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Item 4 of the provisional agenda*

Emerging policy issues: environment in the multilateral system

Background paper for the ministerial consultations

Discussion paper presented by the Executive Director

Green economy

Summary

The present document has been prepared to provide a succinct background briefing for ministers on the topic of theme II of the ministerial consultations to take place at the eleventh special session of the Governing Council/Global Ministerial Environment Forum: "Environment in the multilateral system: the green economy". It is intended to stimulate discussion during the ministerial consultations.

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Introduction

1. Discussions at the ministerial consultations to be held during the eleventh special session of the United Nations Environment Programme (UNEP) Governing Council/Global Ministerial Environment Forum will focus on the theme of "Environment in the multilateral system". Under this overarching theme, three interlinked topics of significant importance on the international agenda will be discussed. The second topic will be "Green economy". Discussions will build upon the ministerial consultations held at the twenty-fifth session of the Council/Forum, as reflected in the President's summary.¹
2. The discussions will provide the world's environment ministers with the opportunity:
 - (a) To obtain a comprehensive update on the recent green economy developments within major international policy forums and through the UNEP-led green economy initiative;
 - (b) To discuss how the concept of the green economy has been implemented at the country level;
 - (c) To build on existing policies and processes that are supporting the shift to sustainable consumption and production and a green economy;
 - (d) To consider the contribution of UNEP to the United Nations Conference on Sustainable Development in 2012, in particular with regard to its focus on the green economy in the context of sustainable development and poverty eradication.

I. Green economy: background and definition

3. Over the past two years the world has witnessed the emergence of multiple global crises related to food, fuel, freshwater and finance. Instability in energy and commodities markets, global food shortages and water scarcity have, most recently, been overshadowed by a financial and economic crisis whose recessionary impacts continue to be felt in most parts of the world. Adding to the situation's complexity is climate change, a phenomenon that is exacerbating the impact of each global crisis. The effects are felt worldwide and have specific implications for the achievement of sustainable development and the Millennium Development Goals. While it is clear that Governments and the international community face multiple and serious challenges, the situation also presents genuine opportunities for a dramatic shift from what can be termed "business as usual".
4. While our current dominant economic model has clearly improved the well-being of many societies over time, its operations have also created significant negative externalities in the form of global environmental risks (e.g., climate change) and widespread ecological scarcities (e.g., freshwater shortages). Moreover, the model fails to recognize these significant externalities in accounts of society, which are largely focused on gross domestic product (GDP) as the key macroindicator of progress. As a result of these and other factors, our economic activity currently consumes more biomass than the Earth produces on a sustainable basis (i.e., the ecological footprint exceeds our planet's resources). It also depletes natural capital whose ecosystem services are a key part of the well-being of the poor, and thus risks perpetuating and exacerbating persistent poverty and distributional disparities. These economic, social and environmental risks represent serious threats to our own and future generations. Our dominant economic model may thus be termed a "brown economy".
5. For UNEP, a "green economy" can be defined as a system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being over the long term, while not exposing future generations to significant environmental risks or ecological scarcities.
6. A green economy implies the decoupling of resource use and environmental impacts from economic growth. It is characterized by substantially increased investment in green sectors, supported by enabling policy reforms. These investments, both public and private, provide the mechanism for the reconfiguration of businesses, infrastructure and institutions, and for the adoption of sustainable consumption and production processes. Such reconfiguration will lead to a higher share of green sectors

¹ A/64/25, annex II, reproduced as UNEP/GCSS.XI/INF/9. The President's summary is a reflection of the interactive dialogue that occurred among the ministers and other heads of delegation attending the twenty-fifth session of the Council/Forum. It reflects the ideas presented and discussed rather than a consensus view of all points raised by participants.

in the economy, more green and decent jobs, reduced energy and material intensities in production processes, less waste and pollution, and significantly reduced greenhouse-gas emissions.

7. While it will be necessary to measure progress towards a green economy, it is counter-productive to develop generic green economy indicators applicable to all countries given differences in natural, human and economic resources. Rather, focusing on the process of making the transition to a green economy acknowledges that countries will take many diverse paths in achieving this objective, and that a green economy in one country may look quite dissimilar to a green economy in another country.

8. Regardless of the path that a country adopts for achieving a green economy, the shift can deliver multiple benefits. It could, for example, help to assuage food, energy and water security concerns. More broadly, such a shift should support the achievement of sustainable development and the Millennium Development Goals. Moving towards a green economy would also provide an opportunity to re-examine national and global governance structures and consider whether such structures allow the international community to respond to current and future environmental and development challenges and to capitalize on emerging opportunities.

A. Green economy and climate change

9. Shifting towards a green economy will also help to address challenges posed by climate change. If current patterns of energy consumption remain unchanged, the International Energy Agency has estimated that carbon dioxide emissions will increase by 130 per cent by 2050.² According to the Intergovernmental Panel on Climate Change, a rise of this magnitude in carbon dioxide emissions could raise average global temperatures by 6° C, which risks irreversible change in the natural environment.³ Such unmitigated emissions levels are estimated to result in economic losses equivalent to 5–10 per cent of GDP per year. For poorer countries the estimates are even bleaker, with annual losses in excess of 10 per cent of GDP given their vulnerability to climate change.⁴ Mitigating these risks and adapting to a changing climate are of paramount importance.

10. Investing in a low-carbon, resource-efficient economy is a specific means of responding to this challenge. A number of countries are already moving in this direction as part of their economic stimulus packages (see chapter IV, below). Moreover, the year 2008 marked the first time when investments in renewable energy power generation at \$140 billion surpassed investments in fossil fuel power generation at \$110 billion.⁵

11. While these actions and trends are heartening, much more is clearly needed. The Intergovernmental Panel on Climate Change has found that greenhouse gas emissions must be reduced by 50–85 per cent by 2050 to limit average global temperature increases to between 2° C and 2.4° C.⁶ The International Energy Agency has estimated that, to achieve a 50 per cent reduction in carbon dioxide emissions by 2050, cumulative investment to 2050 of \$45 trillion will be required.⁷ This equates to an average yearly investment of just over \$1 trillion. Consistent with a transition to a green economy, around half of the investment involves replacing conventional technologies with low-carbon, environmentally sound alternatives. Moreover, projected investments in the renewable energy sector alone would translate into at least 20 million additional jobs in the sector, making it a much larger source of employment than today's fossil energy industry.⁸

12. Investing in ecosystem-based adaptation and mitigation presents another green economy solution. Emissions linked with deforestation and forest degradation account for close to 20 per cent of current global greenhouse-gas emissions. Increasing investments in reducing emissions from

² International Energy Agency, "Energy technology perspectives 2008: scenarios and strategies to 2050" (2008), executive summary, p. 1 (<http://www.iea.org/techno/etp/index.asp>).

³ Intergovernmental Panel on Climate Change, "IPCC fourth assessment report – climate change 2007: synthesis report, summary for policymakers", table SPM.6.

⁴ Stern, N., *The Economics of Climate Change: The Stern Review* (Cambridge University Press, 2007), executive summary, p. ix.

⁵ UNEP and New Energy Finance, "Global trends in sustainable energy investment 2009: analysis of trends and issues in the financing of renewable energy and energy efficiency" (2009), p. 11.

⁶ IPCC (see note 3).

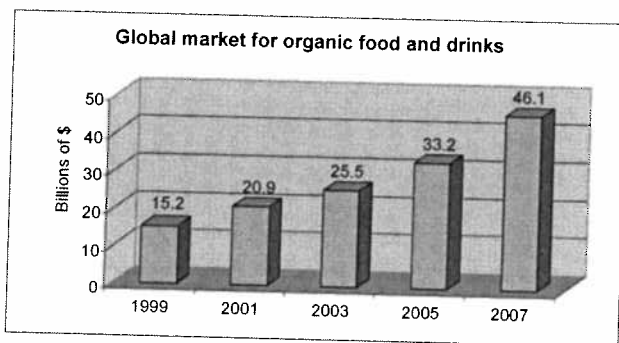
⁷ IEA (see note 2), p. 3.

⁸ UNEP, *Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World: Policy Messages and Main Findings for Decision Makers* (2008), p. 14.

deforestation and forest degradation, sustainable management of forests, and enhancing forest cover – what is known as “REDD-plus” – is a cost-effective means of quickly reducing the growth of emissions rates. Moreover, it is now widely recognized that healthy ecosystems, from coral reefs and wetlands to mangroves and fertile soils, are key to adapting successfully to climate change. Their management and maintenance are a buffer and an insurance policy against extreme weather events and a rapidly changing climate.

B. Green economy and sustainable consumption and production

13. Forging a green economy is closely interlinked with efforts to promote sustainable consumption and production. Stimulating investment in sustainable production increases net welfare gains from economic activities by doing more and better with less. Sustainable production practices reduce resource use and depletion and result in less pollution. Likewise, spurring demand for more sustainable products through the promotion of sustainable consumption can create new markets for businesses adopting sustainable production practices that result in increased revenue streams and new jobs. For instance, major markets for organic food and beverages expanded on average by 10–20 per cent from 1999 to 2007, and global trade in these products now stands at approximately \$50 billion.⁹



Source: *The World of Organic Agriculture 2009*, FiBL/IFOAM, 2009.

14. Countries first formally recognized the need to modify unsustainable patterns of consumption and production at the United Nations Conference on Environment and Development, held in Rio de Janeiro, Brazil, in 1992. At the World Summit on Sustainable Development in 2002, Governments agreed under the Johannesburg Plan of Implementation that a framework of programmes was required to accelerate the necessary shift towards sustainable consumption and production to promote social and economic development that was within the carrying capacity of ecosystems. They also encouraged the development of a 10-year framework of programmes for sustainable consumption and production to provide support for regional and national initiatives that improve the efficiency and sustainability of resource use and production processes and promote sustainable consumption and lifestyles. In this context, the UNEP International Panel for Sustainable Resource Management was launched in 2007 to strengthen the scientific knowledge base for sustainable consumption and production.

15. Moreover, the Commission on Sustainable Development at its eighteenth and nineteenth sessions, in 2010 and 2011 respectively, will examine priorities and needs for the shift to sustainable consumption and production. The current Commission cycle provides an important opportunity to integrate analysis and policy proposals relevant to promoting a green economy into the design and subsequent implementation of the 10-year global framework of programmes on sustainable consumption and production. In particular, the 10-year framework can help to draw together a wide range of practices on policies and capacity-building for sustainable consumption and production, and to focus them on the sectors that are most critical for construction of a green economy.

16. Such international momentum is particularly important given the abundant green economy opportunities that exist to further stimulate investment in sustainable consumption and production. In fact, the global market for environmental products and services is projected to double from the present \$1.37 trillion per year to \$2.74 trillion by 2020.¹⁰

⁹ Sahota, A., “The global market for organic food and drink”, in H. Willer and L. Kilcher (eds.), *The World of Organic Agriculture: Statistics and Emerging Trends 2009* (IFOAM, Bonn; FiBL, Frick; ITC, Geneva, 2009).

¹⁰ UNEP (see note 8), p. 13.

C. Green economy and chemicals and waste management

17. Development and access to clean technology are critical factors in successfully forging a green economy. Obsolete technologies risk endangering human health and the environment. This is particularly relevant for the sound management of chemicals and waste. The rapid increase in the use of chemicals and the production of solid and hazardous waste often result in environmental pollution, health hazards, toxic emissions and loss of resources. For example, exposure to pesticides and other agrochemicals constitutes a major occupational hazard that may result in poisoning and death. Every year 3 million cases of pesticide poisoning result in approximately 220,000 deaths worldwide.¹¹

18. Over the past decade, the global community has brought environmental problems related to chemicals and wastes to the forefront of the international policy agenda. Particular attention has been paid to the widening gap between developed countries, developing countries and countries with economies in transition with regard to their capacities to manage related risks. Building on this momentum, there may be scope for further analyses, considering the cost of inaction with regard to chemicals and waste management and the potential human health and economic benefits of action. Such information could help make the case for policy and management options for promoting and implementing safer alternatives and spur a green economic transition.

19. Solid waste management alone consumes on average 20–50 per cent of most city budgets.¹² Meeting this challenge can provide significant opportunities for economic growth and job creation. For instance, in the United States of America the recycling industry generates \$236 billion annually and employs over 1 million people in 56,000 establishments.¹³

D. Green economy and ecosystem services

20. Today's brown economy largely ignores natural capital, except as a source of material and energy resources for producing goods. This is mainly because the goods and services delivered by natural capital have few or no markets, are rarely priced, are often subject to open access and freely available, and thus are often vulnerable to the tragedy of the commons.

21. In contrast, a green economy attempts to include and use the productive power of natural capital, especially in devising solutions for those living in poverty, who depend on nature for a large part of their livelihood. For instance, a recent UNEP study found that coastal ecosystems together with coral reefs supply an estimated 50 per cent of the world's fisheries, providing nutrition to close to 3 billion people, in addition to 50 per cent of animal protein and minerals to 400 million people in developing nations.¹⁴

22. Natural capital is seen as a complex and valuable ecological infrastructure that simultaneously provides us with goods (e.g., food, fuel, fibre), services (e.g., air cleansing, freshwater regulation, climate regulation) and ideas (biomimicry applications that can radically transform production as we know it). The use of ecosystems for climate change mitigation and adaptation is an example of the green economy at work. The benefits of increasing investments in this ecological infrastructure are profound. For instance, a report produced by the economics of ecosystems and biodiversity initiative estimates that investing \$45 billion in protected areas could secure vital nature-based services, including the sequestration of carbon, the protection and enhancement of water resources and protection against flooding, worth \$5 trillion per year.¹⁵ Likewise, the Food and Agriculture Organization of the United Nations has estimated that 10 million new green jobs could be created by investing in sustainable forest management.¹⁶

11 Eddleston, M., and others, "Pesticide poisoning in the developing world – a minimum pesticides list," *Lancet* 360 (2002), p. 1163.

12 World Bank, "Urban solid waste management" (see <http://www.worldbank.org/solidwaste/>).

13 United States Environmental Protection Agency, "U.S. recycling economic information (REI) study" (January 2002) (see <http://www.epa.gov/osw/conserves/rrr/rmd/rei-rw/index.htm>).

14 Nellemann, C., and others (eds.), *Blue Carbon: The Role of Healthy Oceans in Binding Carbon* (UNEP and GRID-Arendal, 2009).

15 "The economics of ecosystems and biodiversity: an interim report" (European Communities, 2008), p. 38.

16 Food and Agriculture Organization of the United Nations, press release, 10 March 2009 (see <http://www.fao.org/news/story/en/item/10442/icode/>).

II. Consultations on the green economy at the twenty-fifth session of the Governing Council/Global Ministerial Environment Forum

23. Representatives of 147 countries, including 110 ministers and deputy ministers, and of 192 major groups and stakeholders took part in high-level consultations under the theme “Globalization and the environment – global crises: national chaos?” during the twenty-fifth session of the Governing Council/Global Ministerial Environment Forum. Based on those discussions, a summary was prepared in which the President of the Council/Forum identified some of the main challenges and opportunities highlighted by ministers, together with clear messages for suggested action to the world’s Governments, the United Nations system, civil society and the private sector.

24. In outlining challenges, the President in his summary noted that “creating a green economy goes hand-in-hand with sustainable development and the achievement of the Millennium Development Goals”.¹⁷ He cautioned, however: “Government alone cannot manage and fund the transition to a green economy; the private sector and civil society play a fundamental role but require incentives and an appropriate investment environment.”¹⁸ This recognition underlines the importance of engaging all these stakeholders in the policies, investment and changes in behaviour necessary to construct a green economy.

25. Importantly, the President in his summary also highlighted that “the green economy is about consumption as well as production. Sustainable production and consumption strategies are required for greening the economy”.¹⁹ Moreover, he noted that “there is a rich range of promising examples of green projects and initiatives from across all regions: in many instances, these efforts require significant additional investment and further incentives for scaling up. In this context, there is a need for financial assistance to developing countries and countries with economies in transition, adapted to each country’s particular circumstances, and capacity-building”.²⁰

26. With regard to opportunities, the President found that current crises provide a unique opportunity for fundamental restructuring of economies so that they encourage and sustain green energy, green growth and green jobs. He also noted:

Environment and economic policies are complementary: we need to use regulated market mechanisms to promote new and innovative investments in green technology; solutions and incentives should be attuned to each country’s potential and limitations in terms of energy availability, wealth and natural resources.²¹

27. The summary highlighted that “there is a need to continue to study further the concept of a green economy, in particular as it relates to developing countries and countries with economies in transition”.²²

UNEP medium-term strategy for 2010–2013

The current environmental challenges and opportunities will cause the environment to move from often being considered as a marginal issue at the intergovernmental and national levels to the centre of political and economic decision-making. The linkages between environmental sustainability and the economy will emerge as a key focus for public policymaking and a determinant of future market opportunities.

New and exciting avenues to achieve sustainable development will emerge from the use of economic and regulatory instruments, new and existing technologies and the empowerment of stakeholders to establish enabling environments for innovation and creative solutions.

17 A/64/25, annex II, p. 46.

18 Ibid.

19 Ibid.

20 Ibid.

21 Ibid., p. 47.

22 Ibid., p. 49.

III. UNEP green economy initiative in 2009

28. In the wake of the high-level consultations on the green economy held during the twenty-fifth session of the Governing Council/Global Ministerial Environment Forum, UNEP significantly strengthened its green economy research capacities, actively promoted partnerships to implement green economy strategies effectively, and began offering tailored advisory services for countries interested in greening their economies. As a result, UNEP, through its green economy initiative, has positioned itself as a global leader in the green economy movement. The following section provides a snapshot of some UNEP green economy activities over the past year. More detailed information appears in the *UNEP 2009 Annual Report*, which highlights how the green economy concept underpinned UNEP work. A list of other prominent international developments in 2009 related to promoting a green economy can be found in the annex to the present document.

A. Research

29. In March 2009, UNEP published a policy brief calling for a global green new deal. In that brief, prepared in consultation with over 20 United Nations agencies and intergovernmental organizations, UNEP reiterated the recommendation for Governments to invest 1 per cent of GDP during the biennium 2009–2010 to support the transition to a green economy. In particular, energy-efficient buildings, sustainable transport and renewable energy were recommended as priority areas of investment for developed countries. For developing countries, UNEP recommended prioritizing investments in sustainable agriculture, freshwater management and sanitation.

30. This initial policy brief was followed by an update that was launched by UNEP during the Group of Twenty summit in Pittsburgh, United States, in September 2009, in which the important steps undertaken by Governments in reflecting green investments in national fiscal stimulus packages were outlined. The report, however, contained a warning that the packages' effectiveness risked being compromised by delays in the allocation of funds.

31. In September 2009, within the framework of the UNEP-hosted global study entitled "The economics of ecosystems and biodiversity", an update on climate issues was released, in which the importance of investing in the restoration and maintenance of ecosystems for climate change mitigation and adaptation was highlighted. In November 2009 this study was followed by another, directed at policymakers, who were urged to accelerate, scale up and embed investments in the management and restoration of ecosystems. These studies are discussed in more detail in the companion background paper for ministerial consultations, entitled "Biodiversity and ecosystems".²³

32. In a related study entitled "The natural fix? The role of ecosystems in climate mitigation", released by UNEP in June 2009, carbon capture and storage are presented from the green economy perspective. In the report, it is revealed that promoting investments in the conservation, restoration and sustainable management of natural ecosystems is an effective way of slowing down climate change and speeding up the achievement of sustainable development.

33. UNEP also pushed forward the development of its soon-to-be-published *Green Economy Report*, a global study of the green economy, by identifying a broad range of partners to contribute in-depth assessments of potential sectors for green investments, including cities and buildings, transport, waste management, renewable energy, agriculture, forests, water, fisheries, tourism and clean technology. The report will include economic analysis, modelling and policy recommendations to help to identify areas with potential environmental and economic returns on investment. In additional sections of the report, the broad range of national and international policy measures necessary to support the transition to a green economy will be reviewed. A first draft of the report for peer review is expected by May 2010, with the final report to be published in November 2010.

34. Research on the decoupling of resource use and environmental impacts from economic growth is spearheaded by the International Panel for Sustainable Resource Management, hosted by UNEP and launched in 2007. The panel aims to provide independent, coherent and authoritative scientific assessments of the drivers and pressures associated with resource consumption and of the sustainability of potential technology solutions and policy responses. It comprises some 30 eminent experts, organized into five working groups on decoupling, environmental impacts of products and materials, biofuels, global metals flows and water efficiency, and is supported by a steering committee of representatives from Governments, the European Commission and other entities. In October 2009, the panel issued its

23 UNEP/GCSS.XI/10/Add.2.

first report, entitled "Towards sustainable production and use of resources: assessing biofuels". Additional reports on decoupling, environmental assessment, mineral flows and water will be released over the next biennium and will highlight challenges, opportunities and alternative options for more sustainable resource management.

35. UNEP is also collaborating with the Organization for Economic Cooperation and Development, the World Health Organization and other participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals in the development of a global chemicals outlook report in order, among other things, to make a convincing economic case for, and highlight the economic opportunities associated with, the sound management of chemicals. In June and September 2009, UNEP convened a steering committee comprising representatives of academic institutions, Governments, industry and civil society to lay the groundwork for the report.

B. Partnerships

36. Under the auspices of the High-Level Committee on Programmes of the United Nations System Chief Executives Board for Coordination, nine joint crisis initiatives were launched in April 2009 to respond to risks posed by the financial crisis. UNEP was appointed lead agency for a green economy joint crisis initiative. In this role, UNEP worked with more than 20 United Nations agencies, the World Trade Organization and the World Bank to issue a joint statement calling for a global transition to a green economy at a conference on the world financial and economic crisis and its impact on development, which took place in New York in June 2009. By its resolution 63/303 of 9 July 2009, the General Assembly endorsed the outcome document adopted at the conference, which concluded that the response to the global financial crisis presented an opportunity to promote green economy initiatives.

37. Pursuant to the joint crisis initiative, UNEP also coordinated the development of a framework of action for the short, medium and long terms by participating intergovernmental organizations to support the transition to a green economy. The aim of this framework is to ensure close collaboration between the organizations in the delivery of their green economy activities.

38. Partly on the basis of the momentum created by this work, the Environment Management Group²⁴ decided in September 2009 to constitute an issue management group to assess how the United Nations system as a whole could more coherently support countries in making the transition to a green economy. The terms of reference of the work are being finalized; elements under consideration include preparation of an assessment report, ensuring joint and consistent communication about measures needed to support the transition, and contributions to the preparatory process for discussions at the United Nations Conference on Sustainable Development in 2012 (Rio + 20) on the theme of the green economy in the context of sustainable development and poverty eradication.

39. UNEP also supported the development of a broad-based green economy coalition to mobilize civil society and businesses in support of a green economic transition. The coalition drafted open letters to the leaders of the Group of Twenty, in conjunction with their summits in April and September 2009, encouraging a speedy transition to a green economy.

C. Advisory services

40. UNEP has received more than two dozen requests from Governments to support green economy initiatives in their respective countries. UNEP is responding to these requests and has already launched green economy initiatives in countries in Africa, Asia and the Pacific, Europe and West Asia.

41. In Africa, UNEP participated in the third African Ministerial Conference on Financing for Development, held in May 2009 in Kigali, during which African ministers of finance and environment adopted a communiqué calling for the creation of an enabling environment to support the transition towards a green economy and pursue low-carbon growth. UNEP is launching a green economy initiative in Africa in collaboration with national Governments and regional institutions. The pilot stage will include six countries.

42. In Asia and the Pacific, UNEP produced a report on low-carbon green growth for developing countries in East Asia that builds on the process and outcome of the East Asia Climate Forum and the

²⁴ For more information on the Environment Management Group, see the report of the Executive Director, "Enhanced coordination across the United Nations system, including the Environment Management Group: implementation of the revised memorandum of understanding between the United Nations Development Programme and the United Nations Environment Programme" (UNEP/GCSS.XI/3).

Seoul Initiative for Low-Carbon Green Growth in East Asia, which was adopted by East Asian Governments on 29 May 2009 in Seoul. Focusing on six priority areas, the report examines key challenges, opportunities and policy responses for creating low-carbon green growth in East Asian developing countries.

43. UNEP has also launched projects in several countries in Asia and the Pacific. For instance, it produced an analytical overview of the national strategy for green growth of the Republic of Korea to derive recommendations and lessons learned for others interested in promoting national green economy plans. In China, UNEP is collaborating with the Ministry of Environment and national policy research institutions to produce a series of sectoral studies from a green economy angle. The studies are intended to provide the foundation for future reports that will include policy recommendations for China's national five-year development plan. Lastly, in Indonesia, UNEP has initiated a scoping study on opportunities and challenges of a green economy that will serve as the basis for a series of consultations with national stakeholders and culminate in a green economy policy report for Indonesia.

44. In Europe, UNEP has launched a green economy study focused on promoting organic agriculture in Eastern Europe, the Caucasus and Central Asia. The study will examine options for forging a regional partnership to exchange experiences and information, in addition to possible joint actions related to organic agriculture, including the feasibility and impact of a subregional organic standard. UNEP has also initiated a scoping study on priority areas for green economy programmes in Azerbaijan. This analysis aims to support a process of economic diversification, building on the United Nations Development Assistance Framework priorities of the country, and is being undertaken in conjunction with an inter-ministerial coordination mechanism and national policy research institutions.

45. In West Asia, UNEP participated in a series of green economy workshops in Bahrain, Dubai, Jordan, Kuwait, Lebanon, Saudi Arabia and United Arab Emirates, which led to the identification by representatives of Governments, the private sector and civil society of priority sectors for a green economy initiative in the region. In October 2009 UNEP participated in a meeting of the Joint Committee on Environment and Development in the Arab Region, a subsidiary body of the Council of Arab Ministers Responsible for the Environment, which provided input towards the adoption of a 2010 regional environmental workplan under a green economy theme.

46. These advisory services will draw on the experience of UNEP with the Marrakech Process, an informal expert and multi-stakeholder process that since 2003 has been developing and piloting policies and capacity-building activities to promote sustainable consumption and production at the national and regional levels. The Marrakech Process has established task forces on sustainable procurement, sustainable tourism, sustainable products, sustainable buildings and construction, sustainable lifestyles, education for sustainable consumption, and cooperation with Africa, which have developed policy recommendations allied in many cases to capacity-building activities that will promote the shift to a green economy.

47. UNEP was also active in the five regional implementation meetings held in 2009 in preparation for the eighteenth and nineteenth sessions of the Commission on Sustainable Development. Participants in these meetings identified priorities for inclusion in the future 10-year framework of programmes for sustainable consumption and production. Several of the identified priorities are relevant to a green economic transition, including support for economic instruments, sustainable public procurement, and mainstreaming sustainable consumption and production policies into national development strategies and key sectors of the economy such as energy, agriculture and waste management.

48. The UNEP green economy advisory services are being implemented in close coordination with the Poverty-Environment Initiative, which is a joint programme between the United Nations Development Programme and UNEP providing financial and technical support to countries to build capacity for mainstreaming poverty-environment linkages into national development planning processes. In 2009, the initiative was active in 18 countries in Africa and Asia.

UNEP and the United Nations Conference on Sustainable Development (Rio + 20)

The United Nations General Assembly, by its resolution 64/236 of 24 December 2009, decided to organize in 2012 a three-day United Nations conference on sustainable development, which has come to be called "Rio + 20" in reference to the twentieth anniversary of the 1992 United Nations Conference on Environment and Development.

In paragraph 22 of the resolution relevant stakeholders, including organizations and bodies of the United Nations, are invited to provide ideas and proposals reflecting their experiences and lessons learned as a contribution to the preparatory process, and UNEP is ready to contribute the benefit of its experience relating to the two themes of the conference, a green economy in the context of sustainable development and poverty eradication and the institutional framework for sustainable development. The annex to the present paper provides further details.

IV. Green economy responses to the economic crisis

49. In 2009, various countries announced specific steps in the transition to a green economy, including green investments in their economic stimulus packages and regular budgetary spending, together with the development of national policies to enable the transition.

50. According to analysis by HSBC,²⁵ approximately 15 per cent of the fiscal stimulus funds committed for 2009–2010, which exceed \$3.1 trillion, can be regarded as green in nature. In individual countries, the green component of stimulus packages can reach as high as almost 80 per cent. Most green components are oriented towards energy efficiency and renewable energies in a variety of sectors.

51. National examples of initiatives to support the transition are presented below and cover most UNEP regions. These examples are designed to stimulate further discussion and exploration of national green economy activities. The initiatives presented include both green components of national fiscal stimulus packages and regular government spending and investment, in addition to reforms to national policy frameworks.

52. Although the examples are drawn primarily from the member countries of the Group of Twenty, a growing number of developing countries have expressed interest in implementing green economy initiatives, as is shown by the requests for UNEP green economy advisory services (see section C of chapter III above). This increasing interest and enthusiasm will require additional technical assistance and must be complemented by financing for identified green investments and projects.

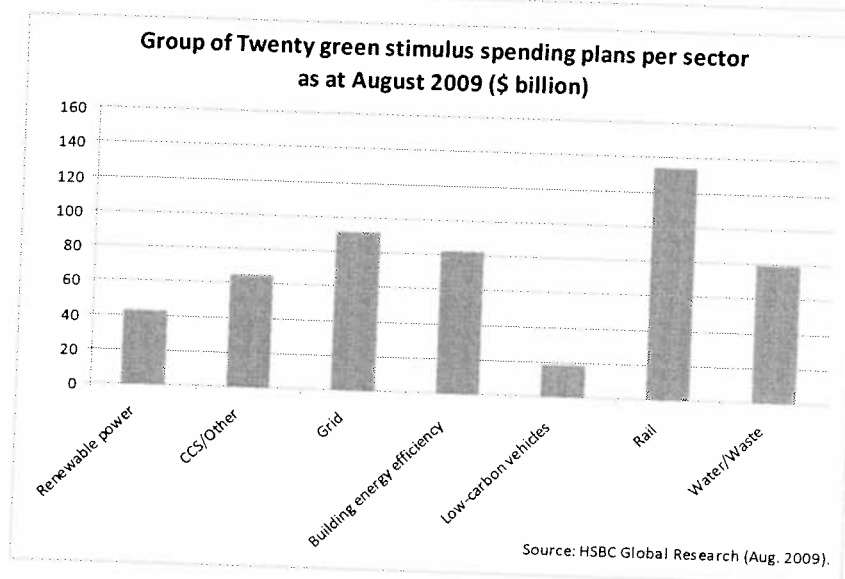
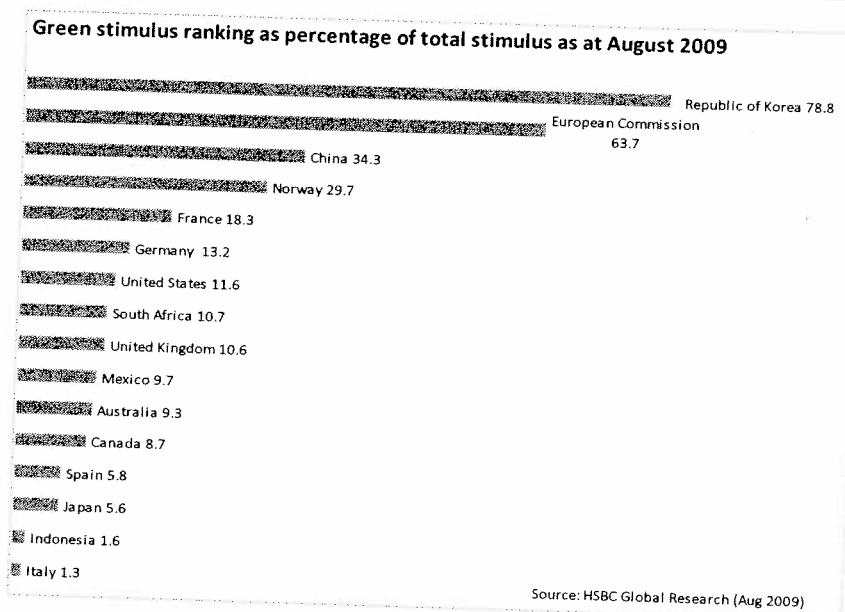
53. These initial investments in a green economy will also need to be supplemented by a broad range of policy measures, alternative technologies and associated partnerships and capacity-building activities. The Marrakech Process has already been piloting some of these activities and partnerships at the national and regional levels through its task forces. The process has also supported the design and implementation of national sustainable consumption and production action plans, including in Brazil, Colombia, Ecuador, Indonesia, Mauritius, Senegal and United Republic of Tanzania; and at the city level in Cairo and Maputo.²⁶

<i>Green spending in economic stimulus packages</i>	<i>Billions of dollars</i>
Africa	
South Africa	0.8
Asia and Pacific	
Australia	2.5
China	200.8
Indonesia	0.1
Japan	36.0
Republic of Korea	30.7
Europe	
European Commission	24.7
France	6.1
Germany	13.8
Italy	1.3
Norway	0.9
Spain	0.8
United Kingdom	5.2
Latin America and the Caribbean	
Mexico	0.8
North America	
Canada	2.8
United States	112.8

Source: HSBC (August 2009).

²⁵ This chapter relies heavily on data drawn from Robins, N., and others, "A global green recovery? Yes, but in 2010" (HSBC Global Research, London, August 2009).

²⁶ UNEP has developed a clearing house that includes over 30 countries that have developed or are developing national sustainable consumption and production programmes (see <http://www.unep.fr/scp/nap/clearinghouse/>).

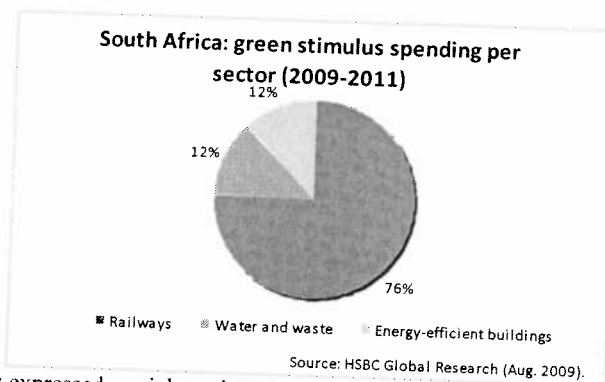


A. Africa: South Africa

54. South Africa announced a \$7.5 billion fiscal stimulus package in February 2009 for the period 2009–2011. Approximately 11 per cent of this package, representing almost 0.3 per cent of GDP, was allocated to environment-related sectors, including railways, energy-efficient buildings and water and waste management.

55. In March 2009, the Government released a plan for putting in place a binding climate change policy within three years to cap emission growth by the period 2020–2025. Measures contained in the plan include a regulatory, fiscal and legislative framework that would make mandatory the tracking and reporting of emissions.

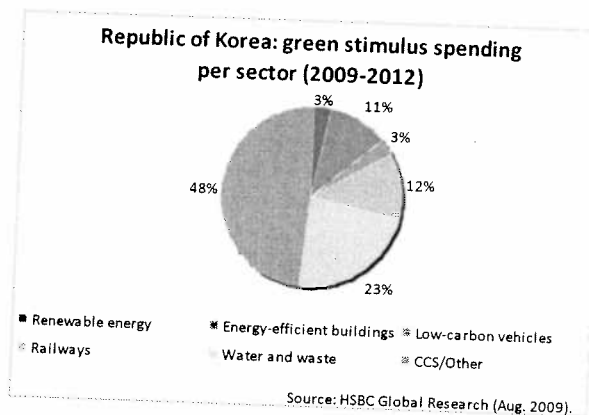
56. In September 2009, the Government released a green paper on national strategic planning. This policy paper proposes a planning process that sets out clear long-term energy options, including outlining targets for reductions in greenhouse gas emissions and for the energy intensity of the economy in general. The green paper notes that “as our understanding of the objectives



of society has become more clearly expressed, social, environmental and political dimensions have been added to the economic concept of development”.²⁷ A national planning commission comprising independent experts and strategic thinkers will be established to contribute to mainstreaming the environment in the development process and initiating the transition to a green economy.

B. Asia and the Pacific: Republic of Korea

57. The Republic of Korea launched a green new deal in January 2009 to stimulate job creation and revitalize the economy. This stimulus package comprising a mix of financial, fiscal and taxation policies amounted to \$38.1 billion, of which 80 per cent (\$30.7 billion), corresponding to 3.5 per cent of GDP, was allocated to environmental themes such as renewable energies, energy-efficient buildings, low-carbon vehicles and water and waste management.



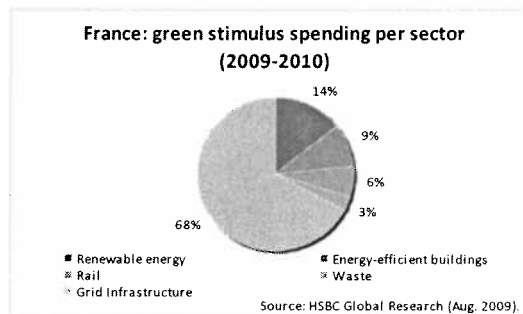
58. In addition to the green stimulus, the Government has announced steps towards a major shift in orienting its economy towards a long-term strategy for green growth. In July 2009, it adopted a five-year green growth plan for the period 2009–2013 to serve as a medium-term plan for implementing a low-carbon, green-growth vision announced in 2008. Under the plan, \$83.6 billion, representing 2 per cent of GDP, will be spent on investments in the areas of climate change and energy, sustainable transport and the development of green technologies. The plan will cover three major strategies, with 10 policy directions and 50 core projects. The Government expects spending on the plan to stimulate production worth from \$41.7 billion to \$160.3 billion during 2009–2013 and to create jobs in green industries for between 1.56 million and 1.81 million people.

59. In terms of policy initiatives, the Government has undertaken various regulatory and fiscal reforms to support green growth. For example, in August 2009, it announced options for voluntary emissions reduction targets that could reduce carbon emissions from 21 to 30 per cent compared to projected growth over 2005–2020. The Government has also indicated that it plans to establish national systems for reporting greenhouse gas inventories and trading carbon emissions.

²⁷ South Africa, The Presidency, “Green paper: national strategic planning” (Pretoria, September 2009), p. 31.

C. Europe: France

60. Green investments account for 18.3 per cent (\$6.1 billion) of the \$34 billion economic revival plan to be spent over the period 2009–2010. The French portfolio of green stimulus spending is dominated by energy investments in the renovation of existing power plants, grid infrastructure and renewable energy.



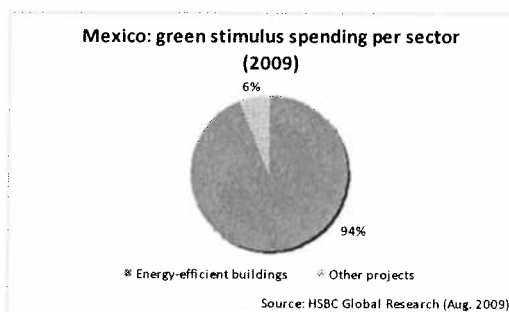
61. The climate and environmental measures included in the stimulus package are channelled according to priority areas identified through the *Grenelle Environnement*, a framework that aims to define a fresh national approach to sustainable development and the establishment of a national environmental road map in favour of ecology, sustainable development and land-use management. The first legislation associated with that framework was enacted in July 2009 and calls for enhanced environmental measures covering all major economic sectors. Beyond the stimulus package, the commitments announced from the present until 2020 represent over \$600 billion in further green investments. The Government has estimated that these investments will generate more than 500,000 jobs and an annual income of some \$30 billion.

62. A number of other green policy measures are also expected to benefit businesses in key sectors of the economy, including:

- (a) Improving energy efficiency in buildings;
- (b) Developing a sustainable transport policy according priority to the transport of goods by rail, and the enhancement of urban public transport;
- (c) Reducing energy consumption through the promotion and implementation of tax mechanisms;
- (d) Promoting clean energy technologies.

D. Latin America and the Caribbean: Mexico

63. Mexico announced a fiscal stimulus package in January 2009, with plans to spend \$7.7 billion, corresponding to approximately 0.67 per cent of GDP. A total of \$0.8 billion (some 10 per cent of the total stimulus package) was allocated to environmental themes, including \$0.75 billion to promoting energy-efficient buildings.

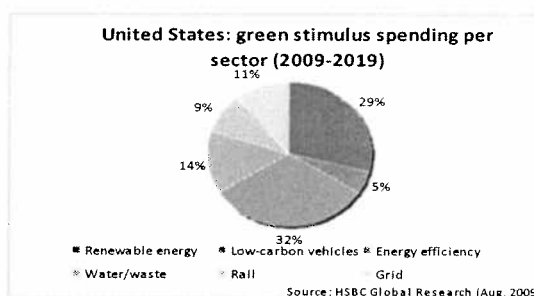


64. In terms of broader policy initiatives to support a green economy, the Government has committed itself to a voluntary carbon reduction target by pledging to halve greenhouse-gas emissions by 2050. It has also announced plans to put in place a domestic cap-and-trade system by 2012, and has enacted a special programme for climate change covering the period 2009–2012. This programme lays out a long-term vision for efforts to combat climate change while establishing the sectoral-level interventions that will result in emission reductions. The plan also creates a framework for monitoring improvements and establishes a blueprint for emission reduction initiatives.

65. Other measures taken by the Government to promote a green economy include an appliance replacement programme, which aims to help households to replace appliances with new, more energy-efficient models. In 2009, more than 100,000 households participated in this scheme.

E. North America: United States

66. The United States has announced two fiscal stimulus packages since October 2008. Of the \$972 billion announced, \$112 billion (approximately 0.75 per cent of GDP) is allocated to green spending on energy efficiency, renewable energy, water and waste management and public transport and railways.



67. In terms of investments in the regular federal budget, the Government has announced that it intends to spend an additional \$5 billion in 2010 on a series of initiatives, including high-speed rail grants to states, the Environmental Protection Agency's Clean Water State Revolving Fund, and the Drinking Water State Revolving Fund. Its plans for the budget also include a proposal to create what it terms a "clean energy economy" comprising a comprehensive energy and climate change plan to invest in clean energy, decrease dependence on oil, tackle the global climate crisis and create new jobs.

68. The Government has also been formulating new legislation to promote energy efficiency and a shift to a low-carbon economy. A 2009 bill on clean energy and security includes a cap-and-trade proposal for reducing greenhouse-gas emissions that would involve a mandatory cap on 87 per cent of emissions, including the electric power and oil and gas sectors and heavy industry. The proposed legislation includes new energy standards for current energy sources, in addition to new technologies. The Government has included measures to assist workers and low-income households who are negatively affected by the measures and plans to undertake further analysis of an emissions trading programme for greenhouse gases.

IV. President's summary: some possible messages

69. The Governing Council/Global Ministerial Environment Forum is the United Nations high-level environmental policy forum and brings the world's environment ministers together to review important and emerging policy issues in the field of the environment. The Council/Forum provides broad policy advice and guidance with the aim, among others, of promoting international cooperation in the field of the environment. In so doing, it invites officials of United Nations agencies and heads of multilateral environmental agreement secretariats to participate and interact with ministers at meetings and seeks to promote the meaningful participation of representatives of major groups and non-governmental organizations, including the private sector.

70. It has become the practice for the President of the Council/Forum to prepare a summary of the ministerial consultations that take place at each session. The summary provides an opportunity for environment ministers collectively to send a message to the United Nations system, Governments, civil society and the private sector on their perspective on the topics under discussion.

71. In addition to the summary, the President has proposed that the Council/Forum should also adopt a ministerial declaration, statement or communiqué. A draft has been jointly proposed by the Governments of Indonesia and Serbia.

72. Given the clear linkages between the ministerial consultations and the continuing process under the Commission on Sustainable Development, the President may wish to convey the summary to the Commission at its eighteenth session, in 2010. While it is entirely a matter for ministers to decide, a number of questions are suggested to help to stimulate the round-table discussions:

- (a) How should the green economy be promoted at the national level?
 - (i) What economic studies, policy assessments and scientific studies are required to make the case and support a transition to a green economy?
 - (ii) How should key stakeholders (e.g., national legislators, local administrators, businesses, civil society) be involved in the transition?
 - (iii) What country-level mechanisms are needed to ensure effective cross-sectoral collaboration between government ministries?

- (iv) How can education and training policy be designed to provide national workforces with the skills necessary for green jobs?
 - (v) How can we ensure that developing countries are active participants and beneficiaries in a green economy?
- (b) What economic policies are likely to be most effective in the transition to a green economy?
- (i) Is there a role for improving, at both the international and national levels, the development of environmental and natural resource accounting?
 - (ii) Can economic valuation, indicators and decision-making tools support the integration of green economy objectives and sustainable consumption and production policies in national development plans and strategies?
 - (iii) How should environmentally damaging subsidies (e.g., those related to fisheries and fossil fuels) be addressed?
- (c) What lessons can be learned from existing sustainable consumption and production policies and capacity-building activities and from mainstreaming chemicals management into development planning processes, and how can these be translated into advisory services and actions to support the transition to a green economy?
- (d) What inputs to the eighteenth session of the Commission on Sustainable Development would help orient the design of a future 10-year framework of programmes on sustainable consumption and production to one that promotes a green economy and contributes to achieving the Millennium Development Goals?
- (e) Does the United Nations Conference on Sustainable Development to be held in Rio de Janeiro, Brazil, in 2012 provide an opportunity for Governments to agree on the specific steps and policies required to achieve a green economic future?

Annex

International developments related to the green economy in 2009

1. The concept of a green economy has been explored in numerous intergovernmental forums, the United Nations system, international organizations and studies over the past 12 months. Some inputs and outcomes are discussed below.

A. United Nations Conference on Sustainable Development (Rio + 20)

2. By its resolution 64/236 of 24 December 2009 on the implementation of Agenda 21, the Programme for the further implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development, the General Assembly decided to organize in 2012 a three-day United Nations conference on sustainable development, which has come to be called "Rio + 20" in reference to the twentieth anniversary of the 1992 United Nations Conference on Environment and Development. The themes will include: a green economy in the context of sustainable development and poverty eradication and the institutional framework for sustainable development.²⁸ The Conference will result in a focused political document.²⁹

3. In the tenth preambular recital of that resolution, the General Assembly noted that challenges remained in achieving the goals of the three pillars of sustainable development, particularly in the context of the current global crises, and, in the twelfth preambular recital, reaffirmed that eradicating poverty, changing unsustainable patterns of production and consumption and protecting and managing the natural resource base of economic and social development were overarching objectives of and essential requirements for sustainable development.

4. By paragraph 23, the General Assembly decided that a preparatory committee would be established within the framework of the Commission on Sustainable Development to carry out the preparations for the United Nations Conference on Sustainable Development, which would provide for the full and effective participation of all States Members of the United Nations and members of the specialized agencies, as well as other participants in the Commission.

5. By paragraph 26, it requested the Secretary-General to provide a report on progress to date and remaining gaps in the implementation of the outcomes of the major summits in the area of sustainable development, as well as an analysis of the themes identified above, to be submitted to the intergovernmental preparatory committee at its first meeting.

B. High-level calls for a transition to a green economy

6. In September 2009, the leaders of the Group of Twenty reaffirmed their commitment to "move toward greener, more sustainable growth".³⁰ In particular, they highlighted that "access to diverse, reliable, affordable and clean energy is critical for sustainable growth"³¹ and called for rationalizing and phasing out over the medium term inefficient fossil fuel subsidies that encouraged wasteful consumption, while recognizing the importance of providing those in need with essential energy services.

7. As set out in the May 2009 shared vision statement (Chairperson's summary) for the Commission on Sustainable Development at its seventeenth session, ministers stressed that the green economy offered a way out of the food crisis and noted that "nothing less is needed than a revolution in ideas and a revolution in technologies, supported by a revolution in trade policies and market access and the financial means to implement it"³² to reverse trends in faltering agricultural productivity and income.

28 Para. 20 (a).

29 Para. 20 (b).

30 Leaders' statement at the Pittsburgh summit, 24 and 25 September 2009, preamble, para. 27.

31 Ibid., para. 28.

32 E/2009/29-E/CN.17/2009/19, p. 39, para. 4.

8. In July 2009 at its annual meeting, held in L'Aquila, Italy, the Group of Eight also highlighted the need to reduce fossil fuel subsidies that artificially encouraged carbon-intensive energy consumption and warned that "the emergency response to the economic crisis should not overlook the opportunity to facilitate a global green recovery putting our economies on a path towards more sustainable and resilient growth".³³ They committed themselves to taking the lead in accelerating the transition towards a low-carbon economy based on green, sustainable growth and ensuring that fiscal stimulus programmes "contribute substantially towards building new, cleaner economies that will create new jobs and bring about a green and sustainable recovery".³⁴ These statements echoed the sentiments expressed in separate meetings of the Group of Eight environment, energy and development ministers.

9. African finance, economic planning and environment ministers called for "an enabling environment to support the transition towards a green economy and pursuing low-carbon growth"³⁵ during the third African Ministerial Conference on Financing for Development, held in Kigali in May 2009. They also suggested facilitating involvement by the private sector in the transfer and adoption of clean technologies.

10. In the Declaration on Green Growth issued by the Organization for Economic Cooperation and Development in June 2009, ministers committed themselves to enhancing their efforts to continue green growth strategies and encouraging green investment and the sustainable management of natural resources. They also noted their determination to use "efficient and effective climate policy mixes"³⁶ and encourage "domestic policy reform, with the aim of avoiding or removing environmentally harmful policies that might thwart green growth, such as subsidies".³⁷ In addition, they invited the Organization to "develop, as a horizontal project, a Green Growth Strategy in order to achieve economic recovery and environmentally and socially sustainable economic growth".³⁸

11. Support for a green economy has also been closely linked with the need to ensure sustainable consumption and production. Pursuant to the Marrakech Process on Sustainable Consumption and Production,³⁹ the third public draft proposing elements of a 10-year framework of programmes has been circulated to Governments and other stakeholders to inform discussions at the eighteenth session of the Commission on Sustainable Development, in May 2010. The draft, which is a living document, includes several potential objectives relevant to forging a green economy, such as the need to couple economic development with the creation of decent jobs and an increase in welfare, to stimulate demand for and supply of sustainable products and services and to enhance social development through sustainable investment in people and communities. These specific activities support the green economy's overall aim of strengthening the social, environmental and economic dimensions of sustainable development. Listed in the draft are several potential functions of the framework, which include supporting Governments to provide an enabling policy structure for internalizing social and environmental costs into private and public choices through a combination of policy levers, incentives, urban and rural planning and investments in infrastructure. In so doing, the framework is envisioned as "an important implementation tool to help put in place the policies, management practices, investments, technologies and capacity building activities necessary to construct a Green Economy".⁴⁰

12. Since 2003, regional workshops conducted under the Marrakech Process have explored the kind of support that will be required to make the shift to sustainable consumption and production (and a green economy), including the design and implementation of economic and financial instruments. The analysis from those expert meetings is being fed directly into five regional implementation meetings preparing formal input to the Commission on Sustainable Development at its eighteenth session, which will review barriers to and best practices on sustainable consumption and production. Through active

33 Declaration on responsible leadership for a sustainable future, para. 39.

34 Ibid., para. 62.

35 Final communiqué, para. 8.

36 C/MIN(2009)5/ADD1/FINAL, para. 5.

37 Ibid., para. 6.

38 Ibid., para. 9.

39 The Marrakech Process is a global and open multi-stakeholder platform that offers dialogue and encourages cooperation to support the implementation of policies, projects and strategies on sustainable consumption and production and contributes to the elaboration of the 10-year framework of programmes on sustainable consumption and production. UNEP and the United Nations Department of Economic and Social Affairs are the lead agencies, with the active participation of Governments, development agencies and other stakeholders. The proposal of the 10-year framework will be reviewed by the Commission on Sustainable Development during the 2010–2011 two-year cycle (see <http://www.unep.fr/scp/marrakech/>).

40 Third public draft, p. 7.

collaboration with United Nations regional and economic commissions, the UNEP Commission on Sustainable Development task force has been involved in the preparation of the five meetings, including by contributing to the background reports and providing technical advice during the sessions. The conclusions of those meetings will be delivered prior to the eleventh special session, so that by January 2010 there will be a clearer picture of regional priorities and needs for the shift to sustainable consumption and production.

13. The UNEP International Panel for Sustainable Resource Management and its steering committee met twice in 2009 to review and plan work within five working groups: decoupling environmental impacts and resource use from economic growth; environmental impacts of products and materials; biofuels; global metals flows; and water. In October 2009, the biofuels working group launched its first report, entitled “Towards sustainable production and use of resources: assessing biofuels”, which highlighted the challenges and opportunities associated with biofuels and offered specific options for more sustainable resource management within this sector.

14. On the occasion of the Summit on Climate Change, held on 22 September 2009 in New York, world leaders stressed the importance of shifting their economies to a low-emission and climate-resilient path. In a note delivered to the Summit, the Secretary-General stressed that greening and climate-proofing the economy were widely regarded as viable means of restoring job growth, reducing persistent poverty and inequity and achieving a more sustainable economy.

15. Similarly, at the Major Economies Forum on Energy and Climate that took place in L’Aquila, Italy, in July 2009, participants noted that “moving to a low-carbon economy is an opportunity to promote continued economic growth and sustainable development”.⁴¹ Meanwhile, government leaders at the World Climate Conference-3, held in Geneva in September 2009, decided to establish a global framework for climate services “to strengthen production, availability, delivery and application of science-based climate prediction and services”⁴² with the objective of improving, among other things, planning and investment in sectors vital to national economies and livelihoods.

16. At the resumed ninth session of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol and the resumed seventh session of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, held in Barcelona, Spain, from 2 to 6 November 2009, the Executive Secretary of the United Nations Framework Convention on Climate Change emphasized that the fifteenth session of the Conference of the Parties to the Convention “needs to create the basis for a legal and policy framework to enable a transition to a global green economy and to adapt to the adverse impacts of climate change”.⁴³ He also pointed out that “one possibility to be included in the outcome in Copenhagen is the creation of a technology mechanism to boost green growth and climate resilience in developing countries”.⁴⁴

17. The fundamental role of technology in tackling climate change and promoting sustainable development was also highlighted in the final statement at the October 2009 Delhi High-Level Conference on Climate Change: Technology Development and Transfer. Governments noted that there “is an urgent need to accelerate the large-scale global deployment of environmentally sound and climate-friendly technologies and to minimize the time lag between their initial development, transfer and deployment particularly in developing countries”.⁴⁵ They also noted the need for increased investments in renewable energy technologies, the reduction of their costs and their rapid deployment in developing countries, in addition to periodic assessment, evaluation and expert guidance on new and emerging technologies.

41 Declaration of the leaders, p. 1.

42 High-level declaration, operative para. 1.

43 Implementing Copenhagen: business and regional government in a new low-carbon world. The Climate Group, Barcelona, 4 November 2009, p. 2.

44 Ibid., p. 3.

45 Delhi Statement on Global Cooperation on Climate Technology, para. 3.

18. Governments echoed this need for increased focus on, and financial allocations to, climate change at the third meeting for the fifth replenishment of the Global Environment Facility (GEF) Trust Fund, held in Paris on 14 and 15 October 2009. Moreover, the revised programming document for the fifth replenishment prepared by the GEF secretariat notes that the “climate change mitigation strategy has been designed to help guide developing countries and economies in transition toward a low-carbon development path”.⁴⁶

46 GEF/R.5/19/Rev.1, para. 38.