

## **Development Box: Can It Adequately Address the Agricultural Crisis in Developing Countries?**

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### **Agricultural Negotiations in Geneva Have Reached Critical Phase**

The agricultural negotiations in Geneva have now reached a critical phase. The workplan agreed by governments on 26 March in Geneva states that a series of meetings will be held this year on Export Subsidies (June), Market Access (September), and Domestic Supports (September). This will then be followed by a fourth meeting in November on matters requiring follow-up. The Chairperson of the Committee on Agriculture, Special Session, Stuart Harbinson (who was responsible for putting together the Doha Declaration pre-Doha) will present an 'options' paper by 18 December. This paper would be refined by February. If pre-Doha strategies are anything to go by, it is likely that his final draft will be his 'interpretation' of a possible compromise position.

There will be 3 meetings early next year – January, February and March. By March, the modalities would have been agreed upon. There is currently some confusion exactly what this means – whether it means agreement only on the rules eg. further reduction on tariffs and the type of formula that would be used, or whether even the percentage of reduction would be agreed upon (The WTO website says that the specific figures will already be out. However, this is not clear from either the Doha Declaration, or the Work Programme for phase 3).

The plan is that by the time of the Fifth Ministerial, there would already be a clear idea of what the new Agreement on Agriculture would look like. After the 5<sup>th</sup> Ministerial, governments will be working on drafting their specific commitments. The fast-paced negotiations may imply that any opposition by developing countries could be silenced on the premise that time is short. Worse still, and if Doha is anything to go by, pressure will be put on capitals to get agreement, bypassing Geneva developing country negotiators who know the details better and may be objecting and calling for a more balanced agreement.

### **What Price Will Developing Countries Have to Pay for A Development Box?**

The critical phase of negotiations makes it important that we carefully but quite quickly evaluate the proposals on the Development Box that have been presented, and to flesh out more the nuances in some of the current Development Box debates.

When NGOs first began work on this issue, together with the South Centre and government delegates in Geneva even before Seattle, we never dreamt that the issue would get the publicity that it now has – thanks to the work of several different groups of actors.

However, even as we celebrate the publicity that it now enjoys, one question that today becomes increasingly important is: *what price are we going to have to pay for it?* Would we get a good enough Development Box that warrants the price we will pay?

When I talk about price, I am not only referring to what concrete trade-offs may happen in the negotiations, but I'm *also* talking about the good public image that the big countries will get from providing a Development Box, to legitimise pushing aggressively in other areas.

What do I mean? In Doha, because developing countries got the TRIPS Declaration, it became extremely difficult for us, even though many were unhappy with the declaration, to oppose its final adoption on the grounds that the Doha Agenda (as a package and on specific issues) was not development friendly. When it comes to the crunch and Ministers are making decisions, whether or not countries are able to veto a decision that they do not find in their interests, depends a lot on public opinion. For example, the African / LDC Ministers found it difficult to continue their strong position on saying no to the new issues, and risk the 'failure' of the Ministerial. They would not have come out looking 'reasonable', given that they had been given the TRIPS declaration and also the ACP waiver. Countries opposing would have suffered reprisals from the big countries that badly wanted a new round.

The WTO as an institution continues to be in need of gaining legitimacy. Giving developing countries a Development Box would be a sure way of getting this 'legitimacy', which the rich members of the institution want so badly, so that the institution works smoothly for them. They can now publicise that they are paying full attention to the needs of the poor. However, depending on what is in the Development Box, the value of it may be a gross exaggeration. Unfortunately, for those who do not read the fine print, the real value of a legal text may be hard to decipher in a hurry. Many developing country Ministers, as political appointees rather than trade experts, fall into this category.

I am not at all implying that we drop the Development Box proposal. However, we (as Southern governments and civil society) *have* to do our calculations right. What type of Development Box should be our bottom-line? Does it go far enough in addressing the agricultural crisis on the ground in developing countries that it is worth the high price we would pay?

This issue will be tackled again later on under the section on strategies. The next sections will first deal with the important issue of why the Development Box was mooted in the first place, what the objectives of it should be, and therefore what elements in the Box could in fact adequately and effectively address the problems on the ground.

### **Small Farmers Production Methods and the Incompatibility with the World Market**

The rationale behind the Development Box has always been as follows:

- to protect small farmers livelihood and employment (given the lack of adequate alternative employment opportunities in the industrial sector in most countries)
- to increase food security in the South
- to increase domestic production of food that will be consumed domestically.

The premise behind these objectives is that agriculture in the South, unlike in developed countries, plays a special role in employment and the contribution to a significant portion of the GDP. Most countries already have problems paying for their imports. Imports have in the past 7 years escalated. If this continues, there would be further repercussions on food security. At a household level, the rural poor, if not given the opportunities to produce, would not be able to afford food, even if this is available at cheaper prices.

The very different situation of agriculture between developed and developing countries can further be seen in the different types of agricultural production systems. Developing countries' agricultural systems are changing – from subsistence type farming to industrial export oriented production. However, this change is NOT working well for the majority of

Firstly many find it difficult if not impossible to convert to export production (when the domestic market is flooded by cheap imports). Many cannot afford the technology and high costs of inputs necessary to get a product up to the standards it must be to be competitive on the world market.

Secondly, those that do successfully convert to exports, do not necessarily survive. Many find they do not have the economies of scale, up to date information, and IMPORTANTLY, do not have the financial prowess to withstand the price fluctuations and the fickleness of the market.

Thirdly, for most small farmers, the high value crops are just not financially viable. They require high cost of inputs for the output that they get. Studies done comparing the different models of production have found that farming households that use a high chemical and energy input model of production are financially worse off than those that use sustainable methods, because of the big financial outlay. For example, in Thailand, the result has been that small farmers have been getting into an ever deeper cycle of debt.

The failure of the export model to work for small farmers, is resulting in the increasing concentration of farms in developing countries today. Local markets are being usurped by cheap dumped imports from OECD countries, and the very competitively priced products from the group of exporting developing countries, Small farmers are slowly being squeezed out as the bigger farms take over those who are no longer viable. *This is resulting in the displacement of people, the aggravation of food insecurity and rural unemployment and thus poverty.* This lies at the heart of the rural crises we are witnessing in many countries.

An important part of a wholistic development strategy would be to ensure that small farmers are retained on the land, and able to earn a living from agriculture. This scenario requires that local markets must be made available to them. Research in traditional agroecological methods of farming have proved effective in raising the yields of small farmers, without having to rely on monocropping and high chemical input methods of agricultural production. Instead, these methods use the intensification of biodiversity, multiple-cropping, intercropping, and the intensification of local inputs, such as labour and local knowledge.<sup>1</sup>

Trade policy thus has a critical role to play in alleviating the plight of small farmers and the rural poor since for most, the export model is not viable. It is local markets that can sustain these farmers. **Implementing border measures becomes critical for their survival. Developing country governments need to make a conscious effort to put in place trade rules which puts the survival of their small farmers and rural poor as a priority, and gives them access to the local markets.**

How much of the local market should be protected, is now a question that is being asked. Is it possible to limit protection to key staple crops eg. 10 – 12 crops? This idea has been alluded to in the Development Box debate. I do not think this is adequate, given that the integrated /agroecological model of farming requires a diversity of crops for its very survival. Unlike monocropping methods that rely on intensive use of energy and chemicals, sustainable, low chemical-input farming requires the intensification of biodiversity, in order to achieve a productive, balanced and stable ecological environment which is resistant to adverse conditions – climate, drought etc.

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<sup>1</sup> A more complete discussion of this issue is available in the paper by Kwa, 'Setting the Modalities of Negotiations on Agriculture: Reviewing Agricultural Production Systems', attached in Annex 1 (pp

Also, in the industrial model of agriculture, a wide range of foods can be cultivated, almost regardless of the environment and climatic conditions. Almost anything is possible – with high energy inputs, chemicals and modern technology. (This sounds appealing but the reality is that more energy inputs are required than the energy output produced. It is therefore too expensive for small farmers). This is not the case with sustainable agroecological methods of farming. Here, climatic conditions and an appropriate environment are critical. Again, this raises questions as to the possibility of limiting ‘food security crops’ to 10 or 12 items, since small farmers’ crops would be different in the different micro-climates within a single country, and would also differ according to the seasons. It is therefore not possible to tell all farmers throughout a country that may have a diverse terrain, to plant similar crops.

### **Agriculture Crisis on the Ground- When are we reaching the Point of Breakthrough? Difficult Strategic Questions**

Today, social movements in the South, as well as many NGOs working on agriculture from the South, are asking for agriculture to be taken out of the WTO.

These groups have been accused of having poor analysis of the problems, wanting to put disproportionate amounts of the blame on the WTO, overlooking their domestic problems etc. It is true that not all the ills of the small farmers arise from trade policies (and these groups know that). Nevertheless, inappropriate trade policies have played a major role in the crisis we witness today. Trade policies of course result not only from the instruments of the WTO, but also the Bretton Woods Institutions and regional banks.

The position of ‘Take WTO Out of Agriculture’ has been arrived at largely because of the desperation people are at, having suffered the terrible impact of imports flooding their local markets, and the consequences on their livelihoods. The place of small farmers *have* deteriorated in the past decade in most developing countries.

Those dealing with trade policy negotiations (even the most well-intentioned governments and NGOs), are unfortunately in danger. We do not lose sight of the problems, however, we are today, seriously in danger of losing sight of the *degree* of these problems.

The big questions to ask ourselves are:

- 1) *While attempting to speak for the poor, are we going far enough in our solutions, so that we can effectively address the rural crisis on the ground?*
- 2) *Do our solutions emerge from the framework of what we think is achievable in the political context of trade negotiations, in which case they may not work effectively for small farmers. Or are they solutions that begin from the premise of the need to truly address the crisis on the ground?*
- 3) *If our solutions are attempting to take into consideration the political context of trade negotiations and are thus less ambitious, are these nevertheless worth pursuing in the short term in the hope that they could be strengthened?*

*Or would these less ambitious solutions jeopardise the ability to attain real and meaningful solutions to the crisis in the future? The problem here is that whether justified or not, we would have legitimised the institution and made it appear to already be development friendly, thus making it harder for further more radical and effective change to take place.*

## Development Box Objective and Elements

So far, the Development Box debate in Geneva has been an effective rallying point for some developing country governments, notably the Friends of Development Box (FDB). They have been able to spell out their needs for more policy flexibility to address rural livelihoods and food security. It has also been a platform for pointing out the inequitable terms of agricultural trade now taking place, and the dumping of subsidised imports from the OECD countries.

There are a variety of Development Box (DB) elements. At this moment, the proposals in Geneva by the FDB on Development Box and Special and Differential Treatment (S and D) are not differentiated. The same proposals have been put forward under both categories.

The specific proposals are listed in Annex 2 on page 18.

### Do These Elements Go Far Enough to Address the Crux of the Problem? The Case for A Positive List Approach

All the mechanisms listed in Annex 1 are important. Reducing OECD subsidies – domestic or export subsidies - are crucial for small farmers to survive in their domestic markets. However, the most important defensive mechanisms are the border measures. While these are the only way Southern countries protect their farmers, the North, on the other hand, uses not only border measures, but also a range of subsidies (which have increased by 50% since the inception of the Agreement in 1995). The ability to subsidise is not a useful mechanism for developing countries – they do not have the money. Border measures do not immediately cost the government, and also are a potentially useful source of income.

Amongst others, the border measures listed under the Development Box are

- 1) A positive list approach – only certain crops would be subject to the disciplines of the Agreement. (It has not so far been spelt out, but I am suggesting that only those crops which are exported are listed).
- 2) Safeguard mechanism for all products
- 3) The rationalisation of bound tariff levels to ensure that low tariff rates on crops important to small farmers and food security can be raised.

Of these measures, the most potentially powerful, is the recommendation of a positive list approach. The Friends of Development Box governments have advocated this. However, there now emerges a debate amongst the broad constituency working on this issue about whether this should be a positive or negative listing.

I argue below that the negative listing is inadequate in addressing the problems. In fact, a list of even 12 products may inadvertently lead to the demise of the biodiversity-intense form of agricultural production, threatening the viability of small farmers.

Take a concrete example of Country X. Below is a list of crops that are sold at the local market. All these crops are produced by small farmers. The different crops are listed according to the regions and different climatic conditions in the country. It is by no means an exhaustive list.

Lowlands	Uplands	Jungle
rice	Wheat	Guava
Pineapple	Potatoes	Little Orange
Papaya	Corn	
Coconuts	Red beans	
Mango	White beans	

Green Bananas	Other kinds of beans	
Bananas -variety	Peas	
Watermelon	Peaches	
orange	Apples	
tomatoes	Pears	
lime	Prunes	
Palm oil	Lemons	
sugarcane	Raspberries	
Corn (feed)	Strawberries	
yam	Grapes	
cocoa	Garlic	
coffee	Onions	
cucumber	Cauliflower	
avocado	Carrots	
soya	Beetroot	
capsicum	Pumpkin	
poultry	Quinoa	
Melons - variety	Pork	
	Beef	
	Cabbage	
	Avocado- variety	
	Tree tomatoes	
	Oca	
	Lettuce	
	Alfalfa	
	Yeast	
	Herbs -cumin	
	Basil	
	Oregano	
	Parsley	
	Mint etc	
	Medicinal Herbs - MANY	

If all the varieties are counted, we could easily surpass 100 different crops on this limited list alone. These are the range of products that make up the diet of people from this country, and which can be called real food security.

#### What is the Positive List Approach?

- 1) Only products listed will fall under the commitments of the Agreement on Agriculture.
- 2) There can be some criteria for what should be listed –for example, the products that we export beyond a certain significant percentage of the volume on the world market should be subject to domestic support, export subsidy and anti-dumping disciplines. Market access (or border measures) should not be included. For example, Country X exports Green Bananas, and should list Green Bananas on their positive list. Green Bananas would then be subject to domestic and export subsidy disciplines. However, Country X should be able to have flexibility in border measures for Green Bananas, so that their small farmers could be protected from the cheaper Green Bananas that could flood their domestic market from neighbouring countries.

Country X's positive list could therefore look like this.

Green Bananas  
Strawberries  
Broccoli  
Corn  
Pineapple

#### What is the Negative List Approach?

1) Only products that are listed are outside AoA commitments.

Those advocating a negative list approach take the position that only food security crops and crops that are grown by small farmers could be listed. The exact definition of 'food security crops' or 'small farmers' has not yet been determined.

Whether or not there should be a limit on the list is also unknown and a possible negotiating point. It could turn out that governments will be pressured to put a limit on their list. The crops that are listed would be completely outside of AoA commitments. All other crops would have to be under commitments.

Country X's negative list could look like this.

Rice  
Wheat  
Potatoes  
Corn  
Red beans  
White beans  
Sugarcane  
Avocado  
Green Bananas  
Tomatoes  
Garlic  
Onions

#### Arguments for the Positive List

The major question about a negative list approach is whether or not it provides small farmers sufficient coverage from yet another round of agricultural liberalisation, when many are already reeling from the present effects of the Uruguay Round.

If we want maximum policy flexibility in order to address these problems, we would clearly get this from the positive list approach, more so than the negative approach. More products are excluded from commitments with a positive list.

A key question about the negative list approach is whether we are able to even limit food security crops of small farmers to a numerical number, eg. 12. This is important in light of the earlier discussion on the need for a different production model for small farmers, and the biodiversity-intensity that is associated with this model.

The positive list approach is likely to be more beneficial for small farmer because:

1) Only listing for instance 10, 12 or even 20 crops (in the negative list approach) would deprive *many* other small farmers of crops they would otherwise produce.

- 2) Narrowing down your food security crop base could have an impact on narrowing down your nutritional base, affecting food security negatively.
- 3) From a small farmers' production point of view, narrowing down the list of 'food security crops' could adversely affect the very survival of their integrated /biodiversity intense model of farming. It would not be financially prudent for them to invest in planting a crop if it is being sold very cheaply on the local market. In the long run, the scenario could be that small farmers will have to rely only on having access to local markets in the 10 or 12 crops. The shrinkage of biodiversity, on which the very viability of their livelihood depends, could in the medium term lead to these small farmers' own eventual demise. Even if the list is 12, only 1 or 2 crops may be appropriate for any 1 farmer, depending on the conditions of natural resources available. It is even possible that the most viable crops for a farmer may not be listed.
- 4) The issue of processed products:  
If we want agriculture to be the engine of development, we would have to provide the conditions that allow stronger links between the agricultural and industrial sector. We therefore would want to develop our ability to produce processed products, as opposed to only producing and exporting low value, raw materials. If this is the case, we would also need to protect some processed products. This area is also likely to change over time. It is therefore much easier listing the processed products that countries export, rather than listing the products we want protected, now and in the future.

### **What About South-South Trade?**

A question that has been asked many times by some developed countries and also the members of the Cairns Group is this: What about South-South trade? Would it not be anti-development if protecting our borders for food security reasons affects the exports of other developing countries?

The positive list model suggested above does not suggest that all trade comes to a halt. Of course countries will continue to trade. However, if one country's exports are affecting another's food security or livelihoods, the recipient country would then have the right to take the necessary actions to address the situation.

Developing countries' exports not solely, but do mostly come from the big farms and plantations. The rights of small farmers should therefore be exercised. The same principles behind the Development Box would apply even for South-South trade. What if the exports that are affected come from small farmers? The affected developing country would also have its own market that it can choose to protect. It would be up to the farmers to find new markets abroad, or, more likely, up to the government to implement the border measures available in the Development Box, so that their farmers can sell the crops that are in demand in their own domestic market.

The possibility of having anti-development consequences is therefore a fallacy if a country, under a positive list approach, is able to provide its own market to its small farmers. Indeed, quite the opposite outcome is likely, since the local market provides opportunities also for the small players, whereas foreign markets provide access mostly only for the big players.

### **Strategies for the Present Agriculture Negotiations**

The following are broad strategies that can be considered in the coming negotiations:

- 1) Increase the usage of our moral capital. For example, in the TRIPS and Health issue pre-Doha, it became difficult for the big countries to say an outright no to a moral issue. We also have on our hands a serious humanity crisis- of food insecurity, rural unemployment, abject and degrading poverty.

In the light of this crisis, negotiators should recast the words ‘flexibility’ and ‘compromise’ in negotiations. The notion that negotiations should be about reaching compromise between the various actors – US, EU, Cairns Group, FDB – must be challenged. What is ‘reasonable’ should be seen as what could be an effective solution when it comes to addressing our crisis on the ground (created, to a significant degree, by unwanted imports from the rich countries).

- 2) Weigh up the costs, not only in agriculture, that we have to pay. How much of public legitimacy we give to the institution and the major countries is a loss for us in arguing our case in this and other issues. This could well become very problematic as the Round progresses, and the developed countries are looking to load it up against our interest.
- 3) We should be extremely aggressive in stating the position that in as far as developed countries are protecting their farmers, it is our right and in fact duty as governments, to protect our small farmers. Use the fact that protection on the OECD side has increased over the last 7 years, and by 50%! In contrast we are merely wanting to protect small farmers who do not even distort the world market.

*One argument that can be used is that until and unless overall subsidy levels in OECD countries are brought down to a de minimis 5%, developing countries are fully justified to have a Development Box based on a positive list approach.*

#### More Specific Strategies:

These are suggestions and more debate and discussion should take place on these issues to bring more clarity to our strategies:

#### ***Special and Differential Treatment (S and D) or a Development Box (DB)?***

- We may want to differentiate at some point (when, warrants a full discussion) the difference between S and D and DB. For example, we could classify the safeguard mechanism we are asking for, and the rationalising of tariffs, under S and D. Should the DB not materialise, we would still fight our case on S and D. The point with S and D is that we need not pay a price in terms of public opinion.
- If and when this separation takes place, only the positive/ negative list approach could be listed under the DB.
- If we do not get something that gives us the flexibility that we want, such as a positive list approach, consider NOT having a DB – only an S and D. This is because the price we would pay in terms of public opinion would not be too large and out of proportion to an instrument which may not fully and effectively address our problems.

## Annex 1

### **Setting the Modalities for Negotiations on Agriculture: Reviewing Agricultural Production Systems**

**By Aileen Kwa  
Focus on the Global South**

The dissatisfaction of many developing countries with the present Agreement on Agriculture and its results is well known. The present negotiations are expected to redress this situation. It is important for this purpose to set, at the very beginning, the right objectives and modalities for these negotiations. The present paper is an attempt in this direction.

There are broadly two models of agricultural production systems. The first model of production is the subsistence, small family farm model, whereby the food needs of the family are primarily met by on-farm production. Farm inputs are usually locally available and affordable. Excess production is sold on the local market and the income earned is used to pay for the other off-farm goods and services needed by the family. This has traditionally been the agricultural production model in developing countries.

However, agricultural trade liberalization as a result of structural adjustment policies of the World Bank and IMF, and the WTO's Agreement on Agriculture, is pushing small farmers in developing countries to shift increasingly from the subsistence model to the industrial, export-oriented model. This model is characterized by the use of high yielding seeds and monocropping methods which are chemical-input and resource intensive. Farmers sell their produce after harvest and use the income to purchase their food and other needs. The theoretical argument is that with specialization, there will be welfare gains all round. Countries will earn from their exports, while also paying less for their food imports. But, recent experiences have shown that the reality is much less clear-cut. While the theoretical benefits of the industrial model have not materialized for all, this model has had adverse consequences on the continued viability of small farmers, their livelihoods, and food security for the rural poor in developing countries.

The following sections will first deal with the special developmental functions of the agricultural sector in developing countries, followed by a comparison between the two models with an evaluation of which model best fits the needs of the rural masses in developing countries.

#### **The Special Place of Agriculture in Developing Countries**

The continued viability of the agricultural sector is critically important in developing countries for the following reasons:

- 1) It continues to be the main employer especially in low-income countries. It employs over 70 per cent of the labour force in low-income countries, 30 per cent in middle income countries, and only 4 per cent in high-income countries.<sup>2</sup>
- 2) It is a significant contributor to GDP in developing countries. Between 1990 and 1996, agriculture's value-added as a proportion of GDP was on average 34 per cent

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<sup>2</sup> UNCTAD 1999 'Examining Trade in the Agricultural Sector, with A View to Expanding the Agricultural Exports of the Developing Countries. and to Assisting them in Better Understanding the Issues at Stake in the Uncoming Agricultural

for low income countries as compared to 8 per cent in upper-middle-income countries, and 1.5 per cent in the high-income countries of the OECD.<sup>3</sup>

- 3) Agriculture continues to be an important source of foreign exchange and revenue. In 1996, for example, of 55 developing countries, half had a share of agricultural products in total merchandise exports in excess of 30 per cent. A quarter had a similar share in excess of 50 per cent.<sup>4</sup>
- 4) Food consumption accounts for a large share of total household income in developing countries, while in developed countries, it accounts for a small and decreasing proportion. Therefore, even small changes in agricultural employment opportunities, or prices, can have major socio-economic effects in developing countries. For most developing countries, the need is to raise agricultural productivity and increase production, particularly of basic foodstuffs. In contrast, in developed countries, the concern is to maintain a parity of income between the small proportion of the workforce in farming and those in industry.<sup>5</sup>
- 5) For many developing countries, food insecurity remains a big problem. The percentage of the population that is undernourished has barely changed since the early 1970s for LDCs and NFIDCs, at 38% for LDCs and 28% for NFIDCs. What is worse, in LDCs, where cereals constitute 52% of dietary supplies, per capita production has fallen for the majority of the LDCs between 1980 and 1998.<sup>6</sup>
- 6) For the majority of developing countries, food production for many families is synonymous to access to food since agriculture remains the major employer and since small farmers make up to 70 – 95 per cent of the farming population.

For all the reasons above, and also because it would be impossible for developing countries to provide alternative sources of employment for the rural poor, it is critically important that agriculture remains a viable source of livelihood for the majority.

#### *Comparing the Socio-economic, Development and Ecological Implications of the Two Models*

As international trade and financial institutions are creating trade policies which push developing countries more fully into the industrial model of agricultural production, it may be prudent at this juncture to first evaluate the social, economic, development and ecological implications of the two models.

#### ***Export-Oriented Industrial Agricultural Production: Socio-economic, Development and Ecological Implications***

##### **Socio-Economic Implications**

Research by various analysts have found that the experiences of small farmers' conversion to export crops, particularly non-traditional crops such as fruit, vegetables and flowers, have led to inequality-generating outcomes. The larger farms and traders in developing countries which are constantly expanding do well, but not so the small farmers. Export-oriented agriculture is input-intensive. The high costs are prohibitive, often implying that farmers must borrow in order to enter into production. Yet the risks are extremely high. All too often, as the

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<sup>3</sup> ibid.

<sup>4</sup> ibid.

<sup>5</sup> ibid.

big farmers gain, the small farmers find themselves in debt and gradually squeezed out of the sector.<sup>7</sup>

How does this happen? As a result of lowered tariffs and supports either due to structural adjustment or the Agreement on Agriculture, many resource poor farmers find that continuing to plant traditional crops is no longer financially viable. This is because imports have depressed prices of the traditional products. Field research in several developing countries has shown that the viability of traditional crops is often 'undercut by trade policies, leaving the rural poor without the peasant safety net of basic grain production for the domestic market and their own consumption'.<sup>8</sup>

Farmers are faced with either the prospect of losing their livelihoods or converting to non-traditional, input-intensive export crops. Already at this stage, many poor farmers may not even have a choice since this conversion requires a large start-up capital. Those who cannot afford it may have to sell their land (if they are landowners) and migrate to the cities in search for employment. Those who take the risk and convert to non-traditional crops find themselves in stiff competition with wealthy local investors and foreign corporations. They face unfavourable economies of scale and attain very little of the value-added in the total production and distribution of their products. The many hazards and risks which can eventually drive small farmers off the land include:

- Drastic price fluctuations from one year to the next as more suppliers come on board and the export market is saturated with oversupply. When returns do not cover the high costs, and this continues from one season to the next, chronic indebtedness results, leading finally to the loss of land and the loss of a previously viable livelihood.
- Due to financial constraints, the poor quality seeds which they buy or are supplied with can lead to heavy losses as a result of disease.
- Difficulty in finding a buyer for their meager quantity for the overseas market. Packers and exporters often prefer buying from the big farmers. Non-traditional exports are usually not consumed locally. Therefore, surpluses sold on the domestic market fetch little if any returns.
- Increased land values as a result of this new and potentially high returns the land can fetch. Many peasants are not legal owners of the land they farm. They are often renters, sharecroppers or simply squatters. Landlords are therefore more likely to either demand higher rent, or push them off the land and rent the land out to the big farmers who can grow these high-value crops.
- Difficulty in attaining credit, as compared to the bigger farmers, especially if small farmers do not own land. The interest rates charged to them are also invariably higher.
- Weaker bargaining power when negotiating farmgate prices due to the smaller scale of production, resulting in significantly lower prices received compared to the big farms.
- High rates of rejection of small farmers' produce. This is due to the lack of access to technical knowledge in order to meet the stringent appearance and quality standards of the importing market. In contrast, the larger farms often have the resources to hire foreign consultants with the technical know-how, and buy the equipment that is needed.
- Inferior yields compared to the big farms because they are less able to afford the amount of inputs required in order to attain the potential yields.

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<sup>7</sup> Conroy, Murray and Rosset 1996 'A Cautionary Tale: Failed US Development Policy in Central America, Rienner Publications, London. Also, <sup>8</sup> Shiva 1999, 'Why Industrial Agriculture Cannot Feed the World', Paper presented at the International Forum on Agriculture Workshop, Cuenevaca, Mexico. February 1999.

- Lack of access to knowledge of market trends and marketing contacts. This has resulted for example, in farmers being issued with fictitious contracts where no one would pick up the produce after harvest.<sup>9</sup>

### **Ecological Implications**

Industrial, high chemical input production methods promise miracle levels of yields. These high yields in turn depend on plant varieties that respond well to inputs – fertilizers, irrigation, pesticides. However, the results borne out in recent experience is that increasing amounts of chemicals must be put into the soil to obtain the same amounts of production or even diminishing yields. Yields are falling because chemical fertilizers are not a sustainable source of soil fertility.<sup>10</sup> In the long run, these methods encourage desertification, soil erosion, pesticide contamination and the depletion of groundwater.<sup>11</sup> Yet these ecological problems are ignored because of the difficulty in quantifying and assigning monetary values to ecological degradation. These remain hidden costs behind the yields obtained.

Furthermore, export-oriented industrial agriculture also uses land and other resources inefficiently. Monocultures eliminate diversity and the multiple uses of land. Therefore additional acres are required to produce the output which would otherwise have been produced on the same piece of land.

Industrial livestock farming, for example, consumes three times more acres of land than ecologically rearing livestock. Analysts have calculated that Europe in fact uses seven times the area of Europe in Third World countries for cattle feed production. The production of fodder alone to feed livestock (for both domestic consumption and for export) in the Netherlands requires 100,000 to 140,000 square kilometers of arable land (that is, 5-7 times the area of agricultural land in the Netherlands). This is often referred to as ‘shadow acres’, or land which is consumed for the production of feed, and is often left out of the linear cost-profit equation of the industrial system. This is in fact a problem because much of this extra land required comes from developing countries.<sup>12</sup> The land instead could be put to better use to enhance food security in these countries.

The other ecological consequence of this model of agriculture is that high pesticide usage seems to generate more severe pesticide infestations. This is because monocultures are much less resistant to pests, and large doses of pesticides over time strengthens pests, increases their resistance to pesticides, and leads farmers to depend on ever increasing amounts of pesticides.

### **Development and Food Security Implications**

With the spread of industrial export-oriented agricultural production methods in the developing world, food availability per person rose by 11 per cent between 1970 and 1990. However, eliminating China from the analysis, the number of hungry people in the world have actually increased by more than 11 per cent, from 536 million to 597 million. In South America, where per capita food supplies rose almost 8 per cent, the number of hungry people went up by 19 per cent. In South Asia, there was 9 per cent more food per person by 1990, but there was also 9 per cent more hungry people. It was also not due to increased population that brought about greater hunger. The total food available per person in fact increased. It seems that greater hunger was the failure to address unequal access to food and food-producing resources.<sup>13</sup>

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<sup>9</sup> Ibid.

<sup>10</sup> Rosset 1996, ‘Input Substitution: A dangerous Trend in Sustainable Agriculture’, Working Paper No 4. International Council for Sustainable Agriculture. Also, Shiva ‘Staying Alive: Women, Ecology and Development in India’, 1995, Kali for Women, New Delhi.

<sup>11</sup> Lappe, Collins and Rosset ‘World Hunger: Twelve Myths’, Grove Press, New York.

<sup>12</sup> Wackernagel and Rees, 1998 ‘Our Ecological Footprint: Reducing Human Impact on the Earth’, New Society Publishers.

<sup>13</sup> Rosset, Collins and Lappe 2000 ‘Lessons from the Green Revolution: Do We Need New Technology to End Hunger?’ in

Therefore, while industrial export-oriented agriculture definitely led to increased amounts of food, it did not alleviate hunger but instead brought about increased hunger due to the inability of the market to ensure that people have access to food, and because of the unequal outcomes for the big and small farmers.

In the cases studies undertaken by the FAO, the FAO concludes that the overall economic impact as a result of long-term liberalization of the agriculture sector can be summed as follows: 'A common reported concern was with a general trend towards the concentration of farms, in a wide cross section of countries. While this led to increased productivity and competitiveness with positive results, in the virtual absence of social safety-nets, the process also marginalized small producers and added to unemployment and poverty'.<sup>14</sup>

This outcome is directly related to FAO's other findings that when the agricultural sector has been liberalized, for many developing countries, there has been 'an almost instantaneous surge in food imports, (however), these countries were not able to raise their exports'.<sup>15</sup> Developing countries' share in world agricultural exports in 1996-97 was 30.7 per cent. This is an increase from the 25.4 per cent in 1990-1992. However, it remains lower than what it was in 1970-72, i.e., 31.7 per cent. Therefore, rather than what was anticipated, exports earnings have not increased enough to make up for the increased imports.<sup>16</sup>

#### *Small scale, Agroecological Food Production Systems: Socio-economic, Ecological and Development Implications.*

In contrast to the industrial, chemical and mechanical-intensive model of food production, small-scale food production in developing countries can be characterized as follows:

- 1) Intensive use of biodiversity rather than external inputs
- 2) Use of crop-livestock integration and cooperation, rather than that of competition between crops, livestock and humans
- 3) Use of intercropping and polycultural methods, rather than monocultural production
- 4) Use of internal inputs for both crops and livestock, such as local labour, knowledge, and organic fertilizers, rather than importing expensive external inputs – chemicals, foreign knowledge, machinery.

#### ***Socio-economic, Development and Food Security Implications***

Perhaps the most important dimension of small-scale, environmentally sustainable food production is that it can provide a decent livelihood for small farmers, with fair returns to their labour - *if* there is a supportive larger policy environment. These systems have the potential to offer economically favourable rates of return since the costs of inputs are not exorbitant.<sup>17</sup>

Question can arise as to whether the small farmers will be able to produce sufficient food for themselves. Projects in alternative production methods in fact commonly result in increases in production of 50 – 100 per cent. In some of these systems, yields of crops that the poor rely on more – rice, beans, maize, cassava, potatoes, barley – have been increased by

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<sup>14</sup> FAO 1999 'Synthesis of Country Case Studies', FAO Symposium on Agriculture, Trade and Food Security', Geneva 23-24 September 1999.

<sup>15</sup> Ibid.

<sup>16</sup> UNCTAD 1999 'The World Commodity Economy: Recent Evolution, Financial Crises, and Changing Market Structures', Trade and Development Board Commission on Trade in Goods and Services. and Commodities. TD/B/COM.1/27. 16 Julv 1999.

several-fold, relying on labour and know-how more so than on expensive purchased inputs.<sup>18</sup> For example, some projects emphasizing green manures and other organic management techniques can increase maize yields from 1-1.5 tones per hectare (a typical highland peasant yield) to 3 – 4 tones per hectare.<sup>19</sup>

Furthermore, not only are yields increased, but crops in fact display more stable levels of total production per unit area than the industrial systems.<sup>20</sup> For example, the yield variability of cereal / legume polycultures is much lower than for monocultures of the components.<sup>21</sup>

Small farmers' food security is therefore increased because yields are more stable. Also food security is assured when small farmers are not constantly at risk to lose their entitlements, such as their land, which provide them with food and income.

In sum, the potential benefits to small farmers include increases in food supply, increases in incomes, reduction of poverty, reduction in malnutrition and general improvement to small farmers' overall livelihoods.

### **Ecological Implications**

Small-holder, environmentally sustainable production methods in fact conserve the soils as well as ensure better water management and harvesting. These methods also enhance biodiversity. Genetic diversity in turn increases resistance to pests and diseases.<sup>22</sup>

For example, researchers have compared crops which have been organically grown with those under chemical intensive methods, only to find that pests were commonly absent in the organically grown crops, while the chemical intensive plots showed relatively high levels of pests. The same results were also true when comparing plant diseases, soil quality and soil erosion. For example, fewer earthworms (their quantity is an indicator of soil quality) were found in fields planted with chemical intensive methods as compared to the organically planted crops.<sup>23</sup>

Small farmers also tend to invest more labour into their land, and tend to use the land in such a way as to maintain its long-term production sustainability when it belongs to the family. This is in contrast to big corporate farms which use land as a factor of production and source of current and short-term future profits.

### **Which Model Meets the Needs of the Rural Poor in Developing Countries?**

Given the evaluation above, it is clear that while developing countries will still continue to export a certain percentage of food, since agriculture plays a significant role in bringing in foreign exchange, for the majority of the rural population which are small farmers, converting to the intensive export model is unlikely to resolve, and may instead aggravate the food security and poverty issues they face. Analysts Conroy, Murray and Rosset write about how many developing countries cannot achieve a satisfactory level of development because their small farmers have been sidelined:

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<sup>18</sup> Altieri and von der Weid, 2000 'Prospects for Agroecologically based Natural-Resource Management for Low-income Farmers in the 21<sup>st</sup> Century', Paper presented at the Global Forum on Agricultural Research Conference, Dresden, May 21-23, 2000.

<sup>19</sup> Bunch 1990 'Low-input Soil Restoration in Honduras: the Cantarranas Farmer-to-farmer Extension Project', Sustainable Agriculture Gatekeeper Series, SA23 IIED, London.

<sup>20</sup> Pretty 1997 'The sustainable Intensification of Agriculture', Natural Resources Forum 21: 247 – 256.

<sup>21</sup> Francis 1986 'Multiple Cropping Systems', MacMillan, New York.

<sup>22</sup> Pretty 1997 *ibid*.

<sup>23</sup> Conroy, Murray and Rosset 1996 'A Cautionary Tale: Failed US Development Policy in Central America'. Rienner Publishers.

‘It is our belief, and that of respected economists (Janvry 1981) and Jeffrey Sachs (1987), that the sort of inequity and poverty the peasantry must face actually blocks true development. The rural masses are so poor that they have little purchasing power. They thus do not constitute an important market for domestic industry. This in turn means that domestic markets are too small to stimulate much economic activity, so production is largely directed toward foreign markets and urban elites. As a consequence, the level of demand in the economy is too narrow to sustain broad based, effective development. This creates a high degree of dependence on foreign markets and a lack of structural incentives (nationally, that can bring about) better living standards for the poor. In short, poverty becomes a vicious circle that is itself an obstacle to development.’<sup>24</sup>

Conversely, when small farmers receive the support that they need – infrastructure, entitlements, and importantly, a supportive trade policy environment offering the necessary flexibility and protection – small farmers will benefit, and livelihoods will be secured. Overall development is likely to take place and it will also be more even and equitable.

### **Can Developing Countries Produce Enough Food With Small-Scale, Environmentally Sustainable Farming Methods, and Without the Emerging New Technologies?**

Let us now turn to the issue that whether or not there would be enough food for everyone, if the strong bias towards industrial model is moderated and a policy environment conducive to the development of both the systems is created.

The UN has projected recently that there will be ‘drastic deceleration’ in world demographic growth. The growth rate of the world population, which had peaked in the second half of the 1960s at 2.1 per cent per annum had fallen to 1.3 per cent by the late 1990s and will fall to a mere 0.3 per cent by 2050. The world population is expected to be 8 billion in 2030. A very recent FAO study has concluded -- without taking into consideration any production differences that may result from genetically modified crops -- that ‘for the world as a whole there is enough, or more than enough, food production potential to meet the growth of effective demand, i.e., the demand for food of those who can afford to pay farmers to produce it’.<sup>25</sup> That is, the residual hunger problems will be largely poverty, rather than production related.<sup>26</sup>

Therefore, the new technologies which are emerging today, are not necessary to meet the present or future food needs of the world. Rosset, Collins and Lappe conclude that, ‘Introducing any new agricultural technology into a social system stacked in favour of the rich and against the poor – without addressing the social questions of access to the technology’s benefits – will over time lead to an even greater concentration of the rewards from agriculture’.<sup>27</sup>

In a similar vein, experts Altieri and von der Weid observe that, ‘If the root causes hunger, poverty ... are not addressed, hunger will persist no matter what agricultural technologies are used. Most modern agricultural technologies have the potential to deal with the issue of quality and quantity of food, but does not address the distributive and access aspects of food which are at the heart of the hunger problem.’ They conclude that to insist on only technological solutions to hunger ignores the tremendous complexity of the problem of food scarcity.<sup>28</sup>

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<sup>24</sup> Ibid.

<sup>25</sup> Food and Agriculture Organisation 2000 ‘Agriculture: Towards 2015/30’, Global Perspective Studies Unit, <http://www.fao.org/es/ESD/at2015/toc-e.htm> p. 109.

<sup>26</sup> Food and Agriculture Organisation 2000 ‘Agriculture: Towards 2015/30’, Global Perspective Studies Unit, p. 40.

<sup>27</sup> Rosset, Collins and Lappe 2000 ‘Lessons from the Green Revolution: Do We Need New Technology to End Hunger?’, *Tikkun Magazine*, Vol 15, No. 2 p. 52056, March/April.

Therefore, while agricultural exports will remain an important part of developing countries' economic needs, for the majority of small farmers, the export industrial agricultural model will continue to exacerbate poverty, unemployment and food insecurity. The route to development, equity and food security for the majority / small farmers, seems to be through small farmers' access to entitlements and a basic level of food self-sufficiency.

## Annex 2

**The first provision is taken from the submission entitled ‘Agreement on Agriculture: Special and Differential Treatment and a Development Box’, by Cuba, Dominican Republic, Honduras, Pakistan, Haiti, Nicaragua, Kenya, Uganda, Zimbabwe, Sri Lanka and El Salvador, 23 June 2000, G/AG/NG/W/13.**

- All developing countries should be able to use a positive list approach to declare which agricultural products or sectors they would like disciplined under AoA provisions. That is, only the products which are declared by a country are subject to AoA commitments.

**The following provisions were submitted in a Non-paper on Food Security by Cuba, Dominican Republic, El Salvador, Honduras, Kenya, Nicaragua, Nigeria, Pakistan, Peru, Sri Lanka, Venezuela, and Zimbabwe, 23-27 July 2001.**

### Tariffs

- Keeping in mind the developmental and food security needs of developing countries; their need to ensure the protection of the livelihood of the very large percentage of population dependent on agriculture; and the fact that they have limited possibilities of raising much needed resources; developing countries should be allowed to maintain appropriate levels of tariff bindings as a special and differential measure.
- At the same time, the basic food security crops in developing countries should be totally exempt from all tariff reduction commitments. This should be implemented through a ‘negative list’ approach, whereby developing countries would indicate a list of staple food security crops, which would then be deemed to be excluded from the reduction commitments.
- Developing countries should also be allowed to rationalise their zero or low tariff bindings, particularly where such low bindings exist in relation to food security crops.

### Market Access

- Developed countries should provide quota free and tariff free market access for exports originating from low income and resource poor farmers in developing countries so as to reduce their food security vulnerability.
- Elimination of tariff peaks and tariff escalation, which are acting as barriers to developing country exports to the developed country markets.
- Elimination of non tariff barriers, particularly related to sanitary and phytosanitary measures which are also similarly impeding developing country exports and are for this reason impacting negatively on their food security concerns.

### Domestic Support

- All domestic support measures taken by developing countries for food security, rural development, rural employment and for poverty alleviation should be exempted from any form of domestic support reduction commitments;
- Keeping in mind the basic premise of Article 6.2, that is to exempt governmental

support reduction commitments, Article 6.2 should be expanded to include the following measures of assistance geared towards addressing the problem of food security and for preserving the viability of rural employment:

- support to promote the integration of low income and resource poor producers, including through subsidised credit and such other capacity building measures whose objective is to enhance their competitiveness and marketing
- measures taken to increase domestic production of staple crops for domestic consumption, including the provision of input subsidies and any other kind of product specific support provided to low income and resource poor producers.
- any spending on transportation costs for food security crops from surplus to deficit parts of a country. (Annex 2, para 2(g) already gives exemption on capital spending on a range of infrastructure assistance)
- Where product and non product specific support is being provided for food security purposes, additional flexibility over and above the *de minimis* level should be provided to developing countries. At the same time negative product specific support should be allowed to be offset against positive non-product specific support.
- The provisions of Annex 2 of the AoA should be reviewed with the intention of including such measures which are an integral part of the food security measures generally taken by developing countries.

### **Export Subsidies**

- Export subsidies being provided by developed countries, which are impacting negatively on the food production systems of developing countries and are also resulting in depressed international agriculture prices should be eliminated as quickly as possible
- Appropriate flexibility, such as provided in article 9.4 of the Agreement, should be provided to developing countries to be able to promote exports, specially where these exports are critical for fulfilling the food security needs of developing countries.

### **Marrakech Decision**

- Recognising the characteristic and long standing food security problems of the net food importing developing countries, it is proposed that the Marrakech Decision should be reviewed and strengthened so as to incorporate certain market based mechanisms that would automatically trigger assistance at times of high prices/low domestic production.
- Commitments, subject to remedial action within the WTO, for the provision of technical and financial assistance to improve the agricultural productivity, facilitate agricultural development and avoid the long term dependency of LDCs/NFIDCs on food imports.
- Establishment of an international fund, based on contributions from the major agriculture exporters, to be used to help the LDCs/NFIDCs source their food requirements form the international market.

### **Food Aid and Food Security Stocks**

- Food stock policies, as a food security and price stabilisation mechanism, should be given a wider definition under the Green Box. Currently, the volume and accumulation of stocks have to match predetermined targets related to food security and there are strict criteria for how such stocks are procured and released.
- The AoA should provide for regional food security plans, including joint maintenance of emergency food stocks. The rules should also encourage financial support from developed countries for such programmes on a multi-year basis.
- While recognising the importance of food aid, especially in times of shortage and high world commodity prices, exploitation of food aid provisions as a means of disposing of price-depressing surpluses and as a means of market development must be curtailed.
- Food aid should ideally be demand/request driven and should be targeted at the needs of the recipient country. Moreover, such aid should be distributed keeping in mind the possible long term impact that it could have on the domestic production systems of the recipient country

#### **Other Provisions**

- An appropriate agricultural safeguard mechanism (ASM) should be provided to all developing countries, so that they can adequately protect their small and marginal farmers from the vicissitudes of cheap import surges. (A detailed proposal in this regard would be submitted in the context of the discussions on the SSG)
- Dumping of agricultural products should be prohibited and developing countries should be allowed to take appropriate border measures, where dumping of agriculture products is impacting upon their food security concerns
- Consideration should be given to the adoption of certain penalty measures that are triggered where subsidised production displaces domestic production in developing countries or displaces non subsidised exports from developing countries in third markets.
- There should be an automatic extension of the peace clause for all measures, including the ones proposed above, taken by developing countries to address their food security concerns