FIRST ITEM ON THE AGENDA

Decent work for sustainable development –
The challenge of climate change

Introduction

1. This paper has been prepared following consultations with the Officers of the Governing Body and the discussion at the 96th Session of the International Labour Conference of the Director-General’s Report I(A), Decent work for sustainable development. It focuses on the proposal to promote a socially just transition to green jobs. It recalls salient facts about climate change, explores the interrelationships between climate change and decent work and briefly examines the present policy debate on climate change. Suggested policy conclusions are drawn from this analysis and items for a possible ILO programme of work are outlined.

Background


3. After a number of years during which political and public attention to the threat of climate change had faded, the world has been reminded in recent years of the perils of ignoring global warming. An analysis of the economics of climate change led by Sir Nicholas Stern, the former Chief Economist of the World Bank, known as the “Stern Review”, 1 the mounting scientific evidence that climate change is happening and that human activity is one of the key drivers, together with a string of natural disasters consistent with scenarios for climate change, have met with unprecedented attention by the media, by industry, the public and political decision-makers at the highest levels. Most recently the UN Secretary-General, Ban Ki-moon, convened a high-level event on 24 September on the eve of the General Assembly to discuss the leadership challenge posed by climate change and

1 A summary and the full text of the Stern Review are available at http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm
prepare for negotiations on a successor treaty to the Kyoto Protocol beginning in December.  

4. The most authoritative statement concerning the state of knowledge comes from the Intergovernmental Panel on Climate Change (IPCC). The IPCC is a unique international cooperation of over 2,000 scientists worldwide who periodically review scientific evidence coordinated by the World Meteorological Organization and the United Nations Environment Programme (UNEP).

5. The IPCC’s Fourth Assessment Report (AR4) is being published in instalments during the course of 2007. At the time of writing, the reports of the three working groups (WGs) had been released. WG 1 deals with “The physical science basis of climate change”, WG 2 with “Climate change impact, adaptation and vulnerability” and WG 3 with “Mitigation of climate change”. A synthesis report will be published during the meeting of the Governing Body’s Working Party in November 2007. 

The main messages of the Intergovernmental Panel on Climate Change and the Stern Review

6. The reports are the strongest evidence yet that climate change is happening. Global temperature has risen by 0.74°C over the last century, the largest and fastest warming in the history of the Earth detected by scientists. The trend is accelerating and has affected all continents and most oceans. Temperatures could rise by 3°C over pre-industrial levels by the end of the century. 

7. There is more than a 90 per cent certainty that observed climate changes are caused by human activity. Global warming and other climate changes are caused by gases, which reduce the ability of the Earth to return part of the energy received from the sun to the atmosphere. These so-called “greenhouse gases” (GHG) include carbon dioxide (CO₂), methane, nitrous oxide and a number of hydrocarbonic gases. The effect is a function of the strength of the gas (know as “positive radiative forcing”) and of its concentration in the atmosphere. To reflect this, GHG concentrations as well as actual or avoided emissions are usually expressed as tons of “CO₂ equivalents”. Emissions have been increasing by 1.6 per cent annually over the last three decades leading to CO₂e concentrations of 379 ppm in 2005 compared to pre-industrial levels of 278 ppm.

8. Currently, CO₂ accounts for about 60 per cent of the total effect, methane for 20 per cent, nitrous oxide for 6 per cent and a number of other gases for the balance. Three-quarters of CO₂ emissions originate from use of fossil energy like coal, petroleum and natural gas, and the balance from land use changes, in particular tropical deforestation. Methane and

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3 Summaries for policy-makers and the full reports are available at http://www.ipcc.ch/


5 For comparisons, the difference between the present average global temperature and an ice age is 5°C.

6 ppm = parts per million.
nitrous oxide are released primarily by agriculture and to a lesser extent in mining, industry and traffic.

9. Warming follows emissions with a long time lag due to buffering by the oceans and because some GHG are long lived. The world will experience further climate change even if emissions stop today, albeit to a much lesser extent than otherwise. Adaptation to climate change in an effort to buffer its negative impacts is therefore inevitable.

10. Most impacts in the short to medium term will neither come from rising mean temperatures nor from rising sea levels, but rather from increased variability of weather and more frequent and extreme events like storms, droughts, floods and heatwaves. 7

11. Developing countries have historically contributed least to emissions causing climate change but stand to suffer most because they are the most vulnerable and least able to adapt, particularly populated areas like the Asian mega-deltas, small island States, and sub-Saharan Africa. The economic sectors most dependent on the weather, such as agriculture and tourism, are likely to be most affected along with settlements and industry located in coastal and river flood plains as well as other areas prone to storms.

12. By the middle of the century, freshwater shortages for more than 1 billion people in Asia are to be expected. Negative impacts on agriculture are already observed, particularly in Africa, where production will be severely compromised if emissions continue unabated.

13. In the medium to long term, projected climate change from current trends will lead to serious disruption of economic and social activity in many sectors on all continents. The technical and economic potential to reduce emissions to levels of climate change considered tolerable exist. Mitigation, i.e. measures to reduce emissions or remove GHG from the atmosphere are both necessary and cheaper than inaction according to the IPCC WG 3 and to the Stern Review.

14. The total mitigation potential of existing technology is estimated at 16–30 giga tonnes CO₂, enough to offset the projected increases in emissions and reduce concentrations of GHG below current levels. Mitigation potentials are significant in all sectors in both industrialized and developing countries. The highest potentials exist in the building sector, in agriculture and in industry. 8

**Implications for development**

15. Scientists suggest that, in order to avoid dangerous, possibly irreversible and self-reinforcing climate change, atmospheric concentrations of GHG should not exceed the equivalent of 450 ppm CO₂. This would result in a warming of 2°C on average. Small island States have been calling for lower levels because even 2°C warming would have significant impacts on ecosystems, coastlines, infrastructure and water supplies.

16. Stabilization scenarios show that a 450 ppm maximum requires global emissions to peak over the next 10–20 years. At the same time the trend scenario of the International Energy Agency projects a 60 per cent increase in global demand for energy until 2030, needing a

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total investment of US$20 trillion of which about half in developing countries. \(^9\) While, historically, industrialized countries have been responsible for the bulk of emissions, developing, in particular the rapidly industrializing countries are becoming major emitters in spite of comparatively low emissions per capita. Action by the industrialized countries alone will therefore not be sufficient.

17. Making economic growth and development compatible with stabilizing the climate calls for “low carbon economies” worldwide. A reduction of emissions by half compared to trend would take cuts of the order of 60–80 per cent in industrialized countries and still need 30 per cent lower levels in developing countries.

18. Decoupling economic growth from emissions supposes major advances in energy efficiency of products and services, in power generation, in buildings and transport, a significant increase in the use of renewable energy as well as lower emissions from land use. New technologies will be needed including carbon capture and storage.

19. The IPCC estimates the likely cost of mitigation at 0.12 per cent of world gross domestic product (GDP) per year. Stern advances a figure of about 1 per cent of GDP in 2050 as the annual cost of stabilization at 550 ppm. While these figures may appear modest, the financial flows involved are nonetheless very large. The United Nations Framework Convention on Climate Change (UNFCCC) reckons that US$200–210 billion will go annually into mitigation in 2030 and tens of billions into adaptation. \(^10\)

20. Climate change itself, adaptation to it and efforts to arrest it by reducing emissions have far-reaching implications for economic and social development, for production and consumption patterns and therefore for employment, incomes and poverty. These implications harbour both major risks and opportunities for decent work in all countries but particularly for the most vulnerable in the least developed and small island States.

21. One of the most visible risks concerns food and economic security, particularly in regions and sectors based on agriculture. The Stern Review has drawn attention to the fact that 22 per cent of the global population work in agriculture and that the sector also has the highest concentration of the world’s poor (75 per cent of the poorest people in the world, the 1 billion people who live on less than US$1 a day). \(^12\) Not least because of its impact on agricultural livelihoods, climate change poses a threat to the achievement of the Millennium Development Goals (MDGs). A further MDG-related negative impact is on health which will also affect the workforce, particularly in developing countries. Another weather dependent sector is tourism where employment has been growing fast. In all three, agriculture, tourism and health, women are likely to be affected more than men.


\(^11\) For a more extensive discussion see World of Work, Aug. 2007.

\(^12\) Stern Review, Part II, 3.3, Food, p. 67
22. In the absence of new social security systems, more frequent and severe natural disasters are likely to trigger or accelerate migration flows and could increase existing political tensions and instability. The response to such crises could help to make local societies more resilient if it aimed at adapting livelihoods rather than short-term disaster relief to return to the original situation.

23. Major investments in adaptation could offer significant employment and income opportunities in areas such as extending coastal defences, reinforcing buildings and infrastructure, water management and harvesting. Adaptation will require the transfer of numerous new technologies on a large scale. It will also involve the relocation of exposed settlements and industry. Adaptation in agriculture could have positive or negative impacts on employment and income depending on the labour inputs of new crops and farming practices and their compatibility with smallholder farming.

24. Energy efficiency gains have historically been one of the biggest contributors to reductions in emissions. They will require the transfer and deployment of new technology. Much of the capital stock of buildings and equipment is long lived and has slow renewal rates. The significant and often low-cost contributions from improvements in existing processes and facilities can only be achieved by the active involvement of managers and workers.

25. Gains in energy efficiency which do not require major investments will be particularly important for small and medium-sized enterprises. The IPCC emphasizes that these represent the bulk of employment and manufacturing capacity in developing countries. They account for half of the exports of China for example. Approaches for reducing emissions without endangering competitiveness and employment will be particularly essential.

26. Research by the ILO including a special literature review has confirmed that there are only a limited number of quantitative assessments of the impact of mitigation measures on labour markets and most of these concentrate on industrialized countries. Existing studies agree that a transition to a low carbon economy should not be a “job killer” but rather lead to a net increase in employment. This typically small net gain is, however, the result of major labour market transitions with substantial losses of some jobs more than compensated by increases in others.


14 IPCC: WG 3, conclusion 12.

15 ILO: “The impacts of climate change on employment and incomes – A review of the literature” by the Centre for Sustainable Production and Consumption, commissioned by the ILO (forthcoming).

27. Most of these transitions are likely to take place within economic sectors such as power generation, energy-intensive industries or transport. Outcomes for labour markets and the climate will be best if these transitions are anticipated and managed with the active participation of employers and workers. An example of a tripartite mechanism to facilitate such transitions is the national sectoral round tables for the implementation of the Kyoto commitments in Spain.

28. All aspects of adaptation and of mitigation require new technical and often also entrepreneurial skills. Increases in energy efficiency and in renewables will be a big part of the equation. The IPCC WG 3 emphasizes that both have significant potential to create new employment. This would be in “green jobs”, i.e. economically viable employment which reduces environmental impacts to sustainable levels. Examples of such green jobs include the hundreds of thousands of new employment opportunities created in wind and solar energy production in Germany and Spain, in the programme to make existing buildings more energy efficient in Germany and in the Brazilian bio-energy programme.

29. In the climate debate employment only features marginally and is regarded as merely a “co-benefit” of mitigation measures. This view overlooks the fact that the benefits for employment and development are vital for making many mitigation measures technically feasible, economically viable and socially acceptable. Even emission reductions that can be achieved at no cost or with a benefit like some 30 per cent of emissions in buildings will not be realized without raising awareness, suitable incentives, investments in human resources and enterprises capable of carrying out the work.

30. Small-scale renewable energy for decentralized power generation for the 1.6 billion people who do not have access to modern forms of energy at the moment would be a major boost for development and poverty reduction through green jobs. Such links between climate change and development are in still in their infancy, but the potential can be seen, for example, in the United Nations Industrial Development Organization’s projects linking power generation to youth employment programmes in Mexico and Cuba or by the promotion of solar energy by the Self-Employed Women’s Association in India.

31. The ILO has been invited to contribute to UN system programmes in China and Brazil financed by the Spanish Millennium Development Fund focusing on energy efficiency and bio-energy, respectively. In China, this will include design and testing of ways to improve energy efficiency in small enterprises along the lines of the successful ILO programme “Work improvement in small enterprises”. The programme in Brazil will help assess employment and income potential, organization of producers and design of extension programmes that promote productivity and decent work in the value added chain for biofuels.

32. The potential for synergies and for the need to make the response to climate change part of wider efforts for sustainable development is recognized. Not least because of the limited role or even absence of the ILO constituents in most of the policy debates, there are still rather few examples where the substantial potential has been tapped.

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Political momentum

33. Major political momentum for tackling the problem has been building in 2007. Climate change was one of the dominant topics at the World Economic Forum in Davos in January. Business circles and political leaders called for effective measures to arrest climate change and for a stable policy framework for the very large and long-term investments required. 18

34. The G8 adopted conclusions on climate change, energy efficiency and energy security at their annual meeting in Heiligendamm, Germany, in June expressing their commitment to move forward in the UN climate negotiations with a view to achieving a comprehensive post-2012 (i.e. post-Kyoto) agreement. 19

35. The European Union adopted a unilateral commitment to reduce its emissions by 20 per cent by the year 2020 against the base year of 1990 and to step up the target to 30 per cent depending on other countries also adhering to targets.

36. Numerous countries as well as major cities have adopted targets and taken measures for reductions of emissions. China for example has completed its first climate change impact assessment and adopted plans including drastic improvements in energy efficiency. 20

37. The UN Secretary-General, Ban Ki-Moon, has made climate change one of three priorities, the other two being Darfur and the Middle East. The development and roll-out of a system-wide programme on climate change are under way including by “Delivering as One” at the country level. The Secretary-General convened a meeting of world leaders on 24 September 2007 under the theme of “The future in our hands: Addressing the leadership challenge of climate change”. The President of the General Assembly, Srgjan Kerim (The former Yugoslav Republic of Macedonia) in his concluding statement said “We have come a long way in building understanding and a new consensus this year. More remains to be done but this event has sent a powerful political signal to the world, and to the Bali conference, that there is the will, and the determination, at the highest level, to break with the past and act decisively.” The ILO Director-General’s statement was well received and is attached as the appendix.

The build-up to a post-Kyoto arrangement

38. Much of the current political activity is part of the build-up towards a post-Kyoto agreement for which negotiations will start under the UNFCCC in December 2007.

39. The UNFCCC is the key international legal framework for responding to climate change adopted at the so-called Earth Summit in Rio de Janeiro in 1992. The aim of the


Convention is to stabilize GHG concentrations in the atmosphere to prevent dangerous anthropogenic interference, with the climate system while allowing development to take place. GHG covered by the Convention include methane, nitrous oxide and in particular CO\textsubscript{2}. The Convention entered into force in 1994 and has currently 192 parties.

40. In 1997 parties to the UNFCCC agreed to the Kyoto Protocol which commits industrialized countries and countries in transition to a market economy to achieve reductions in emissions of GHG. These countries (known as “Annex I” countries under the Convention) undertook to reduce emissions by an average of 5.2 per cent during the period 2008–12 compared to the 1990 levels. Specific reduction targets vary from country to country. The Annex I parties represent about 62 per cent of the GHG emissions in 1990. The Protocol entered into force in 2005 and has currently 175 parties.

41. The ambitious reduction targets and the peak of emissions within the next 10–20 years needed to arrest climate change at tolerable levels have led to pressure to avoid a rupture after the expiry of the Kyoto Protocol in 2012. This is deemed essential to send a clear signal and to provide stable parameters for policy and for investors and industry. For a new arrangement to be effective in time, an agreement has to be reached by the end of 2009. These negotiations will start at the Conference of the Parties 13 of the UNFCCC in Bali, 3–14 December 2007.

Policy directions for the ILO

42. Climate change itself, the adaptation to it and efforts to mitigate further change will lead to major transformations of production and consumption patterns. This will cause profound shifts and transitions in labour markets and in the way people earn a living. Employment impacts will be significant, including major opportunities for green jobs. Pressure to reduce emissions will imply a drive to improve resource productivity in addition to labour productivity.

43. International trade union and business leaders and organizations have endeavoured to connect the economic and social dimensions of development to the environmental discussions. However, the climate debate and negotiations still tends to be dominated by environment and energy specialists. Employment, growth and income generation, poverty reduction and better health are often secondary to the discussion rather than recognized as essential for sustainable development.

44. Tracing practicable pathways which make the protection of the climate compatible with economic development and the creation of more and better jobs would likely help to avoid an impasse in the climate negotiations as well as mobilize the opportunities. This is being increasingly recognized but little work has been done and major knowledge gaps make the formulation of policies and programmes difficult.

21 That is, interference of human origin. The text of the Convention is available at http://unfccc.int/essential_background/convention/background/items/2853.php


23 See IPCC WG 3 and background note of the UN Secretary-General for the high-level meeting on climate change on 24 Sep. 2007.
45. Given that climate change is not only an environmental issue but has clear economic and social consequences and is inextricably linked to a broader sustainable development agenda, the response to climate change needs to be mainstreamed into national, sectoral and local development strategies. The active participation of the ILO constituents as major stakeholders in the outcomes would be very valuable. Constituents in many countries have expressed the need to raise awareness to step up their capacity to engage in these policy debates. This would improve substantive outcomes as well as the governance of the process and contribute to institutional embeddedness. 24

46. Climate change is closely interrelated with the ILO mandate and numerous elements of its programme of work. Ensuring the recognition of the role of employers’ and workers’ organizations rests on the foundations of international labour standards especially on freedom of association and the promotion of mechanisms for social dialogue. In a number of countries dialogue at the workplace has built on mechanisms established to promote safe working conditions. Both adaptation and mitigation policies will need to include strategies for enhanced social protection, enterprise development and employment generation. The impact of climate change itself and of adaptation and mitigation policies will also have different effects on working women and men.

47. The response to climate change will trigger major financial flows including for technical assistance and become a major theme for the UN system “Delivering as One”. 25 Given its mandate, constituency and expertise, the ILO could play a major role at international and national levels in a system-wide approach especially through Decent Work Country Programmes (DWCPs). Doing so will require a significant effort to grasp the growing opportunities to mobilize resources for technical cooperation. In support of this, the collusion of agreements by the Organization with secretariats of relevant public international organizations dealing with environmental issues, such as the secretariat of the UNFCCC, could be explored. The ILO and UNEP concluded a Memorandum of Understanding in 1977. 26

48. Key political decisions at international and national levels will be made in the next two years. Retrofitting social and labour concerns after the event has proved difficult in the past. The time to engage is now.

The ILO’s “Green Jobs Initiative”

49. The ILO, in close cooperation with other UN agencies, can contribute to action on climate change by using the focus of decent work to support the integration of the economic, social and environmental pillars of sustainable development. The following components of a Green Jobs Transition Initiative build on the most important interrelationships between climate change and the ILO mandate, structure and current programme of work:

– Raising awareness and promoting dialogue within the ILO’s tripartite constituency and with other relevant stakeholders: The process of dialogue and consensus building on climate change action is important to the political sustainability of policies that must be maintained over several generations. The ILO’s long experience

24 See, for example, background note by the UN Secretary-General, at http://www.un.org/climatechange/2007highlevel/background.shtml

25 The UN Chief Executives Board is expected to adopt a system-wide approach to climate change at its October 2007 meeting.

of international standard setting and the promotion of dialogue mechanisms is a strong foundation for engagement in strategies to address climate change.

- **Embedding and facilitating economic and social transitions:** The ILO has tripartite forums including for key sectors like energy generation, construction, transport, agriculture and energy-intensive industries under the Sectoral Activities Programme. These bodies can serve as the institutional bridge between policy and industrial reality and promote the policy integration called for.

- **Filling knowledge gaps,** in particular by mapping the “hotspots” for impacts of climate change on labour markets and incomes through a combination of country, sectoral and meta-studies. 27

- **Promoting green jobs** which contribute to broad-based growth while reducing emissions thereby building constructive links between climate change, employment, incomes and poverty reduction.

- **Greening the workplace** by mobilizing and enabling employers and workers to develop low-cost ways of improving energy efficiency of existing facilities and equipment, in particular in small enterprises.

- **Building employment and income into adaptation to climate change** so that major investments go into adaptation to inevitable climate change, including through crisis response and investments in infrastructure.

- **Investing in people,** exploring and supporting skills development which is going to be essential to adapt to climate change, to increase energy and resource efficiency, to reduce emissions and to introduce new technology successfully.

- **Strengthening the capacity of ILO constituents and of the Office** through technical assistance and information, including documentation and dissemination of good practices for effectively engaging with climate change.

- **Exploring the usefulness of concluding Memoranda of Understanding** between the Organization and the secretariats of relevant environmental bodies.

50. The Working Party is invited to discuss the interrelationships between climate change, the way these are covered in the current policy discussions and reflect on the implications for ILO constituents and for the Office, providing guidance on a future programme of work and ways the ILO’s “Green Jobs Initiative” should be built into the overall ILO programme, including at national and local levels as a component of DWCPs.


*Submitted for debate and guidance.*

27 Methodologies for assessing the impacts of climate change on employment and incomes are proposed in a paper commissioned by the ILO’s Wuppertal Institute (forthcoming).
Appendix

Addressing the leadership challenge of climate change
The ILO’s “Green Jobs Initiative”
High-level event on climate change,
New York, 24 September 2007

Statement by ILO Director-General Juan Somavia

The inconvenient truth is that production and work consumes energy and other resources and leaves behind waste and greenhouse gases at a rate dangerous for our planet and our health. Addressing the threat of climate change will entail a transition to new patterns of production, consumption and employment.

The decisions of the summits in Rio in 1992, Johannesburg in 2002 and the Kyoto Agreements have built a framework for action. As the Secretary-General stresses in his note, the threats posed by climate change are a huge challenge to our political capacity to organize an integrated international policy response across the economic, social and environmental pillars of sustainable development. Furthermore, our strategies must be politically sustainable and stretch across generations of leaders and electors.

Adapting to and mitigating climate change will entail adjusting to new patterns of natural resource use and conservation. The ILO’s constituents of employers’ and workers’ organizations and governments accept this challenge and are determined to play their part by building our capacity to anticipate change, prepare and then implement an efficient and just process of adaptation. We are doing this through the ILO’s “Green Jobs Initiative”.

Huge opportunities exist to create green jobs through energy and industrialization policies which reduce emissions. The United Nations Environment Programme estimates that the market for clean energy technology could be worth 1.9 trillion dollars by the year 2020. Investments in energy efficiency, clean energy technology and in renewable energy have enormous potential to create productive and decent work.

A new generation of green jobs will contribute to sustainable economic growth and help lift people out of poverty. They are central to the positive link that needs to be established between climate change and development. We must also prepare for job losses and support workers and enterprises in shifting to new ways of working that substantially reduce emissions. We also need to invest much more in low emissions strategies for development that do not slow progress in poverty reduction. On all these issues, we must act preventively and develop the policies that can ensure a smooth transition for all involved.

Tripartite social dialogue between employers’ and workers’ organizations and governments holds the key to the development of the ILO’s “Green Jobs Initiative”. Our aim is to support workers and enterprises through the transition to a much more environmentally sustainable process of development. An important first step this year was the adoption at the ILO’s annual Conference of a worldwide policy package for sustainable enterprises.

In this framework, the potential for creating decent work is enormous, but experience teaches us that it is not realized automatically. The kind of broad-based, inclusive growth which benefits millions of workers, smallholder farmers, small businesses and women and men engaged in informal activities who need more and better jobs, does not happen by default. It will take deliberate steps, policies for energy, industrialization and climate change designed to explicitly include green jobs as a goal and as a way of delivering development.
The 2005 UN Summit Outcome and the Ministerial Declaration adopted by the Economic and Social Council in June 2006 stress the central role of productive and gainful employment and decent work as essential for eradicating poverty, for sustained economic growth and as a foundation for sustainable development.

The ILO is working with its own constituents – governments and the organizations of employers and workers – to document and promote the good practices that have been emerging in industrialized and developing countries alike. The ILO is also partnering with other agencies in the UN system and beyond and will actively support the initiative of Secretary-General Ban Ki-moon for a system-wide focus on climate change.

One of the most important foundations for an integrated international and political sustainable strategy on climate change is a focus on productive and gainful employment and decent work. This provides both a conceptual and an operational way of integrating policies and programmes as well as means of reaching out across borders to workplaces all over the world.

Making our societies more resilient to the impacts of climate change is to a very large extent about ensuring that workplaces and labour markets are not disrupted. Experience of environmental as well as financial crises shows us that, if people on the margins of poverty lose their livelihoods, it can take years to climb back out of deprivation.

Policies which anticipate the need for transitions in labour markets and which seize the opportunities for generating new and sustainable sources of employment and income have the potential to produce better economic and social as well as environmental outcomes. They also provide the social support and consensus required to embrace the necessary changes. The ILO’s “Green Jobs Initiative” aims to provide the vital decent work dimension to the UN’s drive for a comprehensive strategy on climate change.