

TWNN

Third World Network

131 Jalan Macalister
10400 Penang, MALAYSIA

Telephone: + 604-2266 728/159
Telefax: + 604-226 4505
E-mail: twnet@po.iaring.my
Website: www.twinside.org.sg

Shared Vision and Burden Sharing in the "Global Goal"

Submission by Third World Network

The Bali Action Plan included a paragraph on "shared vision for long-term cooperative action." Paragraph 1(a) of the decision on the Bali Action Plan states that the AWG process will address:

A shared vision for long-term cooperative action, including a long-term global goal for emission reductions, to achieve the ultimate objective of the Convention, in accordance with the provisions and principles of the Convention, in particular the principle of common but differentiated responsibilities and respective capabilities, and taking into account social and economic conditions and other relevant factors.

The word "including" in the first line is important, as it implies that the emission reduction goal is only one of the aspects of the shared vision.

Thus, for balance to be achieved, other aspects besides mitigation and an emission reduction goal, have also to receive similar attention. This includes adaptation, adequate financial resources and effective technology development and transfer.

Moreover, in considering all the aspects of the shared vision, the CDR principle, and social and economic conditions and other relevant factors, have to be taken into account.

This paper deals with one aspect of the "shared vision", i.e. the question of a "long-term global goal." This question has to be considered in the overall context of the "shared vision" as briefly discussed above.

Long-term goals or "global targets" are phrases used by some parties to mean that a consensus be formed on three global goals or targets:

(1) temperature increase: to limit global temperature increase (e.g., to 2 degrees Celsius or less over pre-industrial levels);

(2) greenhouse gas concentration: to limit the rise in the concentration of greenhouse gases in the atmosphere to a certain level (e.g., 450 parts per million CO₂ equivalent or less) which is associated with the target for temperature increase; and

(3) emission targets: to reduce global greenhouse gas emissions by a certain specified extent (e.g., 50% or more below 1990 levels by 2050). This is accompanied by a proposal (e.g., from the EU) for emission reduction by developed countries of 60-80% by 2050 (below 1990 levels).

These figures are informed by the findings of the IPCC's fourth assessment report. The IPCC provides scientific estimates and ranges of figures (with degrees of probability) but does not, however, make a decision or proposal on what targets or goals should be adopted. It is for the UNFCCC to decide whether to adopt global goals and, if so, what these should be.

At Bali there was no agreement on whether to mention any global targets or goals. This was one of the contentious issues that lasted to the end. The Bali Action Plan does not explicitly mention the global numbers. However, footnote 1 linked to the fourth paragraph of the chapeau (which recognizes that deep cuts in global emissions will be required and emphasizes the urgency to address climate change) refers to certain figures in the IPCC's fourth assessment report (Working Group III).

The issue of "Long-term goals" has major development and equity implications.

One concern on process is that the "long-term goals" above may be negotiated in one forum (the AWG-LCA under the Convention) whereas the reduction commitments of Annex I parties are negotiated in another forum (the AWG on further commitments of Annex I Parties under the Kyoto Protocol).

Yet the two aspects have important links. In particular, developing countries could be indirectly committing themselves to a cut of a certain percentage in their emissions without directly being aware of this. For instance, if a global goal of 50% emission cut by 2050 is agreed to, and the AWG agrees on a reduction by Annex I countries of 70% (mid-point of 60-80%), the implication is that developing countries have to undertake the residual emission cut.

The table in the Annex shows the implications for developing countries of three scenarios (Scenarios A, B, C) involving a 50% cut in global emissions by 2050 as compared to the 1990 level.

The starting point is 1990, in which total world greenhouse gas emissions were 38.6 billion tonnes, with industrial countries' emissions at 18.2 bil tonnes and developing countries' emissions at 20.4 bil tonnes. The developing countries' population was 4.1 billion people, so their average emission per capita was 5 tonnes.

Scenario A

In Scenario A, there is a global cut of 50% in emissions, from 38.6 to 19.3 bil tonnes, in 2050 compared to 1990. Industrial countries cut by 70% from 18.2 to 5.5 bil tonnes. The implication is that the developing countries also have to cut, in this case from 20.4 to 13.8 bil tonnes, or a 32% reduction. However, by 2050 the developing countries' population is projected (by the UN) to double to 8 bil people (from 4.1 bil in 1990). Thus their average emission per capita drops from 5 to 1.7 tonnes, or by 65%.

On the other hand, the developed countries' population is projected to be stable in the period 1990 to 2050, so their decline in per capita emission will be at the same rate as their decline in total emissions, which is 70% in this scenario. In other words, in this scenario, the developed countries' per capita emission would fall by 70% while that of developing countries would fall by 65%. The developing countries in effect would take on almost the same emission reduction burden (in per capita terms) as developed countries.

This is the scenario that is actually facing developing countries, should the 50% global cut and the 70% Annex-I-country cut be realized. A commitment to undertake emission cuts in absolute terms is in contrast to past and present positions, that developing countries need the "environmental space" to enable them to grow, so they would need more time for emission growth, or they may aspire to reduce the growth of emissions.

Should the Annex I countries agree to an 80% cut, and bring their emissions down to 3.6 bil tonnes in 2050, the developing countries would have to cut their emissions to 15.7 bil tonnes (to make the global total of 19.3 bil tonnes). This would be a 23% cut by developing countries; their per capita emissions would be 2 tonnes (down from 5 tonnes in 1990), which would be a per capita cut of 60%. In other words, even if the Annex I countries cut their emissions by 80%, developing countries would still have to face a 60% per capita emission cut. There would not be a significant difference with Scenario A in terms of burden and burden-sharing. Should a global target be set above 50% (e.g., 60, 70 or 80%), then the developing countries would be required to undertake even sharper rates of emission cuts.

In this scenario, the developing countries face a major challenge. They aspire to development, which is usually accompanied by economic growth. An economic growth rate of 6-7% is a usual aspiration. It is true that a

significant portion of present growth is inefficient, environmentally unsound or socially inequitable, and thus there is recognition that there has to be a shift from orthodox development to "sustainable development". However, even sustainable development (where production and consumption patterns are altered to be environmentally friendly, and where social equity is more emphasized) requires moderately high growth rates for developing countries, especially the poorer among them.

In the past and present pattern of development, emissions are correlated with production, and thus should this pattern continue, a significant fall in emissions is associated with a corresponding fall in output. For a "decoupling" to take place, emissions would have to go down while economic growth proceeds at a similar rate. Since we are facing large numbers of change in emission, the challenge is enormous. The challenge is whether GNP growth can continue at 6-7% a year while emissions fall by 32% by 2050 or by 65% per capita by 2050. To bridge the gap between the simultaneous continuing rise in GNP and the progressive fall in emissions is a major challenge. The gap can be narrowed only if there is sufficient finance and technology to enable the massive changes that are required in terms of energy efficiency, technological changes, the nature and use of material inputs, etc.

While the IPCC's fourth assessment report makes the science clear on the seriousness of climate change trends, why emission reductions are required and by what ranges of percentage, what is still not clear is the economic and social aspects required to translate the implications of the climate science into development policy. And what is still to be worked out is the degree and nature of international cooperation required to enable the developing countries to make their great transformation. Without assurance and confidence that the corresponding assistance from developed countries is forthcoming, it would be difficult for developing countries to make binding or semi-binding commitments to cut their emissions.

Scenario B

Scenario B shows the implications if developed countries were to cut their overall emissions to zero by 2050. Even in this case, the developing countries would still have to cut their total emissions by 5%, and their per capita emissions by 52%.

Scenario C

Scenario C asks the question: what if the target is to have the per capita emission of developing countries remain the same between 1990 and 2050? Even this would be a great challenge for developing countries, to have GNP growth of 6% (or per capita GNP growth of 4%) while keeping per capita emission at zero growth.

In this Scenario C, the developing countries' per capita emission remains at 5 tonnes. Their total emissions would almost double (grow at 95%) from 20 to some 40 bil tonnes in 2050. But the global target is a 50% cut to only 19.3 bil tonnes in 2050. For this global target to be met, the developed countries would need to have **negative emission** of 20.5 bil tonnes, i.e., to go from 18.2 bil tonnes in 1990 to minus 20.5 bil tonnes in 2050.

The implications of this need to be explored, with regard to whether a great increase in sinks is possible in both developed and developing countries, and whether developed countries can transfer resources to developing countries to carry out some of the "negative emission" activities.

In Scenario C, the figures are possible targets of commitments. As in the present system under the Kyoto Protocol, as a possible option, developed countries could meet part of their target by a transfer of funds or resources to developing countries to undertake emission reduction activities. Since the quantity of negative emissions for developed countries in this scenario is large, then there is scope for the flexibility of transferring resources to developing countries to effect emission reduction, which is far higher than can be envisaged if the commitment of developed countries were to be 70% or 80% or even 100% emission reduction by 2050 compared to 1990.

Thus the concept of negative emission should be further explored, including in the context of the discussion on financial transfers. Such transfers or payments need not necessarily be within the framework of the Clean

Development Mechanism, but could be made to a multilateral climate fund or funds within the UNFCCC.

On the other hand, the developing countries will require tremendous capacity-building, including in conceptualizing the problem in the negotiations; integrating climate issues into development planning, including the financing of public and private investments, etc.; drawing up both climate action plans and new types of development and economic plans; and implementing the plans involving various sectors.

The issue of global targets is thus linked with the following: (1) the emission reduction commitments of Annex I countries, and the setting of their targets; (2) the role or contribution of developing countries regarding emissions; (3) the demands of developing countries on finance and technology, and on capacity-building; and (4) the supply of finance and technology by developed countries.

Therefore consideration of the important paragraph 1(a) of the Bali Action Plan – to attain a shared vision of action, including a long-term global goal for emission reductions – should be done in tandem and with cross-reference to the several other related issues. The choice of figure for the “goal” should be made as part of a package in relation to the undertaking by developed countries on emission reduction, the expected role of developing countries in relation to emissions, and the provision of technology, finance and capacity-building. The goal should not be agreed to upfront without reference to these and other issues.

This is only one methodology of looking at the question of burden sharing in the context of a “global goal” of emission reduction. This methodology is useful in showing that when there are two variables (global goal, annex I goal) that are determined, the implication is that there is a residual goal or target for the other party (i.e. non Annex I countries).

Further, using this methodology, it is also possible to explore other Scenarios, with assumptions for example that developing countries' per capita emission on average may rise by 10% or x per cent between 1990 and 2050.

This paper is meant not to instill pessimism, but to demonstrate the immense challenge that is facing both developed and developing countries in the quest for global reduction of emissions.

A major part of the challenge is to put into effect a major technological revolution, including in changing the source of energy into renewables, and in decoupling economic growth and sustainable development from emission of Greenhouse Gases.

There is tremendous potential for developing countries to integrate energy-efficient and clean technology and other aspects of climate-friendly sustainable development pathways, in which case they can achieve economic growth of the environmental type, which can meet human needs while also protecting the environment.

The more this potential is met through technology development and transfer and through financial resources transfer, the more they will be able to develop while avoiding business-as-usual carbon-dependent pathways.

The table attached can eventually be accompanied by tables showing goals for energy efficiency and reduction of dependence on technology that have intensive GHG emissions, and the finance implications for the transfer of these technologies.

Therefore the “shared vision” will have to crucially incorporate the finance and technology factors.

Annex

Scenarios if developing countries are to have more “environmental space” for development

| Scenario | Year | Total greenhouse gas emissions (billion tonnes) | Industrial countries' emissions (billion tonnes) | Developing countries' emissions (billion tonnes) | Population of developing countries (billion) | Developing countries' emissions per capita (tonnes) |
|--|-----------------------------------|---|---|--|--|---|
| A: Current proposal | 1990 | 38.6 | 18.2 | 20.4 | 4.1 | 5.0 |
| | 2050 | 19.3 | 5.5 | 13.8 | 8.0 | 1.7 |
| | <i>Percent below 1990 in 2050</i> | 50% | 70% | 32% | Doubles | 65% |
| B: 100% cut by industrial countries | 1990 | 38.6 | 18.2 | 20.4 | 4.1 | 5.0 |
| | 2050 | 19.3 | 0.0 | 19.3 | 8.0 | 2.4 |
| | <i>Percent below 1990 in 2050</i> | 50% | 100% | 5% | Doubles | 52% |
| C: No per capita cut for developing countries | 1990 | 38.6 | 18.2 | 20.4 | 4.1 | 5.0 |
| | 2050 | 19.3 | -20.5 | 39.8 | 8.0 | 5.0 |
| | <i>Percent below 1990 in 2050</i> | 50% | -113% | (95%) | Doubles | 0% |
| | | | Negative emission of 20.5b tonnes required, i.e., 100% cut + 113% offset of greenhouse gases | Effective doubling of absolute emissions to enable same per capita emission | | |

