



Trade-Related Subsidies – Bridging the North-South Divide

Executive Summary

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Introduction

At the end of the Uruguay Round, a revolutionary shift was observed in the WTO. In its predecessor, the GATT, the focus was on border barriers while in the WTO, attention shifted to domestic regulation and legal systems. The intrusiveness of the system, especially in the realm of social regulation concerning the environment and food security, raised an outcry over sovereignty and a demand for the democratization of the WTO—an outcry still heard today.

The concern over sovereignty of domestic policy takes on a particularly critical perspective when the topic of subsidies is considered. Developed and developing countries have very strong feelings of ownership over their domestic subsidies regimes and have serious objections when they are challenged or investigated through the WTO. These objections place the WTO in a difficult position in respect of its trade liberalization objectives. Because they are often trade-distorting, subsidies pose a substantial barrier to the liberalization of trade.

Subsidies have been a contentious issue with developed and developing countries as is demonstrated by the extraordinary difficulties encountered in the inclusion of agriculture on the trade policy agenda. Many countries feel that subsidies are a domestic issue and that for others to challenge these policies through the WTO is an interference with fundamental domestic concerns, or even national sovereignty. Many reasons have been cited for the use of subsidies by developed and developing countries, but the consensus on subsidies is far from firm. At the WTO Symposium on Trade and Environment held in Geneva in March 1998—which included NGOs, business, academics and Members' governments—much of the discussion revolved around subsidy reduction, particularly in agriculture, but also in fisheries and mining. This reflects talks in the WTO Committee on Trade and Environment over the past three years.

The CTE identified subsidy reductions as one way to advance the environmental agenda while benefiting freer trade. But the Committee refrained from recommending that the WTO should concentrate on subsidy reductions in future negotiations. The Symposium highlighted the complexity of the issue: subsidy reduction can cause severe social and, in some cases, environmental damage. Furthermore, there might be some scope for using subsidies to achieve environmental benefits. Should the CTE be able to reach a recommendation, it is still doubtful to what extent—if at all—that recommendation would be considered when governments start negotiations on the ultra-sensitive agricultural front.

The CTE was not willing to propose a program of subsidy reductions primarily because of the conflicting views presented at the meetings. But there is a rich source

of literature that explains and demonstrates how well-meant subsidies become perverse either through: (1) the lack of transparency in the institutional arrangements governing the use and distribution of subsidies; and/or (2) inevitable second-order effects created by distortions in other markets. The end result in both cases is that an instrument designed to correct market failures creates larger economic, social and environmental distortions that inadvertently harm the poor and the environment in the short run and, inevitably, the economy in the long run.

So what is to be done? More informed research on the trade distorting impacts of subsidies is needed if trade disputes over subsidies are to be fairly and equitably resolved. At present, most of the research on subsidies focuses on the methodological challenges in computing the level of subsidies and, more fundamentally, on the definition of a subsidy. The literature points towards some convergence over the last two decades on some of the more contentious issues surrounding definitions and computations. This has now led to the adoption of the Producer Subsidy Equivalent (PSE), the Consumer Subsidy Equivalent (CSE) and the Aggregate Measure of Support (AMS) by many of the countries to document the level of subsidies provided to particular sectors.

This is definitely a step in the right direction, but we need to ask ourselves if these measures are the right indicators to use in evaluating the trade impacts of subsidies among countries. The main concern for the WTO is, rightly, on trade-distorting subsidies. However, the definition of a trade-distorting subsidy is still far removed. The PSE, CSE and AMS only provide some measure of the level of subsidies provided in a particular country. But can we conclude from looking at these measures that the subsidies are trade-distorting? The answer is no. The PSE, CSE and AMS only give information on the gross amount of support a specific country provides to the respective sectors. It does not tell us what effect it has had on trade flows—i.e., whether it has increased exports or decreased imports.

Defining and identifying a trade-distorting subsidy is, however, only the first step. The next step would be to decide if a trade-distorting subsidy should be removed. The criteria that can be used to determine if a subsidy is trade-distorting can only be based on the efficiency principle of economics. However, the debate on subsidies and their removal is a slightly more complex process which should be based not only on economic reasoning, but also on a distributive (social) and environmental analysis. For example, a country may argue that a subsidy is given to a particular sector in order to create jobs. The issue is whether this subsidy should be removed if it has been found to be trade-distorting. The country may be able to prove that removal of the subsidy will, in fact, create unemployment and social disorder. One possible solution would be for the country in question to

reduce the subsidy over a defined period, but is provided with some form of a targeted side payment, to be determined by the parties involved, to offset or mitigate the unemployment problems that may arise.

However, in order to facilitate such decisions, new processes and rules will need to be designed and integrated within the present WTO institutional framework.¹ New institutions (rules) will need to be designed in order to ensure that the process of defining and identifying a trade-distorting subsidy is fair and equitable. New institutions will also be needed to ensure that there are fair processes in place for deciding whether a trade-distorting subsidy is to be removed or reduced, and the subsequent conditions of its removal or reduction. Once the institutions have been formulated, it will also be necessary to have some body within the WTO—a subsidy review mechanism similar to the trade review mechanism—to oversee the process.

This initial review of subsidies and trade distortions explores some of these issues in more detail. The volume is comprised of five papers. The first paper by Konrad von Moltke provides an overview of the WTO, its structure, its function and its mechanisms to resolve disputes. The paper highlights the strengths and weaknesses of the present system. Von Moltke presents a comprehensive discussion of what is lacking in the WTO and offers some suggestions on what is necessary in the future to resolve the trade and subsidy issue in an equitable and fair manner.

The second paper (by Rosmy Jean Louis and Pumulo Roddy) provides an overview of subsidies in the United States, Canada and the EU. The paper does not provide a detailed account of the level of subsidies in each of the countries or regions, but focuses more on the sectors where subsidies are concentrated and the reasons why these countries use subsidies. The paper goes on to demonstrate why the conventional measures of subsidies like the PSE, CSE and the AMS do not and cannot provide the necessary information required to resolve trade disputes with respect to subsidies. The paper argues that the terms-of-trade may offer a better indicator or measure to resolve disputes at the WTO.

The last three papers presented in this volume provide overviews of the subsidy regimes in India (by Meeta K Mehra, Mayank Sinha and Sohini Sahu), Southern Africa (by Rashad Cassim and Donald Onyango) and Brazil (by Warwick Manfrinato, Heloisa Lee Burnquist, Sílvia Helena Galvão de Miranda, Luciana Torrezan Silveira and Marcelo José Mortati Gullo) respectively. Each of these

¹ We define institutional framework as a combination of institutions (rules), organizations and instruments.

three chapters provides details of the types of domestic subsidies in place, the reasons for the subsidies, and the environmental, social and economic impacts these subsidies have had. The chapters provide PSE, CSE and AMS estimates when available. This is followed by a discussion of the effect foreign subsidies have had on the national economies and the measures the countries have taken to address these trade-distorting subsidies. The main focus in these three chapters is, not surprisingly, on agriculture and, to a lesser extent, manufacturing. A section on the energy sector is discussed in each of the three chapters and although no direct links to trade distortions have been found, the extent to which energy is subsidized, thereby lowering input prices for manufacturing and other sectors, is in fact a subsidy and has the potential to lower prices and make final outputs more competitive in the international market. It is an issue for contention at the WTO.

WTO and Subsidies

The literature on subsidies, particularly in relation to trade in agricultural products, appears to show with little doubt that subsidies in OECD countries are causing extensive damage to the economies of developing countries, which could consequently benefit dramatically by their removal.

However, most analyses stop at that point, assuming that the case has been made and all that remains is to find ways to remove the subsidies. Yet understanding the rules that govern subsidies and their removal, as well as the likely impact of these rules on implementation, is perhaps even more important than calculating the damage done by these subsidies. It is unlikely that all the calculated benefits from the removal of subsidies can ever be achieved. More seriously, it may prove that the benefits that are generated are distributed very unevenly, leaving some countries no better off than before. The coffee market—undistorted by OECD production subsidies—shows that there are many issues that remain even after subsidies are removed.

While the evil of subsidies appears to be beyond discussion, their proper reduction and control poses significant dilemmas from the perspective of rule-making. “The problem of subsidies in international trade policy is perhaps the single most perplexing issue of the current world trading system, and one that is very complex.”²

² John Jackson, “World Trade Rules and Environmental Policies: Congruence or Conflict?” John Jackson, *The Jurisprudence of GATT & the WTO*. Cambridge: Cambridge University Press, 2000, p. 433 (based on John Jackson, “World Trade Rules and Environmental Policies: Congruence or Conflict?” *Washington and Lee Law Review* 4.1992, pp. 1227–1278.

In approaching negotiations on subsidies in the WTO it is important to keep in mind, what the organization is designed to do and what it may find particularly difficult to undertake. The WTO remains what the GATT was: a place to negotiate agreements. Consequently there is a tendency to value consensus above any substantive criteria for success. While this was acceptable for negotiations on tariff reductions, covered by the principle of comparative advantage, which promised benefits to all parties, it is increasingly problematic where issues that have distributional implications or that must meet substantive criteria of appropriateness are concerned.

Subsidies, Terms-of-Trade and Trade Resolution

The early 1960s witnessed several changes in government policies as public awareness was building around the quality of life, conditions under which goods and services were produced, and negative externalities associated with the production of goods.

Special emphasis was then put on actions governments could undertake in order to guarantee a safer environment in all aspects. These led to the implementation of various regulations, which somehow conflict with the pursuit of certain economic goals. Chief among them is the use of subsidies to enable domestic firms to mature in order to compete at the world level.

The review of literature shows that although the current measures—PSE, CSE and AMS—provide an adequate framework for defining subsidies and the level of subsidies present in individual countries, the indicators themselves are inadequate to address and resolve issues relating to subsidies and trade at the WTO. For example, the PSE only tells us how much countries of different sizes, socio-economic and environmental conditions spend in support to farmers. This information does not really help in determining whether the practice is trade-distorting.

The current framework fails in many ways in that it creates a vicious circle of interdependence between elected officials and recipients. Most importantly, it leads to unfair competition in world markets and misuse of resources that harm the environment.

Several proposals have been made to deal with this issue. Some have considered a complete ban and others have advocated a negotiated win-win solution. Yet, the main problem remains: it is difficult to even lay charges for over-subsidization because the WTO has no means of detecting which countries are at fault.

The paper recommends the use of terms-of-trade as a better indicator for detecting and resolving trade disputes. The logic behind the terms-of-trade is the following. Nations normally conceive a deterioration of their terms of trade as a setback for their well-being and therefore try their best to avoid it. However, a trade-distorting subsidy does just that—it worsens the terms-of-trade but at the same time increases the exporter’s revenue.³ Yet, countries involved in unfair subsidies are still comfortable with the outcome. By solely observing movement in this indicator we could infer whether there has been over-subsidization that is not justifiable. The key here is that once the terms-of-trade is below 100 (its base) there is a clear sign that trade has been distorted in a deliberate manner.

A taxonomy is presented that captures all the relevant aspects of potential trade conflicts. A two-good-two-country model was developed to illustrate how the terms-of-trade indicator can be used for detecting problems related to over-subsidization and settling trade disputes between/among trade partners.

The analysis shows that an intra-trade terms-of-trade has attractive features that profile it as a useful indicator that the WTO could use when it is called upon to settle disputes among nations that are involved in over-subsidization practices in order to gain market share from their rivals in the world markets.

The terms-of-trade contains sufficient relevant information on differential revenue and profits, prices and subsidies that makes it possible to detect unfair trade practices and resolve trade disputes arising from subsidies in a fair and equitable fashion.

Overview of Subsidies and Trade in India

In India, subsidies have proliferated to a large number of diverse sectors and economic activities. According to the estimates of budgetary support as provided by official documents, the aggregate subsidies bill increased from Rs.1,400 million in 1971–72 to Rs 228,000 million in 2000–01.

Among these, food and fertilizer subsidies have shown the highest rate of increase, with their share in total subsidies as high as 90 per cent in 2000–01. The percentage of subsidies to overall GDP has also shown a continuous increase; growing from 0.047 per cent in 1971–72 to a little over two per cent in recent years; with the share of food and fertilizer subsidies as a percentage of overall GDP being 1.74 per cent of the GDP in 2000–01.

³ The increase in revenue, which we will call later the Revenue Effect, is substantial only in intra-but not in inter-industry trade.

Agriculture subsidies: The objective of attaining food security has in many ways been in conflict with the basic principles of rational pricing, sustainability and equity aspects in the agriculture sector in India. Notably, in India, only a fraction of the actual subsidies reach the farmer. A large proportion accrues to the industry supplying basic inputs—irrigation, energy, fertilizer—or to intermediaries and traders constituting the supply chain.

Food subsidies: The aggregate volume of food subsidies in India stood at Rs.212,000 million in 2002–03, which constituted 5.2 per cent of the total budget expenditure of the central government. These subsidies have been increasing continuously over the years. This includes both the consumer (mainly food) subsidy, which is incurred on the supply of foodgrains through the public distribution system at below the Food Corporation of India's (FCI's) economic costs; and the producer subsidy, which is the offshoot of the price support based on procurement operations of the government.

In contrast to the above measure of subsidies; the recent analysis by Gulati and Narayanan (2003) indicates that Indian agriculture overall suffers from net taxation when analyzed in a global context, *thus turning the previous argument on its head*. The authors calculate the total Aggregate Measure of Support (AMS) for Indian agriculture on the basis of the WTO methodology, i.e., they take the border price as the benchmark for subsidy calculation. The total product-specific AMS is a large negative sum for India. There is thus an implicit tax on the agriculture sector.

Therefore, from the perspective of reforms, it is important that input and output reforms are undertaken jointly. Output price reforms are a pre-requisite for input subsidy pruning. An analysis also has to be undertaken to estimate what proportion of the subsidies actually accrues to the farmers, to the consumer (in the form of low food prices), to the various input supplying agencies, and finally to the industry. These issues, along with the implications on economic efficiency, environmental and social impacts, are important to achieve an understanding of the overall picture.

Energy subsidies: The Indian energy sector has traditionally seen high and varied level of subsidies. The Indian government has taken steps towards removing price controls on oil and coal and lowering subsidies to energy generally. Coal prices were deregulated in the year 2000 and hence direct subsidies either to the consumers or producers are non-existent now. However, due to subsidies on rail transportation, delivered coal prices remain below the market prices. With the dismantling of the Administered Pricing Mechanism

(APM) in April 2002, subsidies on all oil products were removed barring Liquid Petroleum Gas (LPG) and kerosene, mainly used by households. Electricity is highly subsidized and forms the lion's share of the total subsidies allocated to the energy sector. These subsidies have created price distortions and have led to over-utilization of certain resources due to under-pricing. Dismantling energy subsidies is now on the national energy policy agenda and attempts are being made to rationalize power subsidies.

Export subsidies: India has a long history of offering a host of export subsidies. These have been in the form of direct and indirect export subsidies, export credit, export insurance and guarantee, various forms of export promotion and marketing assistance, export processing and economic zones. The various schemes were meant either for specific industries or end-users. Over the years, the exporters have made increasing use of these schemes. However, their actual effectiveness is not clear and needs further analysis.

The Trade Policy Review of India, 2002 points out that the share of exports qualifying for these schemes as a share of total exports rose steadily from around 37 per cent in 1997–98 to 71 per cent in 1999–00. This has not led to a commensurate increase in India's exports with the share in GDP having fluctuated in the range of 8.2–8.6 per cent during the period. The duty forgone as a result of these schemes also rose from Rs.89 billion in 1997–98 to around Rs.173 billion in 2001 (from 22 per cent of customs revenue to around 35 per cent).

The efficacy of these various schemes has to be examined in detail and a detailed cost-benefit analysis, including its trade-distorting effects, has to be undertaken. This would also be important in analyzing the WTO compatibility of these schemes and what changes are to be made, so as to avoid countervailing measures and anti-dumping duties on India. In India, as part of liberalization and overall reforms, there have been efforts towards pruning and rationalization of these various schemes.

Subsidies to industry: An analysis of the subsidies in two of India's significant industries has been presented. Iron and steel exports in India have seen one of the highest levels of anti-dumping and countervailing duty investigations, primarily from the European Community and the United States. It also has the only case involving a dispute on subsidies to reach the Dispute Settlement Body (DSB) of the WTO.

The textiles and clothing sector is one of India's largest export earners, contributing about 28 per cent of its total exports value in 2002. Traditionally, the

textile and clothing industry in India had benefited from various types of support and reservations. However, in the last few years, in the face of increasing international competition, reforms have been undertaken for this sector. In this light the most significant development is the New Textile Policy (NTP) of 2000, which aims to prepare the industry to meet the challenges of integration with the world textile market, modernization and investments. As part of this policy, various schemes and packages have been announced, some of which could be construed as providing subsidies in various forms.

The analysis of subsidy levels in India raises some important insights as well as data gaps and needs for further research:

- Data on subsidy levels in India is scanty and not comprehensive. This negates getting an overall perspective on subsidy levels. In addition the various impacts at the centre-state and sector-specific levels, along with economic, social and environmental impacts is incomplete.
- In addition, the impacts of domestic or foreign subsidy provision on the volume of trade or the impacts on the terms-of-trade of the trading countries, are extremely limited.
- Interestingly, while some reform scenarios exist, these need to be revisited in light of availability of more comprehensive information in social, environmental and economic realms. The scenarios may also be driven by the trade reforms agenda of the country.
- On definitional aspects, the methodologies for calculation of domestic budgetary and off-budget subsidies do not have common ground with methods of subsidy calculation from a WTO perspective. There is an impending need for the identification and understanding of definitional aspects and delineation of levels of subsidies based on alternative methods of calculation, depending upon the requirement against which these have to be measured.
- Subsidies in India necessarily involve various trade-offs. They attend to specific social and economic goals on one hand and, on the other, they also lead to distortions in production and consumption patterns. In addition, they have to face various political economy-related compulsions and the very economic viability of maintaining them.

In sum, as countries undertake commitments to liberalize trade in various spheres, concerns of subsidies in terms of their impacts on international trade flows would become ever more contentious. The evolution of a subsidy policy review mechanism within the WTO regime could be a relevant development to take into account the above considerations.

Overview of Subsidies in the South African Customs Union (Botswana, Lesotho, Namibia, South Africa and Swaziland)

The general finding is that subsidies for the manufacturing sector comply with WTO rules, with the exception of the Duty Credit Certification Scheme, applicable to the clothing and textiles sectors, and which is due to be phased out by January 2005. These subsidy schemes are advocated largely on economic and social rationale—to ensure competitiveness in the sectors where they are applicable, and protection of livelihoods of the populace dependent not just on the direct numbers of jobs in these sectors, but also indirectly through support industries.

Since the late 1980s, the agricultural sector, particularly in South Africa, has undergone significant and radical reform, with all marketing boards being abolished and Quantitative Restrictions (QRs) being tariffed and further reduced. Most agricultural imports were regulated by QRs prior to 1992, after which the process of tariffication and subsequent scaling down of tariffs began. The process of deregulation of agricultural marketing in South Africa started before the Uruguay Round was implemented in 1995. The process of exposure of farmers to a deregulated environment in which government support in the form of Agricultural Control Boards was progressively eliminated went beyond South Africa's WTO commitments, and arguably has had more far-reaching consequences for South Africa's farmers than the Uruguay Round Agreement on Agriculture.

The Producer Support Estimate (PSE) for the agricultural sector has been declining since the mid-1980s, as the deregulation of the agricultural sector progressed. And by 1998, most commodities had practically no domestic support in the form of policy interference, with the exception of a few highly tariff-protected commodities, namely sugar (40 per cent); dairy (20 per cent); beef and veal (20 per cent); mutton (50 per cent); and wheat (20 per cent). In place of the previous sectoral control boards, there now exists an agricultural futures market, which enables farmers to manage the risks inherent in the sector.

With regard to the energy sub-sector, South Africa is regarded as a comparatively energy- and carbon-intensive country with more than 85 per cent of coal production being used in electricity generation and other mineral beneficiation activities, as well as domestically as a source of energy. The manufacturing sector in turn is the largest consumer of electricity in the region, accounting for 44 per cent of total consumption, followed by mining and residential customers with 18 per cent of demand, and nine per cent for other commercial customers.

Residential consumption currently accounts for the fastest growth, owing to South Africa's success with rural electrification. In addition, with more residential consumers being connected to the national grid, there has been a marked increase in peak-period demand, which has substantially changed the country's load profile.

The production, transformation and use of energy generate substantial environmental impacts in South Africa, with the coal fuel cycle being the dominant source of air pollution and overall waste generation in South Africa. Liquid fuels in the transport sector are the second major source of air pollution whereas in the rural areas, the major pollution-related problem among households is related to indoor pollution resulting from the inefficient burning of low quality fuels, mainly wood and coal which affect health and visibility adversely. However, South Africa has to tread the balance between environmental concerns and economic expansion goals—carbon dioxide emissions are closely related to economic growth, industrialization and overall energy consumption.

The primary subsidies in foreign countries that have implications for the Southern African Customs Union (SACU) economy are found in the agricultural and primary manufacturing sector (iron and steel). The bulk of SACU exports to the EU are agricultural and agro-processed products, which are affected by agricultural sector subsidies under the EU Common Agricultural Policy (CAP).

The first impact of the CAP on the domestic agricultural sector is in the sugar industry of South Africa and Swaziland. For South Africa, sugar exports realized the highest proportion of all agricultural sector exports in 2002 (56 per cent of the total), while in Swaziland, cane production accounted for over 50 per cent of all farm output, 18 per cent of total national output and 11 per cent of national wage employment. Swaziland currently exports 92 per cent of all its sugar output, and enjoys preferential treatment in the EU through the EU Sugar Protocol (where it has a quota to sell sugar at a price above the world equilibrium price), and in the U.S. under a preferential tariff quota.

However, despite this preferential access to the EU market via the Sugar Protocol, Swaziland is increasingly becoming vulnerable to the possibility that when market access to the EU for sugar from all Least Developed Countries (LDCs) through the EU Everything-But-Arms Initiative becomes a reality, then its preferential quota might decline, with disastrous consequences for the economy. However, the more pressing concern for the Swazi economy revolves around the dumping of heavily subsidized sugar products into SACU. With the option of

sourcing cheaper sugar from the EU, South Africa's confectionary markets are depending less on Swaziland, and this has sounded the death knell for the sugar industry.

In the beef sector, where the key players are South Africa, Botswana and Namibia, the latter two countries enjoy preferential access to the EU via the Beef and Veal Protocol of the CAP which, in typical EU fashion, has sustained beef prices well above world market prices, disconnected from market realities and driven by the system of export refunds. EU exports of beef to African, Caribbean and Pacific (ACP) countries, and Southern Africa in particular, largely consist of low-quality beef targeted at the lower end of the market. This provides direct competition with production by small-scale farmer and emergent commercial farmers, thereby impacting on income and market-oriented development of the sector. The consequences of this have been vividly noted in Namibia, whose rural inhabitants have largely suffered as their main market is saturated by heavily-subsidized low-grade beef from the EU, leading to a loss of livelihood on their part.

The U.S. equivalent of the CAP is the Farm Bill which, while ostensibly tailored to increasing payments to agri-business concerns, is feared to not only encourage overproduction but also shut out developing countries from the U.S. and international markets by increasing U.S. agricultural spending by close to 80 per cent to a total of some \$190 billion over the next 10 years. The impact of the 2002 Farm Bill on the SACU agricultural sector remains to be seen, however, especially in light of the Free Trade Area Agreement being signed by the U.S. and SACU. Preliminary indications so far suggest that one sector that is most at risk is the poultry sector, which faces much the same fate as the beef sector from EU beef sector subsidies.

Other notable subsidies with the potential to have a harmful impact on SACU economies, particularly South Africa, are to be found in the steel sectors of OECD countries, where government intervention has spawned a massive surplus in steel-making that needs to be offloaded at all costs. Hence the emergence of anti-competitive trade practices such as subsidization of exports, dumping on international markets, import restrictions and the emergence of national and regional cartels, all of which exerted great influence on world markets.

South Africa (on behalf of SACU) does not have any dispute cases pending before the WTO, either as a complainant or defendant, although it is shown to have made prodigious use of anti-dumping and countervailing measures. By the end of June 2002, there were 98 definitive anti-dumping duties in force, as compared to 35 at the end of June 1996, the majority of these measures affect chemical products, metal products, glass and glassware, textiles and clothing.

In general, it can be argued that South Africa and other SACU member states have, since the beginning of the 1990s, made significant strides in eliminating both trade-distorting subsidies. Most (if not all) existing incentives and subsidies are compliant with WTO rules and regulations—so-called supply-side measures that enhance productivity and competitiveness in the economy. The rationale for reforming subsidies has largely been economic, driven by efforts to make South Africa (and the other SACU members) compliant with the new trade regime as embodied in the WTO. Also of importance is the reduction of the national budget with the removal of these price-distorting subsidies. This, therefore, frees resources for other important developmental and social needs, such as primary healthcare and social welfare.

Overview of Subsidies and Trade in Latin America with Particular Focus on Brazil

The review conducted for this study, related to the post-1990 period, indicates that agriculture (including livestock and forestry) has been, by far, the sector most affected by trade-related subsidies (TRS) in the Brazilian economy, as expected. Other sectors, such as industry and energy, are also influenced by TRS, but in a relatively lower degree of importance. There is little concern with fisheries, due to the relatively small role assumed by this sector in the country's trade.

The relationship between subsidies and trade effects is mostly related to the domestic economic impacts of reductions in the country's competitiveness, particularly in international agricultural commodity markets, such as soybean, sugar, cotton and dairy. The competitiveness of industrialized products, such as airplanes and automobiles, among others, is also an important issue. The consideration of environmental and/or social issues, within the Brazilian economy, as well as in other Latin American countries, is still minimal, however, and requires significant research.

Domestic subsidies have been applied, in large part, to solving social-economic problems, also related in great part to agricultural production (e.g., cane and other products in the northeastern region of the country) and, more recently, with emphasis on the regional development and sustainability of small family farmers. At any rate, resources for this purpose have been scarce since the economic crisis of the 1980s.

The major sector affected by trade-related subsidies in Brazil is agriculture, which has an important role in promoting employment, social equity and environment sustainability, although it shows a decreasing share in GDP throughout the 1990s.

Agricultural exports and international agricultural market distortions related to subsidies sustained by developed countries, have prevailed as an important trade issue, since Brazil is a developing country with a comparative advantage in agriculture.

The survey conducted shows that various analyses have stressed the negative impacts of foreign subsidies upon prices in international markets where Brazil could explore its comparative advantages, such as the soybean and sugar markets.

It is clearly evident that there is a great need to deepen research on themes regarding subsidies and public policies in countries of Latin America, seeking to identify which are configured as such and what the impacts are in economic, social and environmental terms.

Although some sectors, such as agriculture, have been researched in Latin America, few works are conclusive about their impacts, particularly the social and environmental aspects.

Some policies on incentives are apparently needed, within the context of economic development of poor countries, particularly for those sectors that have potential to generate employment and income. It is important, in this case, to identify measures that would mitigate perverse impacts.

In general, subsidy policies in industrialized countries have been pinpointed as the source of deleterious effects to developing countries, particularly for the negative impact on international trade, but the negotiations in the GATT/WTO have not proven very beneficial to solving such persistent problems. It is important to propose instruments that will allow an effective and efficient participation of Latin American countries in such negotiations and in the definitions of environmental principles, which will be demanded regionally and globally.

Market instruments may be developed to stimulate the practice of activities and processes that have less impact, while developing innovative ones that will fit within the budgetary restrictions of poor countries.