

# PEACE ECONOMICS, PEACE SCIENCE, and PUBLIC POLICY

---

Volume 3, No. 1

Fall 1996

---

## *Policy Analysis*

Gustav Ranis: North-South Conflicts and Their Management 3

Iwan Azis: New Conflicts Between Developed and  
Developing Countries 21

## *Abstracts and Research in Progress*

Sheldon Levy (ed.): Abstracts: 29th North American Peace  
Science Society Meeting -- Columbus, Ohio -- October 1995  
Part I 36

## *Forthcoming Conferences*

Fifth World Peace Science Congress,  
Amsterdam, Netherlands, June 3-5, 1996 39

Jointly published by Economists Allied for Arms Reduction (ECAAR)  
and the Peace Science Society, International (PSS)

## Editorial Comment

In the last two issues of this journal, we have presented papers dealing with the conflicts regarding trade policy - conflicts that have become primary with the demise of the Cold War. These issues covered excellent (but heated) statements by Professors Paul Kennedy and Paul Krugman. Their concern was with trade policy of developed countries (DCs) with a focus on that of the United States. As one reads these statements and others involved in the debate (for example, see Foreign Affairs July/August 1994) one asks where are the concerns of the less developed countries (LDCs) in this discussion? To help fill this gap, we present in this issue two papers relating to the LDCs' perspective. One is by a distinguished DC scholar who presents a balanced statement sensitive to LDC points of view. The second is by an outstanding LDC scholar immersed in the thinking of LDC political leaders who finds the AHP analytic process much more appropriate than inherited (accepted) DC concepts for reflecting the real relative priorities of these leaders.

## **NEW CONFLICTS BETWEEN DEVELOPED AND DEVELOPING COUNTRIES**

Iwan J. Azis,<sup>1</sup> University of Indonesia

### **INTRODUCTION**

As the cold-war era is over, much more attention is directed towards economic and trading matters. In these areas, conflicts can not be precluded; they can originate from simply government intervention and other domestic subventions which are viewed by trading partners as protective measures. Another source of conflicts may originate from activities in a particular country that generate spill-over effects, through which externalities of various sorts may arise.<sup>2</sup>

In recent years, sources of tensions also originate from complaints raised by a number of developed countries pertaining to issues only partially related to economic and trading matters, such as the environment (“eco dumping”), human rights, and labor practices (“social dumping” or “social correctness”). Undoubtedly, these issues are very difficult to reconcile since their link with economic and trading matters is nebulous. While these issues are very important even for the self-interest of the countries being criticized, they are not at the heart of the GATT-WTO agenda. It is in this respect that many developing countries become appalled; some accuse developed countries for using these issues to provide a convenient excuse to raise trade barriers, others react with great suspicion towards the real motives of developed countries and object to what they perceive as (external) value imposition.

This paper recites the aforementioned potential for new conflicts in a quantifiable manner by using a general theory of measurement known as the “Analytic Hierarchy Process” (AHP) combined with some game-theoretic approaches. Two interrelated outcomes are expected from the analysis: first, the quantitative articulation of the nature of, and the elements involved in, potential conflicts between developing and developed countries, including their relative position on each issue; and second, the exploration of possible resolution (a cooperative solution) that will minimize the damage from the encroachment of environmental and social issues into the trade policy domain.

### **FORMULATION OF THE PROBLEM**

The early process of global economic order (read: globalization) coincided with the collapse of the UN financial arm, the Bretton Woods Agreement, in early 1970. The process was significantly intensified during the 1980s, when (1) global financial markets received major stimulation from deregulation, and (2) technology and ‘knowledge’ straddled the globe due to ‘shrinking distances’ and rapidly improved communication systems. Economic reform taking place in many

developing countries (hereafter, LDCs) has also contributed to the process. The reform, which basically involves policies directed towards making markets work better, typically consists of stabilization and structural adjustment (SSA). The major component of the latter is trade liberalization, i.e., a swing towards progressive elimination of barriers to trade and investment. An unprecedented international mobility of goods and factors, especially capital, is created as a result, thereby providing a major impetus for continued integration of LDCs into the world economy.<sup>3</sup> A forceful trend of trade deregulation has been eminent especially since the mid-1980s. Many LDCs have taken advantage of the improved external environment, including strong commodity prices, to further their economic reform and trade liberalization. Such a trend is expected to continue for many years to come, since the dynamism of LDCs' economies will continue to depend on an open global trading system.

Some may argue that LDCs are a mixed bag. But even for the low income countries and SILIC (*severely indebted low income countries*), most of which are in Africa, it is increasingly recognized that for their long-run economic interest, economic reform is essential. Despite the (early) skepticism toward the World Bank and the IMF style of SSA programme, there does not seem to be any options for many African countries other than adopting such policy adjustment, cooperating with the Bank and the Fund and other aid consortia, plus participating in the outcome of the GATT Round. In this respect, the main difference between this situation and that in the middle income countries is probably in the speed and scale of the reform.<sup>4</sup>

It is therefore assumed in our analysis that LDCs, collectively, foresee the need and merit of economic and trade reform, although each is likely to proceed at a different pace. Consequently, *Economic Reform and Trade Liberalization (ETR)* is taken as one of the LDCs' strategies. Such is key to the achievement of the following three targets: (1) *Market Access in DCs (MARKET)*; (2) *Strong Economic Growth (GROWTH)* and (3) *Improved Efficiency (EFFICIEN)*. Symmetrically, the developed countries (hereafter DCs) are expected to *Support the GATT-WTO (GATT)* system, which they already did *de-jure*, as indicated by the fairly unanimous decision to ratify the agreement. The support towards multilateral trading systems will ensure their *Market Access to LDCs (MARKET)* that will eventually insure their *Strong Economic Growth (ECONOMIC)* objective.

It is further conjectured that for many LDCs, the *Political Stability (STABLE)*, which is their fourth target, could be enhanced by healthy economic conditions and vice-versa.<sup>5</sup> However, the opening-up of the economy also means that domestic policies become more exposed to international scrutiny, with political stability, nationally or in a wider regional context, no longer independent of outside influence. A case in point is with regard to the issue of labor practice. In recent years, complaints by DCs on this subject have been more frequent. Generally, their arguments rest upon a premise that lower costs of

employing labor in developing countries unfairly gives firms in those countries a competitive edge. It is against this outcome that producers in DCs would like to be protected, because it interferes with their target to achieve *Fair Treatment in Production and Trade (FAIR)*.<sup>6</sup>

Another—even more—sensitive issue concerns human rights. A number of DCs insist that human rights and trade ought to be linked; they believe that violation of human (and labor) rights in some LDCs has caused ‘socio dumping’,<sup>7</sup> against which some sanctions need to be imposed. Trade sanction, as the proponents further argue, would be effective and therefore appropriate. Many LDCs react that while human and labor rights are indeed very important, and hence should be adhered to, they must be delinked from the trade policy debate. But more importantly, they allege that the Western emphasis on human rights reinforces intrusiveness of the international system in the Third World. They view it as “export of ideology” that could generate potential risk of instability, which is intrinsic to any process of ideological change.<sup>8</sup>

There is also the well-known debate about the principle of ‘universality’. One reflection of such a debate centers around two opposing views: one that sees the right to development as a prerequisite for realizing civil and political rights, and the other that believes the reverse. The latter tends to be adopted by DCs, who regard *Universal Value Compliance (VALUE)* as an important target to achieve, congruent with their *Overall Influence (POLITICA)* objective. In the 1991 UN General Assembly, a foreign minister from Africa said:<sup>9</sup>

*“If human rights and democracy are to be meaningful, it is critical that developing countries be assisted in attaining an adequate standard of living. Civil and political rights must go hand in hand with equally important economic, social and cultural rights. For respect of human rights to be safeguarded, it is an advantage also to have corresponding economic and social development.”*

A somewhat more balanced tone was voiced by Asian countries in the regional conference preceding the UN World Conference on Human Rights in 1993:<sup>10</sup>

*“while human rights are universal in nature, they must be considered in the context of a dynamic and evolving process of international norm-setting, bearing in mind the significance of national and regional particularities and various historical, cultural, and religious backgrounds.”*

Delegates in the African meeting articulated a similar tone. While they too acknowledge the global nature of the observance and promotion of human rights, they believe that “...no ready-made model can be prescribed at the universal level since the historical and cultural realities of each nation and the traditions, standards, and values of each people can not be disregarded.” A different

dimension is also taking place in the Middle East. In the World Conference in Vienna, delegates from LDCs voiced their deep concerns over the *selective* application of human rights standards and UN resolutions by contrasting them with Western policies in Northern Iraq and Bosnia. They therefore demanded that the UN should move in the direction of *uniform application* of human rights, and conduct stringent monitoring and implementation mechanisms freed from superpower manipulation.<sup>11</sup>

What type of plausible action can DCs take to counter such reactions from LDCs? A tough stand would suggest *Unilateral Trade Sanction and Other Protection Measures (PROT)* whereas a pliant mannered reaction would be to engage in a *Quiet Diplomacy (DIPL)* through a bilateral positive interaction, possibly embodying financial aid, technical assistance, and the like. This approach is in contrast with 'outspoken diplomacy' that has the alleged risk of meddling in the LDCs' domestic affairs. In a limited way, DCs can also still use the GATT-WTO rules, hence *GATT* strategy, since there is a provision on labor in part (e) of GATT's Article XX, which allows contracting parties to exclude imports of goods produced with *prison labor*.<sup>12</sup>

Another important issue is the environment. Here, too, efforts to link this issue with trade policy has been increasingly favored by a number of DCs, especially those concerned with the maintenance of a *Stable Supply and Price of Environmental Resources (RESOURCE)*, which is the most important target to achieve to realize the objective of an *Environmentally Sustainable Development/Global Common (ENVIRONM)*. The so-called 'eco-dumping', they assert, ought to be retaliated against with either trade sanction or other forms of protection. Why? Because environmental damage could take place at a global scale (e.g., ozone depletion, climate change), and increased growth and trade could exacerbate the damage. On the other hand, while many LDCs fully realize the importance of, and the link between, environment and trade, it is often the case that increasing overall per-capita income, via trade, among other methods, remains a primary goal at their current stage of development. Such a notion is, unfortunately, based on a misleading concept that there is an unequivocal trade-off between growth and environmental objectives.<sup>13</sup>

But what is more important is the fact that trade is not, and never has been, the cause of environmental problems; hence, trade sanctions will not be able to affect directly the root cause of the problem. Conversely, such sanctions could motivate retaliatory and counter-retaliatory action that would surely reduce the level and growth of global economic welfare. For many LDCs, such reduction would also mean increasing the probability of even greater environmental degradation and resource depletion. There is also a widespread conviction among LDCs that changes in consumption and production patterns need to start in developed countries if a serious improvement in the global environment is to be achieved. Still, another counter-complaint is the presence of unfair international trading systems, in which tariffs on most environmental resources are set much

lower than those imposed on processed goods, discouraging a sustainable extraction of environmental resources. There are also complaints from the primary sector producing countries regarding world price instability. In short, many LDCs suspect that environmental issues are used as a convenient excuse for DCs to impose sanctions and raise trade barriers.<sup>14</sup>

When the two motives (those of DCs and LDCs) collide, the resulting conflict of interest raises the likelihood of environment-related trade disputes.<sup>15</sup> Combined with disputes sparked by value conflicts (e.g., human-labor rights), they will together create a serious tension. What strategy can LDCs take to avoid such a tension? Obviously, a combination of *Economic Reform, Trade Liberalization and Improvement of Human-Labor Rights and Environmental Standards* would be the ideal strategy. But such may not be the LDCs' selection if DCs persist with their tough stand (trade sanctions) instead of engaging in quiet diplomacy. On the other hand, DCs' choice will be determined by the extent to which they believe that an erosion of confidence in the fairness of the trading system is ultimately more costly to the world economy than sanctions imposed on the offending countries.<sup>16</sup>

In summary, the following is the list of objectives, targets and strategies described above:

**Less Developed Countries (LDCs):**

**Targets:**

1. MARKET: Market Access in DCs
2. GROWTH: Strong Economic Growth
3. EFFICIEN: Improved Efficiency
4. STABLE: Political Stability, Nationally and Regionally

**Strategies:**

1. TRA: Economic Reform and Trade Liberalization
2. ETR: Economic Reform, Trade Liberalization and Improvement of Human-Labor Rights and Environmental Standards

**Developed Countries (DCs):**

**Objectives:**

1. ECONOMIC: Strong Economic Growth
2. POLITICA: Overall Influence
3. ENVIRONM: Environmentally Sustainable Development/Global Commons

**Targets:**

1. MARKET: Market Access in LDCs
2. FAIR: Fair Treatment in Production and Trade
3. VALUE: Universal Value Compliance
4. RESOURCE: Stable Supply and Price of Environmental Resources

**Strategies:**

1. DIPL: Quiet Diplomacy for Improved Environment and Social Standards in LDCs.

2. *GATT: Support GATT-WTO Rules*

3. *PROT: Unilateral Trade Sanction and Other Protection Measures*

## **QUANTIFYING THE PROBLEM: FROM TENSIONS TO COOPERATION**

The conflict involving the two parties, LDCs and DCs, reflects a situation in which each has different perspectives toward the global (regional) economic and trading system. These perspectives are decomposed into factors that will become the relevant elements of a hierarchy. These elements are grouped on different levels, e.g., goals, objectives, targets, and strategies.<sup>17</sup> When necessary, each element is decomposed into another set of elements. The quantification of elements measuring the degree of their relative importance is critical, since there is no way of evaluating such a complex problem, involving mostly intangibles, unless we employ some numbers. However, the use of simple ranking (ordinal numbers) is not very helpful, particularly for the typical LDC political leader (policy maker). Nor are precise values (cardinal numbers or interval scales based on cardinal numbers) obtainable given the different perspectives of the DCs and the LDCs.<sup>18</sup> The author judges that what is much more appropriate for use by LDC leaders, while being employable by DC leaders, are relative values derivable from pairwise comparisons. Hence, such are used in our analysis as has been developed by Saaty (1980, 1984) in his 'Analytic Hierarchy Process'. A simplified version of this procedure will appear in the next issue of this journal (Vol. 3, no. 2).

As noted above, there are two strategies for LDCs and three for DCs. Hence, the following six joint strategies are possible.<sup>19</sup>

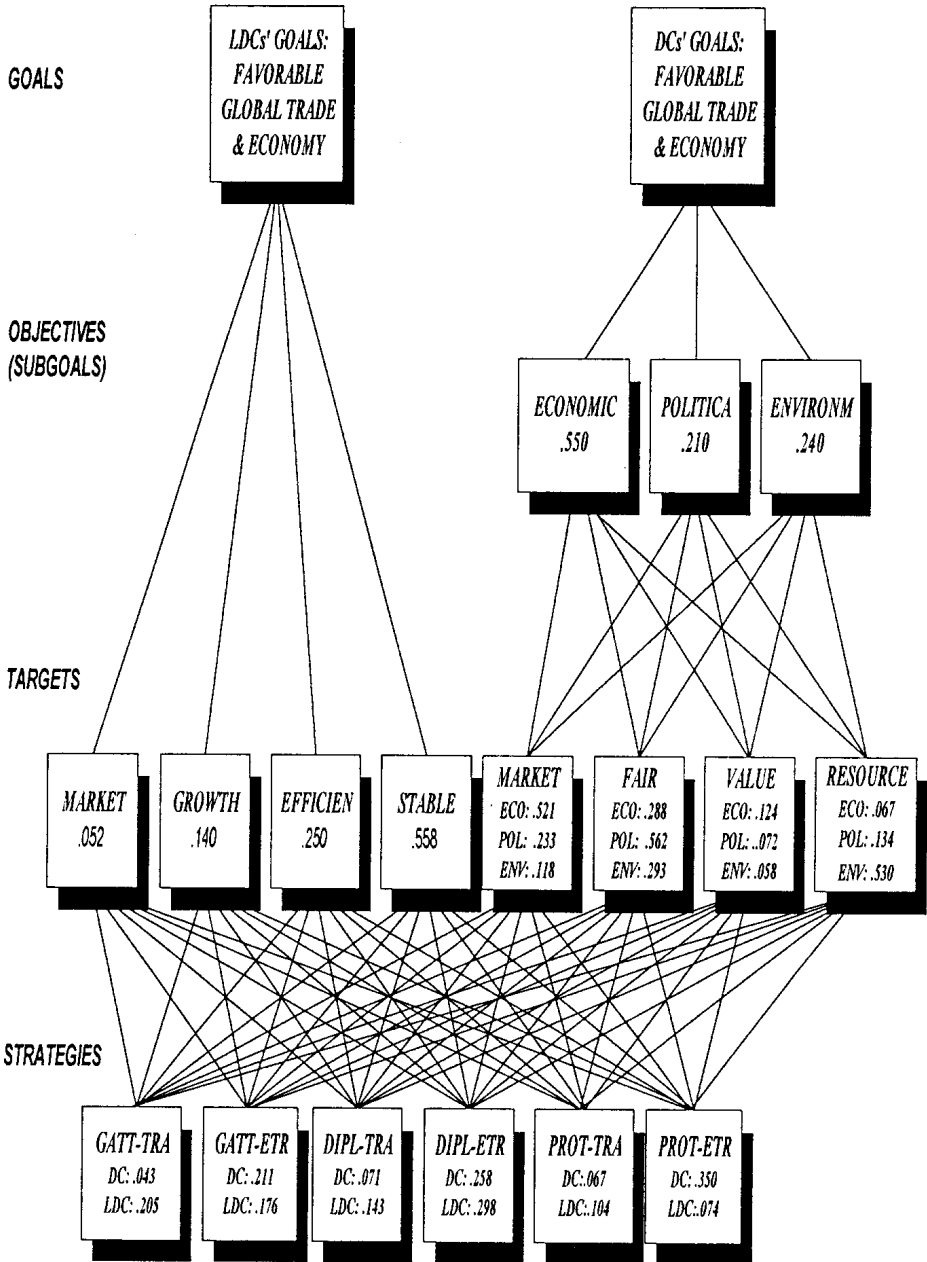
### **Possible Joint Strategies (DC and LDC):**

1. *DIPL-ETR*
2. *DIPL-TRA*
3. *GATT-ETR*
4. *GATT-TRA*
5. *PROT-ETR*
6. *PROT-TRA*

Diagram 1 displays the two hierarchies (for DCs and LDCs) with their corresponding joint strategies at the lowest level of the hierarchies. The top boxes in Diagram 1 state LDCs' and DCs' overall goals. In the case of DCs, the next level identifies the three sub-goals, or objectives, and their relative importance (reached by pairwise comparison) for achieving the overall goals. The next lower level indicates targets as previously discussed; there are four for the DCs, with their relative importance listed for achieving each of their subgoals. For the LDCs, there are three targets listed with their relative importance (again obtained obtained by pairwise comparison) for achieving the LDCs' overall goals.



**DIAGRAM 1: Non Equilibrium**



Finally, at the bottom level we list the six joint-strategies. For the DCs, we list the relative importance of each joint-strategy to achieve each of their four targets (as weighted), in turn to achieve their three sub-goals (as weighted), in turn to achieve the DCs' overall goals in the top box. Similar calculations yield the relative importance of each joint-strategy for the LDCs overall goals. The relative importance for the DCs and LDCs of the joint-strategies are then recorded in a non-zero sum matrix (Matrix 1).

Notice from Diagram 1 that LDCs will likely assign highest priority to political stability (*STABLE*), the relevant quasi-payoff being .558.<sup>20</sup> In light of the 'psychological externalities,' it is not surprising that they tend to prefer a joint-strategy in which they will make some improvements in the social and environmental standards, with the hope that DCs will engage in quiet diplomacy. Such a scenario, denoted by *DIPL-ETR*, is depicted in the LDCs' distributive mode (in Diagram 2) with the highest payoff, that is .298. This is also indicated in the lowest level of the hierarchy for LDCs in Diagram 1. But this is not necessarily the DCs' preferred choice. Having identified a set of strategies under the economic, political and environmental categories, the overall process suggests that DCs would pick a joint-strategy of countering LDCs' unfair practices with trade sanctions or other protection measures, with the expectation that LDCs will revise their strategy to improve significantly the human-labor rights and environmental standards along with their economic and trade liberalization. Thus, the joint action *PROT-ETR* would result and in the DC's overall distributive mode (in Diagram 2) the payoff value would be .350.

Observe that these two different perceptions toward what is the appropriate world trade policy reflect the nature of the potential conflict. By combining the two sets of priorities reflected by their relative importance as noted in Diagram 2, we can construct Matrix 1. It is easily observed that no equilibrium point, in the Nash sense, can be found. In such a situation, the global economic and trading system will be likely featured by the two parties' constant back and forth struggle to cope with the plausible tensions discussed earlier.

Is there any possibility of a cooperative solution? To explore this question, some dynamic game-theoretic approaches can be examined. In particular, different qualities of information, i.e., *perfect* and *imperfect*, and *complete* and *incomplete* information, as well as the case with *uncertainty* can be considered.<sup>21</sup>

Since DCs' second strategy, i.e., support GATT-WTO, is strictly dominated by the other two strategies, the game can be played in a two-by-two matrix setting. In a repeated game,<sup>22</sup> a cooperative joint strategy turns out to be plausible, i.e., a combination of DCs' quiet diplomacy and LDCs' improvement of standard along with trade liberalization, that is, *DIPL-ETR*. Notice, also, that this joint strategy gives the highest total quasi-payoff. While the choice is obvious from the LDCs' stand point, it is not quite so for DCs. It would require

**Diagram 2**  
**DISTRIBUTIVE MODES**

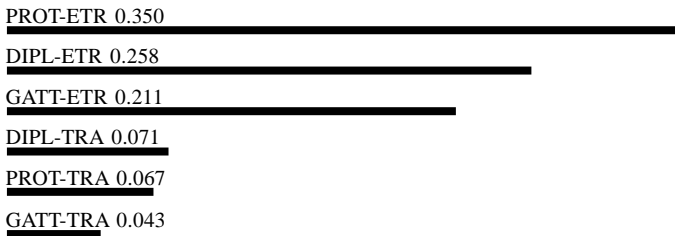
From the LDCs' perspective, the following ranking is acquired

OVERALL INCONSISTENCY INDEX = 0.07



From the DC's perspective:

OVERALL INCONSISTENCY INDEX = 0.08



**Matrix 1. World Economic & Trading System:  
Non-equilibrium Case**

		<i>Developed Countries (DCs)</i>		
		<i>Quiet Diplomacy (DIPL)</i>	<i>Support GATT/WTO (GATT)</i>	<i>Trade Sanction (PROT)</i>
<i>Developing Countries (LDCs)</i>	<i>Ec &amp; Trade Lib, Human &amp; Lab Rights &amp; Env (ETR)</i>	(.298; .258)	(.176; .211)	(.074; .350)
	<i>Focus on Econ &amp; Trade Liberalization (TRA)</i>	(.143; .071)	(.205; .043)	(.104; .067)

LDCs' *promise* to make significant improvements of standards before DCs are ready to take a softer stand. However, even with the absence of such a promise, it is actually too risky for DCs to impose trade sanctions, since such a choice may LDCs to focus merely on their economic and trade reform, which means DCs will receive a pay-off of at most .071 per stage. It turns out that unless both LDCs and DCs, are *extremely impatient*, a combination of DCs' quiet diplomacy and LDCs improving the standards while continuing trade liberalization (*DIPL-ETR*) has still a likelihood to occur.

In a perfect information case, in which at each move the party with the move knows the full history of the play,<sup>23</sup> there also will be incentives for both parties to cooperate. Furthermore, the cooperative solution turns out to be more *stable* than the cooperative outcome in the earlier case.

While a cooperative solution seems likely under a non-myopic multi-round time-horizon, another scenario with different pay-off values is worth exploring; this is done by repeating the pairwise comparison procedure (AHP). For illustration, we will explore the case whereby both DCs and LDCs are taking a tougher stand. Matrix 2 illustrates one possible set of quasi-payoffs resulting from such stands. The case of a tougher position of LDCs may be well represented in a remark recently made by one ASEAN's head of state:<sup>24</sup>

**Matrix 2: World Economic & Trading System:  
Tougher DCs and LDCs**

		Developed Countries (DCs)		
		Quiet Diplomacy ( <i>DIPL</i> )	Support GATT/WTO ( <i>GATT</i> )	Trade Sanction ( <i>PROT</i> )
Developing Countries (LDCs)	Ec & Trade Lib, Human & Lab Rights & Env ( <i>ETR</i> )	(.072; .257)	(.106; .191)	(.039; .366)
	Focus on Econ & Trade Liberalization ( <i>TRA</i> )	(.230; .065)	(.405; .040)	(.147; .080)

*"We should not be listening to outside advice .....We heard enough.....about democracy and human rights. We have been threatened with trade sanctions...they have lectured us about how to manage our environment and conserve our forest....the time has come for us to put*

*across, candidly and honestly, our own viewpoints on these matters.....we should be a credible force which others would need to reckon with”*

We may recognize the following possible scenarios: (1) the LDCs do not trust the DCs whose leaders too frequently behave to maximize their political support in the short-run and who thereafter may suddenly shift their policy from *DIPL* to *PROT* under pressure by union and other interest groups, or (2) the DCs may shift their policy because internal affairs within the LDCs preclude achievement on human-labor rights and environmental protection that is judged by the DCs to be at a satisfactory level.

In Matrix 2, the LDCs favor *TRA* over *ETR*, reflecting the above thinking with regard to their four targets, which is different than the thinking lying behind the derivation of their quasi-payoffs in Matrix 1. The tougher stand of DCs is reflected in their preference for *PROT* over *DIPL*. As a consequence, the stable joint-action is *PROT-TRA*. No one would gain the highest payoffs from such a situation, and the DCs might be viewed as being in a relatively more disadvantaged position (.080 is their third largest payoff, whereas .147 is the LDCs' second largest). At any rate, the resulting *PROT-TRA* joint-action gives a much less desirable outcome for each party than the *DIPL-ETR* joint-action in Matrix 1 which reflects the more desirable long-run perspective.

## CONCLUDING REMARKS

Given the aforementioned conflicts, a new approach is needed. Forming some sort of 'club' is one such approach. When several countries find common problems and interest, they may be willing to consider forming a forum that will deal exclusively with those problems ('functional clubs'). On the other hand, given the fact that circumstances can be radically different from one group of countries to another, a more spatially oriented grouping may be the preferred option ('regional club').

The general principle of the proposed forum should be voluntary, having common goals, shared values and rules. It should allow consensus on commonly held values that would enhance international oversight and governance. The forum will have the characteristic of being "diverse but open", implying that "being different does not mean being closed". The recognition of "diverse" is of particular importance since it is a consistent argument long sought by LDCs when they are under DCs' pressures to impose the same standards and value system. Another important feature is the adherence to only minimum standards and the premise of giving longer transitional periods to some countries to meet any new proposed obligation. This point reflects the recognition of different stages of development--hence of readiness--in different countries.

How feasible is this alternative approach? How will nations, particularly developing countries, view such an approach? It is imperative that most developing and newly developed economies strive to support the multilateral

system under GATT-WTO. It is widely recognized that the system will continue to provide a favorable setting for their continued integration into the world economy. Hence, any new proposal different from GATT rules will, at first, likely be viewed with suspicion. Yet, it is not totally unrealistic to design an alternative proposal that is in line with the multilateral system and, even going beyond it, to cover other important issues untouched by the GATT-WTO rules (“social dumping,” “eco-dumping,” and other forms of “psychological externalities”).

The proposed arrangement, mimicking the Brookings Institution’s proposal (Lawrence, Bressand, and Ito, 1995), may be too ambitious, but worth considering. There is a continuum of other possibilities, including simply a dialogue between the two groups of countries through which some of the concerns over environment and human-labor rights standards may well be diffused. As has been shown, under certain conditions, an equilibrium cooperative solution to the conflict situation is still plausible. It is the translation of those conditions into a practical overture that needs to be spelled out.

### References

- Anderson, Kym (1995), *The Entwinning of Trade Policy with Environmental and Labour Standards*, A World Bank Conference on The Uruguay Round and the Developing Economies, World Bank, Washington D.C., January.
- Azis, I.J. (1994) *Tensions and Conflicts in the Future Path of the Global Economic and Trading System: An AHP Overture*, paper delivered at the AHP Workshop, University of Pittsburgh, December.
- \_\_\_\_\_. (1996, forthcoming), “Resolving Possible Tensions in ASEAN Future Trade Using Analytic Hierarchy Process,” *ASEAN Economic Bulletin*, July.
- Bhagwati, Jagdish, (1991) *The World Trading System at Risk*, Princeton University Press.
- Esty, Daniel, C. (1994), *Greening the GATT: Trade, Environment and the Future*, Institute for International Economics, Washington D.C.
- Friedman, J. (1971) “A Non-Cooperative Equilibrium for Supergames”. *Review of Economic Studies* 38:11-12.
- IMF, 1993 *World Economic Outlook*, Washington D.C.
- Krugman, Paul (1987), “Is Free Trade Passe?” *Journal of Economic Perspectives* 1: 131-44
- Lawrence, R.Z., A. Bressand, and T. Ito (1995) *A Vision for the World Economy: Openness, Diversity, and Cohesion*. The Brookings Institution, Washington, D.C.
- Saaty, Thomas L (1994), *Decision Making in Economic, Political, Social and Technological Environments With The Analytic Hierarchy Process*, Vol VII, RWS Publications.
- \_\_\_\_\_, (1980) *The Analytic Hierarchy Process*, McGraw Hill.
- \_\_\_\_\_ and Boone, Larry W.(1990), *Embracing the Future: Meeting the Challenge of Our Changing World*, Praeger.
- Steil, B. (1994), “Social Correctness” is the New Protectionism,” *Foreign Affairs*

73(1): 14-20, January-February.

Snape, Richard (1988), "Is Non-Discrimination Really Dead?" *The World Economy* 11(1): 1-19.

World Bank (1995) *Global Economic Prospects and the Developing Countries*, The World Bank, Washington, D.C.

### **Endnotes**

1. I thank Walter Isard, Thomas Saaty and Sid Saltzman for their valuable comments on an earlier version of this paper.
2. Notable examples in this area are: forest degradation, air pollution, global warming, and labor immigration. In contrast, various other spill-over effects can be beneficial to the receiving end, e.g., technology transfer.
3. In the wake of globalized financial markets, national governments in LDCs are engaged in financial markets deregulation in the hope of attracting international capital. In its 1993 report, the IMF predicts that investment in all LDCs from domestic and foreign sources will rise to 27 percent of their GDP in the years ahead (IMF, World Economic Outlook, Washington DC, 1993).
4. Although it is also recognized by these countries, and even supported by widespread rhetorical acceptance within the donor communities, that in order to be effective and sustainable, reform programmes ought to be, in appearance and in fact, locally-owned.
5. The controversy regarding the direction of the causal influence between economic and political stability warrants the standing of Political Stability at the same level with the other three targets of LDCs (in a hierarchy discussed in the next section).
6. Actually, there are other labor-related issues often complained about by DCs, e.g., the absence of worker's right to form unions and the lack of occupational health and safety standards and other improved conditions of employment. The consequential trade effect (competitiveness) is claimed to be similar to that caused by low labor wages.
7. Some prefer to speak of the lack of 'social correctness' (see Steil 1994).
8. A point to note: recently a trend towards increasing religious and ethnic consciousness is ruefully observed in many parts of the world. When such phenomena occurred in matured nation states, the potential impact in terms of violence has often been insignificant. But in many LDCs, especially those with plural, multi-ethnic multi-religious states, the impact can be highly destabilizing.
9. Paul K. Ssemogerere, Uganda's Minister of Foreign Affairs, summarizing the debate over the right to development.
10. Asian's views expressed through the "Bangkok Declaration", 1993.
11. Such a tone is largely based on the Arab perception that Western

powers are blatantly using human rights as a cudgel for interfering in the domestic affairs of weaker countries.

12. Issues such as child labor and deprived workers, however, are nowhere found in other provisions. Among others due to this limited maneuverability the DC's strategy to "Support GATT-WTO" will turn out to be strictly dominated by DCs' other strategies, as shown in Matrix I in the next section.

13. The primary motive of trade for them is therefore a strict concern for national competitiveness, as opposed to the DCs' motive, i.e., concerns for a mix of national competitiveness, global commons, and in some cases even animal welfare. However, the experience during the last few years indicates that major trade reforms in many LDCs are taking place along with an increasing number of stricter rules on environmental protection. Of course, like everything else, the nature and intensity of such rules vary from country to country. The important point is that these rules are based on the LDCs' own awareness about the benefits of protecting the local environment, rather than bowing to the pressures from other countries.

14. The repercussion is more serious when trade is taking place between countries that are members of a regional block, say NAFTA, and those outside the block. The advocates for higher environmental standards will likely support discriminatory import restrictions from lower-standard non-member countries. From the viewpoint of developed members of the block, two objectives can be achieved simultaneously from such a move: reduce opposition by local firms to higher standards at home and increase the incentive for foreign firms and their governments to adopt higher standards abroad. See Kym Anderson, (1995).

15. The scope of the disputes can be much broader when we take into account the bickering over what constitutes the global commons. Should the demand or pressure of DCs on a LDC to preserve local endangered species to be considered legitimate and therefore should be bowed to? Obviously some would say yes and some tend to say no.

16. In addition to these two profound strategies, DCs could, on environmental issues, still register their complaints to the GATT-WTO forum. Parts (b) and (g) of Article XX of GATT still allow trade restrictions under certain conditions, i.e., when they are deemed necessary to *protect human, animal, or plant life or health and the conservation of exhaustible natural resources*. Hence, while there is a provision requiring justification and non-arbitrariness for the imposition of related trade restrictions, there is actually nothing in the GATT that prevents a country from adopting measures to offset environmental externalities.

17. The use of a hierarchy of these elements provides flexibility and allows consistent changes in the resulting outcomes at the immediate lower level (the alternatives), whenever the ranking of elements in the upper level (*the targets*) is changed. For example, when there are adjustments made in the ranking of importance of the *targets*, the weights of the strategies will also be altered and their priority ranking may or may not change, depending on the results from a sensitivity analysis.



18. To be meaningful and flexible, simple ordinal numbers and interval scales are out of the question, because the first are invariant under strictly monotone increasing transformations, and the latter are invariant under positive linear transformations. What is needed is a scale that can be manipulated with respect to all four arithmetic operations--for reasons that should be clear as we move along the discussion--keeping subtraction appropriately positive.

19. There are two ways to generate these joint strategies. We can first make a pairwise comparison for the individual strategies with respect to each target. By taking into account the priorities of the target, we will then obtain a vector, the elements of which represent the overall ranking of the strategies in both groups of countries. The next step is to rank the strategies with respect to each of the other group's strategies. There will be three vectors for LDCs (because there are three strategies of DCs) and two vectors for DCs. By multiplying the resulting matrix with the vector obtained earlier, we will obtain six joint strategies. An alternative way is to compare the joint strategies directly with respect to each target. When the number of elements to be compared is relatively small, as in our case, the latter approach is more preferable.

20. Indeed, for East Asia and Pacific countries such stability has, in the past, contributed significantly to their sound economic performance.

21. *Perfect information* refers to a situation whereby at each move in the game the player with the move knows the full history of the play of the game up to that point; otherwise the information is said to be *imperfect* (i.e., when strategies are played simultaneously). If the payoff of each joint strategy is common knowledge, the information is *complete*, otherwise it is *incomplete*. The static game described above assumes that the information is complete and imperfect.

22. Defined as follows. (1) At stage one, DCs and LDCs simultaneously choose strategies from their feasible sets of strategies, respectively; each receives  $p(1)$  according to Matrix 1. (2) At stage  $t$ , where  $t = 2, 3, 4, \dots$ , both parties observe the outcome of all previous stages and simultaneously choose strategies from their feasible sets of strategies, respectively; each receives  $p(t)$  according to Matrix 1. (3) Each party will then maximize his or her present value of the infinite sequence of payoffs.

23. The sequence of the game follows closely the Stackelberg duopoly model: (1) a party (the leader) chooses a strategy from its feasible set of strategies; (2) the other party (the follower) observes the leader's action and then chooses a strategy from its own feasible set of strategies; (3) each party maximizes its payoff which depends on the two chosen actions.

24. A remark made during the summit of ASEAN leaders in Bangkok, December 1995.