

**Environmental interests in the negotiation of Agreement on Agriculture:
country positions, policy implications and assessment**

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Table of Contents

Abbreviations and acronyms	3
I. Introduction	4
II. Sustainable development issues in agriculture	6
a. Economic aspects	6
b. Social aspects	7
c. Environmental aspects	8
d. Summary	10
III. Provisions under the Agreement on Agriculture	12
a. Major negotiation issues	12
b. New issues and renewed commitments to old issues	15
IV. Country Positions	17
a. Generic categorization by rights and obligations	17
b. Review of positions by the AoA negotiation groups	19
V. Integrated assessment for the AoA negotiation	28
a. Friends of multifunctionality	28
b. Argentina and Bolivia	28
Annex I: Country specific proposals from friends of multifunctionality	30
a. European Communities (EC)	30
b. Japan	31
c. Korea	31
d. Norway	32
e. Switzerland	32

Abbreviations and acronyms

AoA	Agreement on Agriculture (WTO)
AMS	aggregate measurement of support (AoA)
CBD	Convention on Biological Diversity
SIDS	small island developing states
SPS	Agreement on the Application of Sanitary and Phytosanitary Measures (WTO)
TBT	Agreement on Technical Barriers to Trade (WTO)
UNEP	United Nations Environment Programme
WTO	World Trade Organization

I. Introduction

This paper has two objectives. It aims to identify environment-related interests and positions of different governments at the negotiation on further implementation of the Uruguay Round Agreement on Agriculture (AoA) at the World Trade Organization (WTO). It also aims to present how integrated assessment could contribute to that process.

This paper mainly deals with the position papers presented at the Committee on Agriculture² during the phase 1 negotiations of the AoA as mandated in the AoA Article 20. It reveals a consensus that each WTO member has legitimate non-trade concerns. The preamble of the AoA specifies that non-trade concerns include “food security and the need to protect the environment.” WTO members also added other non-trade concerns in their papers, such as rural development, food quality, and animal welfare. “[T]he need to protect the environment” is stipulated in the preamble of the AoA, and any member can exercise the right as legitimate non-trade concerns. As such, the question is not the legitimacy but the modality to exercise such rights. How such legitimate need for environmental protection can be operationalized as concrete and efficient national policies? How such environment-minded policies are secured and proved to be non or minimally trade distorting?

The continuation of the reform process set out in the Uruguay Round will take into account non-trade concerns, as specified in the Article 20 of the AoA. The reform process has a “long-term objective” of “substantial progressive reductions in agricultural support and protection sustained over an agreed period of time, resulting in correcting and preventing restrictions and distortions in world agricultural markets³.” In current negotiations, different groups of countries propose to continue providing “agricultural support and protection” to address their non-trade concerns. Different groups of countries propose different sets of non-trade concerns. Such diverse agenda could probably be categorized under headings of the environmental agenda (for example, multifunctionality) and the developmental agenda (food security, poverty alleviation and equity).

The Doha Ministerial Declaration from the WTO fourth ministerial meeting underscore the need to integrate special and differential treatment for developing countries, especially on their needs for food security and rural development. At the same time, it also reaffirms the importance of all the other non-trade concerns and “take[s] note of the non-trade concerns reflected in the negotiating proposals submitted by Members⁴.”

Currently there are 144 members at the WTO (as of January 2002), and each country has its own policy agenda. To attain sustainable development goals, it seems imperative firstly a bird-eye view of the general political picture surrounding environmental interests is provided; secondly national policy priority is identified by each government; thirdly the national priority

Box. 1 Special and differential treatment

The Article 15 of the AoA provides special and differential treatments for developing and least developed countries. They are allowed to take longer transition period (up to 10 years) to accommodate the WTO commitment, and to reduce tariffs, domestic support and export subsidies in only two thirds of the level requested to the developed countries. Furthermore, the Article requests, by clauses of best endeavor nature, that developed countries should assist developing countries in specific areas such as technology transfer. Special and differential treatment also implies that developing countries are not requested to reciprocate in the trade deals. Least developed countries are not required to undertake reduction commitment.

² G/AG/NG/W/1-G/AG/NG/W/186

³ Article 20, Agreement on Agriculture. *The Results of the Uruguay Round of Multilateral Trade Negotiations—the legal text*. GATT Secretariat. 1994.

⁴ Doha Ministerial Declaration, paragraph 13.

identified sets a strategic national plan for negotiation; and fourthly the agriculture negotiation as a part of the single undertaking of the WTO round negotiations take into account the Pareto optimal welfare distribution (after a transaction no one is worse off and at least one actor is better off) at the international level; and lastly national policies, including flanking policies, are to be implemented by the government to assure the best outcome from the policy change.

United Nations Environment Programme (UNEP) believes that integrated assessment exercise can serve as a useful policy-making tool in such policy-making process, specifically in identifying the national priority and implementing national policies. UNEP will launch a new set of country level assessment studies on rice sector to that effect. It also intends to establish an expert group to develop a reference material to be consulted by the researchers and policy makers when they plan and conduct a national level integrated assessment in the agriculture sector.

Section II of this paper provides a brief summary of sustainable development issues related to agricultural activities. Section III summarizes the major negotiation issues and provisions in the AoA. Section IV discusses different countries' position on how they would like environmental interests to be considered in the Uruguay Round AoA negotiation framework. Section V uses some examples to explore the possible application of the UNEP integrated assessment on the AoA proposals.

II. Sustainable development issues in agriculture

This section reviews a range of sustainable development issues and objectives seen from economic, environmental and social aspects, relevant to the agriculture sector. Providing such context is important to understand different countries' positions in the next section, as well as to design and implement integrated assessment. The following sections are by no means exhaustive and need to be amended as the discussion develops.

a. Economic aspects

Economic objectives and supporting data sets are well developed compared to social and environmental data. Economic indicators, whose values are either to be maximized or minimized, usually express economic aspects of sustainable development objectives.

Poverty alleviation

Agriculture is by far the most common livelihood in most developing countries. Raising the standard of living of rural population who engage in agriculture can be a direct measure of alleviating poverty in such economy. Even in the developed countries with high living standards, it is recognized that urban-rural gap exists in terms of their income earning. Social policies exist to bridge the gap in certain countries.

Statistics clearly shows that increasing population pressure will necessitate the increase in food production. It also shows that only a part of the global community benefits from trade liberalization. In many cases, the lack of food is not production-related, but distribution-related problem. Therefore, public policy and strategic planning may have its role to ameliorate the situation.

Employment

Rural employment in developing countries is often explained by the concept of underemployment where the unemployed accept jobs that do not match their capacity and capability. The direct results are the lower unemployment rate, but each labor force results in having a lower share of the rewards to their labour. In such situation where wages are already below the optimal, small disturbance factor will encourage emigration to urban area or neighboring countries.

Commodity price and balance of payment

Many developing country economies depend on single commodity export and the diversification is to be fully realized. Volatility of the commodity price as well as declining trends on commodity price hit such economies, and worsen their terms of trade.

Investment

International trade promotes a creation of a global market, and a global food chain. Transnational corporation often operates beyond the border and thus could influence the investment flow internationally. Foreign direct investment could promote the upgrading of infrastructure, dissemination of new technology and capacity building. It could also increase volatility in foreign economies that are targeted as an object of the speculative investment.

South-south trading opportunity

One important issue pertaining to the market access issue is that in face of trade distortion and subsequent distorted market structure and prices, developing countries with ample exporting capacities are discouraged to export or to produce by too low world market price. Such potential but lost opportunities are the most prominent when developing countries trade with other developing countries. In terms of market preference and proximity, developing countries could have a better comparative advantage in trading with fellow developing countries, but for most importing developing markets, access is dominated by developed countries and with their bilateral or regional trade agreements, where WTO rules concede.

Another interesting intersection between market access issue and the domestic support appears in the proposal for the development box. Certain countries fear that border measures permitted under the special and differential treatment could deprive other developing countries of the market access opportunities to the fellow developing countries.

Technological development

Trade between two remote economies could largely benefit from the development of new technology as long as business opportunities exist. WTO TRIPS Agreement, for example, is one example to secure such business opportunities and is meant to give the right incentive to the economic actors.

Non-trade barriers, such as technical regulations covered by the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) and the Agreement on Technical Barriers to Trade (TBT), could serve either as a barrier or a facilitator for the dissemination of new technologies.

b. *Social aspects*

Land tenure

Historical accounts of the land tenure could affect how the agricultural land is managed, and could thus impact the environment. Land tenure system could also reflect the social structure characteristic to the specific region under examination.

Migration

Change in the land use, especially the abandonment of agriculture, could trigger the migration towards the urban center or across the border. Demographic change associated with migration restructures the economy and society in a profound manner and thus impacts the environment.

Equity

Among different types of equity, international trade by definition could largely affect intragenerational equity. For example, when goods and services are exchanged across the border, the producers and consumers do not necessarily share a common physical space, and in terms of the environmental problems, the operationalization of the polluter pays principle will become difficult. Another example is that in the same country, economies that is more open to foreign trade exhibit higher economic growth compared to remote and secluded rural economies.

Cultural values

As long as cultural diversities are valued, different values need to be accommodated. Many societies around the world value agrarian and rural life that exists in rural communities. In many countries, large agrarian population weaves the main fabric of the society. Even when agrarian population consists of only a small part in the whole society, rural communities are valued because of the historical roots in these former agrarian societies. Cultural values that exist in such rural communities could also serve for the conservation of the biodiversity, as well as rural vitality, livelihood, and landscape as some countries propose.

Change in consumer preferences

Time series data for the consumption of staple crops show the income elasticity. In other words, as the income grows in an economy, people consume less of the staple crops. The growth of the expenditure for food is not proportional to the growth of the income (income effect). At the same time, the growth in income allows the consumption of more variety of foods (substitutions effect). Substitutions effects could be observed in the rapid growth of niche markets for organic foods or exotic foods in developed countries.

Technology with novelty

New technologies with novelty pose serious ethical questions to the generation that faces such novelty. Genetic engineering, or more specifically the recombinant DNA technology, could be one such example.

Capacity building

Capacity building could be a powerful instrumental vehicle to achieve sustainable development. It is about empowering the national and local authorities as well as the general public so that sustainable development policies are to be implemented effectively, engaging all levels of decision-making process. Capacity building is also supported by awareness raising, promoting transparency in policy-making, and enhanced horizontal communications between the various stakeholders.

Training and education

Figures suggest that more training and education in farm management for individual farmer will bring about environmental benefits by, for example, the proper application of farm inputs. It has been reported that farmers' illiteracy is the main cause of the overapplication of farm chemicals. Also, if farms are to play the role of managing sustainable agriculture system in a cost-effective and profitable manner, training must be provided to that effect. Some local NGOs in developing countries provide such trainings, but it would worthwhile to expand the programme at the national level.

c. *Environmental aspects*⁵

In many countries around the world, agriculture occupies large tracts of land, and significantly impacts the environment in both positive and negative manners.

Environmental objectives largely depend on the specific geographical area or ecosystem. Target setting needs to start from the scratch by gathering reliable data to find the baseline

⁵ This section is written in cooperation with Mr. Gerard Van Dijk at Regional Office of Europe, UNEP.

conditions, the optimal value and a range of fluctuations for a deviation. In other words, different from economic target, where in most cases there exist clear numéraire (GDP or unemployment rate, for example) that should be either maximized or minimized. In the environmental target settings, it is to identify the optimal point for a variable, and policies aim to influence the value towards the central point. This subsection describes the changes due to agricultural activities without prescribing any target value.

Introduction of agriculture

When agriculture is introduced, natural ecosystems (often forest ecosystems) are converted to arable land, other cropping systems or grassland. This is called reclamation of natural ecosystems, and is often associated with a substantial loss of biodiversity. In certain cases, however, especially where grasslands came into being and subsequently support extensive livestock farming, the new semi-natural habitat becomes a substitute for the natural habitat for certain species. Such semi-natural habitat, hosting many plant and animal species, are often maintained by extensive agriculture.

Reclamation of natural habitats

Negative impacts due to the reclamation of natural habitats occurred in the last thousand years in most of the temperate zones, but such trend has generally been halted or reversed. In tropical zones and in Australia, such trend is still observed, and constitutes a major loss of biodiversity, for example through the clearance of forests.

Intensification of agriculture

Agricultural practice has intensified during the 20th century by the introduction and constant growth thereafter of the use of fertilizers and pesticides, the drainage of wet grasslands and wetlands, disappearance of natural features such as hedges, wooded areas, and ponds. Such changes dramatically reduced the level of biodiversity. Different aspects and levels of intensification are explained below:

Decline of biodiversity-rich farmlands: Semi-natural ecosystems (i.e. low-input grasslands) and other biodiversity-rich farmlands are mainly dependent on extensive agriculture. Decline of such areas due to agricultural intensification is a major concern of nature conservation policies.

Decline of biodiversity in the wider countryside: Farmland often serves for less-demanding, wide-ranging, dispersed and migratory species. Such areas mostly have a basic level of biodiversity with benefits for the agriculture. This is called the life support function of biodiversity or ecological services. These include services such as to maintain soil fertility or soil biodiversity, pollination, and predation of pest organisms. Such services are also found in intensive agriculture, but further intensification will lead to the reduction of biodiversity, and loss of some or even all of these ecological services.

Pollution: Excessive levels of intensification and mismanagement, as found in many developed countries, will pollute ground water, surface water and air. Even when the biodiversity on farmland itself is low, such pollution can also negatively affect adjacent as well as more remote ecosystems. Those ecosystems receive pollutants via water and air media, resulting in eutrophication and acidification.

Reduction of positive impacts of agriculture or services: As seen above, intensification of agriculture can reduce environmental quality of farmland. Environmental qualities could be categorized into those that have already been degraded by agriculture, such as soil and water

quality, and those that have been enhanced by agriculture, such as certain types of biodiversity and landscapes. In the latter case, positive impacts are reduced by intensification. In either case, intensification will decrease the environmental qualities, to which there can be a range of policy responses. It is to be noted that positive impacts of agriculture can also be reduced by land use changes, particularly land abandonment.

Land use change

Positive impacts of agriculture, such as certain categories of biodiversity and cultural heritage landscapes disappear when land use changes or agriculture disappears (land abandonment). Although in many regions agriculture will then be replaced by forest, the disappearing habitat often holds more threatened species than the new forest habitat. In the case of abandonment of intensively used farmland, however, the environmental gains may prevail, but related landscape changes may be valued in different ways. Environmental gains could also prevail if the original habitat had been threatened (i.e. steppe and prairie) and it could be restored from agricultural land.

Positive environmental impacts of agriculture

A wide range of literature has highlighted negative environmental impacts of agricultural activities on ecosystems, especially in 1980s and 1990s. Negative impacts can occur at every stage of the agricultural development as discussed above with examples. Since late 1990s, positive environmental impacts realized in agricultural activities have been highlighted by organizations, for example, Convention on Biological Diversity (CBD), Organisation for Economic Co-operation and Development (OECD)⁶ and non-governmental organizations. Positive impacts are related to the management of semi-natural ecosystems on which many endangered species depend for their survival, the provision of rural economic activities that form the basis of the farmers' stewardship to the environment, and the prevention of natural disasters such as fire land slides and floods. Certain agro-ecosystems in the extensive farming system also provide the only habitat for many endangered species of wild flora and fauna. In such extensive farming systems, positive impacts could outweigh the negative impacts of agricultural production.

d. Summary

Each country plans its policy taking into account sustainable development objectives listed above under each category of economic, social and environmental aspects. In other words, the previous pages contain samples of problems to be addressed by, and of desirable outcomes to be attained by national policies. Each country may well have different policy priority for desirable outcomes. For example, one country may value poverty alleviation more than environmental protection. Another country may value distributional equity more than the nominal increase of national wealth. Each country's national policy agenda is to be respected on the basis of its sovereignty.

At the international level, however, each country's sovereignty often becomes an obstacle to reach an internationally common policy agenda. The AoA negotiation can be an example. Such "war of gods," which Max Weber aptly describes as irreconcilable conflict between value spheres (independent and mutually exclusive spheres separated by different values), needs to be reconciled to achieve the sustainable development at the global level.

⁶ CBD addressed the positive impacts of agriculture on biodiversity in its work programme on agricultural biodiversity (Decision V/5), and OECD has held a seminar on environmental benefits of agriculture (*Environmental benefits from Agriculture: Issues and Policies, The Helsinki Seminar*. OECD. 1996).

At another dimension, identification of the policy priority is critical at the early stage of the integrated assessment. Policy priority and goals guide the assessment process in choosing appropriate policy variables and solution methods.

Next two sections review the rights and obligations of the WTO member states (global policy agenda) and the policy proposals from the member states (individual member's national policy agenda). This shall give the broad political picture in which integrated assessment could be used as a strategic tool.

III. Provisions under the Agreement on Agriculture⁷

This section will review important AoA provisions relevant to the scope of the current paper. So-called three pillars of negotiation agenda, market access, export competition and domestic support are reviewed with reference to respective rights and obligations. Non-trade concerns and implementation issues are also briefly discussed at the end. Implications of certain agricultural issues covered under the SPS Agreement and TBT Agreement will be discussed elsewhere.

As a result of the Doha Ministerial Conference of the WTO, agriculture negotiations are now part of the single undertaking under the so-called Doha Development Agenda, to be concluded by 1 January 2005.

a. Major negotiation issues

Three major negotiation agenda within the ambit of the AoA are market access export competition and domestic support reduction. The General Agreement on Tariffs and Trade (GATT) rules, precedent to the AoA rules, were largely ineffective to liberalize agriculture sector because of loopholes that allowed non-tariff measures. The AoA used the tariffication process to quantify and replace non-tariff import measures, curbed export subsidies, and codified domestic support programs on the basis of their potential to distort trade.

Box 2. Summary of the reduction commitment for developed and developing countries			
	Developed countries 6 years: 1995-2000	Developing countries 10 years: 1995-2004	Least developed countries
Tariffs			
Average cut for all agricultural products	-36 %	-24%	N.A.
Minimum cut per product	-15%	-10%	N.A.
Domestic support			
Cuts in AMS support for the sector	-20%	-13%	N.A.
Exports			
Value of subsidies	-36%	-24%	N.A.
Subsidized quantities	-21%	-14%	N.A.
Source: Adapted from "WTO Agricultural negotiations: The issues, and where we are now" http://www.wto.org/english/tratop_e/agric_e/negs_bkgrnd00_contents_e.htm			

Market access: tariffs, tariff quota, and special safeguard provisions

Market access provisions aim to ensure a fair and competitive market access by restricting importing countries' trade policy measures only to tariffs. In the Uruguay Round tariffication process, non-tariff measures, namely all measures used other than tariffs to protect domestic industry, were converted into tariffs that would provide an equivalent level of protection. The conversion was based on the difference in international market price and domestic market price of the specific product. If one product was 70 per cent more expensive on the domestic market compared to international price, the tariff could be around 70 per cent. Anticipating the negative impact of increased tariffs on export countries, a system of tariff-rate quotas was created. It allowed certain historical level of imports to continue at a lower tariff. Developed

⁷ The author thanks Miho Shirotori and Alex Werth who provided detailed comments to this section.

countries are obliged to reduce the tariff levels by 36 per cent in equal steps over six years whereas developing countries 24 per cent over ten years.

Problems arising from the new system are many. First of all, the tariffication process could result in a too high level of tariff to prohibit any access to the market (prohibitive tariff). In some cases, the calculation of the tariffs is not transparent and dubious (dirty tariffication). For example, a country could quote a high quality food price of one domestic commodity against a feed quality price of the foreign commodity. Secondly, percentage reduction of tariffs are required by a simple average, with the minimum cut of 15 and 10 per cent per product for developed and developing countries respectively. This allows countries to be selective in reducing tariffs so that the sensitive products get only small amount of reduction (tariff peak) whereas others have large reduction (tariff dispersion). Some countries have been applying higher tariffs for processed products than for primary products, thus creating bias against processed products (tariff escalation). Such trend may continue to affect the international agricultural market.

The AoA contains a special treatment clause in its Annex 5. There are countries initially permitted to maintain non-tariff border measures on certain products that meet conditions spelled out in the Annex 5 during the period of tariff reductions. Korea, Japan and Philippines maintained such measures for rice, and Israel for dairy products.

Article 5 of the AoA specifies the special provision on safeguards. The special safeguard provisions allow the country to impose an additional tariff where certain criteria are met. The criteria involved are either a specified surge in imports (volume trigger), or on a shipment-by-shipment basis, a fall of the import price below a specified reference price (price trigger). A major difference from the normal safeguards for non-agricultural commodities covered under the Agreements on Safeguards is that the demonstration of serious injury to the domestic industry is not necessary in the case of agricultural products.

Export competition

The AoA provides the rules and disciplines over the use of export subsidies in the agriculture sector. While the provision of export subsidies in non-agricultural sector is prohibited under the Agreement on Subsidies and Countervailing Measures (Article 3), under the AoA, the prohibition only applies to introduction of export subsidies that are not included in the reduction commitments. Those who currently subsidise exports have reduction commitments. The reduction commitment requires countries to specify those subsidies. Then they have to be reduced in the value of exports by 36 per cent over six years for developed countries and 24 per cent for developing countries over ten years. They also have to be reduced in quantities of exports by 21 percent over six years for developed countries and 14 per cent over ten years for developing countries.

A discussion during the recent AoA negotiation started in 2000, which mainly concerned the US and the EU, was to expand the scope of disciplines over export subsidies so as to cover export promoting measures other than those specified under Article 9.1 of the AoA. The discussion was that support measures promoting export other than export subsidies, such as export credits, export credit guarantees, insurance programmes and food aid, should also be restrained under the same rules and disciplines as export subsidies. The Doha Ministerial Declaration reads, “without prejudging the outcome of the negotiations” the comprehensive negotiation aims at “reduction of, with a view to phasing out, all forms of export subsidies.”⁸

⁸ WT/MIN(01)/DEC/W/1, para 13.

Domestic support

Certain support programmes at the national level may have direct physical effects on production and trade. In a commonly held view, support programmes encourage overproduction that can be dumped into world market to suppress international commodity price, notably with the help of export subsidies. Those government support policies that directly affect production and trade are thus strongly discouraged under the AoA in principle. All trade distorting domestic supports, classified under the amber box or calculated as the total aggregate measurement of support (AMS), are to be reduced by 20 per cent in six years for developed countries (by the end of 2000), and 13 per cent in ten years for developing countries (by the end of 2004). A general exception is called *de minimis* subsidies. Those are small-scale subsidies and supports that do not exceed 5 per cent for developed countries and 10 per cent for developing countries of the value of production of individual products, or, in the case of non-product-specific support, the value of total agricultural production.

Besides the *de minimis* category, some other supports are exempted from the reduction commitment. In WTO terminology, a “box” analogy is used to discuss different types of subsidies. Under the AoA, there are three boxes: amber box, blue box, and green box⁹. Amber box contains those subsidies and programmes that distort trade and production, and calculated as AMS. The total value of this box is agreed for reduction. The blue box includes direct payments under production-limiting programmes. This box is an exemption to the reduction commitment on trade and production distorting subsidies, although by definition this box is related to production levels and inputs. The green box category includes domestic measures that are non or at most minimally trade distorting. They have to be government-funded and must not involve price support. It includes income support programmes for farmers decoupled from production. In the WTO terminology, when payments and other incentives are not directly linked to inputs or production, they are called decoupled. Given that support measures contained in the green box do not distort trade, they are not subject to the reduction commitment and hence no limit is set. The criteria to be met are specified under Article 6 and Annex 2 of the AoA. Annex 2 includes two items related to the environment: “[g]eneral services” that contains “research in connection with environmental programmes” and “infrastructural works associated with environmental programmes.” The other is “[p]ayment under environmental programmes¹⁰”.

Box 3. Non or minimal trade distortion

In the neoclassical economics term, when supply and demand meet, the market clears at a point that gives the most efficient market solution. Public interventions by the government, which will disturb the optimum balance attained in the market, are regarded as market distortion. In the same vein, in trade community, public intervention that will intentionally affect the market price is regarded “trade distorting”. From welfare economics’ point of view, certain public interventions are necessary in the case of public goods which do not clear the market itself because the social demand for such goods tend to be higher than market supply in the case of positive externality. As such, certain degree of intervention from socio-economic reasons could also be tolerated in the WTO.

⁹ An exemption category exclusively available for developing countries is called development measures or development programmes. It is also called the special and differential treatment (S&D) box. This box may allow developing countries to provide investment subsidies, input subsidies to low income or resource poor farmers, and support to encourage shift from producing illicit narcotic crops.

¹⁰ Payments under environmental programmes are subject to the following conditions: (1) “Eligibility for such payments shall be determined as part of a clearly-defined government environmental or conservation programme and be dependent on the fulfillment of specific conditions under the government programme, including conditions related to production methods or inputs”; and (2) “The amount of payment shall be limited to the extra costs or loss of income involved in complying with the government programme” (Annex 2, paragraph 12, Agreement on Agriculture).

Doha declaration restates the aim of the comprehensive negotiations, which include “substantial reductions in trade-distorting domestic support.”¹¹ A separate document on “Implementation-related issues and concerns” contains an item that “[u]rges Members to exercise restraint in challenging measures notified under the green box by developing countries to promote rural development and adequately address food security concerns”¹².

Non-trade concerns

Article 20 of the AoA could provide the member states with opportunities not to abide by the commitments agreed in the other part of the AoA in the course of the reform process set out in this Article. Non-trade concerns include “food security” and “the need to protect the environment” as specified in the preamble. Current discussion, however, shows that non-trade concerns could be more broadly interpreted and grouped under rural development/poverty alleviation context and multifunctionality/environmental protection context. In principle, such non-trade concerns are to be taken into account in the continuation of the reform process, and would not dramatically alter the commitments agreed previously in the AoA. Some members, however, consider that Article 20 and its reference to non-trade concerns could serve as a legitimate reason to revisit the commitments agreed and implemented during the six years of the implementation period (1995-2000). They consider that the negotiation mandated in the Article 20 to continue the reform process, starting in 1999, shall therefore renegotiate the commitment in light of the experience gained in the implementation of the Uruguay Round Agreements. Others are of the view that non-trade concerns should not have an overriding importance to the three pillars of the AoA negotiation agenda discussed above. Doha declaration emphasized that the AoA negotiations take into account “non-trade concerns reflected in the negotiating proposals submitted by Members”¹³.

b. *New issues and renewed commitments to old issues*

Food quality and animal welfare are new issues proposed by some developed countries in the phase I negotiation. Those are necessary development considering recent food-related incidences. These issues are, however, covered by the SPS or TBT Agreement.

Apart from the attention given to such new issues, there has been a strong urge to pay more attentions to the unfulfilled rights and commitments specifically designed for developing and least developed countries. The special and differential treatments in the AoA are of best endeavor nature, and thus did not require a binding commitment on the side of developed countries. This has brought a considerable concerns on the part of the expected beneficiaries of such provisions. Doha declaration mainstreamed the special and differential treatment for developing and least developed countries throughout the text¹⁴. For example, under the heading of agriculture, it reads “[w]e agree that special and differential treatment for developing countries shall be an integral part of all elements of the negotiations and shall be embodied in the Schedules of concessions and commitments and as appropriate in the rules and disciplines to be negotiated, so as to be operationally effective and to enable developing countries to effectively take account of their development needs, including food security and

¹¹ WT/MIN(01)/DEC/W/1, para 13.

¹² WT/MIN(01)/DEC/W/10, para 2: Agreement on Agriculture.

¹³ WT/MIN(01)/DEC/W/1, para. 13.

¹⁴ Ibid. para 44: Special and Differential Treatment.

rural development.” It remains to be seen, however, how the concept and the spirit are to be operationalized.

IV. Country Positions

Different countries mention the environment in their negotiation proposals. This section analyzes those environment-related interests in the AoA negotiations by grouping countries of similar positions. Country grouping is mainly based on the likely policy implication of the argument. Country groups are not exhaustive, and are chosen to show the widest spectrum of contrasting environmental interests, but this analysis does not cover interests that seem to have little relevance to the environment, and of some countries that are similar to other, larger groups.

Before reviewing the country positions, however, it would be useful to categorize countries systematically according to their rights and obligations to the AoA.

a. *Generic categorization by rights and obligations*

This categorization facilitates the base line setting in the first step of an integrated assessment. In the first step of integrated assessment, the country needs to gather all the relevant information on the current and past trends in the environment, economy and society. After the trends are understood, the country needs to identify policy variables that are available for the government to influence. For most countries, AoA provisions are the given conditions, and it is not realistic to assume that the government could influence them according to the national priority. For other countries, the entire integrated assessment process could be geared towards the modifications in AoA provisions.

First of all, as reviewed in the last section, developed countries face significant reduction commitments in the AoA. They are domestic support reductions, export subsidies reduction, and tariff reductions. Developing countries face similar reduction commitment, but with a longer time, and in smaller percentage. Least developed countries are not requested for any commitment in reductions.

Table 1: Rights and obligations

		Exporters	Importers
Developed countries: Exert influence over the market	Obligations	Export subsidies reduction	Domestic support reduction, tariff reduction
	Rights	Market access	Non trade concerns (environmental, food security)
	Defending tools	AoA's long term objective, food aid, export subsidies	Special safe guard, tariff dispersion, dirty tariffication etc.
Developing countries: Market condition is given	Obligations		
	Rights	Market access, special and differential treatment	Developmental non-trade concerns (poverty alleviation, employment, rural livelihood, food security), special and differential treatment
	Defending tools	Development box, flexibility in providing support	

The box above shows a simple categorization of the rights and obligations for different types of countries. In the first column, developed countries and developing countries are separated.

This is not only because of the differences in the AoA reduction commitment, but also because they are different in the degree of their influence exerted in the world market. Developed countries, with their financial capability, can either insulate their domestic market, or extend its market access to foreign markets, making use of its financial resources and political power. On the other hand, most developing countries have less or no financial resources or market share to exert large influence over the world economy. Market conditions are given to them, and are the exogenous policy variables. In other words, even when the market conditions inflict large harm to them, they rarely possess the policy variables to change the situation. In such case, it is unrealistic that an integrated assessment considers the AoA provisions to be policy variables that the government can influence.

The first row categorizes countries by their comparative advantages in the agricultural production. Exporters are the countries that can or could produce agricultural commodities to export to the world market. Importers are the countries that can or has to import agricultural commodities because they do not have the capacity to produce. Interesting fact to note is that for some developed countries, availability of financial resources allowed them to change their status from importers to exporters in the course of their economic development. EU countries are the good examples to have acquired the capacity and competitiveness to produce and dominate world market with the use of financial resources (acquired comparative advantage). Their competitiveness is not necessarily because they are naturally endowed with comparative advantages in producing agricultural commodities. It is because they could nurture such advantage over time with the help of abundant financial resources and highly developed infrastructure. Therefore, it is to be noted that the distinction in exporters and importers are made under a hypothetical situation where the AoA long-term objectives are achieved and naturally endowed comparative advantage is the only factor to determine if a country can export or import.

The second column has three elements for each group. They are obligations, rights and defending tools. Obligations are those that pose constraints to those countries. Contrary to their wish to expand market share with the help of export subsidies, developed exporting countries are urged to reduce export subsidies, and they have to deal with it at the AoA negotiations. Developed importing countries, on the other hand, are urged to reduce domestic support and tariffs, even though they wish to insulate their domestic markets with these measures. In the case of the majority of developing countries, obligations rarely pose problems to them at the AoA negotiations, simply because they have already conformed to these obligations in the past negotiations, at their accession to the WTO, or in joining other bilateral, regional or commodity trade agreements. Rather they confront with problems caused by other countries' not being conformed to the AoA obligations.

The rights are what the countries are entitled to claim in the multilateral trade system. Developed countries exporters can rightly claim for their share of world market based on the market access provisions. Developed countries importers can defend its policy on the basis that they are entitled to be given concession under non-trade concerns. Developed countries' non-trade concerns are for environmental or food security purposes. Developing countries are entitled to claim their special and differential treatment, although they are dependent on the developed countries' commitment of best-endeavor nature. Again, special and differential treatments are not the realistic policy variables for developing countries because it depends on the will of developed countries. Developing countries' exporters can claim market share, but again without having its own resources to stimulate export, third countries' tariff barriers can easily block the fulfillment of their rights. Developing countries importers do not have measures to protect their market because all border measures are already taken away from them in the past negotiations or at the accession to the WTO or to other trade agreements. Only rights they can claim must come from developmental non-trade concerns, but this does not work as policy variable that can directly influence the trade flow. Developing countries

exporters are thus proposing the creation of the development box. With the development box, the countries could have both domestic support tools and border measures.

The analysis on policy variables for different countries is an inevitable step to make a feasible policy recommendation in the integrated assessment.

b. Review of positions by the AoA negotiation groups

This subsection will review the policy positions as grouped in the AoA negotiations. They are: friends of multifunctionality, economies in transition, small island developing states, friends of the development box, Cairns group, African group and Jordan.

Friends of multifunctionality¹⁵

Friends of multifunctionality have several common policy goals. They unequivocally support the green box measures and blue box measures when discussing a further reduction of domestic support measures. Under the market access issues, they propose more flexibility in setting tariffs and minimum access quotas. Under the export subsidies, with EC and Switzerland as exceptions, they propose more strict disciplines.

Environmental interests are the key cornerstones of their argument. The starting point is non-trade concerns as written out in the preamble to the AoA. It reads that “the need to protect the environment” and “food security” are two examples of the non-trade concerns, that are to be considered in fulfilling the reduction commitments “in an equitable way among all Members.” Article 20 of the AoA further reinforces this condition. Namely, Article 20 on “Continuation of the Reform Process” stipulates that negotiations start in 1999¹⁶, following the implementation of the Uruguay Round commitment, to achieve “the long-term objective of substantial progressive reduction in support and protection,” taking into account non-trade concerns. In sum, non-trade concerns, including environmental interests, can influence the post Uruguay Round AoA negotiations so that the reduction commitments are to be equitable among different countries.

A general problem inherent in discussing “the environment” is that the very concept is not politically operational. Concrete policy options, for example, to safeguard “the need to protect the environment” is not always clear, and countries need to interpret the spirit of the text and propose concrete policies. For the friends of multifunctionality, such “need to protect the environment” arises from the fact that the agriculture provides not only food and fiber that are commercially exchanged and valued in the market, but also other environmental goods and services, notably biodiversity, aesthetic values, cultural values, and rural livelihoods that are positively valued by their constituents (multifunctionality of the agriculture). The friends of multifunctionality underscore that such non-marketable goods and services are jointly produced with agricultural commercial goods, and therefore they are inseparable in operation (joint production). They also emphasize that such non-marketable goods and services have the public goods characteristic, and this trait, when it provides positive externalities, most likely requires the government intervention to ensure the optimal balance of supply and demand (externality/public goods).

¹⁵ This group consists of the following countries and a country group as major actors: European Communities, Japan, Korea, Norway, and Switzerland. Along with them, following countries submitted a paper on non-trade concerns (G/AG/NG/W/36): Barbados, Burundi, Cyprus, Czech Republic, Estonia, Fiji, Iceland, Israel, Latvia, Liechtenstein, Malta, Mauritius, Mongolia, Poland, Romania, Saint Lucia, Slovak Republic, Slovenia and Trinidad and Tobago.

¹⁶ “Members agree that negotiations for continuing the process will be initiated one year before the end of the implementation period” Article 20, Agreement on Agriculture.

It is generally agreed that more rigorous analysis is needed on the cost-effectiveness of such policy options. The OECD has developed its analytical framework on the multifunctionality of agriculture to establish a common understanding, terminology and analytical framework so that the concept should become politically operational¹⁷.

The friends of multifunctionality refer to the joint production characteristic of the multifunctionality in justifying the provision of domestic support under the environmental protection purpose. Exactly because of the joint production characteristic, however, the supported agriculture will not only produce the externalities, but also agricultural products, which will often distort trade.

Annex I contains country specific position of members of the friends of multifunctionality.

Economies in transition¹⁸

By definition, economies in transitions were former centrally planned economies and are from the former Eastern bloc. A political interest commonly shared by these countries is the entry to the European Union and access to that market¹⁹. In this regard, many candidate countries to the EU accession aim to reform their economic systems so that they can comply with EU standards. Many countries refer to non-trade concerns with specific reference to its environmental protection component. Most countries also support the continuation of the blue box and green box domestic support measures. For example, Hungary (G/AG/NG/W/69) supports “an increase in the flexibility for policy-making offered by the Green Box with the aim to adequately reflect the inherent diversity of agricultural conditions in various parts of the world” and expressed that “we [transition economies] firmly believe that the Green Box criteria need to be readjusted so that there will be a sufficient number of policy options reasonably available for every Member [of the WTO].”

It is to be noted that although many have expressed their support to give flexibility related to the environmental non-trade concerns, their proposal on domestic support (G/AG/NG/W/56) focused on the difficult economic reform process ongoing in these countries. They proposed to include in the AoA more flexibility in providing subsidies to insulate the sector from sudden adverse effects from the economic transformation.

References to the environment and related issues are found in statements made by individual countries. In general, economies in transition support the proposals of the friends of multifunctionality on domestic support. The two groups have the overlapping interests in proposing more flexibility in the reduction commitment to enable different agricultural production system to coexist.

Some additional aspects related to the non-trade concerns are highlighted by economies in transition. For example, Poland (G/AG/NG/W/81), in commenting on the note on non-trade concerns (G/AG/NG/W/36) prepared by friends of multifunctionality²⁰, points out that the

Box 4. Reference to the environmental non-trade concerns

Multifunctional role of agriculture
Croatia (G/AG/NG/W/141), Bulgaria (G/AG/NG/W/111)

Environmental protection/natural resource conservation

Croatia, Poland (G/AG/NG/W/103), Czech republic (G/AG/NG/W/65)

Erosion of the biological diversity resources

Czech republic (G/AG/NG/W/65)

¹⁷ *Multifunctionality: Towards an analytical framework*. OECD. 2001.

¹⁸ Negotiation proposals G/AG/NG/W/56 and 57 were submitted collectively by Bulgaria, Czech Republic, Estonia, Georgia, Hungary, Kyrgyz Republic, Latvia, Slovak Republic, Slovenia, Croatia and Lithuania.

¹⁹ In this respect, Turkey (G/AG/NG/W/106) and Cyprus (G/AG/NG/W/158) also expressed partial support to the multifunctionality.

²⁰ Poland is among those submitted the note, G/AG/NG/W/36, without contributing a paper. She shares her experience related to this note in her statement.

decrease in production will lead to unemployment and thus to deprive the vitality of the rural communities, and to land abandonment. At the opposite end of the spectrum, Poland also notes “intensification and industrialization of agricultural production, together with transformation of urban lifestyle, can contribute to negative changes in the rural society and environment caused by deforestation and water pollution.” The

Czech republic also shares her experience

related to the “environmentally related non trade concerns” (G/AG/NG/W/65). She describes how environmental degradation negatively affects the important functions of agriculture, and points out that the rehabilitation depends on continued agricultural sector reform. She emphasizes that the environment and agriculture is directly related and that farmers are the providers of environmental services. The Polish proposal (G/AG/NG/W/103) lists different functions of agriculture to be preserved by developing appropriate framework in the AoA negotiation (see the box). Bulgaria (G/AG/NG/W/111), in commenting on Swiss proposal, recommends that the new agreement to accommodate “the multifunctional role of agriculture,” and “[a]ttention should also be paid to the environmental concerns in order to avoid the use of production methods and support measures that may have negative impact on the environment.” Croatia, in her proposal G/AG/NG/W/141, made reference to the multifunctionality under non-trade concerns. She “recognizes the multifunctional role of agriculture and considers that it should be given the place that deserves.” She emphasizes “the role of agriculture in sustainable development, in the protection of environment, and poverty alleviation in the areas with unfavourable economic conditions in agriculture.” She proposes certain flexibility in the AoA to achieve societal goals associated with the multifunctionality, such as strengthening the socio-economic viability and development of rural areas, food security and promoting the co-existence of various types of agriculture.

**Box 5. Non-trade concerns in Polish proposal
(G/AG/NG/W/103)**

- Food security
- Maintenance of appropriate living standards in the rural areas
- Maintenance of appropriate levels of production in the sectors of special importance to the whole economy of Members
- Environmental protection
- Preservation of historical and cultural heritage

Small island developing states

Small island developing states (SIDS) deserve a separate section primarily because of their high political priority in environmental issues, such as global warming and natural disasters. Some members of this group have also been vocal as the friends of multifunctionality.

SIDS as a group have tabled a negotiating proposal²¹. The proposal identifies three causes of the structural weakness of SIDS as diseconomy of scale, diseconomy of scope and high unit costs of input factors and transport, which are the direct results of the SIDS-specific characteristics such as smallness, remoteness, geographical dispersion, vulnerability to natural disasters and scarcity of resources, i.e. land, water, human resources and other input factors. SIDS point out that because of the structural weakness inherent to these economies, acquiring competitiveness in the short term is not possible. In the meantime, they regard it necessary to safeguard their national interests so that excessive trade liberalization should not undermine the productive capacity of their economies.

With regard to the multifunctionality, Mauritius has been actively participating in the promotion of the concept through hosting a meeting and contributing a paper (G/AG/NG/W/36 and G/AG/NG/W/186). Fiji (G/AG/NG/W/8) and Jamaica (G/AG/NG/W/86) expressed their support to the concept respectively. Among SIDS

²¹ G/AG/NG/W/97 submitted by Dominica, Jamaica, Mauritius, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Barbados and Cuba.

Mauritius is by far the most vocal in presenting her position. Her policy proposals, however, remain rather vague from operational point of view. The proposal rather provides insightful accounts of her negotiation objective “to achieve a balance between trade and non-trade concerns; one that favours the continuation of a reform process in agriculture, and one that acknowledges and provides for the diversity of agricultural systems and situations worldwide, and in particular the specificities of SIDS” (G/AG/NG/W/119).

Environmental concerns appear in Mauritius papers and other SIDS are significantly different from those of friends of multifunctionality, or those of economies in transition in its sustainable development context. One could say that friends of multifunctionality emphasize the societal context of the environmental interests more than others, and economies in transition the regulatory aspects, i.e. the compliance to the EU standards. SIDS considers environmental interests important firstly because it is of literally vital interest in the case of global warming and fossil fuel use in transportation of goods that leads to the sea-level rise which will eventually make their territory disappear. With the environmental concerns centered in policy objectives, SIDS emphasize multifunctional aspects of agriculture. For example;

The role of agriculture in all countries is not limited to the production of food and fibre. In many cases, it underpins the socio-economic fabric of rural areas and often, that of countries themselves. In a number of developing countries, *agriculture provides an instrumental link to the development of eco-tourism, the means for the production of clean energy, thereby avoiding the use of fossil fuels, the provision of social amenities and in fostering research and technology development.* Moreover, it has an important role in the protection and preservation of the environment and biodiversity.

G/AG/NG/W/75, P.1. Italic added by the author.

It is also to be noted that the instrumental value of environmental assets to achieve sustainable development is highlighted here.

Secondly, SIDS have a longer time frame than other countries. Mauritius, for example, is well aware that she may not be able to “balance out losses in one area by achieving benefits in another area” in negotiations because of the inherent constraints of SIDS mentioned earlier, i.e. the lack of global competitive advantage (G/AG/NG/W/119). She recognizes that existing green box measures are “of little use to [SIDS] since it requires budgetary outlays that [SIDS] do not have” (ibid.). More specifically, “[Mauritius] believe[s] that a market-only approach would not be suitable” (ibid.) since by producing one or two commodities in a small scale, they do not have the comparative advantage to be gained in the global market. She emphasizes, however, “no country will participate in an international trading system if it feels that the outcome would be that it would become a net loser” (ibid.). Rather “[i]t hopes that technological developments will one day allow it to produce, in a commercially meaningful manner, agricultural products other than the single commodity it currently produces. It hopes that one day technological developments will enable it to convert its single commodity to produce ethanol” (ibid.). In sum, by participating in the multilateral trading system she aims to achieve sustainable development in a gradual manner, sometime in the future. In the meantime, she asks for “a flexible and gradual approach, which takes into account the individual situation of agriculture in each country” (ibid.).

Friends of the development box²²

²² Friends of the Development Box Group, formed in October 2001, consists of: Cuba, Dominican Republic, El Salvador, Haiti, Honduras, Kenya, Nicaragua, Nigeria, Pakistan, Peru, Senegal, Sri Lanka, Uganda, Zimbabwe.

Friends of the development box deserve some attention, even though their policy proposals do not contain any direct reference to the environmental issues. Indirect link to the environmental interests in their policy proposal is that the development box was proposed vis-à-vis the existing green box mainly used by developed countries. In analyzing the key argument of the group it will be clear that the fundamental argument made to safeguard non-trade concerns “on the basis of non-competitiveness” (G/AG/NG/W/13) is quite similar to that of SIDS. Environmental interests, however, are neglected in the friends of the development box group, possibly because environmental issues are given relatively low profile in the policy agenda in this group of countries.

As friends of multifunctionality based its argument on the non-trade concerns, friends of the development box base their argument on the concept of special and differential treatment. The proposal of the development box embodies an attempt to operationalize the concept in agricultural trade rules. It reads:

For reasons of national security, economic and political stability, S and D provisions giving more flexibility in agricultural trade policies must therefore be allowed to developing countries. Key products, especially food staples, should be exempted from liberalisation, and the domestic production capacity of developing countries must be encouraged and helped along to become more competitive, rather than destroyed on the basis on non-competitiveness.

G/AG/NG/W/13.

The proposal refers to the Article XXI of GATT, that national security may be exempted from WTO trade disciplines, as well as political independence and sovereignty as the reasons why developing countries are to be allowed the flexibility. Such policy flexibility will be “provided to increase the domestic capacity in the production of food in developing countries”(ibid.) even at the cost of economic inefficiency. It emphasizes that non-economic benefits such as “agriculture as the sole source of employment for the majority of developing countries; domestic production especially of key staple products as the most accessible source of food for the majority... outweigh the supposed ‘economic costs’”(ibid.). It strongly maintains, at the same time, that “[t]his type of flexibility... *must* be differentiated from exporting developing countries’ provision of supports in order to gain markets abroad” (ibid.).

In the proposal G/AG/NG/W/14, friends of the development box present problems and shortcomings of the green box and provide recommendations for amendment. They point out first that green box acted to increase the overall level of support measures; second that non- or minimal trade distortion of the current measures under the green box is doubtful with a reference to an example from an OECD publication; third that green box criteria are not tightly defined and thus are subject to different interpretations; fourth that the so-called “peace clause” to prohibit the challenge under the Dispute Settlement Body effectively safeguards the ambiguities surrounding green box criteria; fifth that in reality green box measures are affordable only for a handful of developed countries, although non-trade concerns at stake under such measures are also highly important among developing countries; and finally that the green box as it stands not only provides loopholes to certain group of countries, but also imposes a heavy administrative burden on the developing country trading partners.

Box 6: Objective of the development box

- Protect and enhance developing countries’ domestic food production capacity in key staples
- Increase food security and food accessibility for especially the poorest
- Provide or at least sustain existing employment for the rural poor
- Protect farmers which are already producing an adequate supply of key agricultural products from the onslaught of cheap imports
- Flexibility to provide the necessary supports to small farmers especially in terms of increasing their production capacity and competitiveness
- Stop the dumping of cheap, subsidized imports on developing countries

As policy recommendations, friends of the development box proposes in G/AG/NG/W/13 to allow developing countries to use a positive list approach for their AoA reduction commitments, to set their own tariff levels and domestic support levels, and to use special safeguard clause. In G/AG/NG/W/14 on the green box, they propose to collapse the different categories of boxes into one general box, to provide flexibility only for developing countries by creating development box, and to terminate the “peace clause” so that green box subsidies can be challenged under the Dispute Settlement Process.

Cairns group²³

Among this group of countries, one finds strong criticism against the alleged misuse of non-trade concerns by friends of multifunctionality group. One could also find substantial papers that discuss environmental interests among this group. Cairns group agrees that all countries have legitimate non-trade concerns. But it maintains that the friends of multifunctionality misuse them. For example, Australia states “[w]e support the legitimacy of many non-trade objectives that all countries have. However, we call for countries to examine ways in which they can be achieved that are effective and minimise distortions to production and trade” and she awaits to “see an objective investigation into the range of policy options available in relation to any specific non-trade concern” (G/AG/NG/W/166, also see G/AG/NG/W/59). More strongly focusing on environmental interests, Malaysia strongly requests that in case environmental protection measures are to be included in the green box, “the criteria should be tightly circumscribed to ensure that those measures ARE NOT TRADE DISTORTING” (G/AG/NG/W/118). Cairns group strongly emphasizes “the non-trade concerns of developing countries, such as food security and poverty alleviation, are different and should not be treated in the same manner as the non-trade concerns of developed countries” (Philippines, G/AG/NG/W/122). Colombia elaborates on this point by stating “[f]ood security is an issue that includes both a political and economic component. As regards the latter, food security should give developed countries no cause for non-trade concern, because their populations spend less than 20 per cent of their income on food, possess totally convertible currencies enabling them to handle any problem in their balance-of-payments situation and have no difficulty in financing food imports” (G/AG/NG/W/64).

Non-trade concerns

Some delegates of Cairns group have submitted papers commenting specifically on the non-trade concerns paper submitted by the friends of multifunctionality group (G/AG/NG/W/36). Rural poverty, rural exodus, unemployment, food security²⁴ and environmental protection are among the common concerns of these countries²⁵. Argentina submitted a technical paper “legitimate non-trade concerns” (G/AG/NG/W/88) where one finds substantial discussion on her environmental interests.

Technical submission of Argentina (G/AG/NG/W/88) aims to prove a thesis that trade-distortive policies of some countries are intricately related to three major non-trade concerns of Argentina, namely, rural poverty, unemployment and environmental protection. Firstly on rural poverty, Argentina assumes that it triggers environmental degradation and urban migration, which further generates societal problems such as higher unemployment rate and crime rate as well as urban environmental degradation. Then she links rural poverty with the

²³ The Group consists of: Argentina, Australia, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Fiji, Guatemala, Indonesia, Malaysia, New Zealand, Paraguay, Philippines, South Africa, Thailand, and Uruguay.

²⁴ Argentina, Brazil, Paraguay and Uruguay (MERCOSUR), Chile, Bolivia and Costa Rica submitted a paper G/AG/NG/W/38 “Export subsidies—Food security or food dependency?”

²⁵ Australia (G/AG/NG/W/59), Bolivia (G/AG/NG/W/61), Brazil (G/AG/NG/W/62), Colombia (G/AG/NG/W/64) and Indonesia (G/AG/NG/W/71).

low world price of her major export products such as maize or wheat via overproduction and export dumping by the major trading partners in developed countries, such as EU. Secondly on unemployment, citing an example of tariff escalation, she makes a case of “an environmentally and socially disastrous trade policy in terms of the adverse impacts on developing countries.” She assumes that tariff escalation of importing countries that impose higher tariffs on processed products work against the export product diversification of exporting countries. This will eventually hamper the industrial development in the urban area of the exporting country, and will augment unemployment rate given that the influx of the labour from rural area overtakes the additional job creation. The second argument related to the environment is that “tariff escalation is indirectly encouraging the expansion of commodity production beyond sustainable limits.” In other words, tariff escalation will lock developing countries in a situation where they could only rely on exporting the primary products (natural resource products) to balance the foreign currency account, and even on escalating the rate of natural resource exploitation beyond the maximum sustainable yield. Thirdly on environmental protection, Argentina points out that the implementation of sound environmental policies is necessary for land and water protection which facilitates the agricultural production. She presents a dilemma, however, that firstly “protecting the environment is very rarely paying in the short term,” and secondly that subsidies given by the third country have negative impacts on Argentina herself to the detriment of disrupting resource allocation, international trade and environmental protection. As a consequence, her producers are hindered in making sustainable production decisions on introducing sustainable production methods.

Australia, commenting on the non-trade concerns paper of the friends of multifunctionality in her paper G/AG/NG/W/59, emphasize that “the right of [g]overnments to pursue non-trade concerns is not in question.” Rather she emphasize that the discussion to take place on “the specific policy instruments that [those governments who are serious about taking into account non-trade concerns in the negotiations] propose to use.” It also asks that “non-trade concerns be addressed in ways that achieve the best outcome for all Members.... by using simple policies, transparently administered, targeted to the objective, and decoupled from production.”

Bolivia, commenting on the same paper, in G/AG/NG/W/61, presents two cases that contrast differing situations in developed and developing countries on food security and environmental protection.

The need to protect the environment is another non-trade concern according to the preamble to the Agreement on Agriculture. As in the case of food security, we should look at the characteristics of environmental protection in various countries through agriculture. ...[B]y using larger quantities of insecticides, herbicides, chemical fertilizers and agricultural machinery, is it possible to preserve the environment better, bearing in mind that these inputs are significant and are those most used in agricultural production in developed countries? The main source of environmental pollution is large industrial centres and it is thus paradoxical that it is precisely some industrialized countries with the highest levels of environmental pollution which are putting this issue [of non-trade concern] on the table in the agricultural negotiations. The situation is very different in developing countries, where farmers have to supply products at low prices in order to be able to compete with products subsidized by public funds in some developed countries. This obliges them to use production methods that are not always consistent with environmental protection.

G/AG/NG/W/61, p. 2.

We are repeatedly told that the reform process is a long one, a very long one, and that this is only the second stage, to be followed by a succession of other stages. What we are being asked to do is to wait another 50 years. We are reminded by certain countries that we must take account of the growing concern of their consumers, of the families of their small-scale

agricultural producers and of their rural communities. But we have not heard a single word about the growing concern of our consumers, who are being asked to live on subsidized food imports, produced with fertilizers, insecticides, pesticides and other chemicals that are harmful to human health and to the environment. Not to mention the violation of certain basic rules of nature in turning herbivores into carnivores. We have not heard a single word of the fate of rural communities which are falling apart because our farmers are forced to abandon their land and head for the cities to join the expanding poverty belts in the urban and suburban areas. We have not heard a word about the small and medium agricultural export firms which have collapsed and have had to lay off thousands of workers who have been forced to join the ranks of the unemployed or struggle for survival in the precarious informal economy. How is it possible to have such a biased and one-sided approach to agricultural trade, an approach which seeks to protect the commercial interests of a small group of rich countries by sacrificing millions of human beings in the developing countries to hunger and poverty?

G/AG/NG/W/110, page 2.

Such examples shown in Bolivian paper call for a meaningful operationalization of abstract concepts such as “food security” and “the need to protect the environment” in different situations, bearing in mind the global consequences it may bring about, and more specifically the adverse impacts on the most vulnerable economies.

Other environmental issues

Dissemination of environmentally sustainable production methods by farmers in developing countries are hampered by the use of export subsidies (Cairns group, G/AG/NG/W/11). Food aids deprive developing countries from empowering its own production system and thus became an obstacle to achieve sustainable development (Philippines, G/AG/NG/W/48).

African countries

At the WTO, 41 African member countries form a group called African group²⁶. They often submit proposals as a group. Apart from the collective proposal, many African countries submit individual proposals. Among these proposals one finds an initiative to establish a mechanism that allows the environmental protection of African countries under the AoA framework. Among the twelve proposals from this region, the following five countries specifically refers to the environment or environment-related non-trade concerns: Burkina Faso, Republic of Congo, Mauritius²⁷, Morocco, and Swaziland.

Moroccan proposal (G/AG/NG/W/105), under the heading of non-trade concerns, elaborates on the cooperative framework between developing and developed countries to achieve multifunctionality in agriculture. She states that multifunctional approach is more pertinent to developing countries where “agriculture is the main economic activity, employing 50 per cent or more of the active population and conditioning other associated activities” and where “the agricultural sector provides a significant share of the foreign

Box 7. Policy objectives of Morocco under multifunctionality (G/AG/NG/W/105)

- Ensure a rural development that can boost the entire economy and maintain social stability, a prerequisite to political stability
- Ensure food security by supporting domestic production
- Maintain agricultural activities and a balanced population throughout the territory;
- Preserve nature and biodiversity

²⁶ They are: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Congo (Democratic Republic), Côte d'Ivoire, Djibouti, Egypt, Gabon, The Gambia, Ghana, Guinea, Guinea Bissau, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, and Zimbabwe.

²⁷ As already reviewed under the Small Island Developing States group.

exchange needed to cover imports.” On that ground, Morocco propose four policy objectives as shown in the box to the right to be achieved by a greater flexibility given to the agriculture sector in these developing countries. Further, she proposes a cooperative framework based on the financial assistance from the developed countries that share the multifunctional objective to create a world fund to finance multifunctional policy measures in developing countries. It notes that the solidarity between developed and developing countries under the same multifunctional objective embodied as the proposed fund mechanism is the key to counterbalance the negative effects of existing trade distortions.

South Africa and Namibia respectively provide comments to the non-trade concerns paper by the friends of multifunctionality. South Africa strongly cautions that only after the three pillars of negotiation agenda, namely market access, domestic support and export competition, are examined thoroughly, should non-trade concerns be dealt with (G/AG/NG/W/82). She notes that food security and the protection of the environment are also key issues to South Africa, and that there is no dispute on the importance of the issue on the condition that “all NTCs [non-trade concerns] are dealt with in targeted, transparent and non-distorting ways” (ibid.). Namibia also expresses her concerns that “multi-functionality argument can be used to hide measures that distort agricultural trade,” and is “reluctant to accept a broad definition of multi-functionality because [if] it is not precisely defined, its scope is not known and therefor[e] open to misuse” (G/AG/NG/W/76). She further argues that “concerns for food security and for poverty alleviation cannot be accorded equal status with landscape beauty, which frankly, remains a luxury for the majority of food-insecure people in developing Member states as they simply cannot afford such luxuries” (ibid.). Namibia strongly recommends, “countries [wishing to advance legitimate non-trade concerns during the negotiations]...define such non-trade concerns precisely, indicate their scope and most importantly, provide a clearly motivated estimate of their value and implication thereof on world agricultural trade” (ibid.).

Jordan

Jordan’s proposal contains two environment related recommendations. The first is under special and differential treatment “to establish a trade policy impact-monitoring program to provide the Committee on Agriculture with information on main indicators regarding the adoption of the AoA provisions, and their effect on small farmer incomes as well as impacts on environment and food security” (G/AG/NG/W/140). The second is, using an example of olive trees to point out the importance of “the trade-environmental link” and “broader development or social concerns that are tied into agricultural policy programmes” (ibid.) noting that such development and environmental goals need to be achieved without budgetary expenditures. Jordan proposes that the agriculture sector to be “protected by a flexible tariff rate to allow the government to finance their contribution to environment preservation and maintenance of the landscape, at least as long as marketing measures, such as introducing Jordanian olive oil as organic olive oil to health markets of developed countries, and structural adjustments must be made” (ibid.).

V. Integrated assessment for the AoA negotiation

The last section, utilizing the WTO country position papers, highlighted the different interests among the WTO member countries. In total, among 144 WTO member countries (1 January 2002), 121 countries submitted 45 proposals and more than 100 papers including technical papers and notes from interventions.

This subsection discusses how integrated assessment could be applied to some country proposals as examples. Because of the time constraints, the paper only deals with two cases. It will highlight the policy goal and constraints (exogenous factors).

a. *Friends of multifunctionality*

Goal and problems: Friends of multifunctionality have a clear environmental goal. They are concerned that the agriculture sector provides less than optimal amount of the environmental goods and services, because they do not have functioning markets. Their goal is to provide the socially optimal amount of environmental goods and services from agricultural activities. Absence of a well functioning market warrants the legitimacy of public intervention. Different kinds of policy variables are available to the government, such as taxes, tariffs, subsidies and regulations.

Constraints: The WTO rules, however, pose constraints to the range of policy measures available to the government. For example, production related subsidies and price support are strongly discouraged under the AoA.

Policy goals: At the ongoing agriculture negotiations, friends of multifunctionality propose following policy goals:

- Green box to be expanded;
- Blue box to be maintained;
- Flexibility in tariff reductions;
- Reduction in export subsidies, only if all forms of export subsidies (used by US) are dealt with.

Benefits from the assessment: The problems pointed out by other countries are that the environmental goal and the negotiation goals are not clearly linked. For example, above-mentioned goals do not come with a set of concrete policies. This is because concrete policies need a rigorous analysis on the current situation that will allow the government to set the baseline and the target value. Such analysis has been missing in the argument of the friends of multifunctionality. Also various policy variables need to be compared against the constraints, for example, financial constraints and constraints posed by the AoA, i.e. the reduction in the use of product related subsidies. Such analysis to compare different sets of policy variables has not been presented. Thus the argument is not convincing. At the moment, it appears as if the AoA negotiation goals were set to accommodate the national level environmental problems that have not been analyzed in depth. Integrated assessment will help clear such ambiguities.

b. *Argentina and Bolivia*

Goals: Both countries present a complex case of interactions between economy, society and the environment. They share three sustainable development goals of poverty alleviation, employment and adoption of environmentally sound technology.

Constraints: The core of the problem they face is the staggering world commodity, which is attributed to trade distorting subsidies provision of third countries. The problem is presented and formulated in such a way that the exogenous factor to the government (third countries' provision of subsidies) produces national problems. Argentina or Bolivia cannot directly influence or change the low commodity price at the world market. In the long term, if the AoA successfully remove the market distortion from the world agricultural commodity market, the situation could turn favorably. In the short term, however, policy variables that are available to them must be identified to tackle the national problems.

Problems: At the national level, they face rural poverty, rural exodus and urban migration, expanding informal sector, high unemployment rate without social security programme, land abandonment in the rural area, environmental degradation in the urban area.

Integrated assessment can lay out the complex relationship among poverty, unemployment and environmental degradation caused by the given exogenous factor of the low world commodity price. After the causal relationship is revealed, integrated assessment could examine if national policies that are currently in place tackle these interlinked problems effectively. Based on the observation, alternative policies could be proposed and evaluated against the three goals of poverty alleviation, employment and the environmental protection.

Annex I: Country specific proposals from friends of multifunctionality

Under the friends of multifunctionality, there are six proposals submitted to the AoA negotiations, including Mauritius. This annex presents the summary of the five other proposals from European Communities, Japan, Korea, Norway and Switzerland.

a. *European Communities (EC)*

The EC regards non-trade concerns to include the following under multifunctional role of agriculture: the environment, rural development, food safety, food security, animal welfare, the instruments necessary for safeguarding [agriculture] (G/AG/NG/W/3).

In its papers, the EC provides arguments as to why they pursue this policy goal. Its technical papers on environmental non-trade concerns (G/AG/NG/W/36) showed the dependency of many rural environments on farming, and emphasized that the continued farming activity is needed to preserve the farmed landscapes, biodiversity and historical features. The EC also emphasized that agriculture is the core activity in rural areas, and it shapes the environment of that area (G/AG/NG/W/66).

In its comprehensive negotiating proposal (G/AG/NG/W/90), firstly in the introduction, it sets forth the idea that non-trade concerns are to be paid due regards to secure strong public support for the reform process which aims to address trade concerns. Under the negotiating proposals, the environment is mentioned under the title of “trade issues—domestic support” and “non-trade concerns.” Under the domestic support issue, the EC argues that “some of the objectives of multifunctional agriculture, namely protecting the environment and contributing to the sustained vitality of rural areas and poverty alleviation” could be achieved by direct aid. It is aware of the link between the overproduction of agricultural commercial products and undersupply of non-marketable environmental goods and services, and thus proposes that aid given to the exported goods shall be subject to specific discipline. It proposes that the concept of the blue box and green box continues. It specifically proposes to discuss the criteria for measures eligible for the green box. In addition to the non or minimal trade distortion, it proposes to include criteria to “meet important societal goals such as the protection of the environment, sustained vitality of rural areas and poverty alleviation, food security for developing countries and animal welfare.”

Box I-1. Summary of the EC negotiating agenda (G/AG/NG/W/90)

- Trade concerns—market access, export competition, domestic support
- Non-trade concerns (important societal goals)
 - Multifunctional role of agriculture
 - The protection of the environment
 - The sustained vitality of rural communities
 - Food safety
 - Other consumer concerns
 - Animal welfare

Under the non-trade concerns, the EC comprehensive negotiating proposal (G/AG/W/90) focuses on “the specific role of agriculture as a provider of public goods” among all. It emphasizes that environmental protection is an important societal goal for both developed and developing countries. EC proposes that “the measures that aim at protecting the environment should be accommodated in the Agreement on Agriculture” and that “[s]uch measures should be well targeted, transparent, and implemented in no more than minimally trade-distorting ways.”

*Other environmental issues*²⁸

Food quality and animal welfare, precautionary principle

b. Japan

Japan builds her negotiating proposal (G/AG/NG/W/91) on the basic philosophy of the “coexistence of various types of agriculture.” Five major points flowing from the basic principles are: (i) multifunctionality of agriculture (ii) food security (iii) redressing the imbalance between rules and disciplines applied to exporting and importing countries, (iv) developing countries (v) concerns of consumers and the civil society.

Under the market access issue, Japan proposes that out-of-quota tariff rates and the level of access opportunity shall consider “securing the benefits of multifunctionality of agriculture and ensuring food security.” Under the domestic support, Japan emphasizes that due consideration be given to the multifunctionality. She proposes that the current framework of rules and disciplines to be maintained, in principle. Some improvements are proposed on the criteria that green box measures should meet. She proposes to revisit and improve the requirements for decoupled income support as well as to ease the requirements on the programmes related to income safety-net programmes. Under the export competition, she addresses the need to “[redress] the imbalances of the rights and obligations between importing and exporting countries, and of maintaining the food security of food-importing countries.” She proposes that export-related supports and export state trading be disciplined. Under the proposal for developing countries, she proposed measures to achieve food security, to promote food production and domestic consumption as well as to ease financial burdens and food shortage.

Other environmental issues

Food safety, food self-sufficiency, quarantine and inspection measures, labelling and rules on GMOs.

c. Korea

Korea, identifying herself as a net food-importing country and a developing country, notes her regret that “the Uruguay Round was not successful in reflecting in a balanced manner the interests of both developed and developing countries, as well as exporting and importing countries” (G/AG/NG/W/98). She points out that the terms of trade for farm households deteriorated and the sharp increase in agricultural imports made the income gap between urban and rural areas widen.

Korea states that the AoA has not spelled out the non-trade concerns with due considerations to the diverse situations countries face, as well as that the provisions are “too abstract in nature and therefore ineffective.” Thus Korea proposes that the AoA needs to consider “more specific provisions with adequate level of government intervention to secure multifunctionality of agriculture that provides public goods such as food security, environmental protection and rural development.” She also proposes the clarification of special and differential treatment for developing countries and more effective disciplines on export competition measures.

²⁸ This section notes the issues of relevance to the environment discussed by each country, but those that would likely to fall under the mandate of other WTO bodies than Committee on Agriculture, since such issues are not likely to relate strongly to the three pillars of AoA negotiation agenda.

More specifically in her proposal on domestic support, Korea proposes to keep the amber box, blue box and green box supports. She asks the scope and the criteria of green box to be more flexible to reflect the multifunctionality of agriculture. She proposes four clusters of support measures to be newly added to the list of exemptions from the reduction commitment, namely: (i) compensatory supports for multifunctionality of agriculture, (ii) supports for enhancing income safety net, (iii) supports for small-scale family farm households, and (iv) supports for agricultural and rural development in developing countries.

Under the proposal on special and differential treatment for developing countries, Korea notes the need for additional exemptions for developing countries in the area of market access provisions with specific reference to “products related to non-trade concerns.” In the area of domestic support Korea seems to propose flexibility that is similar to the development box proposal, which will be discussed later.

Other environmental issues

Consumers’ concern over agri-food-related issues, such as food safety, health, environment and biotechnology. GMOs. Precautionary measures.

d. Norway

Norway states that “multifunctional characteristics of agricultural sector...call for continued special treatment of the agricultural sector” based on its uniqueness, public goods characteristics, joint-production and site-specificity (W/AG/NG/W/101).

For policy proposals, under the market access, Norway propose a limited most-favoured-nation²⁹ (MFN) tariff reduction on their key agricultural products, revised modalities on minimum access quotas specifically for low self-sufficiency countries, and continuation of special safeguard mechanism. Under domestic support, Norway proposes a new categorization of the domestic support measures in addition to the existing categorization. Under the proposed scheme, Aggregated Measures of Support (AMS) will be divided into two categories, the first is the “domestic support to agricultural production destined for the domestic market” and the second is the “AMS support to export-oriented production.” Norway proposes less strict reduction commitment to be applied to the first. Each category will then be divided into the existing boxes, and Norway proposes to maintain blue and green box. Under export competition, Norway proposes more strict disciplines on export competition measures.

Box I-2. Non-trade concerns of Norway (W/AG/NG/W/101)

Agriculture’s multifunctional contributions to:

- The viability of rural areas
- Food security
- The cultural heritage
- Environmental benefits
 - The agricultural landscape
 - Agro-biological diversity
 - Land conservation
 - High standards of plant, animal and public health

e. Switzerland

Swiss proposal (G/AG/NG/W/94) starts with noting her positive national trend with regard to the reduction commitment. She assumes that the reduction in AMS and the increase in green box measures capture the progress she made in implementing the reform process. This progress is also supported by the fact that her new constitutional article on agriculture approved in 1996 made the shift from the price policy support to the support that rewards the

²⁹ MFN, along with the national-treatment, is the core principle of the multilateral free trade regime under the auspices of WTO. See section 3.3 of *Environment and Trade—A Handbook* (UNEP, 2000).

environmental services of public interest. In her words, “the State makes direct payments for non-commercial services in agriculture (public goods), which are generally decoupled from production, for example, maintenance of the countryside, decentralized inhabitation and conservation of natural resources.” Based on the insight gained from the experience on the national reform process, Switzerland aims to harmonize her reform process with that of the WTO. She emphasizes the sovereign rights to decide on her political objectives, but is ready to negotiate the general rules to accompany measures related to non-trade concerns. She believes that there exist a number of transparent, specific and targeted instruments for that purpose. More clearly she says, “rather than addressing national political objectives, the negotiations should focus on the conditions governing the measures taken to achieve them.”

Under the section “environment” Switzerland proposes that the reform could seek solutions to bring about “win-win-win” situations with regard to the economy, social conditions and the environment. She propose not only to reduce trade measures with environmentally negative effects, but also to discuss specific measures to internalize the externalities of certain agricultural production methods, and all measures including specific support measures that have a negative environmental impact.

More specifically on the reduction commitment and Article 20 reform process, Switzerland primarily focuses on the multifunctional character of agriculture. She emphasizes “the need to establish precise rules governing the instruments enabling agriculture to produce non-commercial goods in response to the quantitative and qualitative requirements of society and the needs of consumers.” She proposed that only after such rules are established, could she negotiate on further reduction commitments. Along this line, Switzerland proposes to hold the negotiation on the criteria and scope of measures under amber box and blue box. With regard to the green box, in addition to the clarification of the rules mentioned above, she proposes to exclude an absolute multilateral ceiling, since green box measures are not trade distorting. She argues for the sovereignty to decide on the quality and quantity in providing multifunctionality. She proposes to find an appropriate definition for blue box and green box to take into account non-trade concerns and special and differential treatment. In clarifying the definition, she propose to take specific account of the following elements: development of rural areas, poverty alleviation, sustainable use of natural resources, environmental protection (including biodiversity), maintenance of the countryside, food security, food safety (including the precautionary principle) and animal welfare.

Other environmental issues

Precautionary principle, the issues relating to production methods (labelling, GMOs, animal welfare), the internalization of environmental costs.