Sustainable Consumption and Production:

A Framework For Action

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Executive Summary

There is probably hardly discussion that mankind for the first time in history fundamentally may jeopardize the sustainability of the Earth's supportive ecosystems. The massive expected population and welfare growth in this century will make matters only worse. The strongest international policy efforts currently focus mainly on mitigating the *effects* of rapid global economic growth (e.g. the Kyoto Protocol and the UN Convention on Biological Diversity.). It is obvious though, that the drivers behind such problems are the way how mankind has organized its economic system of production and consumption.

Already during the Rio Summit this issue of 'sustainable consumption and production' (SCP) was raised. The World Summit on Sustainable Development in Johannesburg in 2002 called for a 10 Year Framework of Programs on SCP. To support UNEP and UN DESA in developing this framework, a group of people from scientific and NGO circles here wants to bring forward its view on a potential Framework for Action on SCP. The group made use of evidence gathered in the context of the EU funded Sustainable Consumption Research Exchange (SCORE) network and other projects.

The existing evidence base with regard to SCP shows the following:

1. Common accepted ethical standards and simple metrics indicate that an SCP program should foster a radical reduction in environmental impacts per unit welfare, and be supportive to reduction of the poverty gap.
2. Priority domains in virtually any society concern built environment, mobility, food, tourism, and the use electrical and electronic equipment. These domains cause over 75% of the life cycle environmental impacts of final consumption.
3. Change towards sustainable consumption and production is a systemic challenge. This implies:
    a. In many cases, businesses, consumers or policy makers cannot solve problems alone. They must work together in a 'triangle of change'; it is not possible to 'outsource politics' hoping that green consumers or green businesses alone will save the day.
    b. The nature of required change and hence the required tactics varies. Sometimes there is agreement over means and ends. Sometimes there is a common sense of urgency, but means are still unclear. And sometimes, change would go counter existing meta-values, meta-trends, etc. in society. Table 0.1 gives an example of the implications for the tactics to pursue.

The implications of the findings above are in our view that a Global Framework for Action on SCP needs four pillars. The core is formed by actor-oriented and sector oriented programs that focus on learning how to realize best a generally accepted direction of change, using the tactics and activities suggested by Table 0.1. An agenda-setting program is needed for issues that are still too controversial too tackle heads-on. These three groups of programs are complemented by a set of general programs of developing action plans, monitoring, networking, and involving 3rd parties relevant for implementing the SCP agenda. A program like this would address in a logical way the most important actor groups, production-consumption chains, and gives a generic umbrella for global co-operation and how regions can tailor actions to their specific needs. To sum up:

Firstly, **general programs** are needed that

- support or guide countries or regions in developing national or region specific action plans. Where it is likely that the generic aspects listed below are relevant in all cases, the specific priorities and approach will differ per type of country (high income countries, responsible for most of the sustainability impacts, fast developing economies, and low-income economies).
- develop metrics for 'best SCP practice' and monitor progress
- support networking and brokers access to financial and technical support
- develop outreach to 3rd parties relevant for implementing the SCP agenda

Secondly, **content oriented programs** are needed that support activities of **the actors** in the triangle of change

- business: sustainable value chains
- citizens/consumers: sustainable life styles and related education
- policy: effective application of policy instruments

Thirdly, **content oriented programs** are needed that focus on the specifics of **priority production-consumption chains**:

- Built environment and housing
- Food
- Mobility
- Tourism
- Electrical and electronic equipment
- Other

Fourthly, **agenda-setting activities** may be needed for topics that currently are 'too hot to handle': issues that are not yet 'mature' for broad supportive action by the triangle of change, simply since there is fundamental paradigmatic disagreement about goals, and about how to move forward.

Table 0.1: Tactics for change to SCP by the nature of resistance to change

	Example	**Agreement on means and ends**	**Agreement on sense of urgency, means unclear**	**Goals contro-versial**
Tactics		Implement and reflect on best practice	Experiment and reflect to find direction	Build critical mass with new mindset
Articulate sustainability values, and (future) problems in realising them	OECD Energy Outook, Ecological footprint studies	0	++	++
Implement best practice measures at key leverage points in the system (voluntary or formal)	Energy Performance demands of buildings, CO2 compensation schemes	++	0	--
Experiment with and learn from new concepts	Dongtan Ecocity, WWF SCP action programs in the UK	0	++	++
Promote and enlist mobilising icons, champions, visions and other support	Clinton's Climate Change Initiative, Global Compact	0	++	+
Enhance paradigm challenging evidence base	Happy Planet Index study, Beyound GDP conference	0	0	++
Reflect, evaluate and exchange experience	Marrakech Task Forces	++	++	++

Table 0.2 recapitulates the most important actions for implementation. By and large, we foresee a structure very much in line what already exists. The core is formed by content oriented programs organized around a number of country lead Task forces, and general programs in line with existing UNEP activities. The main point is that here a logical and coherent structure of activities is proposed, which for instance can be helpful in negotiations with donors or initiators about what additional Task forces should be supported, etc. Furthermore, this document forms in fact a plea to organise available resources more efficiently and in the context of a common framework. A 10 YFP on SCP by nature has a wide scope and cannot but form a strategic umbrella for supportive actions towards sustainability. This implies in turn, that a 10 YFP on SCP cannot but form a important and probably dominant framework for organizing the activities of UNEP itself. The potential for this alignment seems not yet exhausted and anchoring the 10 YFP at a hierarchical higher level than in the current situation probably would be helpful.

The main thrust of this document is hence seeking a more efficient organization of the use and alignment of resources, than a plea for extensive allocation of new resources. The main exceptions may be the activities with regard to monitoring and metrics, and the agenda-setting activities, which are new compared to the current situation. Most other activities probably can already be executed with the allocation of a few additional fte at UNEP and UN DESA, a smart use of existing project funding opportunities (e.g. Switch Asia), and some additional donor countries willing to support a new Task force.

Table 0.2: Outline for implementation activities

Activity	**Potential leadership?**	**Additional effort?**
Pillar 1: General programs		
Support in developing national or region specific action plans.	UNEP/UN DESA	0
Develop metrics for 'best SCP practice' and monitoring of progress	New entity	++
Support networking and brokering access to finances, technical support, and scientific knowledge	UNEP, UNIDO Dedicated initiatives	+
Developing outreach to 3rd parties relevant for implementing the SCP agenda	UNEP/UN DESA	0
Pillar 2: Actor oriented content programs		
Business: sustainable value chains	WBCSD/UNEP-SETAC Life cycle initiative	+
Citizens/consumers: sustainable life styles and related education	MTF Sustainable life styles and Education	0
Policy: effective application of policy instruments	Expanded MTF on Policy	+
Pillar 3: Programs for priority production-consumption chains:		
Built environment and housing	MTF Sustainable buildings	0
Food	New MTF	+
Mobility	New MTF	+
Electrical and electronic equipment	Expanded MTF Sustainable products	+
Other		
Pillar 4: Agenda setting activities	UNEP or new entity, in collaboration with NGOs and science	++

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1 Introduction

The Millennium Ecosystem Assessment, Ecological Footprint calculations, and reports published in the context of the Climate Change debate show sincere concern that activities of mankind will surpass the ecological boundaries of the Spaceship Earth. Since the Industrial revolution, mankind realized an economic growth that is unprecedented in human history. This growth was made possible by technical progress, but also by an unprecedented rise in the use of finite, non renewable resources, transformation of ecosystems into cultivated land, and the use of nature as a sink for residuals of production and consumption.

We now live in a world where 1 billion people live wealthy, 1-2 billion people live in economies that are fast developing, and 3-4 billion people come by on just a few dollars a day. Particularly the fast developing economies like China and India are now closing the wealth gap with the West fast. Consumption in these Western economies causes over two thirds of the global environmental impacts. One does not need to be a rocket scientist to see that if fast developing countries copy current Western consumption and production patterns without any change, environmental crises and conflicts about access to natural resources hardly can be avoided. The wealth gap hence must be closed while all economies implement production and consumption patterns that are radically more resource-efficient than what Western economies have developed in the past.

The strongest international policy efforts currently focus mainly on mitigating the *effects* of rapid global economic growth. Examples are the policy agreements in the field of climate change (the Kyoto Protocol) and biodiversity (the UN Convention on Biological Diversity.). It is obvious though, that the drivers behind such problems are the way how mankind has organized its economic system of production and consumption[1]. The differences in energy intensity, resource intensity, or ecological footprint per capita between countries with fully comparable living standards are stunning.

How to make consumption and production more sustainable was already mentioned in the Rio Declaration of 1992. A new mandate was created via the Johannesburg Plan of Implementation of 2002 that called for the development of a Ten-year Framework of Programs on Sustainable Consumption and Production (10 YFP on SCP). Since then, the UN stimulated a great number of activities under the umbrella of the so-called 'Marrakech Process'. Until now, a clear 'Framework' for change to SCP has not yet been produced[2].

A group of people from scientific and NGO circles here wants to bring forward its view on a potential Framework for Action on SCP[3]. This group is well aware of the complexities of international policy making, and has no illusion that top-down planning or global agreements will do the trick or are even feasible at this stage. Yet, identifying the main issues for the SCP agenda provides a vision and strategic intent. This then can help to provide a structure for positioning and aligning the numerous bottom-up initiatives supporting the change to SCP: a true Framework for Action.

2 SCP: a vision on change

2.1 Goals of change: radical reduction of impacts per consumption unit, supporting equity, and questioning institutional settings

SCP is not a fully objective notion. The optimists feel that market incentives and human ingenuity will ensure that real sustainability crises will be avoided. They mention that the Stone Age did not end for the lack of stones, and Malthus' population ceiling was surpassed. And there are the more concerned that feel that such breakthroughs will not come automatically, but require hard and conscious efforts[4].

Such uncertainty does not prevent setting goals. Most companies or individuals take key decisions while they can't predict consequences 'beyond reasonable doubt', as the legal standard in crime law asks. On the basis of the best available knowledge, they judge which action to take. Hence, choosing 'Evidence based' SCP goals is wise, but asking 'evidence beyond reasonable doubt' before such goals could be set would be simply foolish.

In our view, simple metrics or commonly accepted ethical standards imply that an SCP agenda needs to pursue at least the following goals:

1. A radical reduction of impact per unit satisfaction should be reached, given the rise of the world population from about 6 billion people now to a peak of 9 billion people in the late 21st century, and the tremendous wealth per capita rise that many emerging economies and developing countries still have to go through.

[1] Or socio-ecological metabolism, as it is called by others.

[2] Examples include UN-lead regional and global expert consultations on SCP, the establishment of seven Task Forces in support of the 10 YFP, mainly initiated by EU member states, the inclusion of SCP in the revised EU Sustainable Development Strategy. National governments, most notably in the Czech Republic, UK, Finland and Sweden, seriously look into implementing SCP policies.

[3] See colophon (chapter 7) Resources for writing this document were mainly made available via the EU FP6-funded SCORE! project (www.score-network.org)

[4] Björn Lomborgs book 'The skeptical environmentalist' reflects the optimistic position. Al Gore's movie 'An inconvenient trught' and the Stern report are examples of the more concerned position.

2. The enormous gap between rich and poor in the world is in flagrant contradiction with any ethical standards. Where it is debatable if the fight for poverty eradication can be led via an SCP agenda, this agenda must at least support it. This implies that:
    a. Compensation for compliance with basic environmental and labor/social standards in supply chains should be ensured
    b. The potential for 'Leapfrogging' in emerging and developing economies should be investigated and tested.
3. There is a remarkable difference in resource efficiency of economies that result in a fully comparable quality of life for its citizens. An SCP agenda must at least try to learn what institutional settings, and production-consumption patterns provide in the most efficient way a high quality of life.

2.2 Priority Areas for change: Food, Mobility and Built Environment

An important question is what the priority areas are for starting with the change to more sustainable production and consumption patterns. With regard to the environmental dimension this question can be answered unambiguously. In the period 2000 to 2006 a series of comprehensive studies and related reviews have been performed into the life cycle environmental impacts of final consumption expenditure in a great variety of countries. The variety of approaches in these studies to analyse the impacts of products was immense. Studies focused on different geographical areas, cluster products in different ways into groups, use fundamentally different data inventory methods (bottom-up LCA or top-down input-output), and used different impact assessment methods. Still, the main priorities that all studies identified are crystal clear. **Mobility** (car and air transport, including for holidays), **food** (meat and diary followed by the other types of food), **built environment and housing**, and **electrical and electronical products** cause on most environmental impact categories, together 70 to 80% of life cycle environmental impacts in society. **Clothing** is environmentally less relevant, but an important commodity related to social issues traded between low-income and high income countries.

These priorities are probably independent of the type of economy or the type of country. Next to these priorities, the specific local or regional situation may be taken into account, e.g. in case of water scarcity, or deficiencies in waste management. Most of these priorities cover global value chains, and hence play also an important role in the equity gap between rich and poor countries.

The conclusion is obvious. If priorities (from an environmental perspective) have to be set, SCP programs should focus on the production and consumption chains indicated above.

2.3 Fostering change to SCP: mechanisms

2.3.1 The SCP challenge has a systemic nature

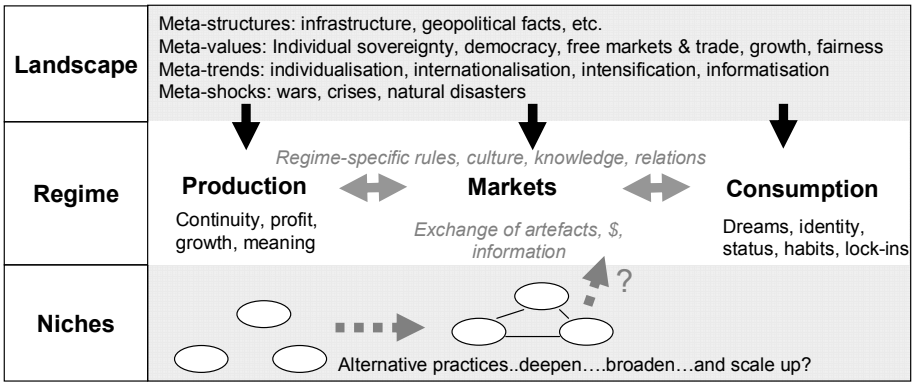
The development of an SCP policy agenda has been slow. This is probably no coincidence. Usually, realizing SCP means more than just diminishing an emission here, or re-designing a product there. Change means that often production, market interactions and consumer behavior must be adapted at the same time. But such 'systems' usually contain a lot of inertia.

A useful think model is the following (see figure 2.1). First, one can see production, markets and consumption as a 'regime' of an interdependent and co-evolving set of technologies, symbolic meanings, services, consumer practices, rules, interests, financial relations and expectations It is difficult to change one part without the rest. Urban sprawl, two income families and often bad public transport imply that in many Western countries a car is indispensible for reaching work, or even having a good quality life. Second, this regime is embedded in a 'landscape' context consisting of meta-trends, meta-values, meta-structures, and meta-shocks. Such 'meta' factors usually can't be influenced directly by actors in the regime on short term, and usually hinder change too. For instance, the dominant paradigm of free markets and free consumer choice makes it implausible that on short term SCP policies will be accepted that intervene directly in consumer preferences. The stability provided by landscape and regime often imply that radically different production and consumption practices are confined for a long time in niches. Examples are car-sharing organizations, the use of organic food, etc.

This think model can also help to find tensions or 'cracks' in the system that can make stimulating changes easier. Such 'cracks' can be: internal tensions in the production-consumption regime, or misfit between regime and landscape, and can have a normative and operational dimension. Examples include a production structure evidently based on labor exploitations in the South (misfit with ethical meta-values), or a sector practicing agriculture in greenhouses, that due to rising energy prices becomes too expensive (operational misfit). When promising niches are available that have matured (deepened) and got connected (broadened), and at the same time 'cracks' develop or 'shocks' in the landscape occur, pressure on the regime may become so high that rapid change may become possible (niches 'scaling up'). The regime breaks down, and niches plus the remnants of the existing regime will develop new structures, which eventually will stabilise and form a new regime[5].

[5] In business, it is not unusual that visionary mainstream firms sow the seeds for niche innovations that later enable them to re-invent themselves. See for outstanding discussions on this issue Gary Hamel and C.K. Prahalad's 'Competing for the Future' (Harvard Business School Press, 1994) and Clayton Christensen's 'Innovator Dilemma' (Harvard Business School Press, 1997).

Figure 2.1: The production-consumption regime embedded in a landscape context and with competing (niche) practices



2.3.2 Green consumers and businesses, plus policymakers, should create a triangle of change.

Green consumers and green businesses can do a lot to foster changes to SCP And markets to some extent will start to reflect scarcity of resources and other sustainability problems providing incentives for some change. There are great examples where businesses succeeded in making their value chains sustainable, or where consumers developed sustainable practices (see box).

But the systemic nature of the SCP challenge implies that relying on business and consumers alone has its limits. These actors are trapped in systemic interdependencies. Bottom-up and market based action can only result in lasting fundamental change if backed up by top-down support and framework change. Policy makers hence can't 'outsource politics' but must do their bit, and collaborate with business and consumers to make things work, creating what the UK Sustainable Consumption Roundtable calls a 'triangle of change'.

The role – and limits- of business and consumers in change to SCP

Business is probably best placed to respond positively to sustainability challenges via radical innovative products and services and related new business models. Their drive for efficiency gives them a natural role in making production and products more resource efficient, and the history of e.g. the Marine Stewardship Council, Responsible Care, and similar schemes shows that business is well capable of promoting sustainability values in their supply- and downstream chains. This is now generally known as the *sustainable value chain* concept. Yet, the competitive market system also rewards companies that make people dependent via the promotion of greed, fear, and addictions, that externalize costs, and draw hitherto freely available non-market goods into a market context .

Consumers can exercise sustainable choice or promote sustainability values, or even develop novel production and consumption structures via grassroots action. This can be stimulated via informative instruments and campaigns. However, consumers are for a large part 'locked in' in infrastructures, social norms, and habits that limit consumer choice in practice severely. Consumer behavior change is only likely if three components are addressed simultaneously: motivation/intent, ability and opportunity. The alternative opportunity should at least be as attractive as the existing way of doing things – not only in terms of functionality, but also in terms of immaterial features such as symbolic meaning, identity creation, and expression of dreams, hopes and expectations. Relying on e.g. informative instruments only is hence usually utterly insufficient .

2.3.3 Differentiate tactics by the nature of resistance to change

Large scale change usually is only possible if actors align to create a critical mass in favor of doing things differently (unless one single crucial 'node' or 'gatekeeper' is present controlling stability in the regime). The power, interest/desires/beliefs, but also the legitimacy of the position, then determines the position of an actor and its success in defending it. It is hence essential to understand the nature of resistance to change, and to adjust tactics accordingly (see table 2.1).

In line with the systems perspective on change to SCP presented before, we can discern three archetypical situations:

1. There is agreement on the direction or goal of change, and also knowledge on how to realize change. This is typically the situation where proposed measures are compliant with meta-factors at the landscape and acceptable for players in the regime – for instance, since 'cracks' made obvious that change has to take place. Here, the problem is mainly a matter of identifying best (policy) practices, broader diffusion and implementation, and overcoming resistance of laggards. This resistance can be tackled by articulating their malperformance, and the urgency of solving the 'cracks'.
2. There is agreement on the direction or goal of change, but how to do it is unclear. Here, there is a shared sense of urgency caused by the 'cracks' in the system, but little more. The main problem is problem is developing, testing and selecting means, and stimulating their scaling up.
3. There is disagreement on urgency, goals and means. This usually is the case when proposed change is desired that goes against existing 'meta-factors' like the paradigms of free market, free trade and consumer sovereignty. Actors opposing change hence have a strong legitimacy. Heads on conflict usually ends in stalemate and change is only possible after a 'mental' (or other) revolution. Here, deliberative processes, research supportive for the legitimacy of change of existing meta-visions or paradigms, or experiments showing the viability and value of alternative ways of doing things may be tactics to be pursued.

Table 2.1: Tactics for change to SCP by the nature of resistance to change

	Example	Agreement on goals and means	Agreement on goals, means unclear	Goals contro-versial
Tactics		Implement best practice	Experiment to find direction	Build critical mass with new mindset
Articulate sustainability values, and (future) problems in realising them	OECD Energy Outook, Ecological footprint studies	0	++	++
Implement best practice measures at key leverage points in the system (voluntary or formal)	Energy Performance demands of buildings, CO2 compensation schemes	++	0	--
Experiment with and learn from new concepts	Dongtan Ecocity development	0	++	++
Promote and enlist mobilising icons, champions, visions and other support	Clinton's Climate Change Initiative, Global Compact	0	++	+
Enhance paradigm challenging evidence base	Happy Planet Index study, Beyound GDP conference	0	0	++
Reflect, evaluate and exchange experience	Marrakech Task Forces	++	++	++

2.4 Implications: towards a Framework for Action

The implications of the findings above are fourfold if one wants to develop a Global Framework for Action on SCP. The core is formed by actor-oriented and sector oriented programs that focus on learning how to realize best a generally accepted direction of change, using the tactics and activities suggested by Table 2.1. An agenda-setting program is needed for issues that are still too controversial too tackle heads-on. These three groups of programs are complemented by a set of general programs of developing action plans, monitoring, networking, and involving 3rd parties relevant for implementing the SCP agenda.

Firstly, **general programs** are needed that

- support or guide countries or regions in developing national or region specific action plans. Where it is likely that the generic aspects listed below are relevant in all cases, the specific priorities and approach will differ per region.
- develop metrics for 'best SCP practice' and monitor progress
- support networking and brokers access to financial and technical support
- develop outreach to 3rd parties relevant for implementing the SCP agenda

Secondly, **content oriented programs** are needed that support activities of **the actors** in the triangle of change

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Thirdly, **content oriented programs** are needed that focus on the specifics of **priority production-consumption chains**:

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Fourthly, **agenda-setting activities** may be needed for topics that currently are 'too hot to handle': issues that are not yet 'mature' for broad supportive action by the triangle of change, simply since there is fundamental paradigmatic disagreement about goals, and about how to move forward.

A program like this would address in a logical way the most important actor groups, production-consumption chains, and gives a generic umbrella for global co-operation and how regions can tailor actions to their specific needs. Since that point is fairly obvious. Where there is no doubt that in practically all countries in the world the actors and priority production-consumption chains are identical, the context in which action has to be developed will differ hugely. Developed economies are relatively less flexible, and must learn how to do more with less. Fast developing economies are in a state of flux, and should use all available opportunities to avoid the mistakes of the West, and leapfrog directly to sustainable production and consumption patterns. Base of the pyramid economies face yet another challenge: where the vast majority of their population lives on just a few dollar a day, there the prime objective is to ensure that basic needs are met, and develop from there.

3 Pillar 1: General Programs

3.1 Developing target-oriented national or regional action plans

3.1.1 The topic

The general framework presented in this document probably has a generic value. The triangle of change consists always of business, citizens and policy. The production and consumption chains with the highest environmental impacts are probably in any country built environment and buildings, mobility and food. Still, how to implement an SCP program means in Europe a different thing as in e.g. in Asia or Africa. Societal contexts, the societal and economic dynamics, and existing infrastructures differ hugely. This implies that activities, measures and potential targets supporting the realization of SCP have to be tailored to the region or the country.

The proposal obviously is not to develop a purely bureaucratic exercise or a paper tiger. The suggestion is that countries or regions translate the general challenge and framework for realizing SCP to their specific context. This translation can be concise and should be concrete. Many countries or regions already develop generic sustainable development strategies. Activities, measures and potential targets with regard to SCP can well be included in these.

3.1.2 Examples of activities and relation with existing activities

Within the Marrakech Process, UNEP and UN DESA already develop a lot of activities that support the development national or regional action plan. This is reflected by e.g.

- the regional and global expert consultations that take place bi-annually
- the support for the 10 YFP of Africa
- the project SC.Asia, where over a dozen Asian countries were involved
- the UNEP project on Guidelines and Indicators for National SCP action plans

Though not formally part of the Marrakech Process, another example is the inclusion of SCP as a key point in the EU Sustainable Development Strategy, and the development by the EU of Action Plans on SCP and Sustainable Competitiveness.

3.1.3 Suggestions for implementation

This program element is already well covered by existing activities of particularly UNEP and UN DESA, and probably needs just an incremental adaptation. The current regional and global expert consultations organized in the context of the 10 YFP are experienced as relatively 'non binding'. Focusing such events on more concrete outcomes, and potential outlines of regional action plans, is recommended. For countries and regions needing this, brokering access to financial support for development of Action plans may be needed, like was e.g. organized by the UN in the case of the SC.Asia project.

3.2 Monitoring progress and developing stimulating metrics for success

3.2.1 The topic

No learning without monitoring and no progress with at least a sense of direction where to go. There is hence a clear need for monitoring progress, and if possible, also for developing metrics for success. Such monitoring can have a process element (is there the right infrastructure, and do the right activities take place) and a target/content element (is there progress to generally accepted goals). Such monitoring can take place at national or regional level, but also at international level. The latter makes international comparisons possible, something that has proved its value already for a long time in the field of economics and innovation (e.g. the OECD Innovation Outlooks, comparing the innovation strength of countries).

Setting 'targets' with regard to SCP tends to be a problem in the international policy arena. For instance, in its consultation document for the SCP Action Plan the EU cautiously suggests as target, that the resource productivity should rise equally fast as economic growth (implying a stable resource input into the economy). It remains to be seen if such targets will survive the policy process in the EU, and also the tense discussions around whether or not to adopt e.g. the Kyoto targets.

Some typical problems in target setting with regard to SCP
This document is not the place to give an extensive exposé with regard to the reasons behind the difficulty of target setting in an international context, but some points can be highlighted. First, there is a huge discrepancy in wealth, and therefore impact per capita, between countries. From an equity point of view it is hence quite justified that less wealthy countries should be allowed to enhance resource use and impacts, implying that wealthier countries should reduce more than average. Second, targets probably cannot be determined totally impartially. The continuous debate about the seriousness of climate change and the frequent struggle about fish quota are clear examples. Third, quite some potential targets – if sincerely complied with – will form genuine constraints for economic processes, and maybe even consumption activities. This is in sharp contradiction with the dominant mantra of 'free markets' that only accepts market- and no policy constraints with regard to economic activities.

3.2.2 Examples of activities and relation with existing activities

At global level, monitoring of SCP and related targets is not yet well developed. Bottom up initiatives by private parties, NGOs and/or individual governments have resulted into e.g. comparative analyses of resource productivity of countries[6], Ecological Footprint assessments of countries, and the so-called Happy Planet Index. Lead roles in such initiatives were played by e.g. WWF, the Global Footprint Network (GFN), Resources for the Future, the new economics foundation, and the World Resources Institute. These organizations have shown time and again how important metrics are in stimulating progress to SCP. For instance, the Ecological footprint of GFN, an organization with not any government related status, is in many places of the world a clear stimulus for measures realizing SCP. The Global Reporting Initiative showed the importance of such monitoring at company level.

Where monitoring functions are performed, it is striking that many organizations are placed 'at distance' from policy making. This is for instance the case with the European Environmental Agency and national Environmental Protection Agencies in the EU and EU member states. The OECD plays an important and authoritative role in the evaluation of economic performance and economic competitiveness of affiliated countries. The International Energy Agency performs a similar authoritative monitoring and foresight role in the field of energy.

3.2.3 Suggestions for implementation

The monitoring function for progress to SCP is suggested to be placed outside UNEP and UN DESA. Since it is unlikely that resources will become available that can support an extensive staff, it should be organizes lightweight, but the examples of the Global Footprint Network (GFN) and others shows that this is probably possible. One could consider organizations like the EEA, certain NGOs, and CSCP to play a role in this monitoring function. The recently established International Panel on Natural Resource Management may be used as a platform to co-ordinate research into and discuss potential targets with regard to SCP.

3.3 Networking and brokering access to knowledge and financing

3.3.1 The topic

Many countries have ideas or needs with regard to SCP policies and implementation, but lack the finances, knowledge or institutional capacity to implement them. Brokering access to knowledge and financing, and networking to facilitate experience exchange are the logical answer to this problem.

3.3.2 Examples of activities and relation with existing activities

In the financial field, there is a whole array of programs and support structures that in principle can help. Examples include the Global Environmental Facility, EU funding programs like Asia Pro-eco and Switch Asia, and a great number of private charities in the US. A well organized Framework for Action on SCP in fact provides such donors with a coherent agenda of useful activities and projects to be implemented, and helps the demand side to present itself in a better structured way as at this stage.

The brokering and networking function already takes place, but somewhat implicitly. There is no doubt that the topic-oriented Marrakech Task Forces have an important brokering and networking role. The same applies to the bi-annual 10 YFP expert meetings at international and regional level. On many topics relevant for SCP, networks already exist, including in the UN system. Scientists already have organized themselves in regional Roundtables on SCP. Additionally, the so-called Cleaner Production Centres and their network, supported by UNIDO and UNEP, can play in important role.

3.3.3 Suggestions for implementation

The conclusion here is that UNEP and UN DESA already facilitate in many ways a networking and brokering role, and that it is mainly a matter of making more explicit and better structured. The UNEP/UNIDO Cleaner Production Centres can play a role in technical brokering. A proposed SCP research initiative collaborating with e.g. the European and Asian Pacific Roundtables on SCP can structure scientific research. The mere development of a well formulated and coherent Framework for Action of SCP is key in financial brokering and programming support. Networking activities should become more focused and more coherently organized, making use of existing networks where relevant.

[6] The Weight of Nations report, lead by RFF.

3.4 Outreach to 3rd parties

3.4.1 The topic

This topic is related is partially related to the former issue. Many other agencies and bodies in the international arena perform activities that are related to SCP. Clear examples are the United Nations Development Program, National Development Agencies, the World Bank, Development Banks, etc., who all have a role in stimulating economic development in less privileged regions of the world. Internalizing sustainability principles in their work obviously is of high value for the SCP agenda.

3.4.2 Examples of activities and relation with existing activities

The current Marrakech Process already includes an activity in this field, the so-called Co-operation dialogue. Such dialogues can be continued and expanded to other relevant parties.

3.4.3 Suggestions for implementation

Compared to the current situation, not much has to be changed. Current activities can be continued and expanded to other relevant parties.

4 Pillar 2: Programs supporting actors in the Triangle of Change

4.1 Introduction

The concept behind the second pillar is that in general there are three key actors that have to work together to realize change to SCP: business, consumers, and citizens. All these actors have proven to be capable of actions stimulating change to SCP, but it is also clear that none of them can realize the change in full on its own. As put the by the UK Sustainable Consumption Roundtable: it is the 'Triangle of change' that has to do it, with actions by individual actors that re-inforce actions of the others.

The main added value of a Framework of Programs at global level is to organise reflective platforms for such actor groups. The Task Force model already set up in the Marrakech Process is very useful for this and hence recommended as main implementation mechanism.

4.2 Business: Sustainable value chains

4.2.1 The topic

Business is probably best placed to respond positively to sustainability challenges via radical innovative products and services and related new business models. Their drive for efficiency gives them a natural role in making production and products more resource efficient. Concepts and approaches include e.g. the Marine Stewardship Council, Responsible Care, sustainable design, choice editing, sustainability marketing, business models supporting sustainable life styles, base of the pyramid business models, self-regulation via codes of conduct and similar schemes. They show that business is well capable of promoting sustainability values in their own business, and supply- and downstream chains. This ensemble of sustainability management in business networks is now generally labeled as the 'sustainable value chain' concept

4.2.2 Examples of activities and relation with existing activities

Next to the examples mentioned above, and numerous other the 'sustainable value chain' initiative of UNEP-SETAC Life cycle Initiative and the World Business Council for Sustainable Development (WBCSD) is probably one of the most relevant activities for this topic. The aim of the program is to promote, assist and support life cycle thinking and life cycle approaches – including life cycle management – among WBCSD member companies and their suppliers, customers and value chain partners for the sustainable innovation and global trade of more sustainable products.

4.2.3 Suggestions for implementation

It is most logical to build further upon the WBCSD/UNEP-SETAC sustainable value chain initiative and similar actions. With this as reflective umbrella, the following activities are suggested that can be executed by business in collaboration with other stakeholders:

- developing convincing experiments and examples with tools and approaches supporting sustainable value chain management, and gaining experience with the concept
- reflection and improvement of the concept, and analyzing how implementation of the concept can be supported
- dissemination and stimulation of best practice

4.3 Consumers: sustainable lifestyles, education and bottom-up social experiments

4.3.1 The topic

There is a vast array of examples showing that consumers and citizens can be drivers for change to SCP. It concerns well known and visible actions like boycotts and consumer pressure on companies. We see also that – often tacit – sustainability-related consumer values form an important driver for business to 'green' their supply chains and embark on social responsibility programs. In some cases, citizens/consumers also form a main factor behind bottom-up change, by the development of new models of need fulfillment. Examples here are e.g. car sharing organizations, community buying groups, etc., that in most cases started as grassroots citizen initiatives.

This change to what sometimes is called 'sustainable lifestyles' is however not easy. Consumers are for a large part 'locked in' in infrastructures, social norms, and habits that limit consumer choice in practice severely. Consumer behavior change is only likely if three components are addressed simultaneously: motivation/intent, ability and opportunity. The alternative opportunity should at least be as attractive as the existing way of doing things – not only in terms of functionality, but also in terms of immaterial features such as symbolic meaning, identity creation, and expression of dreams, hopes and expectations [56]. Relying on e.g. informative instruments only is hence utterly insufficient.

4.3.2 Examples of activities and relation with existing activities

Next to the examples already mentioned, the following initiatives focus on this topic. First, world wide, there is an immense array of grassroots organizations stimulating sustainable behavior and lifestyles, such as the Centre for a New American Dream in the US. In Europe, the EMUDE and Sustainable Everyday projects give examples of new 'local-based and network-structured (distributed) economies' and 'creative communities' that could enhance bottom-up actions. The idea behind EMUDE and the Sustainable Everyday project is that such promising signs of new solutions and change can be improved and made stronger over time, so that at one moment they will provide more viable and appropriate solutions for problems than what was hitherto mainstream. Mainstream examples include labeling activities and the work of consumer organizations supportive of sustainable consumer choice (e.g. the German 'Oeko Test Magazine).

Within the Marrakech Process, the Task Forces on Sustainable Life Styles and Education for Sustainability form the most important nodes in this area.

4.3.3 Suggestions for implementation

It seems most logical that the existing Marrakech Task Forces on Sustainable Life Styles and Education for Sustainability form the umbrella for networking, brokering, initiation of projects and reflection on this topic. Depending on bottom-up funding provided, the following activities could be considered:

- developing convincing experiments and examples of bottom up change to SCP initiated by consumers / citizens
- reflection and improvement of the concept, and analyzing how implementation of the concept can be supported
- dissemination and stimulation of best practice

4.4 Policy: Policy tools and programs

4.4.1 The topic

Green consumers and green businesses can do a lot to foster changes to SCP. And markets to some extent will start to reflect scarcity of resources and other sustainability problems providing incentives for some change. But all evidence shows that since actors are trapped in systemic interdependencies, such routes for change have limits. Bottom-up and market based action can only result in lasting fundamental change if backed up by top-down support and framework change. Policy makers hence can't 'outsource politics' but must do their bit, and collaborate with business and consumers to make things work, creating what the UK Sustainable Consumption Roundtable calls a 'triangle of change'.

The question how policy can support effectively the change to SCP by stimulating sustainable markets, sustainable innovation systems, and sustainable behavior of companies and consumers is complicated. A platform for reflection and experience exchange on the use of tools, instruments and approaches is hence highly relevant.

4.4.2 Examples of activities and relation with existing activities

There are countless research groups, projects and programs that try to assess the effectiveness of policy tools and programs. Many countries (including the EU) demand an ex-ante impact assessment of the effectiveness of policy tools and programs. At EU level, two dedicated projects aim to analyse and assess what policy instruments are most effective in stimulating SCP[7]. Instruments may include classical regulatory and economic instruments, informative instruments, but also indirect instruments

[7] It concerns the FP6 funded SCOPE and ASCEE projects (2006-2008)

like green public procurement, the development of lead markets, and other measures that green the innovation system or support a more sustainable development trajectory of economic systems.

In the context of the 10 YFP and the Marrakech Process, one Task Force is active in this field, concentrating on Sustainable Public Procurement.

4.4.3 Suggestions for implementation

The Task Force concept is probably the best way or organizing international experience exchange, knowledge brokering, financial brokering and initiation of experimental and testing projects. The strength of the current Task Force on Green public procurement is that it concentrates on a well-defined topic, which helps obviously realizing concrete outcomes. The field of policy tools and programs is obviously much broader than this.

It hence is probably appropriate to set up an umbrella with a set of Task forces covering specific policy instruments or problems.

5 Pillar 3: Sector oriented programs – dedicated by region

5.1 Introduction

The concept behind the third pillar is that invariably a limited number of production-consumption chains are the most important ones from an SCP perspective. Change in such chains can be fostered by developing ideas for change, testing the value of such concepts on small scale in practice, linking them and reflecting on them, analyzing how scaling up can be supported, and maybe fostering larger scale demonstration programs where useful. This pillar is the place that articulates promising and shining examples of how to do things different, and to connect the actor groups part of the triangle of change in practice. The Task Force model already set up in the Marrakech Process is very useful for this and hence recommended as main implementation mechanism.

Here, least a differentiation by production and consumption chain is suggested. It is obvious that solving problems in the field of built environment will need a different approach as, say, solving problems in the field of electrical and electronic equipment. The business actors, consumption practices and societal contexts differ highly. A further division by type of economy may be relevant too. Particularly for production-consumption chains that have a strong local character, problems and solutions will be strongly determined by the strong local context. Where for instance sustainable building programs in China may have strong resemblance with those in Europe or the US, solving housing problems in rural Africa definitely will have a fully different character. A further regional differentiation hence may be needed too, and it is probably a matter of taste what should dominate: a division by region, or division by type of production-consumption chain.

5.2 Built environment and housing

5.2.1 The topic

Built environment and housing are key areas for sustainable consumption and production. In developed economies, people spent most of their time indoors. The area is responsible for the vast majority of resource and energy use in modern societies (typically some 30-40% of total energy use and a main part of primary material use). Creating housing and built environment systems that are energy neutral can provide a massive contribution to SCP, e.g. in the form of climate change goals. Many examples at the level of individual houses and in some cases quarters have shown such energy neutrality already can be realized technically. These opportunities are however not implemented broadly yet. Another problem in developed economies is that most of the housing and utility building stock needed has been built already, and retrofitting old building stock is complex. Determining factors on material and energy environment include the number of people per household, the size of houses per household, heating technologies, etc. These are all related to technical topics or broad societal trends, and individual consumer behavior change probably can only have limited influence.

In many developing and emerging economies a high part of the population still lacks proper housing with basic sanitary facilities. In many of such countries a massive immigration from the countryside to cities takes place. This fuels demand for new housing and utility stock. The threat is that this pressure is translated in a quick building of houses that have e.g. an inferior energy performance. At the same time, in theory the fact that most of the building stock still needs to be realized gives a huge opportunity to ‘leapfrog’ to a low-energy and material intensity built environment.

5.2.2 Examples of activities and relation with existing activities

Many countries have their illustration projects of individual houses, offices, or quarters that are by and large energy neutral. In the EU most countries support the building of low-energy housing by energy performance requirements and sustainable building guidelines. Probably one of the most exciting examples globally is Dongtan Ecocity in China. Acknowledging that

millions of peasants will become city dwellers in the next decades, the Chinese developed the vision that the new cities to house them should be as sustainable as possible – probably the only way to avoid that their economic growth will be stopped due to resource scarcity and pollution. The cities are planned to be ecologically friendly, with zero-greenhouse-emission transit and complete self-sufficiency in water and energy, together with the use of zero energy building principles. This initiative forms a massive learning by doing exercise, guided by principles like energy-neutrality and self-sufficiency [

At international level, UNEP's Sustainable Building Initiative and the Marrakech Task Force on Sustainable Buildings form platforms for companies and policy makers to discuss the topic. UN Habitat is a dedicated UN organization supporting the development of qualitative good housing systems in the developing world. Numerous other organizations discuss the topic during conferences and collaborative projects[8].

5.2.3 Suggestions for implementation

The Task Force concept is probably the best way or organizing international experience exchange, knowledge brokering, financial brokering and initiation of experimental and testing projects. Ideally, the different activities supported by the UN (or at least UNEP) in the field of sustainable housing are aligned under one umbrella.

5.3 Mobility

5.3.1 The topic

Mobility is another one of the 'big three' on the SCP agenda. In most developed countries this area causes 20-30% of the environmental problems. Globalisation has resulted in a class of 'supercommuters', i.e individuals regularly travelling between work places in different countries. And where currently air traffic counts for just a tiny percentage of the global warming problem, growth is so fast that in a few decades it will become a major factor. As for cars, urbanized areas in most parts of the world are infamous for their gridlocked traffic and air pollution. Growth of traditional car based transport systems seem almost unstoppable: markets in China and India are huge. Where in the developed world car manufacturing has become a mature (and almost marginal) business, production in and export to such growth markets is still booming business. There is hence a real threat that in the fast developing countries transport systems are being developed with the same negative characteristics as exist in developed countries.

5.3.2 Examples of activities and relation with existing activities

There are examples where bright policy makers and city planners created a different history. Curitiba, a major city in the South of Brazil, in the 1960s took the strategic decision to base further city development on principles like minimizing urban sprawl, keeping the historic district intact, and to use an cost-effective express bus system as the back bone for mass transit. The approach was so successful, that now 60% of the travel in the city takes place via the public bus system. The city itself is one of the most livable in Brazil. Hong Kong and Singapore reached similar success in ensuring that public rather than private transport takes on the brunt of the modal split. A good example of influencing consumption patterns indirectly.

Mobility seems to be a blind spot in the current UN and UNEP activities with regard to SCP, although it gets attention in other units in the UN system.

5.3.3 Suggestions for implementation

The Task Force concept is probably the best way or organizing international experience exchange, knowledge brokering, financial brokering and initiation of experimental and testing projects.

5.4 Food

5.4.1 The topic

Food is the final of the 'big three' in the area of SCP. Food cultivation, production and processing is responsible for major contributions on water use, global warming, land use, and eutrophication. Indeed, where food production once was a source of energy for humans, most modern agricultural systems demand now more fossil energy input than the energetic value of the food output. Another concern is the social dimension. Most food chains now are globalised, and invariably only a small part of the added value created in such chains is controlled by low-income countries. In such countries, this often leads to the situation that minimum social and environment, health and safety conditions cannot be met due to lack of finances. Tariff barriers in industrialized countries put pressure on prices for food exported by low-income countries.

[8] For example: Asia-Europe Environment Forum (ENVforum) 5th Roundtable: "Achieving Urban Sustainability: Integrated Environmental Management", Shenzhen, China, 28-30 November 2007

Furthermore food consumption and diets are connected to divers cultural and even religious issues, are closely related with health aspects and geographical as well as climatic conditions. Food production is directly connected to climate change issues, not just in terms of meat and diary products having high global warming potential, but also the impact of climatic changes is already influencing agricultural production, most of the time in a negative way. The area of food thus is a bit different from most other consumption fields and sectors, because humans could in principle live without (car-based) mobility but not without food.

5.4.2 Examples of activities and relation with existing activities

There are of course numerous activities with regard to developing innovations in the agricultural system. They are typically lead by agricultural universities, and organizations like the FAO. More interesting for an SCP program are activities that stimulate the promotion of consumption and markets for sustainable food products. Here, numerous promising examples exist. Many of the best illustrations of the 'sustainable value chain' concepts can be found in the food area. Retailers and food producers stimulate sustainable food production and fishery via certification schemes like Max Havelaar, GlobalGap (food in general), Utzcertified (coffee), and the Marine Stewardship Council (fish). Certain retailers are important promoters of biological food via the application of 'choice editing' – making sure that certain foodstuff meets specific ecological and social targets, or by having own targets with regard to the turnover of ecological food. Consumer lead initiatives play a role too, as do initiatives like the 'Slow food movement', etc. One of the problems in the approach to SCP in the agriculture and food domain is the lack of a clear definition of what is sustainable food and agriculture. There are still a lot of discussions going on between attempts to green the mainstream agricultural system (including by the use of GMOs), and the traditional green movements of organic and bio-dynamic production and processing. Fair trade, social issues and food miles discussions are adding on to the complexity of defining what really sustainable agriculture and food would mean in different parts of the world, or even by different groups in the same part of the world.

5.4.3 Suggestions for implementation

The food area is not explicitly covered by current activities related to the 10 YFP on SCP. . Thus it would make sense to start an own Marrakech task force on agriculture and food. However, given the research and policy infrastructure that exists at global level (e.g. in the form of the FAO), it is the question to what extent a 10 YFP on SCP can be a dominant factor in directly structuring change in food production. Thus another or additional strategy may be external integration: using the program 'outreach to third parties' to internalize sustainability aspects in programs directed towards innovation with regard to agriculture.

With regard to applying the sustainable value chain and sustainable life style concepts to the food area, the situation is probably different. Setting up a Task Force that identifies, tests, and reflects upon options for greening food markets, habits and value chains probably has added value.

5.5 Electronic and electrical equipment

5.5.1 The topic

After energy use for heating, electronical and electrical equipment are the main energy consumers in residential areas. They also tend to contain a large array of small amounts of often scarce heavy metals, and sometimes flame retardants. All these substances may form a problem in the waste stage.

5.5.2 Examples of activities and relation with existing activities

This area is probably the most important one where the concept of ecodesign has been applied. Improving the environmental performance of electrical and electronic problems also has been subject to a host of stimulating measures. The EU has launched directives on Energy using products, the Restriction of Hazardous Substances, and waste of electrical and electronical equipment. Japan has put in place a Green purchasing law. The EU and US have energy labeling schemes. Etc.

In the context of the Marrakech process, a UK Task force on sustainable products is active. This Task force mainly focuses on electrical and electronic products, and exchanges best practices on stimulation of policies that help to reduce energy use of such products.

5.5.3 Suggestions for implementation

The Task Force concept is probably the best way or organizing international experience exchange, knowledge brokering, financial brokering and initiation of experimental and testing projects. The existing task force, with probably a slightly broader scope and more resources, could fulfill this need.

5.6 Other (water, waste, tourism, clothing)

There are other production consumption chains with less impacts as the main 4 listed above, but that are still significant and that have an important international dimension. It concerns tourism and clothing. Apart from this, in specific countries specific sustainability problems may need dedicated attention (e.g. water, waste).

A framework of action can be easily overburdened and focus is necessary. If however a need exists to organise further action and exchange on such topics, also here the Task force concept is appropriate, as illustrated by the France-lead Task Force on Sustainable Tourism that is already operational.

6 Pillar 4: 'Too hot to handle' – Paradigm changes

6.1 Introduction

Pillar 1, 2 and 3 focus on two forms of change. First, they focus on the easy things: looking for the best way of implementing measures that all parties by and large agree upon. Second, they focus on problems where agreement exists on goals, but it is not yet clear how to do it, and where learning strategies are needed.

The final block in the program focuses on the more difficult issues to tackle. There is no agreement on goals, or they really require discussion of widely held beliefs and paradigms in society. It concerns informed deliberation on issues such as

- the underlying growth engine in our markets. Shouldn't we strive for 'de-growth'?;
- how and if markets contribute to fairness and equity. Shouldn't we apply the principle of free markets a bit more balanced?
- how consumption supportive to sustainability can be discerned from consumption that is destructive for institutions and non-market goods providing quality of life. Should we really accept consumer sovereignty when it in fact harms?;
- how to develop novel and dematerialized ways of realising social aspirations and how this relates to novel business models ;
- how to maintain a fair power balance in the triangle of business, government and consumer (e.g. by questioning the role of advertising and media).

All these issues pose fundamental questions about the way how our market based economic system works and about the institutions that have been developed to support it. They hence tend to be quite controversial and it is very unlikely that clear approaches can be agreed upon, certainly at a global level.

6.2 Suggestions for implementation

The fact that issues are controversial does not mean, though, that they should be left out of a Framework of Action. Deliberative and agenda setting activities can be very useful. Gathering credible evidence of how consumption and production systems can be organized more efficiently in providing quality of life showing inspiring examples of alternative ways of doing things that may affect current paradigms and views are tactics to be pursued.

Currently, such activities are mainly organized by advocacy groups, alternative scientific think tanks or other 'mavericks'. The UK think tank new economics foundation promotes new metrics for economic progress. The US Centre for a New American Dream promotes radically different life styles, based on quality and slowness. The International Society for Ecological Economics endorses thinking on 'de-growth'. There is however no reason why formal institutions should shy away for supporting such activities. With EU support various very successful conferences were organized on e.g. topics like 'Beyond GDP'. There is no reason that such fundamental discussions cannot be organized with authoritative thinkers at global level, under the patronage of an international institution. Indeed, one could argue that a formal UN supported body like IPCC did a fair bit to change thinking about climate change, and the recently installed International Panel on Natural Resources may play the same role in future for resources in general.

The Happy Planet Index: challenging the paradigm that all growth brings well-being

The Happy Planet Index (HPI) 'measures the ecological efficiency with which, country by country, people achieve long and happy lives. In doing so, it strips our view of the economy back to its absolute basics: what goes in (natural resources), and what comes out (human lives of different length and happiness).' The HPI suggests strongly that above a threshold, high footprints (related to high consumption per capita and high GDPs) are no precondition for a high quality of life. One could even go that far that having a very high GDP (and hence footprint) per capita is no sign of progress, but rather a sign of inefficiency in providing what truly matters: countries with equal quality of life and life years may differ up to a factor 4 in footprint. Once the factor determining this difference are better understood – and shared – this will give important guidance of how to structure patterns of consumption and production.

Source: www.neweconomics.org

7 Review: Potential mechanisms for implementation

7.1 Suggested leadership and implementation per program

The table below recapitulates the main mechanisms for implementation. By and large, we foresee a structure very much in line what already exists. The core is formed by content oriented programs organized around a number of country lead Task forces, and general programs in line with existing UNEP activities. The main point is that here a logical and coherent structure of activities is proposed, which for instance can be helpful in negotiations with donors or initiators about what additional Task forces should be supported, etc. Furthermore, this document forms in fact a plea to organise available resources more efficiently and in the context of a common framework. A 10 YFP on SCP by nature has a wide scope and cannot but form a strategic umbrella for supportive actions towards sustainability. This implies in turn, that a 10 YFP on SCP cannot but form a important and probably dominant framework for organizing the activities of UNEP itself[9]. The potential for this alignment seems not yet exhausted and anchoring the 10 YFP at a hierarchical higher level than in the current situation probably would be helpful.

The main thrust of this document is hence seeking a more efficient organization of the use and alignment of resources, than a plea for extensive allocation of new resources. The main exceptions may be the activities with regard to monitoring and metrics, and the agenda-setting activities, which are new compared to the current situation. Most other activities probably can already be executed with the allocation of a few additional fte at UNEP and UN DESA, a smart use of existing project funding opportunities (e.g. Switch Asia), and some additional donor countries willing to support a new Task force.

Table 7.1: Outline for implementation activities

Activity	**Potential leadership?**	**Additional effort?**
Pillar 1: General programs		
Support in developing national or region specific action plans.	UNEP/UN DESA	0
Develop metrics for 'best SCP practice' and monitoring of progress	New entity	++
Support networking and brokering access to finances, technical support, and scientific knowledge	UNEP, UNIDO Dedicated initiatives	+
Developing outreach to 3rd parties relevant for implementing the SCP agenda	UNEP/UN DESA	0
Pillar 2: Actor oriented content programs		
Business: sustainable value chains	WBCSD/UNEP-SETAC Life cycle initiative	+
Citizens/consumers: sustainable life styles and related education	MTF Sustainable life styles and Education	0
Policy: effective application of policy instruments	Expanded MTF on Policy	+
Pillar 3: Programs for priority production-consumption chains:		
Built environment and housing	MTF Sustainable buildings	0
Food	New MTF	+
Mobility	New MTF	+
Electrical and electronic equipment	Expanded MTF Sustainable products	+
Other		
Pillar 4: Agenda setting activities	UNEP or new entity, in collaboration with NGOs and science	++

7.2 Specific recommendations per actor

Based on the outline above, the following specific recommendations could be given to specific actors in the SCP field.

UNEP and UN DESA

It is essential that a formal Framework of Programs on SCP is adopted now on short notice. That framework may be based on this proposal, or be totally differently structured. The important point is that a Framework is developed one way or another. This is essential for the visibility of the SCP agenda, but above all, for providing a structure for using the available resources for supporting an SCP agenda globally. In any form, a serious 10 Year Framework of Programs on SCP will address a major part of economic activities in society. It hence probably inevitably should be a structuring factor in the organization of activities of UNEP (or at least UNEP DTIE) itself and run by someone high in the UN/UNEP hierarchy, ensuring alignment of a variety of existing policy efforts in UNEP (or if possible even the UN system).

[9] The same applies of course in principle for the aligning SCP activities in the UN system as a whole. Yet, the complications of such an action may be so formidable that we do not recommend this as a first step.

UN CSD
The UN Commission for Sustainable Development reviews the 10 Year Framework of Programs on SCP in its 2010/2011 cycle. It is not realistic to expect that far-reaching measures with regard to SCP can be agreed upon at global level. Rather, we would suggest that the discussion in the CSD would be aimed at to:

- Agree on the main priorities, topics and issues relevant in a 10 Year Framework of Programs on SCP
- Recommend UN member states to use this 10 YFP on SCP as a guiding principle in setting up supportive programs in the field of sustainability
- Provide a clear high level mandate for an aligned execution of the 10 YFP of SCP by the UN system itself, and ensure that the various UN programs use this 10 YFP on SCP as guiding principle in their regular activities.

Donor countries and national policy makers
Experience shows that quite some countries are willing to assist in setting up activities relevant for the SCP agenda globally, or to fund experiments, research, monitoring, etc. A comprehensive and logically structured 10 YFP on SCP will help such supporters where their input is most useful, and how such input is mutually related. Where feasible, national policy makers should show leadership, and use windows of opportunity to create new rules, targets and institutions fostering change to SCP particularly in the priority domains food, mobility and built environment.

The NGO, Business and scientific communities
Also the NGO, business and scientific community can identify activities that fit best their natural role. For instance, when looking at table 2.1, science could support by doing studies articulating sustainability problems, or providing and evidence base that helps to change meta-values and –paradigms[10]. NGOs, business and scientists alike can develop and experiment with new concepts[11]. NGOs are traditionally well-placed to articulate credible (future) sustainability problems and shortcomings of current production-consumption practices, and in promoting champions and visions for change.

Colophon

This document is based on an informal change of thoughts among 6 persons from NGO and scientific circles engaged in the Marrakech process, and the SCORE! co-ordination team. It concerns:

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- More attention for the regional dimension (differentiation between high income, fast developing, and low income economies)
- More attention for concepts like leapfrogging
- More attention for the role of financial institutions and trade rules.

The final version most probably will be subject to professional language and text editing (by e.g. a journalist) and lay-out editing (e.g. by a graphic designer). Decisions about how to use and disseminate this document are still pending.

[10] A proposed 'Marrakech Process Research Initiative' can play an important structuring role in this.
[11] Obviously, a specific role can be played by the CSCP that could develop into a 'node' for developing specific concepts, as they already exemplify by e.g. the Human development through the market concept and related case studies. Other examples are WWF stimulating many SCP experiments at local scale, and the WBCSD that developed the sustainable value chain concept.