement relationships or sources of entitlement (see also Stevens et al., 1999:5):

- 1.- Production-based entitlements, meaning that people are entitled to what they produce.
- 2.- Trade-based entitlements, which entail that individuals are entitled to what they can obtain by trading physical assets.
- 3.- Labor-based entitlements, which mean that individuals are entitled to what they can obtain through the sale of their labor power.
- 4.- Transfer-based entitlements, entailing that people are entitled to what is willingly given to them through legal transfer, be it formal (from government) or informal (from friends and relatives).

Each of these four sources of entitlements, which are exhaustive in describing all legal means of securing food, is affected directly or indirectly by different policies in differing ways. Moreover, any given policy is likely to have effects (in different scale and even sometimes in opposing directions) on more than one category.

One main application of the Entitlement Approach is to provide a critical perspective of "food availability decline" (FAD) theories, which explain hunger and malnutrition through a fall in food supply. This FAD view carries an assumption about distribution (such as equal division of the available food), by which adequate food supply is taken to mean adequate nutrition for all. Under the FAD approach, food security is a matter of expanding food availability, and therefore it places emphasis on increasing food output. However, FAD claims fail to explain how hunger can occur without a decline in food availability, such as in the Bengal famine of 1943, the Ethiopian famines of 1973 and 1974 or the Bangladesh famine of 1974 (Sen, 1981). They do not provide any explanation either about why some groups rather than others can access enough food, despite a decline in food availability.

The case of experiencing a general crop failure is worth looking at more carefully. A decrease in food production may seem like a decline in food availability. However, adequate food imports may keep food supply stable in the economy. If, in such a situation, hunger still develops among the rural population, the reason is not a decline in food availability in the national market, but a failure of entitlements of those peasants whose crop has failed. Since food production is their main source of income and entitlement, a crop failure will erode their ability to either consume directly the food they planted or to exchange it in the market for other commodities including food.

It is therefore important to distinguish between food production as a source of income and food production as a source of supply of the vital commodity food (Sen, 1990:202). Expansion of food production is to be given priority in a particular food security policy³ if the livelihoods of the majority depend on agriculture, their chances to access other sources of livelihood are fairly limited, and there are strong links between the agricultural sector and the other sectors of the economy. Therefore, such a policy finds its rationale in the role of food production in generating entitlements rather than just supply.

-

³ This seemed to be the case in the Estrada Administration declared goal of attaining self-sufficiency in rice in the year 2002, corn in 2003, and fish in 2004.

The entitlement approach does not imply that food availability is unimportant in fighting hunger and malnutrition. However, it points out that it is only one of many other factors affecting people's access to food, and sees this influence as operating through entitlement relations. For example, a decline in rice production may lead, in the absence of adequate imports, to higher rice prices, therefore producing a shift in the exchange entitlement mapping of different occupational groups, whose entitlements are also influenced by other changes in their endowments or exchange entitlement mappings. This shift will be unfavorable for many, but may be favorable for rice producers whose livelihoods are heavily dependent on rice prices.

Indeed, "The entitlement approach requires the use of categories based on certain types of discrimination" (Sen, 1981:156). In understanding why some people are not able to acquire enough food, the entitlement approach views them "not as members of the huge army of 'the poor', but as members of particular classes, belonging to particular occupational groups, having different ownership endowments, and being governed by rather different entitlement relations" (Sen, 1981:156). The category of 'the poor' may not be a very helpful one in analyzing 'poverty', since different groups, whose members have endowments and exchange entitlement mappings different from those of members of other groups, get there in different ways. The entitlement approach calls for a much greater refinement of categories than that of 'the rich and the poor'. The use of these more refined class or occupational categories unveils the entitlement relations by which different groups gain access to food.

By placing the acquirement problem at the core of its analysis, the entitlement approach warns about the dangers of a food production centered view that confuses supply with command. Moreover, the entitlement approach goes beyond an explanation of hunger through shortage of income and purchasing power, by exploring the causal mechanism by which some people, and not others, do not have the income to command enough food⁴.

_

⁴ Likewise, it also takes into account direct entitlement to food, that is to say, each peasant's possession of the food he has grown, which he is entitled to consume directly. However, this may also be seen as "notional" income.

Several limitations of the entitlement approach, some of which were already noted in *Poverty and Famines*, have been raised. These include its excessive legalism and neglect of other non-legal transfers or the need to bring into the analysis intra-family distributional patterns. However, these limitations do not undermine the central importance of the acquirement problem and the rationale for using entitlement analysis.

The entitlement approach provides a useful general framework from which public intervention can be undertaken to prevent and reduce hunger. In placing the issue of "access" at the center of the "food problem", this approach is also establishing the criteria by which to assess different public policies aimed at enhancing food security.

Therefore, public policies can be assessed under this framework in terms of their contributions to creating, securing, and enhancing entitlements. One way or another, public policies have an impact either in the endowments or the exchange entitlement mappings of different occupational categories. For example, agrarian reform policies have a direct impact in the endowments of formerly landless agricultural workers. Trade liberalization policies in the agricultural sector have a direct impact in the exchange entitlement mappings of farmers. The role of the policy maker will be to formulate those policies which are more effective and efficient in protecting and enhancing people's entitlements.

In this sense, the entitlement approach "is not in any way a departure from the old traditions of economics. It is, rather, a reassertion of the continuing concern of economics with the mechanism of acquiring commodities" (Sen, 1990:193). Various theories of the determination of the values of different variables that are crucial for entitlement analysis, such as prices, may all be consistent with the general entitlement approach. This approach is an economic approach to the problem of hunger and starvation and, as such, makes use of the tools of economics.

But how can this general framework be operationalized for both components of our research, rice and fishery? Let us now recall the objectives of both researches conducted under the TWG on food security. The sub-group on rice attempts to assess the impact of SAP-induced tight fiscal policies on the rice industry, as a proxy to its impact on food security at the macro level and on the food security of small rice farmers. The sub-group on fishery chose to assess the impact of SAP-induced export promotion policies on the food security of coastal communities.

As such, the level of analysis in the rice component of the research is higher up than that of the fishery component. Whereas the former centers around the impact of a given policy on an industry at the macro level, the latter focuses on the impact of a given policy on a particular community at the micro level.

It is more common to find in the literature applications of the entitlement approach at the community/individual level, for this approach leads to the conclusion that food security is mainly an individual and community concern, that is to say, it is primarily individuals or communities that are food insecure, rather than states. However, there have been some attempts to operationalize the entitlement approach at the macro level. Christopher Stevens, Romilly Greenhill, Jane Kennat and Stephen Devereux (1999) authored one of such attempts, in their assessment of the likely impact that a new WTO agreement on agricultural trade may have on the food security of developing countries.

They identified a set of policies which aim directly to improve food security, either by promoting entitlements (entitlement promotion policies) or protecting them (entitlement protection policies). Then, they grouped such food security policies into five categories. The first four relate directly to the four categories of entitlement relations or sources of entitlements mentioned earlier. The fifth refers to enabling macro and sectoral policies (Table 1).

Table 1. Food security policies and entitlements

Policy by category	Policy
Food production	1. Input credit

(production entitlements)	2. Subsidized or free inputs
	3. Research and extension
	4. Capital expenditure and investment promotion
Marketing	Market development and regulation
(trade entitlements)	2. Parastatal reform
	3. Food price stabilization (buffer stocks)
	4. Food price stabilization (buffer funds)
Labor	High-value export crops
(labor entitlements)	2. Small- and medium-enterprise development
	3. Micro-finance
	4. Minimum wages
Transfers and safety nets	Labor-intensive public work programs
(transfer entitlements)	2. Targeted feeding programs
	3. Food stamps
	4. Food price subsidies
Enabling macro and sectoral policies	Infrastructure (transport, communications)
	2. Exchange rate policy
	3. Health
	4. Education

Source: Stevens et al., 1999:21

This categorization of polices should not be perceived as rigid and fixed, for "some policies span more than one group, and [...] each policy is likely to have indirect effects on other forms of entitlements" (Stevens et al., 1999:20). Rather it serves as a general guide to facilitate analysis.

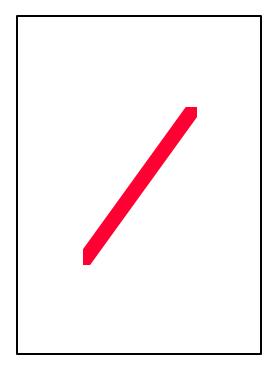
It is therefore possible to establish the impact of any given macro policy on these food security policies, and therefore on the different entitlement relationships they aim to promote or protect. In our case, SAP-induced tight fiscal policies have an impact on most of the food security policies listed above. However, given the time and resources constraints, the rice component of the research would only consider a selection of those policies, specifically those that apply directly to rice. Moreover, some of those food security policies are not being implemented in the Philippines.

For instance, SAP-induced tight fiscal policies may adversely affect the provision of subsidized inputs or capital expenditure, such as irrigation. This in turn affects the overall level of rice production, which leads to a decrease in the production entitlements of rice farmers. Similarly, the low level of rice production indirectly affects the trade entitlements of rice consumers through an increase in the price of rice, although this

favors the trade entitlements of rice producers. However, their gain in trade entitlements may not compensate for their loss in production entitlements.

As such, the rice component of the research explores the patterns of government expenditure for some of the food security policies mentioned above, and establishes causal relationships between the scarce government support, originating from SAP-induced tight fiscal policies, and the sluggish performance of the rice sector in the Philippines.

In the fishery component of the research, however, the object of the study is to assess how a given policy has influenced the access to food of a coastal community. Since the terminology of the entitlement approach is somehow difficult to grasp intuitively, the team decided to use alternative terms, more adapted and understandable to the community under study. As such, instead of directly referring to exchange entitlement mapping or endowments, the study distinguished between environmental and socioeconomic impact.



In general terms, the environmental impact can be identified with the impact on the endowments of the community, and affects primarily their production entitlements. The

socio-economic impact can be generally translated into the impact on the exchange entitlement mapping, and mostly impinges on the trade-, labor- and transfer-based entitlements. This distinction, however, is not as clear-cut as it may appear, for both environmental and socio-economic impacts are likely to have effects, to varying degrees, on all sources of entitlements.

In conclusion, even if both components of the research assess the impact of different SAP-induced policies, are concerned with different sectors, and address different levels of analysis, they are still guided by the same theoretical framework, and they both make use of this framework in exploring the issue of food security. The next section outlines the findings and results of both the "rice" and the "fishery" studies.

3. The answer to the question

Structural Adjustment refers to a set of policy reforms that seek to correct "structural" disequilibrium in the external and public balances and to eliminate distortions that allegedly prevent an efficient allocation of resources in the economy. It is often distinguished in the literature between stabilization and adjustment. The former, usually associated with the International Monetary Fund (IMF), has a short-run perspective and aims at improving macro-economic balance and stability. The latter, which is associated with the World Bank, is concerned with medium to longer term measures aimed at removing distortions in product and factor markets. This distinction, however, has eventually become blurred in practice, and therefore, the term "SAPs" is used in this paper to refer policy measures linked to both structural adjustment and stabilization.

More often than not, SAP-induced policy reforms are required as conditions to receive loans from the World Bank and the IMF. However, there are other multilateral financial institutions, such as the Asian Development Bank (ADB), or foreign development agencies, such as Japan's Overseas Economic Cooperation Fund (OECF), Japan's Export-Import Bank (JEXIM), and the United States Agency for International

Development (USAID), that support these reforms through grants and loans. Some of the conditionalities attached to these loans are sector specific, such as the Fisheries Sector Program financed by ADB and OECF in 1989.

During the period 1980-1998, the World Bank's adjustment lending to the Philippines amounted to US\$ 2,376.3 million, channeled through 10 structural adjustment loans. Since 1962, when the Philippines first availed of an IMF loan, the country has undergone numerous episodes of IMF stabilization programs. As in many other countries, the main policies promoted by SAPs in the Philippines included reductions in public expenditure, currency devaluation and foreign exchange liberalization, price decontrol, desubsidization, privatization and/or reform of Government Owned or Controlled Corporations (GOCCs), interest rate deregulation, trade liberalization (including both tariff reform and import liberalization), export promotion, and fiscal, financial and investment policy reforms.

Rice

These measures have undoubtedly had an impact on different economic sectors as well as on the economy as a whole. Given that in the Philippines rice constitutes the staple food of around 85% of the population, and it plays a fundamental role as a source of income in the rural economy, where the majority of the poor live, the rice industry emerges as a key sector if we are to assess the impact of such reforms, or any one of them, on food security.

Whereas it is clear that rice self-sufficiency does not equate food security (Cabanilla, L. S: 1997:2), it must also be recognized that domestic rice production has an important bearing on both food availability and affordability. Moreover, since rice farming constitutes an important source of income for many of the rural poor, in the absence of alternative livelihoods the performance of the rice industry adequately represents the level of entitlements of a significant number of the rural population.

As such, the rice component of the research sought to determine how SAP-induced tight fiscal policies have affected some of the food security policies mentioned earlier in section 2, therefore preventing the rice industry from generating adequate income for the rice farmers as well as meeting the rice requirements of the country.

The research encountered a number of problems regarding the availability, accessibility and organization of data on budget appropriations and actual expenditures at both the national and local levels. However, it is still possible to make some general assertions regarding public expenditures for agriculture and their distribution by policy instrument, albeit cautious ones. Even though it is difficult to identify any clear trend in public expenditure for agriculture, it is noticeable that the expenditures of the Department of Agriculture (DA) in real terms between 1990 and 1998 were always below the level of 1989, with the exception of 1997. It is worth mentioning the case of irrigation expenditures, which fell dramatically in the 1980s and only leveled-off by the mid-1990s.

In any case, it seems clear that government support for rice production has not kept pace with the raising needs of a fast-growing population. The quantitative ceilings on budgetary deficit imposed mostly by the IMF prevented adequate and necessary investments in the rice industry. As a result, the irrigated rice area in the Philippines ranks next to the last in the Southeast Asian region. Only around 48% of irrigable area is irrigated. This can partly explain the fact that the Philippines has the second lowest yield per hectare in East Asia, only ahead of Thailand, but behind China, Japan, South Korea, Vietnam, Indonesia, and Malaysia.

In consequence, the Philippines has become chronically dependent on rice imports. Whereas the country was a net rice exporter until 1983, in the period 1984-1992 it has only seen three years of positive trade balance in rice, and since 1993 it has always registered a negative trade balance. In summary, the rice industry in the Philippines has been unable to keep pace with the increasing demand, making the country dependent on imports from abroad to be able to meet the dietary needs of its population. In an industry where only 5% of the total production is traded internationally, and where international

prices behave with a significant degree of volatility, this poses a serious risk to the food security of the population. Moreover, the low level of productivity translates into a low income level for rice farmers, for whom rice production constitutes their main source of entitlement.

Fishery

If we look closely at the policy changes induced by SAPs and the growth of commercial shrimp farming in the Philippines, we can identify a strong linkage between these policy changes and emerging incentives for export-oriented shrimp culture activity in the country. The fiscal and financial incentives provided under SAPs created a conducive export-friendly environment which encouraged commercial shrimp farming. In line with the overall framework of export-led growth, the export promotion measures included improved export financing facilities, duty-free or low tariff access to inputs by export producers, tax holidays and other fiscal incentives for export production and trading, elimination of export tax on all products except logs, and restructuring of the investment incentives system to encourage export ventures. Currency devaluation also played its part in making export activities more profitable.

Taken together, these policy reforms put in place a conducive environment which stimulated investments in export-oriented activities, such as shrimp culture. Therefore, the transformation of subsistence or small-scale shrimp culture into an export-oriented activity can be traced back to policy reforms introduced by SAPs. However, the emergence of shrimp cultivation as an export-oriented activity has given way to the use of intensive shrimp farming methods, in order to quickly recover investments and amass vast profits in the shortest possible time. This, in turn, has caused severe environmental and socio-economic impact in the local communities where these intensive shrimp farming methods have been utilized.

In order to assess these impacts, two case studies were conducted in the municipalities of Hinatuan, Surigao del Sur province, Mindanao; and Dilasag, Aurora province, Luzon.

Both field researches showed that the intensive and semi-intensive shrimp farms in the areas under study had caused a wide range of environmental and socio-economic effects which undermined the surrounding communities' sources of entitlement.

These effects include mangroves and coastal vegetation deforestation through their conversion into fishponds; loss of common property rights in favor of private property of land and water resources through permits or titles; degradation and pollution of coastal ecosystems and adjacent land and water resources, through the use of chemicals, pesticides, antibiotics, and accumulation and discharge of untreated residues, such as prawn wastes and uneaten feeds; and salinization and depletion of local water resources, which also decreases soil fertility.

This resulted in the reduction of fishing grounds and fish carrying capacity in the smaller fishing area, which reduces total fish stocks (both in number of species and in terms of volume), diminishes fish catch and, therefore, erodes income. It also damaged and reduced crop areas and limited the capacity to engage in traditional economic activities, leading to increased income erosion and growing income inequality. The low level of income reinforces the use of illegal fishing methods and encourages overfishing, which further depletes the local fish resources. As a result of all these, the community's capacity to secure enough food for all people at all times was undermined.

4. Conclusion

In the Philippines, SAPs have been of great influence in shaping the development strategies of the country. During the last twenty years, significant changes in the patterns of production, in the volumes, distribution and composition of output have been encouraged through policy reforms required as conditions to receive loans from multilateral financial institutions and foreign development agencies. It is difficult to isolate the impact of such reforms from other internal factors and external shocks that greatly influence the political, social, and economic arena.

For instance, weather is perhaps one of the most important factors in determining changes in economic performance, especially in the agricultural sector. Also, the decades-long conflict in Mindanao does not make things easier to boost agricultural productivity in the Philippines. Moreover, fast population growth has brought to the attention of public discourse the issue of land shortages and pressures. However, it would also be naï ve to deny the responsibility that SAP-induced policy reforms bear on the current level of food insecurity in the Philippines.

The research papers on which this synthesis report is based include a number of recommendations regarding their respective areas of concern, namely rice and shrimp farming. Here we would just like to underscore the main lesson learnt after two decades of structural adjustment: that it is necessary to integrate social and environmental concerns into development strategies.

References

- Cabanilla, L. S., 1997, "Achieving food security in the Philippines: some critical points to consider", *CPDS Working Paper* No. 97-01. Laguna: University of the Philippines Los Baños.
- Dreze, J. & Sen, A., 1989, *Hunger and Public Action*. WIDER Studies in Development Economic Series. Oxford: Oxford University Press.
- Eicher, C. K. & Staatz, J. M. (eds.), 1990, Agricultural Development in the Third World (2nd edition). Baltimore: The Johns Hopkins University Press.
- Sen A., 1990, "Food, Economics, and Entitlements", pp. 189-205 of Eicher, C. K. & Staatz, J. M. (eds.).
- Sen, A., 1981, *Poverty and Famines: an Essay on Entitlement and Deprivation*. Oxford: Oxford University Press.
- Stevens, C.; Greenhill, R.; Kennan, J.; Devereux S., 1999, The WTO Agreement on Agriculture and Food Security. London: Commonwealth Secretariat.