

Conserving Biodiversity Through Sustainable Production and Consumption

Background document for the pre-conference organised by ECO Forum

9 October 2007, Belgrade

The European ECO Forum is a broad, inclusive coalition of more than 200 ECOs (environmental citizens' organisations as well as NGOs with related interests) who wish to participate in the official Pan-European processes (Environment and Agriculture) with the final goal of promoting environmental protection and sustainable development in Europe and globally. The goal of the coalition is to serve the ECO community and facilitate their participation in these processes, and to work together in order to be stronger and more influential, without detracting from individual organisations ability to perform separately.

This publication has been prepared by the Integrative Strategies Forum and the Central and East European Working Group for the Enhancement of Biodiversity (CEEWEB).

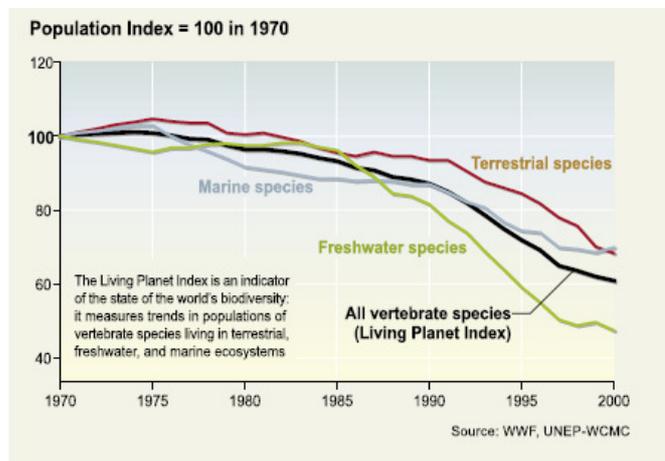
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1. Introduction: Why a conference on biodiversity and sustainable production and consumption?

World leaders have agreed, as expressed in Agenda 21, that the major cause of environmental degradation is unsustainable production and consumption patterns. Yet this root cause has not been adequately addressed by integrative government policies. Material and energy consumption trends continue to dramatically increase with population and economic growth. As a result, environmental degradation deepens.¹ Today there is a growing recognition of the interdependence of human and ecological systems and the overall impacts of production and consumption on those systems. Yet there remains a need for much greater understanding and more effective policies addressing the impacts of production and consumption on climate, human health, and biodiversity.

This pre-conference, organized by ECO Forum, looks especially at the interplay between production and consumption and biodiversity. The main causes of biodiversity loss (habitat loss, degradation and fragmentation, invasive species, overexploitation, pollution and, increasingly, climate change) are ultimately products of unsustainable production and consumption patterns, which need to be understood and addressed in relation to that system.



Environment for Europe

Since its launch in 1991, the 'Environment for Europe' (EfE) process has been a unique platform of international environmental policy forming for the 56 countries within the UNECE region. Among other fields the EfE Ministerial Conferences delivered strong commitments and developed frameworks in biodiversity conservation, including the [Pan-European Biological and Landscape Diversity Strategy](#) (PEBLDS, endorsed in 1995) and the Kyiv Resolution on Biodiversity with the 2010 target to halt biodiversity loss (committed to in 2003). Since the last conference in 2003, governments, NGOs and other stakeholders have also paid more and more attention to sustainable production and consumption within the EfE process.

This pre-conference organised by ECO Forum aims to deepen the understanding and raise awareness of biodiversity loss and its link to production, consumption patterns and thus to the economic and social processes underlying environmental problems. This new approach of linking these two themes will help highlight the root causes of biodiversity loss, and the role of different sectors in nature conservation through their sectoral activities, as well as of the general public through their lifestyle. In addition the pre-conference will facilitate Pan-European cooperation and implementation on the ground by NGOs, governments and other stakeholders.

2. Concepts

Sustainability and sustainable development

The international definition of “sustainable development” has three important elements which evolved out of intergovernmental negotiation and discussion over the past few decades. First is the most familiar definition: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of ‘needs’, in particular the essential needs of the world’s poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs.”²

Secondly, that “economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development, which is the framework for our efforts to achieve a higher quality of life for all people.” ([World Summit on Social Development](#), 1995)

Finally, the prioritization of strategic aims: “Poverty eradication, changing consumption and production and protecting and managing the natural resource base for economic and social development are overarching objectives of and essential requirements for sustainable development.” ([World Summit on Sustainable Development](#), 2005)

Thus we have a long-term commitment to *future generations*, the idea of sustainable development as an integrative *framework*, and that sustainable production and consumption is a key target and policy priority, along with poverty and environment. Most important is the idea that the purpose of all this is to improve the *quality of life for all people* – not just for some.

Biodiversity

"Biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part of; this includes diversity within species, between species and of ecosystems. ([Convention on Biological Diversity](#), Article 2.)

Defining diversity on a different level, ecological diversity means the diversity of geographical and temporal patterns of populations and the interactions among the elements of ecosystems (pollination, parasitism, predation, etc.).

Sustainable Production and Consumption

“Patterns of consumption and production that reduce environmental stress and will meet the basic needs of humanity.” ([Agenda 21](#), para 4.7, 1992)

Considering the agreed definitions of sustainability, “a system providing for human needs, improving social and economic security and quality of life for all people, including future generations, while protecting the ecosystems upon which human life depends.”

Ecosystems

"Ecosystem means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit." (Convention on Biological Diversity)

Ecological processes within the ecosystems constitute *ecological functions*. Those functions, from which humans benefit, are called ecosystem services. They include supporting and regulating services that maintain the favourable conditions for life on Earth, such as climate regulation, nutrient cycling, soil formation and disease control; provisioning services such as food, drinking water, agricultural yields or fuel wood; and cultural services providing spiritual, recreational, and religious benefits. Reaping the benefits of such functions is necessary for the survival of humankind, but can be an impediment of the functioning of natural systems.

Ecological Footprint

The [Ecological Footprint Network](#) describes the footprint as "A resource management tool that measures how much land and water area a human population requires to produce the resources it consumes and to absorb its wastes under prevailing technology." A measure of how much [biologically productive land and water](#) an individual, population or activity requires to produce all the resources it consumes and to absorb the waste it generates using prevailing technology and resource management practices. The Ecological Footprint is usually measured in [global hectares](#). Because trade is global, an individual or country's Footprint includes land or sea from all over in the world.

Wackernagel and Rees describe the footprint as "a tool to help us plan for sustainability. It not only addresses such global concerns as ecological deterioration and material inequity, it also links these concerns to individual and institutional decision-making."³ Some suggest that while the footprint is a useful tool, it does not necessarily tell us where to improve our performance.

Well being and quality of life

According to the World Summit on Social Development's definition, agreed by world leaders in 1995, "improving the quality of life for everyone" is the ultimate goal of sustainable development.⁴ While quality of life itself remains a difficult and politically controversial concept to define, it remains key to any effort to understand or achieve sustainability. Nevertheless, various efforts have been made to define and measure progress in sustainable development and the goal of improving quality of life and well-being.⁵

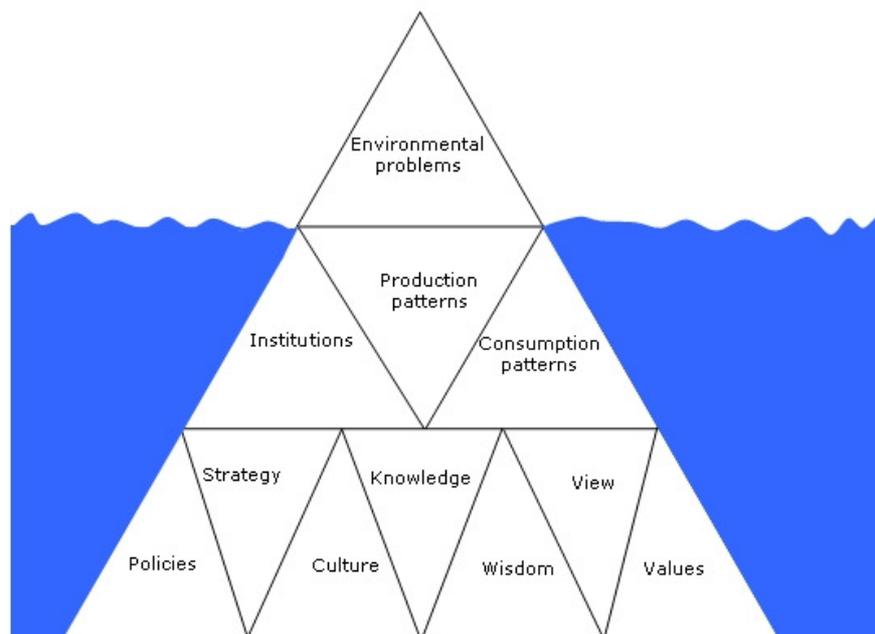
Although governments define economic growth and economic competitiveness within the globalised world as over-riding goals, evidence shows that financial wealth does not always or automatically produce wellbeing; it can in fact be harmful, displacing other and more important sources of happiness. Other views of well-being involve other requirements, e.g., living in a democratic and stable society that meets material needs; having supportive friends and family as well as rewarding and engaging work; being reasonably healthy physically and mentally and having important goals related to one's values, as well as a philosophy or religion that provides guidance, purpose and meaning to one's life.⁶

3. Context and relationships

The Belgrade Assessment has identified the main threats to biodiversity as habitat destruction, degradation and fragmentation, along with the introduction of invasive species, overexploitation and pollution. Climate change is more and more recognized as a serious threat, especially for endemic species with a limited range.

Investigating these direct causes behind biodiversity decline, several economic and societal drivers can be identified. Habitat destruction, degradation and fragmentation are driven among others by urban sprawl, transport infrastructure development, greenfield investments, intensification of agriculture or just the opposite, land abandonment. The accidental and intentional introduction of invasive alien species has trade, tourism and environmental management implications, like in the case of introducing species for fishing, hunting or even energy production purposes. Climate change is an issue for energy and transport, but agriculture and the related industrial production also have a share in greenhouse gas emissions.

All in all, the state of environment including biodiversity trends are determined by the intensity, structure and qualitative characteristics of economic and societal processes, that is by the production and consumption patterns, as well as the institutional structure. This latter is to organize and regulate these processes and it also determines the framework of implementation at the same time. Of course these patterns and structures are also determined by more deeply lying factors, which are at the same time more stable and difficult to change on the short term.



The iceberg model of environmental problems⁷

These causal relationships are shown by the iceberg model (see figure), which demonstrates that while we are able to perceive the state of environment (the tip of the iceberg), the network of causal relationships remain invisible to us (the body of the iceberg under the water level).

This is also the reason why we blindly set about tackling the consequences and apply end-of-pipe solutions, as we are unable to comprehend the complexity of causal relationships.

Though environmental problems are directly determined by the institutional framework (economic and legal regulation and the institutional structure) and production and consumption patterns, these are in turn also dependent upon the policies and strategy that the government pursues (sectoral and horizontal strategies, such as on sustainable development), the culture that prevails (e.g. the level of cooperation, transparency, ways of decision making), the knowledge available to policy and decision-makers (e.g. the availability of technologies), the wisdom, (which determines how the knowledge is used in practice, e.g. if it is based on the precautionary principle), the view of the society on the world (whether it is able to take a holistic approach) and ultimately the values (how people define well being, what are the aims of development). Certainly there are numerous interactions among these various drivers and factors. The characteristics of the institutional structure and the position we take in it provides us with a certain type of knowledge, and with a particular cultural environment. Environmental problems are not only determined ultimately by the values of the society, but they can also increase the awareness of the people and result in some changes in the values and the lifestyle, and thus in consumption patterns. Society and economy are thus influence and being influenced in various different ways.

However, the iceberg of environmental problems clearly shows, that even though changes can be relatively easy to achieve on the top of the ice berg, long term solutions can be only sought through also tackling the more deeply underlying causes. Because technological solutions can reduce some of the pressures on biodiversity, and we can also restore natural conditions to a smaller or larger extent (with the use of energy and natural resources), but the root causes will only generate further pressures if the sectoral fragmentation of institutions, unsustainable consumption and production patterns continue to prevail, and there is not any policy, cultural and knowledge change and values shift in the society to drive the necessary changes.

Pressure	Source	Driving force
Climate change: temperatures, precipitation patterns, evapotranspiration rates, etc.	CO ₂ originates when organic materials oxidises, mainly by burning fossil energy carriers.	Energy consumption
	N ₂ O(nitrous oxide) originates from industrial processes, but mainly from agriculture, often due to over-fertilisation.	Land use intensity
	CH ₄ (methane) is emitted from rise paddies, cattle breeding and -dominant in EU countries- from waste dumps.	Land use intensity Material flows.
Increasing UV-B radiation due to ozone depletion	Ozone depletion is mainly caused by CFC emission, phased out in most of Europe. Still there are more CFC stored in products than have been released to the atmosphere so far. Methylbromide is mainly used in intensive agriculture.	Environmental chemicals (in the EU, CFC emission is a solved problem, but not the release from the stock)
Acidification	Acidification is caused by imission of sulphur dioxide SO ₂ , ammonium NH ₄ and nitrogen oxides NO _x .	Land use intensity Environmental chemicals
	So ₂ originates mainly from incinerator of sulphur containing coal and crude oil but has diminished significantly.	Energy consumption
	NH ₄ originates from livestock production and manure management in intensive agriculture.	Land use intensity
Eutrophication	NO _x (NO and NO ₂) originate spontaneously with each high temperature energy release (incinerator, industrial process, fossil fuel motors, etc.)	Energy consumption
	Eutrophication is caused by the imission of bio-accessible phosphorous and nitrogen into terrestrial and limnic ecosystems. Today phosphates mainly originate from agriculture, where they are used as a fertilizer.	Land use intensity
	Nitrate is emitted trough mineral, as well as organic fertilisation in intensive agriculture.	Land use intensity

Chemical pollution	<p>Long-range air pollutants Persistent, bioaccumulative, toxic (PBT) persistent organic pollutants (POPs)</p> <ul style="list-style-type: none"> - Pesticides like aldrin or dieldrin, linden and PCP - Industrial compounds like PCBs or brominated flame retardants - Unintended by-products like dioxines, furans and PAHs <p>Heavy metals and organic compounds (including lead from gasoline or mercury from coal incineration) Other pesticide/biocides other than POPs Petroleum products other than POPs Endocrine disruptors</p>	<p>Energy consumption</p> <ul style="list-style-type: none"> Land use intensity Dissipative chemicals use Chemical production Energy consumption, mining material flows
Biological GMO pollution and biological invasion	<p>Accidental, deliberate or residual release of GMOs with the subsequent establishment of modified organisms or of modified DNA in natural populations. The mostly unintended introduction of foreign species as a result of global trade and the establishing of new genes or new combinations of genes in populations as a results of the deliberate release of GMOs.</p>	<p>Land use intensity Energy consumption Consumption and waste generation GMO production, trade and release</p> <p>Global trade</p>
Coastal zone and inland Water pollution	<p>The pollution of coastal and inland waters from industrial effluents and municipal waste water has been significantly reduced in Europe. The main source of water pollution today is the run off from intensive agriculture (plus some acidifying inputs from long range air pollution) Coastal eutrophication leads to diatoms' growth, thus reducing silicon concentrations, which combined with high nitrogen and phosphorus levels in return creates conditions for toxic algae blooms of dinoflagellates and cyanobacteria.</p>	<p>Land use intensity</p> <p>Energy consumption Land use planning Land use intensity</p>
Habitat fragmentation	<p>Reduction of biotope size and fragmentation by infrastructure development (settlement area, transport infrastructure, energy, water and information transport), and large scale agriculture. Another factor reducing biodiversity is the canalisation of streams and rivers, destroying important breeding grounds.</p>	
Human exploitation	<p>Hunting, grazing, ranching, forest farming, intensive agriculture, infrastructure construction for housing, production and mobility. Logging for construction and heating Water logging to make land suitable for agriculture or to use the water elsewhere, predominantly for irrigation agriculture, resulting in disturbed hydrological regimes.</p>	<p>Land use planning and intensity, mobility</p> <p>Material flows, energy consumption Land use intensity</p>
Ecosystem disruption	<p>Overexploitation of biodiversity and/or biophysical basis by logging, hunting, etc., disturbed hydrological regimes from water abstraction and retention system degradation</p>	<p>Lack of regulation and monitoring</p>
System fragmentation, habitat size reduction	<p>Fragmentation of ecosystems by use patterns and infrastructure development (settlement areas, transport infrastructure, agriculture)</p>	<p>Land planning</p>
<p>Land use intensity distinguishes between protected, cultivated, intensively exploited and anthropogenic land (sealed soil).</p>		

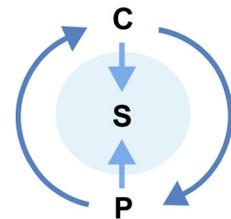
Table 1. The driving forces behind biodiversity loss: pressures in Europe by frequency of being mentioned in national sustainability and environment reports⁸

Of course the interactions between the economy and environment also determine the generation of environmental problems. Recognizing that humans, similarly to other species ultimately depend on ecosystem services, also mean that without any question humans are part of nature. But then how is it possible that humans can substantially alter their environment and degrade ecosystem services, the basis of their own existence? Humans, unlike other species, have been able to mitigate many of the systemic negative feed-back processes that normally hold populations in check in nature. This is realised through technological developments and the worldwide distribution of resources - even if not in a fair manner. If resources become scarce for a population in nature, then the population size necessarily decrease as a response to these changes. Humans instead import these resources from other places, while generating transport. If climatic conditions change, that necessarily leads to the migration or disappearance of populations, which cannot tolerate the new environment. Humans instead install heating and cooling systems, mostly with the use of non-renewable

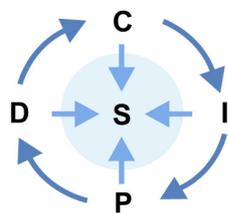
resources. If the soil becomes depleted in some nutrients, that means the local disappearance of those plants, which can only grow on rich soils. Agriculture instead applies fertilisers. Thus humans mitigate these negative feedback mechanisms, but doing so, create (sometimes even bigger) problems elsewhere. The ecosphere will inevitably give the negative feedback to the human society, but having globalised environmental problems, it must be a global response as well (like climate change).

4. SPAC Schema

In its simplest form, we see the basic interplay between production and consumption processes and their impacts on environment and human health. This can apply to a household, an organization, a community or society. With regard to **consumption (C)**, we can look at the impact of specific consumer lifestyles, preferences, and behaviour on ecosystems, such as the increasing intrusion of residential housing, roads and shopping malls into wildlife areas. In turn, production of material goods demands extraction of a constant flow of natural resources (wood, fiber, metals, minerals, chemicals, water, wheat, meat, fish and various forms of biodiversity). Likewise, the environment is used as a sink for industrial pollution and waste. Both consumption and production decisions are driven by **values**. Ideally, these processes would be driven by **sustainability (S)** values and principles, but in most cases other values and priorities dominate.



The question is how to gain adoption of sustainability as a driver for production and consumption decision-making.

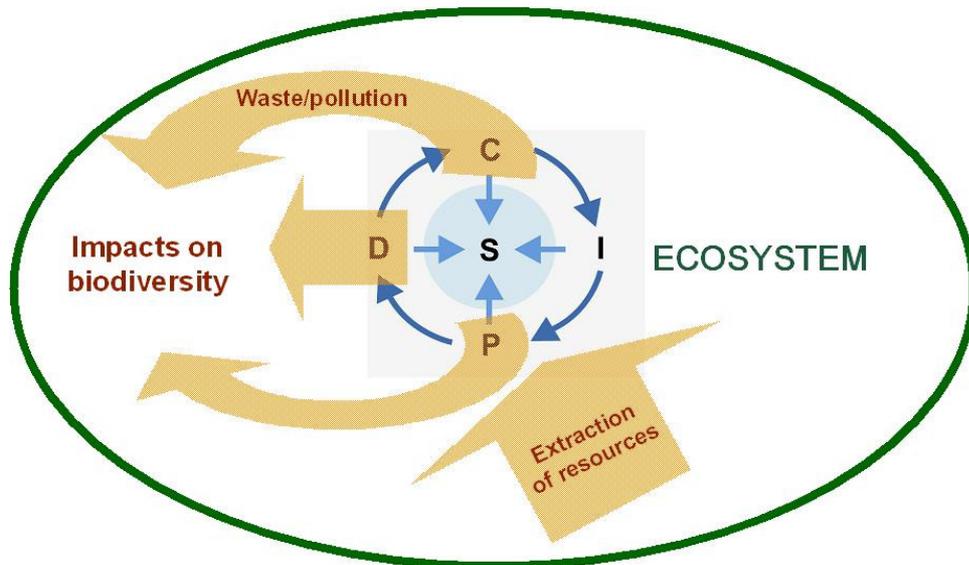


Specific behaviour and initiatives are best understood when viewed in the context of production and consumption as a system. It also helps to look closely at the intervening factors driving production and consumption decisions – investment and distribution. **Investment (I)** involves judgements regarding which consumption needs or demands promise the best return on the investment of private or public resources required to meet or respond to that demand. Ultimately it is not consumer demand that is responsible for what is produced and distributed, but the judgment and decisions by those in control of the resources needed to invest in production. Investment-based policies and initiatives such as Socially Responsible Investment (SRI), environmentally responsible institutional purchasing, and efforts promoting subsidy reform are all important in determining what products and services will be available for consumption.

In turn, policies and initiatives aimed at influencing the **distribution (D)** function have an especially strong impact on consumption, such as regulation of advertising and marketing, packaging, pricing, trade and other factors directly shaping consumption decisions and behavior.

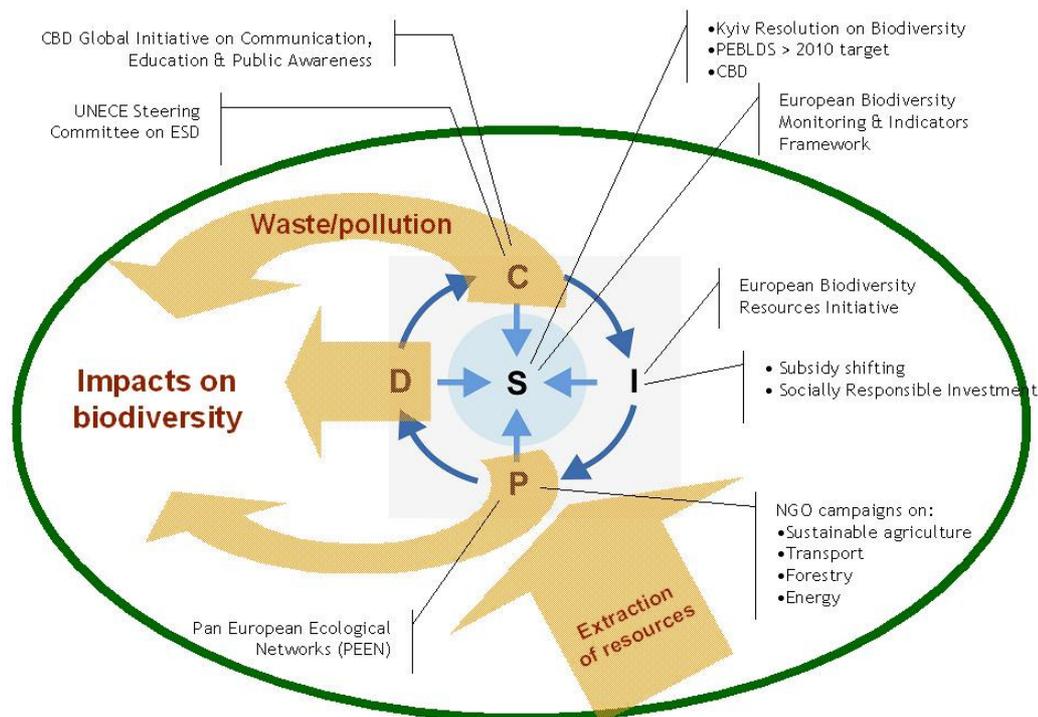
Looking at biodiversity from the perspective of production and consumption patterns, we can identify a range of different pressures and impacts arriving from different parts of human society, ranging from extraction for production (e.g. clear cutting of forests, mountaintop removal for mining, damming of waterways, conversion of land to farmland, housing, roads) to waste (e.g., dumping, littering) and pollution (e.g., from industry, agricultural,

transportation and residential emissions). Again, there is the question of whether sustainability values are driving decisions.



In turn, biodiversity protection strategy can identify the different policy tools and strategies best suited to target the specific production/consumption sources and origins of different biodiversity impacts. Also, alliances with relevant organizations and institutions associated with different policy instruments (e.g., subsidy reform, advertising reform, union health and safety standards) can be sought.

Another dimension of the SPAC schema is the central role of values, which directly influence decisions and actions in all phases of the production and consumption cycle. .



5. Addressing the problem: policies, practices and strategies¹

Legacy of Agenda 21 and earlier SPAC efforts

As highlighted by Principle 8 of the 1992 Rio Declaration on Environment and Development, each nation has a responsibility to “reduce and eliminate unsustainable patterns of production and consumption.” [Agenda 21](#) adds that such patterns are “the major cause of the continued deterioration of the global environment.” Global biodiversity loss is one major example of that continued deterioration. In response, country governments and stakeholders are called on to promote patterns of production and consumption that “reduce environmental stress and will meet the basic needs of humanity,” by first “developing a better understanding of the role of consumption and how to bring about more sustainable consumption patterns” and secondly developing national policy frameworks to encourage those changes. The complexity of this challenge calls for both a “questioning of traditional concepts of economic growth” and “new concepts of wealth and prosperity” reflected in “changed lifestyles” as well as new indicators and systems of national accounts. Governments are challenged to design policies and strategies to encourage the “reorientation of existing production and consumption patterns.” This includes promoting efficiency in production processes and reduction of wasteful consumption, as well as reinforcement of sustainability values and the transfer of environmentally sound technologies to developing countries.⁹

The Marrakech Process

The “[Marrakech Process](#)” represents a relatively recent effort by governments, the UN Environment Program and UN Department of Economic and Social Affairs (DESA) to implement the 2002 World Summit on Sustainable Development’s call to develop “a ten-year framework of programmes in support of regional and national initiatives to accelerate the shift towards sustainable consumption and production.”¹⁰ The process began with the first International Experts Meeting on the Ten-Year Framework, held in 2003 in Marrakech, Morocco. This was followed by a second and third meeting in San Jose, Costa Rica (2005) and Stockholm, Sweden (2007). Other aspects of the Marrakech Process include a series of regional public consultation processes and the creation of several thematic taskforces. The culmination of these discussions and efforts will take place at the 2010-2011 sessions of the Commission on Sustainable Development, which will review this development process and its result. The hope is for a proposed framework that will be adopted by the CSD and set into motion for 2012-2021.

The Environment for Europe process acknowledged in the Ministerial Declaration at the 2003 meeting in Kiev, the importance of the Marrakech Process and need to contribute to this at the regional level.

Lisbon agenda, EU SDS, EU biodiversity policies

During the meeting of the European Council in Lisbon (March 2000), the Heads of State or Government launched a “Lisbon Strategy” aimed at making the European Union the most competitive economy in the world and achieving full employment by 2010. The “environmental pillar” was added to the Lisbon Strategy in June 2001, when the European Council in Göteborg endorsed an EU strategy for sustainable development (EU SDS) proposed by the European Commission (“[A sustainable Europe for a better world: A](#)

[European strategy for Sustainable Development](#)"). Following the review of the EUSDS, the European Council adopted in June 2006 a renewed Sustainable Development Strategy. In this strategy, however, a chapter on biodiversity is lacking, and SCP instead of becoming the long-term vision for the economic dimension of Sustainable Development, is only mentioned en passant.

The Community Biodiversity Strategy and Biodiversity Action Plans adopted in 1998 and 2001 respectively, aimed to provide the framework for developing Community policies and instruments in order to comply with the Convention on Biological Diversity. A review of EU biodiversity policy launched in 2003 aimed to provide an assessment of the implementation, effectiveness and appropriateness of the Biodiversity Strategy and Action Plans. Finally, after long consultations the Commission produced a Communication in May 2006: *Halting the loss of biodiversity by 2010 and beyond - Sustaining ecosystem services for human well-being*. The annexed EU Action Plan to 2010 and Beyond sets out specific actions with related targets, which address both EU institutions and Member States. The Action Plan also specifies actions and targets for monitoring, evaluation and reporting. Annex 2 describes the 16 headline indicators for biodiversity, in line with the proposed global indicators endorsed by the Convention on Biological Diversity.

EU SCP plan

Following the World Summit on Sustainable Development, the European Union made a commitment to address the challenge of sustainable production and consumption (SCP). In November 2004, UNEP and others organized a [European Regional Stakeholder Meeting on Sustainable Consumption and Production](#) in Ostend. Also in 2004 the report "[Sustainable Consumption and Production in the European Union](#)" was published, providing an inventory of policy instruments and strategies to promote SCP. In December 2005 a second European Conference focusing on '[Sustainable Energy Consumption](#)' was held in Berlin, Germany.

In June 2006, the European Council adopted a [renewed sustainable development strategy for an enlarged EU](#). The new strategy acknowledges the importance of changing production and consumption patterns as a key challenge in EU activities between then and 2010. Here "SCP" is defined as "addressing social and economic development within the carrying capacity of ecosystems and decoupling economic growth from environmental degradation". Currently nine "building blocks" for SCP policy are identified. Unfortunately, these primarily address the production/business side and not for households and consumers:

- [Thematic Strategy on Sustainable Use of Natural Resources](#)
- [Thematic Strategy on Waste Prevention and Recycling](#)
- [Integrated Product Policy \(IPP\)](#)
- [Eco-Management and Audit Scheme \(EMAS\)](#)
- [Eco-label Scheme](#)
- [Environmental technology Action Plan \(ETAP\)](#)
- [Green Public Procurement \(GPP\)](#)
- [Eco-design of Energy Using Product Directive \(EuP\)](#)
- [European Compliance Assistance Programme - Environment & SMEs](#)

In preparation of SCP action plans by 2008, a series of public consultations are now taking place, which includes comments and discussion of a [background paper](#). The three areas of focus of the current SCP Plan targets changes in mobility, housing and food and drink, identified as representing the consumption areas of highest environmental impact.

Environment for Europe: Raising the stakes

This pre-conference comes a day before the official opening of the 6th Ministerial Conference “Environment for Europe.” Several different issues of importance to NGOs and citizens are on the table, which will to various degrees be discussed and commitments made (or not made) on what to do. There will be a discussion on the ECE’s target and commitment to reducing biodiversity loss within the region by 2010. Much of these also depends on changing production and consumption patterns causing biodiversity loss. This could be addressed by the proposal to develop a Pan-European cooperative framework supporting national and subregional sustainable production and consumption initiatives.

This importance of such a framework and commitment was noted in the Kiev Ministerial Declaration in 2003 but without major action towards creating this. ECO Forum’s Brussels Declaration again stressed the importance of “making production and consumption sustainable in the Pan-European region,” calling for “action to develop a Pan-European Regional Framework for Sustainable Production and Consumption, also recommending the creation of a multi-stakeholder committee or taskforce to assess needs and possibilities, leading to research, consultations and programmes to support country and subregional efforts, to report on progress and activities at the next Environment for Europe meeting in 2011. The Category 1 paper submitted by Sweden and UNEP raised the proposal, also urged development of a regional cooperative framework, yet the governments involved with drafting the Ministerial Declaration for 2007 have backslided on this commitment and need, leading one to assume that ECE members are not truly serious about tackling the overarching objective of changing the production and consumption patterns responsible for environmental damage in the region.

Perhaps too many assume that the European Union’s development of an EU Action Plan on SCP will be sufficient to address this enormous but essential challenge. However, the EECCA countries are once again left out of this equation. In turn, citizen organizations and concerned members of government and business with an understanding of the ecological consequences of inaction are left without the support that an ECE cooperative framework could provide. Many find this situation unacceptable and in many ways tragic, given the ultimate result.

We hope this pre-conference will help dig deeper into the interconnection of our many common issues and concerns and help us all to find a strategy and “cooperative framework” of our own to work together to address not only the symptoms of environmental degradation but forces driving them.

¹ Jeffrey Barber. "Production, consumption and the World Summit on Sustainable Development," in *The World Summit on Sustainable Development: The Johannesburg Conference*, Luc Hens and Bhaskar Nath (eds.), Dordrecht, The Netherlands, Springer Press, 2005.

² [World Commission on Environment and Development](#), also known as the Brundtland Commission, 1987.

³ Mathis Wackernagel and William Rees, *Our Ecological Footprint: Reducing Human Impact on the Earth*, 1996

⁴ United Nations. *Report of the World Summit for Social Development*. Copenhagen, 6-12 March 1995.

⁵ For example, the [Human Development Index](#) (HDI); [Living Planet Index](#) ; [Calvert-Henderson QL Indicators](#) ; the [Economist Quality of Life Index](#)].

⁶ Based on Ed Diener and Martin E. P. Seligman, *Beyond Money: Toward an economy of wellbeing*.

⁷ Figure by Iván Gyulai

⁸ Joachim H. Spangenberg, Biodiversity pressure and the driving forces behind, 2007, *Ecological Economics*, vol. 61, issue 1, pages 146-158

⁹ United Nations, *Agend 21: Programme of Action for the 21st Century*, New York, 1992.

¹⁰ United Nations, *Johannesburg Plan of Implementation*, World Summit on Sustainable Development, New York, 2002.