International Labour Conference, 102nd Session, 2013

Report V

Sustainable development, decent work and green jobs
Executive summary

This report addresses two of the defining challenges of the twenty-first century: achieving environmental sustainability and turning the vision of decent work for all into a reality. It shows that not only are both challenges urgent, but they are also intimately linked and will have to be addressed together. While it is certain that environmental degradation and climate change will increasingly require enterprises and labour markets to react and adjust, the goal of environmentally sustainable economies will not be attained without the active contribution of the world of work.

The environment and social development must no longer be treated as separate pillars of sustainable development, but rather as closely interrelated dimensions. Such an integrated approach turns the drive towards environmental sustainability into a significant avenue for development, with more and better jobs, social inclusion and poverty reduction. Positive outcomes are eminently possible; however, these require county-specific policies that seize the opportunities and address the challenges identified by integrating environmental, social and decent work elements and ensuring a smooth and just transition to sustainable economies. The opportunities for gains may in fact be greatest in developing countries and emerging economies.

It is now evident that a decisive turn away from the business as usual (BAU) policy scenario of “grow first and clean up later” is urgently needed. Most international policy institutions, among them the Organisation for Economic Co-operation and Development (OECD), the World Bank and the United Nations Environment Programme (UNEP) have made urgent calls for a change of direction. The need for an integrated approach has been articulated further by the outcome of the United Nations Conference on Sustainable Development 2012 (Rio +20), which also highlighted decent work as a central goal and driver for sustainable development and a more environmentally sustainable economy.

The ILO and its constituents have a history of active engagement and support for sustainable development, and this new emphasis from the international community provides the ILO with a particularly important opportunity to advance its mission while contributing to environmentally sustainable economies. ILO constituents can leverage the momentum in the process of structural change towards sustainable production and consumption patterns for the large-scale creation of quality employment opportunities, the extension of adequate social protection, the advancement of social inclusion and the realization of fundamental principles and rights – for current and future generations alike.
1. **Environmental sustainability and decent work**

**Making the economy environmentally sustainable is no longer optional, it is a necessity**

A greener economy, as a way to achieve sustainable development, is not optional for sustainable enterprises and labour markets, it is a necessity. Escalating natural resource use and pollution will compound the growing scarcity of fresh water and fertile land and accelerate the loss of biodiversity and climate change beyond tolerable – perhaps even manageable – levels. The overuse of natural resources, such as forests, fish and clean water, and the rising levels of pollution, including emissions of greenhouse gases (GHGs), are increasingly exceeding planetary boundaries. The damage to economies and to society caused by environmental degradation has the potential to undo many of the gains in development and poverty reduction achieved over the past decades. Sectors that are the most threatened by climate change, such as agriculture, forestry and fisheries, employ well over a billion people.

**Economic output is threatened by environmental degradation**

Modelling undertaken by the International Institute for Labour Studies (IILS) confirms the conclusions of other assessments: that much higher concentrations of GHGs in the atmosphere will increasingly curb economic output and aggregate productivity levels. In particular, the IILS’s Global Economic Linkages (GEL) model suggests that productivity levels in 2030 would be 2.4 per cent lower than today and 7.2 per cent lower by 2050 in a BAU case. Already today, extreme weather events with likely links to climate change are leading to direct losses of jobs and incomes. In New Orleans, United States, Hurricane Katrina led to the loss of some 40,000 jobs in 2005, with African–American women the hardest hit. In Bangladesh, Cyclone Sidr disrupted several hundred thousand small businesses and adversely affected 567,000 jobs.

**Unresolved social challenges add complexity to resolving environmental challenges**

Unresolved social challenges, such as unemployment (particularly among youth), but also education, health, sanitation and infrastructure, add complexity to resolving environmental challenges. Working poverty and poor job quality still affect hundreds of millions of people around the world, while the widespread lack of basic social protection increases the vulnerability of many to environmental and economic shocks. Although the environmental and social challenges may appear daunting, addressing them together can lead to positive outcomes and create powerful synergies for development. For example, investment in rural water management infrastructure and social protection will not only create jobs and restore soil and water catchment areas; it will boost incomes, increase agricultural productivity and improve resilience to climate change.
Greater environmental sustainability can drive investment, economic growth and job creation

By combining policy instruments such as market-based instruments, regulations, public investment, procurement policies and awareness raising, governments can support enterprises and create an enabling environment which promotes the adoption of green workplace practices, investments in new green products and services and job creation. However, the transition also clearly implies losses as well as gains in employment, particularly when it involves a wholesale shift in the economic development model of large companies, sectors and countries.

Understanding the labour market dynamics is critical

The number of jobs created at all stages of the greening process is a function of the size of demand and investment, the effect of trade and employment elasticity. The sum of gross gains and losses is equivalent to the number of workers who will have to change jobs. Whether the overall quantitative effect on employment is positive or negative depends on the complex interplay between these job flows and the policy mix.

The sectoral composition of a national economy is also an important determinant for employment outcomes. Eight sectors are particularly implicated due to their dependence on natural resources and the climate, their large consumption of resources and their role as significant polluters. These are agriculture, forestry, fisheries, energy, resource-intensive manufacturing, recycling, building and transport. Between them they employ half the global workforce. At the enterprise level, the costs of greening, and job losses, can be attenuated by improving productivity. Numerous studies have shown that major gains in efficiency are possible and that many of these are already cost-effective with today’s technology and prices.

Transitions can not only cause shifts in the overall level and composition of employment, they can affect the quality of employment. The job content and profiles of many occupations are changing, and so are working conditions as a result of new technologies, processes and practices. The jobs created in the process must be not only green but also decent, that is be productive, provide adequate incomes and social protection, respect the rights of workers and give them a say in decisions which will affect their lives.

2. Seizing the opportunities: Lessons from international experience

The shift to a sustainable, greener economy offers major opportunities for social development: (1) the creation of more jobs; (2) improvement in the quality of large numbers of jobs; and (3) social inclusion on a massive scale.
1. Creating more jobs

Most studies of the net impact on employment of environmental policy measures suggest it is positive

A review of 24 recent global, regional and country studies finds that appreciable net employment gains have been realized or can be achieved. Gains may be higher in emerging economies and developing countries than in industrialized ones. By complementing environmental reform with labour market and social policies, the potential negative effects of these reforms can be offset. A greener economy could lead to net gains of up to 60 million jobs. These findings are in line with the double-dividend hypothesis, according to which policy measures can achieve economic benefits (in particular employment gains) and environmental improvements at the same time.

Much of the additional employment in a greener economy will be created in the production of green goods and services. While evidence is limited, it suggests that these jobs tend to be more qualified, safer and better paid than comparable jobs in the same or similar sectors. An assessment of a broad range of green jobs in the United States, for example, concluded that they compare favourably with non-green jobs in similar sectors in terms of skill levels and wages. Research in China, Germany and Spain has also found the quality of new renewable energy jobs to be good.

2. Improving the quality of existing jobs

A competent, skilled and motivated workforce is indispensable for better environmental performance

Across a number of economic sectors, there is a significant opportunity and indeed necessity for increasing the quality of work through improved working conditions, better occupational safety and health, and higher incomes to arrive at a more environmentally sustainable economy. Agriculture, waste management and recycling, and the building sector stand out in this regard, albeit for different reasons and with different options for achieving the necessary improvements.

Agriculture is the largest employer in the world, with a global workforce of over 1 billion, the sector on which most of the world’s poor depend and one of the largest emitters of GHGs. It is the largest user (70 per cent) and a significant polluter of water as well as a key cause of land degradation and loss of biodiversity. The evidence suggests that these environmental challenges can be met if there is a strong drive to train and support farmers to adopt productive farming methods with a low environmental impact. Especially among small-scale farmers in developing countries, policy packages for sustainable agriculture including skills upgrading, enterprise and value-chain development, organization and investments in social protection and infrastructure can yield major increases in output and incomes.

Employment in waste management and recycling will continue to increase as recycling rates rise. Of the 19–24 million workers currently in the sector, only 4 million are in formal employment. The vast majority work as informal waste-pickers in developing countries, with a large percentage of them presumed to be women. Recycling will only become a truly green activity with job formalization. Examples from Brazil, Colombia and Sri Lanka, where waste-pickers have been organized into cooperatives and established
enterprises, demonstrate how formalization can create significant opportunities for social inclusion and improved working conditions, safety and health, and earnings.

The building sector, which employs at least 110 million construction workers worldwide, has the highest potential for improving energy efficiency and reducing emissions in both industrialized and developing countries. Construction of energy- and resource-efficient buildings requires competent enterprises and skilled workers, however. Therefore, skills upgrading and certification of building firms, formalization, and improvements in working conditions to retain qualified workers will be key components of strategies in this sector. Investments in retrofitting of buildings can have a strong immediate effect on employment generation in the construction sector and among its suppliers. For example, a large-scale renovation programme in Germany that was initiated jointly by trade unions, employers and non-governmental organizations (NGOs) has mobilized investments of almost €100 billion since 2006 and maintains as many as 300,000 jobs in the building industry. For emerging and developing countries, leapfrogging directly to high-performance new buildings will avoid a legacy of high energy, water and resource consumption which otherwise will endure for decades.

3. Advancing social inclusion

The transformation offers the possibility of greater social inclusion, including better opportunities for women

Improving access to clean energy and payment for environmental services are two areas that illustrate this. Efforts to promote affordable renewable energy can create badly needed employment in the production of that energy and greatly improve productivity in poor areas. Payments to rural and coastal communities to protect forests, manage water or produce renewable energy can offset the opportunity costs of environmental services provided and reduce poverty. Programmes that are part of national social protection floors, such as Bolsa Verde (Green Grant) in Brazil or the Extended Public Works Programme in South Africa, are particularly powerful mechanisms to link environmental and social objectives.

3. Identifying and managing the challenges

The challenges to creating decent work and increasing social inclusion in environmentally sustainable development can be grouped in three areas: (1) economic restructuring; (2) climate change and its threat to jobs and livelihoods; and (3) adverse income distribution effects originating from energy poverty.

1. Economic restructuring

The labour market challenges of economic restructuring are smaller than those triggered by globalization

Resource-intensive industries in industrialized countries and some emerging economies are most directly concerned, but employment in these industries is actually rather limited, at 10–12 per cent of the total workforce in most countries. Thus far, greening has been a relatively minor factor in employment losses. In reality, the principal causes of declining employment in industries such as mining, fossil fuel-based energy or iron and
steel are the increasing automation and rising labour productivity that have been occurring over several decades. This could change if GHG emissions were cut as strongly as called for by climate science. In this case, many additional jobs would be likely to disappear in the fossil energy industries.

Modelling simulations by the OECD show that a well-designed emissions trading system could achieve sharp reductions in GHG emissions while only moderately slowing GDP growth in the coming decades. The main labour market impacts of the mitigation policies would be to alter the sectoral composition of employment, but these shifts would be considerably smaller than those that have occurred over the last two decades as a result of globalization. Both OECD and ILO modelling have also shown that the use of an eco-tax, which uses revenue from charges on energy or emissions to reduce the cost of labour, can lead to a net increase in employment.

Greening measures can also protect existing jobs and boost employment considerably

Improving the productivity of energy and materials is therefore an important means of securing the future viability of resource-intensive industries. One area with great potential is recycling the large amount of heat generated as a by-product in basic industries. The use of combined heat and power (CHP) worldwide could create around 2 million jobs at new CHP facilities.

Efforts of individual companies and entire sectors serve as positive examples

Successful drives to green resource-intensive industries have been made by individual companies as well as by entire sectors, and the social partners have often played an important role. The global manufacturer 3M and LG Electronics are two examples of companies that have involved their workforces to make great strides in cutting emissions. Japan’s Top Runner Programme, which involves manufacturers, unions, consumers and universities, has pushed the electronics sector to vastly increase the efficiency of electronic products.

Small and medium-sized enterprises (SMEs) need particular attention in making the transition

Collectively, SMEs represent over two-thirds of global permanent employment and create most new jobs, but are also significant polluters and consumers of resources. They are generally disadvantaged compared to large firms regarding access to information about green markets and skills programmes, new technologies and finance, and they have far greater difficulties in compensating for rising energy and raw material costs. Policies that enable SMEs to successfully navigate the shift to a greener economy and to seize the opportunities will be critical, and a number of countries, including EU countries, Malaysia, Philippines and United States, among others, have already explicitly addressed SME needs in their environmental policies.

Since a green transformation can be anticipated to a certain extent, governments, business and labour can work together to identify potential adjustment pressures early. Mapping of likely impacts is critical for timely and targeted measures. Lessons learned to date from major restructurings, such as the sugar industry in Brazil, the forest industry in China, commercial fishing in Norway, the coalmining industry in Poland and the steel
industry in the United Kingdom, point to social security and skill development as well as diversification and creation of alternative employment as keys to success.

2. Climate change and its threat to jobs and livelihoods

Climate change will impact communities, enterprises and workers in locations exposed to storms, floods, droughts and fires

Some of the world’s largest cities are in coastal areas and flood plains. In developing countries, 14 per cent of the population and 21 per cent of urban dwellers live in exposed low-elevation coastal zones. The poorer segments of the population in developing countries are particularly vulnerable because they have the least adaptive capacity. Environmental degradation is a known driver for migration as well. In 2002, the United Nations High Commissioner for Refugees (UNHCR) estimated that 24 million people around the world became refugees because of floods, famine and other environmental factors, exceeding the number of all other refugees including armed conflicts.

Adaptation will be essential to protect enterprises, workplaces and communities

Even with drastic reductions of emissions today, global warming will continue for centuries. A 2010 study by the World Bank arrived at US$75–100 billion per year in current dollars for 2010–50 for developing countries alone.

As of November 2012, all except one of the 48 least developed countries had prepared National Adaptation Programmes of Action (NAPAs). Most emerging and advanced economies also have national programmes. While it is widely recognized that the approaches conducive to successful adaptation to climate change are similar to those for sustainable development more broadly, existing policies and strategies such as the NAPAs still pay little attention to the employment and income dimensions. Examples of national assessments from Bangladesh and Namibia on the employment and social impacts of climate change show that such assessments are necessary to inform adaptation measures. Data about the labour market, employment, and income of households and enterprises are indispensable in order to design appropriate adaptation strategies.

3. Adverse income distribution effects originating from energy poverty

Higher energy prices due to scarcity, regulatory changes or taxes can have strong adverse effects on poor households

Poor households spend a much higher proportion of their incomes on energy and energy-related goods such as food and are less able to reduce this expenditure when prices rise. According to the IILS, in nearly half the countries for which data exist the share of food expenditure in household income among the poorest population quintile is over 60 per cent – ranging from 38 per cent in Latin America to 70 per cent in Asia and 78 per cent in Africa.
It is therefore important to keep distributional impacts in mind when considering policies to promote a transition to a low-carbon economy. For example, carbon trading schemes and feed-in tariffs levied on electricity consumers tend to have stronger regressive effects than broader carbon taxes. Social protection floors can help, but given the high variability in domestic use among groups and localities, compensation can be complex. A radical expansion of eco-social investment into access to energy and energy-efficient housing and transport infrastructure is widely seen as an effective complement or even alternative. Brazil’s Programa Minha Casa, Minha Vida (My Home, My Life) is an example of such an investment. The solar home systems programme in Bangladesh and the formation of energy cooperatives are other means of expanding access for the 1.3 billion people still without affordable clean energy, opening up countless opportunities for enterprise development.

4. Effective policies and the scope for a supportive role by the ILO

Positive outcomes for employment, decent work and sustainable enterprises from an environmentally sustainable economy require country-specific policy mixes

Countries that have large shares of resource-intensive and high-emitting industries face different challenges from those with a lighter legacy of unsustainable production patterns, but where sectors exposed to climate change (such as agriculture or tourism) may be dominant.

Macroeconomic fiscal and monetary policies can redirect demand and investment by enterprises, consumers and investors through price signals and incentives created by taxes, price guarantees, subsidies, regulation, finance and public investment. Eco-taxes which raise the price of energy consumption and pollution and reduce the cost of labour, coupled with clear and stable targets and timelines for greening and emission reductions, can be a powerful driver of green investment and net job creation. This is particularly true in times of economic crisis. China, for example, has created over 5 million jobs through its green economic stimulus package. Current fiscal austerity in the European Union (EU) and other parts of the world, on the other hand, could hinder green growth.

Sectoral policies are widely employed, generally relying on environmental regulations, financial incentives and mandates, for example the share of renewable energy in a power supply, average energy consumption thresholds for cars or biodiversity set-asides in agriculture and forestry. Most public investment for environmental sustainability is aimed at key sectors such as energy, buildings, transport, land and water management. Numerous countries have successfully used industrial policy to support greening of the economy, including Brazil (ethanol and biodiesel), China (all renewables), Denmark (wind), Germany (green buildings among others), Japan (green transport) and Spain (wind and solar).

Social and labour policies for a green transition ideally combine social protection, employment, skills development and active and passive labour market policies. Social protection measures such as Ethiopia’s Productive Safety Net Programme and India’s
Mahatma Gandhi National Rural Employment Guarantee Scheme strengthen the adaptive capacities of the poor and provide opportunities to adopt sustainable practices. Social protection also affords poor and relocated workers income security, the possibility for skills acquisition and increased mobility. Remuneration of environmental services can link targeted access to employment opportunities to major investments in productive infrastructure.

Shortages of skilled workers and enabling measures for enterprises must be addressed

Shortages of qualified workers are already hampering the shift to a greener economy in most countries and sectors, as shown by the ILO’s 2011 study Skills for green jobs: A global view. Active skills policies will therefore be important, with the main lessons pointing to: the need to anticipate future skills requirements and make adjustments in education and training systems; the value of encouraging the acquisition of generic skills in science, technology, engineering and mathematics (STEM skills); and the need to recognize skills development as an adaptive response to climate change and restructuring of labour markets.

In the process of becoming more sustainable, enterprises will have to be able to produce a wider range of green goods and services and adapt to cleaner production methods. Therefore, policies will increasingly need to focus on enabling regulatory and fiscal measures for green products and services, in particular for SMEs, including green entrepreneurship training; greening of workplaces and value chains; and improved business resilience to adaptation through climate-proof infrastructure, disaster preparedness, and skills development and insurance.

Environmentally sustainable economies must integrate occupational safety and health into design, procurement, operations and recycling policies

ILO standards promote universal principles which are pertinent to any type of economic system or workplace, but some are also directly relevant to the protection of the environment. This is particularly true of the Chemicals Convention, 1990 (No. 170) and the Prevention of Major Industrial Accidents Convention, 1993 (No. 174).

Social dialogue at all levels and close cooperation between government and the social partners will be central to the success of a transformation

The need for participation of workers and employers in governance was recognized in Agenda 21 and received even greater emphasis in the Rio +20 outcome document. It is encouraging that a growing number of national governments are pursuing environmental sustainability and green economy or green growth initiatives, often with the support of employers and trade unions. There has also been a notable increase in countries giving
consideration to green jobs policies or explicitly addressing jobs, skills, enterprise development, social protection or just transitions.

ILO constituents have expressed strong demand for capacity building, advisory services, and projects on the ground to assist national policy formulation and implementation from the launch of the joint Green Jobs Initiative by the ILO, UNEP, IOE and ITUC and the inception of the ILO’s Green Jobs Programme in 2008. The priorities of the Programme have served 27 member States to date and were updated in November 2012 in the light of the outcomes of the Rio +20 Conference to give greater focus to capacity building for social dialogue, employment assessments, linking environmental protection to social protection floors, and research and knowledge management.

In recent years, a rapidly growing number of countries have embarked on strategies and policies for environmental sustainability, a green economy or green growth. In the context of Rio +20, UN agencies, other international organizations and development banks have launched or expanded initiatives to share knowledge and provide advisory services and financial support.

For ILO constituents, leveraging the process of structural change requires environmental and economic policies that are mindful of their impacts on the world of work, and social, employment, skills and labour market policies that incorporate environmental sustainability as one of their goals without undermining the prospects for sustainable enterprises and decent work. Creating institutions and governance mechanisms for environmentally sustainable development at all levels, including ministries of labour and social development, employers’ organizations and trade unions, will be essential to achieve the necessary integration and coherence.

While it is clear that much relevant guidance is already contained in international labour standards and major ILO policy statements, it has never been articulated in ways that national and international policy-makers, the private sector or indeed the ILO constituents themselves can act on.

A unique opportunity to provide policy guidance

The Rio +20 outcome document, the UNFCCC Cancun Agreements on climate change and a growing number of national policy statements call for decent work for all and a just transition to low-carbon economies to be central goals as well as drivers for sustainable development. Many governments and stakeholders are looking to the ILO for guidance and support. The deliberations at the 102nd Session of the International Labour Conference in 2013 provide a unique opportunity to formulate guidance and define the role of the world of work in translating this political will into practice.
5. Suggested points for discussion

1. How will the main current environmental problems (such as climate change, water scarcity, biodiversity loss and deforestation) affect the world of work?

2. What are the main opportunities to advance decent work for all as part of the overall shift towards environmental sustainability? How can the potential for growth of jobs and sustainable enterprises from this shift be realized and how can it be ensured that green jobs are also decent jobs?

3. The impacts of environmental problems, but also the actions taken for protecting the environment, will present diverse challenges for employment, working conditions, social equity and labour rights. These include the impact of new regulations on resource-intensive sectors or polluting ones, the impact on supply chains arising from an increase in the costs of energy and natural resources, or the distributional impacts of carbon pricing or other environmental measures. What challenges could be experienced by the world of work following the implementation of policies aimed at protecting the environment?

4. What can be learned from previous transitions (such as those associated with the introduction of labour-saving technology and mechanization, information and communications technology or trade adjustments) and their impact on the world of work and what is new with the transition to sustainable development?

5. What policies and institutions are required in order to manage the challenges for enterprises and workers, from a transition to an environmentally sustainable economy and minimize negative effects, while promoting green and decent jobs and the greening of all enterprises? What policies and instruments can be applied to facilitate a just transition for the world of work?

6. What should be the ILO’s priorities – using all its means of action – in order to assist constituents to capitalize on the opportunities and in fostering a just transition towards a world of work that respects and contributes to environmental sustainability? What should be the role of member States, and employers’ and workers’ organizations?