



2013 Economic and Social Council Integration Meeting

Achieving sustainable development: Integrating the social, economic and environmental dimensions

Monday, 13 May 2013
10:00 a.m. – 06:00 p.m.
ECOSOC Chamber

Concept Note

Background

The Outcome Document of the Rio+20 Conference gave ECOSOC the mandate to play a key role in the integration of the three dimensions of sustainable development; that is, economic, social and environmental. To this end, the 2013 ECOSOC Integration Meeting will explore ways to fulfil this important task at the global and national levels.

The case for sustainable development is well-known; it is the strong inter-linkages between economic systems, social structures and the natural environment. The effective functioning of each individual dimension depends on the effective functioning of the other two. If one or other dimensions are pursued separately, and the other dimension is ignored, this could lead to an ultimate loss in all three dimensions because of the inextricable linkages between them. Successful sustainable development therefore requires a development path with triple wins. For example, the pursuance of economic growth and social equity strategies while disregarding their impacts on the environment could mean that the benefits of such strategies are negated.

The interconnectedness of the economic, the environmental and social dimensions of sustainable development is well studied. However, the implementation of the resulting insights has proved to be a difficult task for policy makers at all levels. Identifying the appropriate mix of policy actions or instruments that ensure a balanced and integrated development of each dimension has been challenging at best. Successful integration of the three dimensions of sustainable development into policy will require an improved

science-policy interface, where policy-making for sustainable development is informed by the findings of scientists, experts and academia.¹

In the environmental field, the science-policy interface has advanced, as evidenced by the link between scientific assessment bodies and policy-making organs such as the Intergovernmental Panel on Climate Change, the United Nations Framework Convention on Climate Change (UNFCCC), the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and the Convention on Biological Diversity (CBD). More, however, needs to be done to strengthen research and science for sustainable development in all three of its dimensions and to establish a systematic and effective science-policy interface.

This Concept Note provides a succinct analysis of two sectors - energy and agriculture - to explore their potential to provide 'triple win' approaches to sustainable development. Using examples drawn from an analysis of these two sectors with science, technology and innovation as a cross-cutting dimension, the ECOSOC integration meeting will seek to identify ways in which integrated policy actions, some of which may involve short-term trade-offs in one dimension, may result in longer-term benefits in all three dimensions. It is all about changing the current development model to a more sustainable path.

Objectives

The meeting will bring together policy makers and key stakeholders, including Major Groups representatives and UN system organizations, to examine how science, technology and innovation (STI) can contribute to the strengthening of the science-policy interface and the integration of the economic, social and environmental dimensions of sustainable development so as to implement triple win solutions. It will draw on earlier AMR Regional Preparatory Meetings and the work of governments, industry, foundations, international organizations, selected UN system partners and independent experts.

The objectives of the meeting are to:

- 1) Serve as a platform to identify the potential short-term policy choices and longer-term gains inherent in an integrated and balanced sustainable development approach;
- 2) Facilitate a multi-stakeholder dialogue, integrating the views of major groups and improving the science-policy interface and hence the quality of ensuing policy recommendations; and
- 3) Develop a clear understanding of how STI relates to sustainable development and the elaboration of potential triple-win solutions, as well as identify policies to harness its potential at the local, national and international levels.

¹ Glaser, Gisbert, and Peter Bates (2011). Enhancing Science-Policy Links for Global Sustainability, International Council for Science (ICSU) for Stakeholder Forum 2012, available at <http://www.stakeholderforum.org/fileadmin/files/ICSU%20Science%20Policy%20Final.pdf> (accessed on 25 February 2013)

Outcome

The outcome of the event will be a summary by the ECOSOC President highlighting the main policy recommendations and providing guidance on integrating the three dimensions of sustainable development. The summary will be available for consideration at the Annual Ministerial Review in Geneva.

Context

Sustainable Energy

Economic: Energy access is fundamental to economic growth, improvements in livelihoods and the empowerment of women. Access to modern, affordable and reliable energy sources results in increased output, productivity gains and general improvements in the operational efficiency of industry. This translates into cost effectiveness and strengthened competitiveness.

Social: Realizing universal access to energy is a challenge, with 1.3 billion people lacking electricity to light their homes or businesses. Around 2.7 billion people rely on traditional biomass, such as fuel wood, animal waste, charcoal and agricultural residues, for cooking and heating. Another 400 million people cook and/or heat with coal. This makes a total of around three billion people who rely on solid fuels for cooking and heating. Enhanced access to electricity, fuels and cleaner cooking systems can be an effective tool for reducing indoor and outdoor air pollution, improving health, and combating hunger by increasing food productivity and reducing post-harvest losses. And, in particular, enhanced access to energy is vital for wealth creation.

Environmental: Not taking into account emissions from changes in land-use, energy production accounts for more than 70% of global greenhouse gas emissions. Increased use of renewable energy sources and clean energy technologies could substantially lower this percentage and contribute greatly to curbing climate change.

In analysing the effects of energy production and consumption on the three dimensions of sustainable energy, several triple-win models for the energy sector can be highlighted.

Various initiatives have established that it is possible to promote equal access to energy and thereby expand economic opportunities and foster social wellbeing without putting the environment under pressure. In Nepal, for example, 80% of the energy is produced using traditional biomass and 51% of the rural population, accounting for the vast majority of citizens, lack access to affordable electricity. The consequences of this lack of access are felt in increased deforestation, decreased health of the affected population, reduced economic opportunities and growing gender and social inequalities.

The Rural Energy Development Programme aims to turn this ‘triple loss’ into a triple-win situation by providing access to electricity through decentralized micro-hydropower plants.² In this case, the appropriate use of modern technology has so far resulted in the

² Supported by the United Nations Development Programme (UNDP)

creation of jobs and economic opportunities, as well as increases in social inclusion and health, while safeguarding the natural environment.

The success of the programme in scaling up the initiative and disseminating critical technologies relates to several factors. These include ownership at the national level, engagement by local government authorities and communities, and multisource financing bringing together international donors, the national government and the local communities. The programme has also resulted in notable successes in the mobilization of communities and establishment of local partnerships, along with capacity building at all levels.

Some initiatives focus on increasing renewable energy as a share of total energy production. For example:

- Costa Rica's state-run utility firm Instituto Costarricense de Electricidad "Grupo ICE" aims to deliver 140 megawatts of clean electricity – 100 from wind power farms and 40 from hydroelectric plants – to households and businesses by 2015.
- Another initiative that uses sustainable energy is the Argentina - Patagonia Chorriaca Wind-Diesel Hybrid and Cochico Micro-Hydro Projects that have been launched by the Global Sustainable Electricity Partnership. The Partnership is a non-profit international organization composed of the world's leading electricity companies, whose mission is to promote sustainable energy development in developing and emerging countries worldwide. These projects provided communities with access to a sustainable electric service 24 hours a day, seven days a week, using local renewable energy sources. They contributed in enhancing the social and economic development in the communities, reducing CO2 emissions, and transferring technical know-how for the maintenance of the systems into the communities.
- GPower is a Kenyan-based non-governmental organization with international status that operates in developing and post-industrial countries. GPower established renewable energy mini-grid systems that are constructed, owned and operated in collaboration with farmer shareholders. Between 2005 and 2009, eleven micro-hydro plants in Kirinyaga District (central Kenya) were built. This model was later applied throughout the country.
- In India, the Solar Electric Light Company (SELCO) was created in 1995 as a for-profit social enterprise. Since then, the company has been successful in creating a pro-poor market for solar energy solutions, reaching so far 125,000 households of which 2/3 live from less than 3-4 US\$ a day. SELCO has won a series of prizes and has shown that market options can promote the access of the poor to sustainable energy solutions and their respective social, economic and environmental benefits.
- Barefoot College, based in India, has trained illiterate grandmothers in Africa and Asia as "solar engineers" for the installation and maintenance of solar panels and systems to electrify their homes and villages. With a geographic focus on the

Least Developed Countries (LDCs), Barefoot College has trained 700 women as agents of sustainable change in 49 countries and helped solar electrify 1,015 non-electrified villages. As a result they have had positive educational, financial and environmental impacts on those communities.

Agriculture

Economic: Although agriculture makes up only 3% of global GDP, many developing countries rely heavily on this sector. Agriculture contributes around 50% of GDP for some LDCs. As 75% of the global poor live in rural areas, raising production and productivity in the agricultural sector is not only beneficial for overall economic growth but also, if targeted to small-scale farmers, critical to significantly reducing poverty.

Social: Agriculture is an integral part of many, if not all, societies and is often deeply rooted in cultural and social traditions. Increasing or improving small-scale agricultural activity can improve the resilience of communities as well as their food security and nutrition. It can also affect virtually all human capacities, from health to intellectual capabilities. Agricultural initiatives based on strengthening farmer institutions can also increase political voice, negotiation skills, value chain rewards and recognition.

Environmental: All agricultural practices are direct interventions in the natural environment and must therefore be analyzed in terms of their positive or negative consequences for the functioning of affected ecosystems. Important negative impacts of modern agriculture are the significant emission of greenhouse gases, land, soil and fresh water degradation, and biodiversity depletion.

Here too, there are examples of solutions for transforming currently short-term and unsustainable agricultural practices. ‘Triple-win’ or ‘win-win-neutral’ solutions can establish sustainable models of agriculture which can be broadly summarized under the label of ‘agro-ecology’. A myriad of empirical and theoretical research shows that farmers can lower their ecological footprint by making use of more effective agricultural techniques, clean technologies and biological pesticides while simultaneously improving yields, food security and climate resilience.

One of the many examples of the impact of addressing imbalances in the natural environment due to negative agricultural activities can be found at the Loess Plateau in China. There, a degraded landscape was restored through the control of erosion and the adoption of sustainable agricultural practices.³ The World Bank estimates that through the rebalancing of the natural environment some 2.5 million people were lifted out of poverty, employment rates soared and food supply was ensured. At the same time, the area now serves as a carbon sink and helps to mitigate climate change. As in the Nepal energy example, the success of the programme was due to a holistic approach driven by comprehensive policy interventions, adequate financial resources and cultural space for changing social behaviour based on an extensive body of research and innovations.

More examples can be found outside the public sector:

³ A large-scale investment project of the People’s Republic of China, the World Bank and other international donors

- In the United States, Holistic Management International (HMI) works with individuals, corporations and government to teach farmers, ranchers, and other land stewards how to manage their production in ways that mimic nature. More than 10,000 people working on over 40 million acres worldwide have been trained in Holistic Management by HMI.
- In Egypt, SEKEM is a successful example of community-based organic agriculture which reaches high yield even in the most severe environmental conditions. By 2005, the organization had established a network of more than 2,000 farmers and numerous partner organizations and began increasingly to seek to extend its experience to other countries.
- In India, ACCESS has worked in collaboration with government agencies and academic institutions to design and launch a series of interventions focusing on improving the livelihoods of small and marginal farmers. For example, in April 2008 it initiated a three-year project to help farmers enhance ginger productivity in Jhadol. A total of 1,250 small and marginal farmers directly benefited from the project. More than 10,000 farmers (more than 60% tribal) indirectly benefitted from the project.
- ACEPSA is an NGO working throughout Central American which provides innovative technical products. It also helps connect public and private efforts on the development of sustainable management. The village of Amargo, in Costa Rica, is one of the many initiatives of ACEPSA. In July 2012, the first communal grey water treatment system was inaugurated in the village. They used “bioplant boxes”, which are residual water treatment systems, to clean water in a natural way.
- Also in Costa Rica, Fundecooperación is a foundation aiming to meet the funding and technical assistance needs of micro, small and medium businesses (MSMEs) and entrepreneurs, individuals or groups engaged in economic and environmental sustainability. It supports projects framed within any of four thematic areas: sustainable agriculture, sustainable tourism, gender equity and clean technologies. Over the years the Foundation has invested approximately \$35 million in over 300 projects that promote sustainable development.

Summary

All of these examples in both the energy and agriculture sectors demonstrate the substantial interconnectivity of the three dimensions of sustainable development. They also clearly show the importance of STI and its interplay with the three dimensions in pursuing triple-win solutions for sustainable development.

The examples also show that success of each initiative was heavily dependent on the *effective* use of science, technology and innovation. They underscore the need to understand the potential of an integrated approach – across all three dimensions and involving governments, communities, international organisations and the private sector –

to result in triple win-solutions to sustainable development challenges and the importance of increasing STI capabilities.

Proposed Questions for Discussion

- What are the potential short-term policy choices and longer-term gains inherent in an integrated sustainable development approach?
- How do science, technology and innovation intersect with sustainable development and what are possible triple-win solutions?
- How can policy coherence in economic, social and environmental dimensions be achieved?
- What kind of institutional framework and governance arrangements are needed for the successful integration of three dimensions of sustainable development at the regional and country levels?
- What specific steps are needed for ECOSOC and its subsidiary bodies to effectively promote integration of the three dimensions of sustainable development?

Format

The meeting will be a one-day event. It will feature opening and closing plenary sessions plus two roundtable sessions. The roundtable sessions will feature substantive presentations and interactive dialogues on how ECOSOC can promote policy convergence to address the issue of sustainable energy and agriculture in an integrated manner and the important role that STI can play in achieving sustainable development in these sectors. Each will involve moderated panel presentations and open floor discussion. Participants will be asked to focus on ways to promote policy convergence based on country experiences, good practices and lessons learned. A short note with key questions will be prepared by the Secretariat to guide the deliberations in each session. The moderator will summarize the major points of discussion and recommendations arising from each session.

TENTATIVE PROGRAMME
10:00 a.m. – 10:20 a.m. Opening plenary
Welcoming remarks by the ECOSOC President Opening address by UN Deputy Secretary-General
10:20 a.m. – 01:00 p.m. Roundtable I Policy convergence for sustainable development
03:00 p.m. – 05:50 p.m. Roundtable II Scaling up for sustainable development
05:50 p.m. – 06:00 p.m. Closing plenary
Closing remarks by Mr. Wu Hongbo, Under-Secretary-General, United Nations Department for Economic and Social Affairs Closing remarks by the ECOSOC President