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ПРОГРАММА ОРГАНИЗАЦИИ ОБЪЕДИНЕННЫХ НАЦИЙ ПО ОКРУЖАЮЩЕЙ СРЕДЕ

MAXIMIZING THE CONTRIBUTION OF TRADE TO SUSTAINABLE DEVELOPMENT: THE ROLE OF INTEGRATED ASSESSMENTS AND RELATED CAPACITY BUILDING NEEDS

UNEP WORKING PAPER

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1. Introduction

Integrated assessment – the systematic evaluation of the economic, environmental and social effects of past or proposed future policies – provides policy-makers with an essential tool to promote sustainable trade. By identifying key relationships between trade, the economy, society and the environment, integrated assessments provide policy-makers with the information they need to develop policies that enhance the positive effects, minimize or avoid the negative effects, and maximize the net contribution of trade to their national sustainable development priorities.

This paper provides an overview of the main approaches, tools and processes of integrated assessment. It draws on UNEP's experience at the national levels in working with national research institutions, governments, regional partners and other stakeholders. It builds on insights from two series of concrete, country-based projects involving 11 countries in Latin America, Africa, Asia, and Eastern and Central Europe that assessed the impacts of trade and trade-related policies on specific sectors. It also draws on a third and ongoing round of studies on the effect of trade liberalization in the rice sector in six countries – China, Colombia, Indonesia, Nigeria, Senegal and Vietnam – that focus on key sustainability issues including poverty, food security and biodiversity conservation.

Following the introduction, Section 2 provides an overview of integrated assessment and its development. Section 3 explores the *need for broader application* of integrated assessment in the field of trade in light of new trade negotiations at the multilateral as well as the regional and bilateral levels, and summarizes some of UNEP's experience in applying integrated assessments in a trade context. Section 4 identifies the *rationale* of integrated assessments and their value to policy-makers. An overview of the *factors to consider in the design* of an integrated assessment – including timing, participation, choice of indicators, and capacity building – is set out in Section 4. Section 5 considers a range of *approaches and techniques* that can be employed when undertaking an integrated assessment. The *various policy tools available* to governments when designing their response to an integrated assessment are identified in Section 6. These sections are interposed with boxes detailing the feedback that UNEP received in workshops and policy dialogues on the use of integrated assessments.

In the final part of the paper, Section 7 identifies lessons learned from UNEP country projects and notes the capacity building requirements of governments, identified during regional capacity building workshops, to enable them to apply this tool. Section 8 outlines how this tool is being adapted to support policy integration in a broader context beyond trade-related policies. The paper concludes by highlighting opportunities to further strengthen the use of integrated assessment at the national level.

2. What is an integrated assessment?

In recent years, there has been increasing recognition of the importance of integrated assessments that take account of economic, environmental and social considerations in decision-making for sustainable development at the policy, planning and programme level. Integrated assessments build on the emergence of a number of strategic assessment tools, which are now used separately to guide environmentally and socially sustainable development policies. While these approaches vary in name and terminology – e.g. strategic environmental assessment, strategic impact analysis, sustainability impact assessment and integrated assessment – they all attempt to achieve the objective of ensuring that sustainability considerations are fully addressed.

Integrated assessment, as defined here, is an instrument for evaluating all three major aspects of sustainable development – economic, social and environmental. It can be applied at a

number of stages in the policy-making process. Undertaken after a policy change, *ex-post* assessments provide a retrospective examination of the environmental, social and economic impacts of a given event or policy, and can identify effects that can be mitigated or encouraged through the introduction of complementary policies. *Ex-post* assessments can often draw on a large data set, and can help to define the content of any future assessment exercises.

Ex-ante assessments, by contrast, are undertaken before an event or policy change and can provide policy-makers with forward-looking information, allowing them to develop a coherent and integrated set of policies. *Ex-ante* assessments can help governments to develop approaches that are fully integrated, and that respond systematically to a range of highly-interdependent factors. They can help to avoid negative impacts before they occur, rather than simply mitigating such impacts, or reducing remedial costs. They can also be used to help clarify policy goals, identify integrated policy responses, build support for those policies, and prepare the ground for future assessments.

Discussions about the application of integrated assessment to trade policies have shown that some policy makers are concerned that this tool could become a constraint on or conditionality for trade liberalization. Some are also concerned that integrated assessment is a complex and burdensome undertaking, which may not yield concrete benefits to those who practice it. UNEP's experience has shown that these concerns can be addressed by:

- clarifying the objectives of integrated assessment, and in particular that of maximising sustainable development gains from trade;
- provision of capacity building and technical assistance to undertake assessment; and
- ensuring that they are conducted on a voluntary basis, by institutions based in the country in question, with the active engagement of the relevant government ministries, and other stakeholders in civil society and the private sector.

The application of this tool is demonstrating that both *ex-post* and *ex-ante* assessments have an important role to play in designing policies for sustainable development. Recently, however, there has been a shift in emphasis towards *ex-ante* approaches, in recognition that acting early allows policy-makers to respond more effectively to new challenges and to develop more integrated policies. For example, rather than simply responding to the effects of a change in trade policy with complimentary environmental or social measures, *ex-ante* assessments allow policy-makers to proactively design trade and other policies as part of a fully integrated approach. As such, *ex-ante* assessment and policymaking approaches extend beyond identifying and mitigating impacts, to assist policymakers to design integrated and coherent policies which combine economic, social and environmental objectives in pursuit of sustainable development.

3. The importance of assessing trade and trade liberalization

The launch of new negotiations at the World Trade Organization's Doha Ministerial Conference in November 2001, as well as ongoing and future negotiations at the regional and bilateral level, has increased the urgency for national policy-makers and negotiators to understand and evaluate interactions between international trade, the economy, society and the environment. The principal tool for gaining such an understanding is integrated assessment. The importance of assessing the effects of trade has been recognized in a number of important international meetings:

- The WTO Ministerial Declaration notes the "efforts by members to conduct national environmental assessments of trade policies on a voluntary basis" (paragraph 6) and "encourages expertise and experience to be shared with WTO Members wishing to perform environmental reviews and assessments at the national level" (paragraph 33).
- The Plan of Implementation agreed at the recent World Summit on Sustainable Development calls on governments to use impact assessment procedures as a mechanism

to encourage “relevant authorities at all levels to take sustainable development considerations into account in decision-making” (paragraph 18). It also calls for efforts to “[c]ontinue to enhance the mutual supportiveness of trade, environment and development with a view to achieving sustainable development through actions at all levels to ... encourage the voluntary use of environmental impact assessments as an important national-level tool to better identify trade, environment and development interlinkages. Further encourage countries and international organizations with experience in this field to provide technical assistance to developing countries for these purposes” (paragraph 91(d) and chapeau).

These and other meetings have identified the use of assessments as a central element of efforts to enhance mutual supportiveness with a view to achieving sustainable development. Meeting this challenge at the national, regional and international levels will require further strengthening the capacities of countries to carry out integrated assessments.

Efforts to develop and use assessment methodologies have been undertaken by a wide range of institutions, including UNEP, the OECD, the World Bank and UNDP. In the field of trade, work on assessment has been carried out by a number of these institutions, as well as the European Commission, Manchester University the World Wide Fund for Nature (WWF) and certain governments in their own national contexts. This paper draws extensively on UNEP’s experience with integrated assessments in the context of a range of demand-driven country studies that explore the contribution of trade to sustainable development.

During the past six years, UNEP has undertaken significant efforts to develop the capacity of countries to undertake integrated assessments. UNEP has conducted two rounds of detailed, demand-driven country studies in a diverse range of sectors and regions, and in collaboration with national policy-makers, research institutions and other partners. The first round of studies was conducted in Bangladesh (shrimp aquaculture), Chile (mining), India (automotive industry), Philippines (forest management), and Uganda (fisheries) and contributed to the further development of the assessment methodology.

Assessments conducted in the second round took place in Argentina (fisheries), China (cotton), Ecuador (bananas), Nigeria (cocoa and rubber), Senegal (fisheries) and Tanzania (forestry), and were conducted on a parallel track with the preparation of the UNEP reference manual on integrated assessment. These country studies identified a number of opportunities and challenges for broadening efforts to use integrated assessment to maximise benefits of trade liberalization and to reduce or offset the negative consequences. In the following sections of this note, we note the main elements of integrated assessment, and illustrate these with practical example and lessons from these UNEP-sponsored country projects.

UNEP and UNEP-UNCTAD sponsored workshops and policy dialogues have revealed a strong demand from countries in a number of regions for capacity building on integrated assessment. These countries recognise that embarking on this process is a complex undertaking, but perceive real benefits from it in terms of enabling them to develop appropriate policies at the economic, social and environmental interface. Specific points raised during these dialogues regarding the need for, and utility of, integrated assessments, as well as associated capacity building requirements, are highlighted in subsequent boxes in the remainder of this paper. This information has been drawn from the following events:

1. UNEP-UNCTAD Capacity Building Task Force (CBTF) Workshop on Post-Doha issues on Trade and Environment, held back-to-back with the WTO Regional Seminar for the Pacific Countries in Suva, Fiji, on 29th November 2002. This workshop provided a forum for participants to discuss the possible future thrust of CBTF activities in the region. Trade and environmental officials from 12 Pacific countries attended this event, as well as representatives from NGOs and regional cooperation bodies (the Pacific Island Forum Secretariat, the South Pacific Regional Environmental Programme, and the Forum Fisheries Agency), and staff of UNCTAD, UNEP, UNDP and WTO.

2. UNEP Capacity Building Meeting on Environment, Trade and Sustainable Development for the Latin American and Caribbean Region (LAC), held in Mexico City, Mexico, from 27th-28th March 2003. This workshop, which built on the findings of a prior meeting held in February 2001, sought to accurately define capacity building needs on the environment, trade and sustainable development policy interface for the region. It was attended by trade and environment officials from 13 LAC countries, representatives from the United States, the EC and Canada, and staff of UNEP, UNCTAD and ECLAC. The meeting also had active participation from a number of regional and sub-regional, economic, trade and environmental cooperation bodies (including CARICOM, CAN, CAF, and the CEC) and other stakeholders including NGOs, academic institutions and research organisations.

3. UNEP-UNCTAD CBTF Workshop on Post-Doha issues on Trade and Environment, held in Cape Town, South Africa, on 22nd May 2003. This workshop, held immediately after the WTO Regional Seminar for Anglophone African Countries, facilitated a substantive discussion and exchange of national experiences on key trade and environment topics, and provided an initial assessment of capacity building priorities, including the identification of possible topics for a regional workshop in 2004. It was attended by representatives of the ministries of trade and environment of 15 Anglophone African countries, in addition to representatives of SADC, NEPAD and AMCEN.

3. The rationale for integrated assessment

International trade can have both positive and negative economic, environmental and social effects. These may vary across individuals and households, regions and eco-systems, companies and industrial sectors. An integrated assessment provides a way to consider the full range of effects, direct and indirect, that changes in trade policy may have on the economy, the environment and on society. Generally speaking, integrated assessment can serve at least five main purposes:

- **Exploring the linkages between trade, the economy, society and the environment.** Over time, a better understanding of these relationships can encourage policy makers to develop sustainable development strategies and policies and build understanding and support among stakeholders for those measures.
- **Informing policy-makers across government and contributing to inter-ministerial co-ordination.** Providing information to policy makers across government departments of the implications of proposed trade policies helps to enhance coordination between trade, environment, planning and relevant sectoral ministries, facilitate communication and integrated policy making, and to build consensus and administrative capacity.
- **Informing negotiators.** Providing information to negotiators to pursue trade-related policies in ways that promote sustainable development, by identifying the environmental and development effects of trade policies or agreements early in the process, thus enabling the modification of the trade-related policy or agreement if appropriate.
- **Developing policy packages.** Results from the assessment can help countries design integrated environmental, social and economic policies at the national level to accompany the trade-related policy/agreement. These policies should be designed to promote the beneficial impacts of trade liberalization, while concurrently mitigating any negative impacts.
- **Increasing transparency in decision-making** The involvement of NGOs, private sector, local communities, industry and other domestic interest groups can help to build consensus and to strengthen national capacities, as well as ensuring that a broad range of views are considered in the assessment.

- **Developing regional and international understanding and co-operation.** The assessment process can assist in creating new regional and sub-regional partnerships, which have the potential to support the planning and creation of sustainable development policies at national, regional and international levels.

The UNEP and CBTF workshops have highlighted a clear need for developing country officials, including capital-based decision makers, to be empowered to analyse and respond to linkages between trade, the environment and sustainable development. This requirement relates to both international and regional negotiations on trade policy and economic cooperation and integration. Priorities identified by participants in these workshops included:

- Enabling different ministries to speak the same language on these issues;
- Facilitating more effective inter-ministerial coordination, including through the creation of appropriate national-level mechanisms.

Participants at these workshops noted that *integrated assessment provides such a mechanism*.

Workshop participants also stressed the need for environmental officials to be brought into trade negotiations, and for trade policy makers to contribute to the environmental policy making process. Such actions enhance countries negotiating capacity and create a more positive attitude among officials towards the utilization of assessment tools. It was also noted that it was essential for a culture of integrated assessment to be embedded in the trade ministry if there was to be greater consideration of environmental issues during the formulation of trade-related policies.

Used at the national level, integrated assessment can assist policy-makers to examine both the positive and the negative impacts of trade liberalization, and to explore policy options to reduce negative and strengthen positive impacts. On one hand, trade theory suggests that liberalization can promote the efficient allocation of resources, allowing us to produce more with less and reduce the pressure on natural resources. Conducted well, trade liberalization can make people better off through the expansion of production, employment, and consumption opportunities, raising living standards and improving social welfare. Higher income levels can lead to higher demand for and investment in environmental management and protection.

At the same time, without appropriate policies and regulations, trade liberalisation can have significant negative effects – environmental, social and economic. A UNEP-sponsored study in Argentina indicates that trade expansion, combined with an absence of appropriate fisheries policies in the 1990s had a *net economic cost* of about US\$ 500 million for one fish species (hake). The *opportunity cost* of failing to put in place appropriate policies (including lost future production and exports) was estimated at about US\$ 5,600 million, taking into account productivity losses and assuming the target species will not recuperate. In other words, sound fisheries and trade policy during the 1990s could conceivably have reaped Argentina a gain of 5 billion US dollars over ten years, with associated benefits to employment, social welfare, and gross domestic product, compared to the net loss associated with depleting the natural resource of \$500 million during the same period. The UNEP-sponsored country study in Bangladesh, similarly, showed that the export revenues from shrimp aquaculture were reduced by 30% due to associated environmental degradation, natural resource depletion and social disruption.

Avoiding impacts such as these, and realizing the positive contributions of trade to sustainable development, should be a priority for all policy-makers – especially those directly responsible for trade. Integrated assessment enables these policy-makers and other interested stakeholders to explore and quantify these linkages. Given that the social impacts of trade liberalisation are entwined with the economic and environmental ones, a full assessment of the impact of trade policy on sustainable development must be extended to include social interdependence. It is this full range of relationships and impacts that an integrated assessment aims to investigate.

4. Designing an integrated assessment

A number of factors should be taken into consideration when designing an integrated assessment. Careful planning is necessary to ensure that an integrated assessment meets its objectives in a timely and cost-effective way. Questions of how, when and by whom it will be conducted must be answered before substantive work on the assessment begins. In making these decisions, a range of factors needs to be taken into account.

A. Timing

As noted above, integrated assessments may be conducted before, after or concurrently with changes in trade policy. Integrated assessments may also stretch over more than one of these time periods, or even be conducted as a continuous process. Importantly, assessments should not generally be viewed as a one-off process as constant monitoring and feedback is required to ensure that policies are achieving their goals.

The value of *ex ante* assessment of trade-related policies as a means to enhance policy integration was demonstrated by the recent UNEP-sponsored case study undertaken in China. The case study showed that an *ex ante* assessments can not only provide policy-makers with useful information about trade-related linkages, but also provide a vehicle for producing an integrated set of national policy responses to help avoid negative impacts before they occur, mitigate their incidence, or reduce remedial costs. As a result of the project, the Chinese government is currently engaging with UNEP to implement the policy recommendations yielded by the study.

B. Consultation and participation

A key to successful integrated assessment is meaningful stakeholder consultation and participation. The involvement of a range of interested parties can provide data, insights and information that is not available to policy analysts working in isolation. Public participation offers the following advantages:

- **Cooperation** – participation provides opportunities for coordination within and between government and civil society, leading to the creation of longer-term collaborative relationships.
- **Expertise** – participation helps to introduce a broader range of ideas, experiences and expertise to the integrated assessment, enhancing the knowledge of policy-makers and promoting the development of a comprehensive range of policy options.
- **Ownership** – participation provides participants with a sense of ownership and empowerment, thereby reducing the potential for serious conflict and increasing the likelihood of lasting solutions.
- **Capacity Building** – participation ensures that the interests of groups that have traditionally played only a marginal role in policy development can be incorporated into the decision-making process, building capacity among those groups.
- **Trust** – participation builds confidence among the various stakeholders in the process, making it easier for governments to generate widespread public support for both trade and associated policies.

- **Transparency and good governance** – participation also ensures transparency, and helps to ensure institutional arrangements are open and accountable.
- **Improving implementation** – participation can also help to garner the support of stakeholders to support the implementation of policies, lowering costs and increasing the effectiveness of the policymaking process.

Participants in UNEP and CBTF workshops have highlighted that there is a need for broad stakeholder involvement in policy-making and standard setting. Their comments also support the theory that work conducted at the environment and trade policy interface will only be effective if it is done in a collaborative manner.

Feedback given to UNEP has indicated that one of the real benefits countries perceive from undertaking integrated assessments is the resultant promotion of transparency and good governance in the negotiations and policy-making process. It is clear in turn, that this transparency and the participation of affected stakeholders are necessary for effective and accurate assessment.

The assessment process has also been shown to enhanced discussions and cooperation between government officials, provincial bodies, NGOs, the scientific community and academic institution. This interaction has helped to identify gaps in data and in expanding the expertise and technical resources available for assessment. Such broad-based stakeholder participation in undertaking assessments was seen as extremely valuable by participants in these workshops, not least because it assisted in raising public awareness and engaging civil society more in the decision-making process.

C. *Indicators and data availability*

Integrated assessments should be based on sound indicators and data. One challenge in conducting an integrated assessment, however, lies in the lack of consensus on appropriate environmental and social indicators. Additionally, environmental and social data is often scarce, and some variables are difficult to quantify. These factors are particularly acute in forward-looking *ex ante* assessments and may hamper theoretical and empirical efforts to use environmental, social and economic indicators as part of a systematic model to evaluate all relevant effects.

Experience from UNEP-sponsored country studies suggest that the data requirements of even the most well known methodologies (such as those discussed in the following section) prove demanding. The necessary data sets are often not easily accessible in developing countries. Consequently, assessments will often need to use simpler methodologies such as rapid rural appraisal or data analysis, as an alternative to more sophisticated methodologies.

Valuation, particularly, has proved a major challenge in country studies, as traditional methods in economics such as shadow pricing, contingent valuation and others have proved difficult because of an absence of reliable data. Addressing these data limitations, agreeing to appropriate indicators, and resolving some of the methodological challenges associated with valuation are thus issues that will likely have to be addressed in future assessments.

The UNEP and CBTF workshops also highlighted the fact that consideration must be given as to whether the data set being used for assessments extends beyond the national level, to the regional one. This is particularly relevant in cases where several different economic sectors or countries make use of the same resource (e.g. marine or freshwater fisheries accessed by more than one country, such as those in Lake Victoria in East and Central Africa). In such situations there is need for enhanced regional level co-ordination between states and relevant regional and sub-regional institutions if the application of *national* assessments is to be successful.

Such regional coordination and collaboration on assessments is especially important between small under-resourced countries, as these states often find it difficult to collect the necessary data due to finite technical resources. While such countries in the Caribbean and Pacific are now looking to regional organisations to assist them in this regard, these organizations also often face financial and technical constraints on conducting assessments. For example, the South Pacific Regional Environmental Programme has a formal intergovernmental mandate to assess the environmental and social effects of trade liberalization and globalization for Pacific Island countries, but currently has insufficient resources to undertake this assessment.

D. Capacity building

Conducting an integrated assessment will make a range of demands on the capacity of policy makers and governments. Without adequate capacity for research, analysis, participation and policy-making, the scope for conducting integrated assessments will be severely limited.

Monitoring indicators, for instance, has both technical and institutional capacity requirements. An institutional framework is thus needed to manage the monitoring programme; receive the evaluations of the data and recommendations for action; accept, reject or amend the recommendations; and finally to decide upon and implement a course of action. Decisions on the scope and time-scale of the monitoring programme also have to be made. Identifying the capacity building needs at each stage of the assessment process, and designing long-term approaches to build competence in the use of integrated assessments should be a goal of both governments and international organizations with expertise in this area.

In the field of trade and sustainable development, poorer countries in particular will often lack adequate resources and expertise, and are therefore in need of capacity building activities to enable them to apply this tool and design supportive policies.

In responses from Trade and Environment Ministries to questionnaires there is universal support for a long-term co-ordinated programme of capacity building activities on environment, trade and sustainable development. This could include training and technical assistance, such as with policy development, as well as further information on meeting standards and improving financial management.

5. Undertaking an integrated assessment – approaches and techniques

Integrated assessments are often undertaken in three stages: first, a preliminary assessment of linkages is undertaken using available qualitative information; second, the assessment will model the causal relationships, using micro and macro economic models and other tools; and third, the assessment will proceed to valuation of the impacts. During these phases, a wide range of methodologies can be used. Experience indicates that a mix of these methodologies will often be required, depending on whether the assessment is *ex-ante* or *ex-post*, the type of trade-related policy being analyzed, and the impacts being measured.

Initially, a qualitative analysis of actual or potential positive and negative economic, social and environmental effects will usually be undertaken using available information. Often, practitioners will examine, among other things, the classification of linkages developed by the

OECD of the major relationships between trade and environment. This classification, set out below, can provide very useful insights into the possible impacts of past or proposed future policies and trade reforms, and identify areas for further exploration using more formal approaches.

- **Product effects.** These are effects related to the flow of products (or services) between countries. Some of these products may be environmentally friendly, while others may be hazardous to the environment. Overall product effects therefore can be positive or negative, depending on the nature of the products traded as well as their volume.
- **Technology effects.** More open trade policies may lead to the transfer of production technologies across borders. Again, these technologies may be harmful or friendly to the environment. There is a positive technological effect when a trade policy allows the flow of environmentally friendly technologies; and a negative effect when it prompts the transfer of harmful technologies. Changes in production technologies may also occur following liberalization of trade, as a response to maintaining or increasing competitiveness. Different production technologies can have substantially different impacts on the environment.
- **Scale effects.** Reforms that promote trade will often raise the overall level of economic activity, which translates into a higher rate of use of natural and environmental resources. However, this may be offset if efficiency is improved, or if higher economic growth makes greater investment in environmental protection possible.
- **Structural effects.** Trade liberalization could lead to changes in the sectoral composition of a country's economy, as it specializes in the production of goods or services where it has comparative advantage. If the changes favor the less-polluting industries, then positive environmental effects could be felt in that country. On the negative side, the products where the country has comparative advantage may have higher pollution intensity, or may require a greater use of the country's natural resources.
- **Regulatory Effects.** Trade reforms may have an impact on environmental regulations and standards. On the positive side, trade agreements may explicitly include measures to improve environmental standards. But it is also possible that particular provisions of trade reforms may restrict a government's ability to set environmental protection standards.¹

Following a qualitative analysis, an assessment will generally proceed to formal modelling and valuation exercises – the second and third stages of assessment – using a range of approaches, which include:

- **Benefit-cost analysis** is a framework that allows the monetization of the costs and benefits of an activity, project, or policy. It is a useful way of converting all the information relevant to the assessment of a proposed action into a comparable and easily understood form.
- **Risk assessment** procedures aim to balance what is known for certain, what is estimated as a potential and probable threat, and what is unknown. Risk assessments are often a useful part of integrated assessments, as policy impacts can be subject to considerable uncertainties. It can be difficult, for instance, to establish causal relationships between variables, and to accurately measure the effects of trade liberalization and related policies.
- **Multi-criteria analysis** attempts to take into account the preferences of stakeholders in the use of natural and environmental resources. The process is participatory and stakeholders themselves make decisions about how the environmental resource should be managed.

¹ Source: OECD, *Methodologies for Environment and trade Reviews* (Paris, 1994, OCDE/GD(94)103, online).

- **Life-cycle analysis** examines the use of environmental resources and the generation of emissions across the whole life of a product – including its production use and disposal. It can be used as part of an integrated assessment to analyze the links between the use of natural resources and the environmental outputs (e.g. emissions) of production processes.
- **Global commodity chain analysis** is a variation of life-cycle analysis. It evaluates the social and economic relationships between all the actors involved in the commodity chain. These actors include producers, consumers, traders, government agencies and others, all of whom are linked through the product market.
- **Scenario building** is a planning tool to identify a range of possible outcomes. Usually this approach uses up to, but not more than, four scenarios to evaluate different possible futures. It is generally more relevant to *ex-ante* assessment exercises.

6. Responding to integrated assessments – developing integrated policy responses

Integrated assessment forms the beginning not the end of a process designed to enhance the contribution of trade to sustainable development. A logical next step is to respond to the information and analysis provided by an integrated assessment with a range of integrated policy measures. Policy responses available to policy-makers, at the national, regional and international level will depend on whether the assessment was undertaken before or after the event or policy change being studied. Forward-looking *ex-ante* assessments generally provide policy-makers with greater latitude to develop integrated policy responses. Both *ex-ante* and *ex-post* assessments, however, will provide information that can help develop appropriate responses. As discussed below, the range of responses available includes modifying trade policies, implementing complementary environmental and social policies, and following up with monitoring and evaluation.

A. *Modifying trade policy*

A policy response that involves modifying a trade-related policy or a trade agreement can arise out of an *ex ante* assessment or following an *ex post* assessment. Modifying trade policy may, for example, include removing environmentally damaging subsidies, or reforming them to promote rather than undermine environmental and social goals. It could also involve adjusting mechanisms proposed within a trade liberalization agreement. Dispute resolution processes, for example, might allow significant environmental or social input and inclusion of exceptions designed to promote sustainability by enabling policy makers to pursue environmental and social goals.

Modifications may also address the timing of the implementation of the trade measures. For example, a government may maintain negotiated commitments but delay the implementation of certain measures (in a manner consistent with their obligations) to provide time for the introduction of complementary, mitigating government policies.

Where an integrated assessment shows that a policy may have a positive impact, an agreement might provide for accelerated tariff-reduction on environmentally or socially beneficial products. Conversely, where it is shown to have a potentially disruptive social impact or environmental effect, a government might seek to phase the measure in gradually to allow a longer period of time for adjustment through incremental liberalization.

B. *Modifying associated policies*

Associated policies can be developed and implemented by countries before or following the introduction of a national trade-related policy or international negotiation. Again, the range of policies will depend on when the assessment is conducted, with often greater latitude to design appropriate policies existing in response to *ex-ante* rather than *ex-post* assessments.

- **Market-based instruments** may be targeted to address market distortions arising from environmental and social externalities. Market based approaches – including tax reform,

user fees, deposit-refund schemes and subsidies – may provide a flexible, trade-friendly means of promoting positive impacts and minimizing negative impacts associated with trade liberalization.

- **Command and control policies**, such as regulatory measures, standard setting and property rights, provide governments with a direct means to shape markets, as opposed to market-based instruments which rely on the price and market mechanisms for their effect. Command and control policies can be used to set limits on the exploitation of natural resources or emission levels, to redistribute the benefits of trade liberalization to achieve social goals, or to regulate other aspects of economic activity.
- **Voluntary measures** applying to the private sector, such as the promotion of environmental management systems or eco-labelling, may also be used. Voluntary measures include standards, codes of conduct, guidelines agreed by companies and industries, along with governments and other stakeholders.

As well as responding to trade-related policies, measures such as these may also be required to address the impact of other policies. An important insight from UNEP-sponsored country studies is that other macroeconomic policies – such as devaluation, commodity price stabilization, and preferential trading arrangements – may also have significant implications for trade, environment and sustainable development, and may themselves require complimentary policies that are designed to optimize outcomes for sustainable development.

C. Monitoring and evaluation

Finally, integrated assessments are made more effective by the inclusion of specific provisions for evaluation and monitoring. A follow-up process might also be used to track not only the immediate and direct effects of trade liberalization and associated policies, but also long-term effects both of any changes in trade flows, and of other secondary effects on economic activity. Monitoring and evaluation also gives national governments an opportunity to judge the utility of assessments in guiding policy making and integration, and the extent to which there are sustainable development gains from the process.

UNEP-sponsored country studies have shown that implementation of policy packages, even at a pilot level, is key to the success of these studies. Equal effort also needs to be put into implementation and to identifying the challenges to implementation. When responding to an integrated assessment and developing policy responses, policy-makers will need to take the interdependent nature of variables into account, and carefully monitor and evaluate their policies to ensure they achieve sustainable outcomes.

D. Managing interdependence

When developing policies based on an integrated assessment – either by modifying trade policy or associated policies – it is important to take into account the interdependence of different variables. Generalizing across countries is difficult, and the same policy applied in different contexts may have significantly different results. Positive and negative effects may occur simultaneously. Economic, social and environmental effects may create virtuous circles, or offset each other. The introduction of more efficient resource extraction technologies, for example, may give rise to counterbalancing technology effects (e.g. more sustainable production) and scale effects (e.g. higher production levels). Mixed implications of these kinds were observed in a number of UNEP studies. In the case of Ecuador, for instance, trade-related factors induced technological change that improved production efficiency in the banana sector, but also caused negative scale effects, which were largely countered by appropriate environmental policies and by new land management laws designed to limit agricultural expansion.

7. Lessons learned from country projects and UNEP & CBTF Workshops

UNEP country projects on assessment have yielded a number of insights that may be built on by national policy-makers when designing their own integrated assessments. These country

projects have generated a number of important lessons on the conduct of assessment at the national level which may also apply to assessments carried out at the regional level. The general lessons about designing, conducting, evaluating, and responding to integrated assessments that are beginning to emerge, are as follows:

- Assessment methodologies will always have to be adapted to local conditions, needs and priorities. This requirement for flexibility also implies that a menu of methodologies is needed from which the most appropriate ones can be selected for any given locality.
- Integrated assessment is about comparing apples and oranges – economic with environmental with social, with different units for each. Therefore valuation methods and accurate cost-benefit analysis of policies are a crucial requirement.
- There is no substitute for “learning by doing”, both for capacity building on assessment and for the development of the assessment tools themselves.
- An open, transparent and informed multi-stakeholder assessment process, allowing for sharing of perspectives, expertise and experience, is crucial to effective and accurate assessment, including the development of the assessment tools and their subsequent application.
- Linking generic methodology development with actual assessments on the ground enriches both the design of the assessment tools and their application. Involving the same people in UNEP’s country projects and the development of the Reference Manual was the key to the cross-fertilisation of both the development of the assessment tools and the conduct of the on-the-ground assessments.
- Review meetings, comprising between 20 and 30 national and international experts, working on the issues in a top-down and bottom-up manner, have proved to be an invaluable tool in developing assessment methodologies. Such experts could form the core of informal regional and international networks of experts on assessment.
- Environmental and trade negotiators, and other officials, often have more to learn about the linkages between trade and sustainable development, but there are often also institutional, procedural and political complexities in developing assessment methodologies and defining policy responses.

UNEP & CBTF capacity building workshops that have explored integrated assessment have identified a number of capacity building requirements that must be addressed to enable governments to successfully apply this tool. These requirements can be divided into the following areas, each of which are expanded upon below: participation and consultation; resources; information exchange and networking; buy in for assessment and policy response; and tools.

A *Participation and Consultation*

- Identifying how other stakeholders including the private sector, NGOs, research institutions can be most effectively involved in the assessment process.
- Sensitising the scientific community in the county or region to the utility of assessments, so as to engage them, and potentially also developing a formal mechanism to bring them into the assessment and policy-making process.
- Designing assessments to address the needs of the most vulnerable groups.
- Improving capacity for environmental data collection.

B *Resources*

- Addressing the high rate of staff turnover in Government ministries, as a way of ensuring that people who become skilled in these complex issues are retained in posts which deal with them.

- Locating funding to enable governments whose budgets are limited to conduct necessary research and data collection. It is particularly important that this is addressed because, as participants in UNEP workshops have highlighted, assessments are best carried out by governments and/or policy research institutes in the country in question, as opposed to being conducted by external bodies.
- More accurately defining the expertise required to undertake assessments, as well as establishing in advance the tasks associated with it and the institutions responsible. To achieve these aims there is also a need to clearly understand the national conditions and the tools and experience currently available in countries interested in carrying out assessments.

C *Information Exchange and Networking*

- Sharing country level experience, particularly on the effects of specific policies in specific sectors.
- Developing an ‘information exchange forum’ on assessment to share knowledge and experience. This would contain information on current initiatives on assessment at the regional and country level.

D *Buy in for Assessment and Policy Response*

- There is a need to envision and evaluate how integrated assessment will be used at an early stage, so as also to assist in the design of assessments. This was also identified as important by environment officials who experienced negative reactions from trade colleagues when assessments identified negative impacts on the resource base and/or the economy.
- Without buy-in it is not possible to move beyond assessment to policy design and implementation. This was stressed by a number of workshop participants.
- Creating appropriate national mechanisms to assemble and coordinate necessary expertise needed for assessment, and secure “buy-in” from the relevant ministries and other stakeholders. Experience has shown that when co-ordination and cooperation on trade and environment are attempted but initially fail, it can take a long time to restart such cooperation.
- Ensuring that the assessment process is viewed as a collaborative effort. This is a political question as much as a technical one and can be addressed by appropriate structuring of the inter-ministerial arrangement or body that oversees and directs the assessment. This will be a country-specific issue.

E *Tools*

The following tools can be useful in the context of assessment:

- Developing indicators for assessment, particularly those that can assist with the valuation of natural resources.
- Formal training for staff of environment and trade ministries, including negotiators, in the area of assessment.
- Exploring economic instruments for environmental protection, which can usefully be applied in specific sectors in response to the results of assessments.

8. Integrated Assessment and Planning for Sustainable Development

Trade and trade policy are not the only, nor even necessarily the most important factors affecting prospects for sustainable development. Integrated assessment of the broader range of economic and related policies, including specific sectoral policies such as those on industry

or agriculture, is necessary to secure this objective. This broad recognition has grown through the application tools such as environmental impact assessment and strategic environmental assessment, as well as through international meetings such as the UN Conference on Environment and Development in 1992, and the WSSD in 2002.

A new UNEP initiative on *Capacity Building for Integrated Assessment and Planning for Sustainable Development*, aims to develop an assessment tool to enable governments to integrate environmental, social and economic objectives in economic policies and activities beyond those relating directly to trade. This initiative builds upon the earlier work on integrated assessment of trade-related policies, and also aims to maximise the contribution of economic and trade policies to poverty alleviation, environmental protection and sustainable trade promotion. It initially focuses on the sustainability concerns of broad-based planning processes, with particular emphasis on the agriculture sector, due to the fact that the largest segments of population in many developing countries live in rural areas, and depend on that sector for their livelihood. The project is structured so as to enhance the capacities of countries to apply this assessment tool, and also to develop capacity building and training materials and activities to this end.

This assessment tool will be developed and its application facilitated through pilot studies conducted in eight developing and transitional countries. These countries will designate a national institution that will work in close partnership with the government concerned and in collaboration with the World Bank, UNDP and UNCTAD. The national institution will implement the pilot projects and help build capacity in the country for integrated assessment and planning for sustainable development, with technical assistance and financial support from UNEP.

This proactive approach to integrated assessment and planning builds on the emergence of a number of assessment tools, which are used at the strategic level to guide environmentally, economically, and socially sustainable development, and to ensure that sustainability considerations are fully considered within the entire planning, programming and policy-making cycle. It will build on existing experience and approaches for integrated assessment and planning, and will identify best practices and approaches, as well as areas that require improvement. This tool will assist decision makers in addressing the root causes of problems (rather than only treating symptoms), identifying poverty-environment-development linkages, and defining sustainability indicators. The outputs from this initiative will be disseminated for application by international donors, regional institutions, national agencies and others involved in developing integrated policies, which support sustainable development.

A. The context for Integrated Assessment and Planning for Sustainable Development

The initiative responds to UNEP Governing Council decision GC21/14, which mandated the organisation to provide assistance to Governments to:

- integrate environmental considerations in the design and assessment of macroeconomic policies;
- adopt an integrated approach in the design and implementation of mutually supportive trade and environment policies; and
- promote greater understanding of the linkages between poverty and the environment.

The initiative also responds to decision GC22/10, to develop a strategy for the implementation of actions on poverty alleviation committed to in the World Summit on Sustainable Development (WSSD) Plan of Implementation. This Plan emphasizes the importance of taking a “holistic and inter-sector approach” to the implementation of sustainable development, and to deliver on the Millennium Development Goals. It also supports the use of “environmental impact assessment procedures” as a means of encouraging

“relevant authorities at all levels to take sustainable development considerations into account in decision-making”. In addition, it identifies trade as an important tool for implementing sustainable development, and calls upon all countries to develop National Sustainable Development Strategies linked to poverty strategies.

This initiative has been further supported by recent changes in development assistance strategies. The World Bank, UNDP and many bilateral donors, for example, are developing new pro-poor policies that combine a range of actions previously taken separately; such as to alleviate hunger, improve public health and provide basic infrastructure. Environmental sustainability, one of the seven Millennium Development Goals, is an integral aspect of this new approach. Furthermore, the importance of environmental management and capacity building for sustainable livelihoods, even in countries where there is an urgent need for poverty reduction, is now no longer in doubt. Many developing and transitional countries lack the basic capacity to individually undertake assessment and planning that integrates environment with other factors, including poverty alleviation and trade enhancement.

B. Benefits of Integrated Assessment and Planning for Sustainable Development

This tool contributes to the following objectives:

- Supports sustainable development through: identifying different economic, social and environmental opportunities and synergies; streamlining the decision-making hierarchy; and assisting governments to reach officially approved sustainability goals and targets, thus supporting a shift towards more environmentally and socially friendly economic development.
- Facilitates good governance and institution-building through: increasing transparency of decision making processes; creating knowledge at a relatively low cost by actively involving relevant stakeholders; promoting inter-ministerial coordination and collaboration; and helping to create public trust and commitment by mobilising the support and involvement of key stakeholders.
- Saves time and money through: identifying trade-environment-poverty linkages, providing planners and decision makers with an early warning of potential problems and undesirable impacts; and identifying strategic options that support economic development while minimising environmental, social and health impacts, thus reducing costs to remedy such impacts.
- Emphasizes the need for bottom-up action through: helping to develop an understanding of the need for participatory planning; and supporting efforts to engage poor people in the identification of essential ecosystem functions.

9. Conclusion

The growing acceptance of sustainable development as an overarching policy goal has stimulated a strong and growing interest in assessing the impact on sustainable development of particular policy interventions, including trade rules and trade liberalization. Looking forward, there is considerable scope to improve and develop the use of integrated assessments. Efforts to build capacity should build on past experiences, and consider a range of priorities including:

- **Expanding the use of ex-ante assessments** – forward-looking integrated assessments have already proven to be a powerful tool for policy-makers. Avoiding major trade-related costs – such as those identified in UNEP case studies – and maximizing benefits requires evaluating the impacts of proposed, as well as past, policies. By looking forward, *ex-ante* assessments can provide policy-makers with the information they need to develop fully integrated and coherent policies for sustainable development.

- **Enhancing the quality of trade** – just as important as the volume of trade is its quality. Integrated assessments can help policy-makers to ensure that liberalization promotes the movement of goods and services that most benefit their economy and society, and in a manner that protects the environment.
- **Making trade work for the poor** – Integrated assessments can also identify ways to ensure that trade works for the poor. Assessments, and the policies they lead to, can promote trade in areas that benefit the poor, and can suggest ways to minimize or mitigate negative impacts on these individuals and communities. As such, integrated assessment and policy-making approaches should form an integral part of national strategies to reduce poverty.
- **Encouraging trade as a means of implementing sustainable development** – The recent WSSD identified trade as a critical means of implementing sustainable development. Integrated assessments allow policy-makers to understand the linkages between trade, the economy, society and the environment, and to develop approaches that ensure trade can help to deliver on the goals set out in the WSSD Plan of Implementation.

Integrated assessment is still in its infancy and there is considerable scope for its improvement. Current methodologies need to be further developed and adapted to suit the conditions and priorities of governments and other actors undertaking them. Nevertheless, the techniques are powerful, and are already being applied by a number of countries to increase net development gains from trade. In the future, capacity building activities on integrated assessment promise to help further refine the assessment techniques, and to enable governments, policy research institutes, regional organizations and other stakeholders to cooperate more effectively in applying them at the national level. These activities need to be designed on the basis of needs assessments and specific requirements, such as those undertaken in the UNEP and CBTF workshops described herein.