



**United Nations Environment Programme
(UNEP)**

**Contribution to the
2015 United Nations Economic and Social Council
(ECOSOC)
Integration Segment**

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"Achieving sustainable development through employment creation and decent work for all"

I. UNEP'S WORK

UNEP is contributing to the employment and decent work agenda through various streams of its programmatic work, including by collaborating and establishing partnerships with the ILO and other stakeholders within and outside the UN system. Following *Rio +20* mandates, activities on areas such as green economy and ecosystem's management integrate employment generation and other social and economic objectives with the environmental dimension of UNEP's work. The Partnership for Action on Green Economy (PAGE) and the Poverty-Environment Initiative (PEI) represent concrete examples of collaborative efforts.

Multiple UNEP assessments have also focused on linkages between the environment and employment, demonstrating the benefits of integrated policy approaches. For instance, the reports resulting from the *Green Jobs Initiative* indicate that investments in the amount of 1 to 2% of the global GDP in 10 key sectors each year, between 2010 and 2050, could result in a reduced ecological footprint, higher growth rates of GDP, and new jobs.

II. CHALLENGES, BEST PRACTICES AND POLICY OPTIONS

ILO estimates that 600 million new jobs need to be generated globally over the next 10 years. Innovative economic and environmental policy reforms including fiscal measures, trade facilitation and green investments —coupled with a shift in consumer preferences and behavior— can bring transformational change in the economy. They can create meaningful employment opportunities in both urban and rural areas, expand and diversify the local job market, and contribute to the transfer of technology and skills necessary for both long-term poverty eradication and sustainability. Nature-based and other green jobs can create shared prosperity while safeguarding the Earth's life support systems and the ecological foundation of the economy.

One billion people today are economic migrants and 74% of them are internal. Millions of youths migrate to urban areas each month in search of jobs, often joining the unemployed and leaving behind an aging and increasingly poor rural population with limited capital to drive productivity and sustainability in an inclusive manner. Perpetuating this model is not viable in a world of growing economic uncertainty, increasing environmental scarcities, and widespread poverty and inequality.

In this context, countries at all levels of development are moving towards greener economies. For example, employment in environmental goods and services in the United States in 2010 was 3.1 million (2.4%) and growing. In Brazil in 2010, 2.9 million green jobs (6.6% of formal employment) were recorded in sectors aimed at reducing environmental harm.

Nature-based employment

Today, some 2.6 billion people worldwide draw their livelihoods either partially or fully from agriculture, 1.6 billion from forests, 250 million from fisheries, and 200 million from pastoralism. It has been estimated that ecosystem services and other non-market good goods make up 50-90% of the total livelihoods of poor rural households.

UNEP's 2011 Green Economy Report defines green agriculture as farming practices that maintain and increase farm productivity and profitability; ensure the provision of food and ecosystem services; replace negative externalities of agriculture with positive ones; and rebuild ecological resources of food and ecosystem services; replace negative externalities of agriculture with positive ones; and rebuild ecological resources by reducing pollution and

using resources more efficiently. Practices such as crop rotation, diversification, efficient irrigation, and livestock integration have increased farm productivity by 59 to 179%. It is estimated that for every 10% improvement in farm yields there has been an associated 7% reduction in poverty in Africa and more than 5% in Asia. Similarly, investment in sustainable pastoralism (e.g. mobility corridors and mobile services) can result in 2-10 times higher productivity, lower GHG emissions per kg of meat produced, and stronger resilience to climate variability than intensive livestock production. Diversified and sustainable agriculture means protection of existing jobs, which prevents accelerated rural to urban migration and enhances rural employment opportunities in processing, marketing, and services. Investment in green agriculture could create 47 million additional jobs in the next 40 years relative to a business-as-usual scenario.

In 2010, 119 million workers were employed in the fishing industry —91% as small-scale producers, almost half of which were women. Such small-scale fisheries are often less damaging to natural resources than semi-industrial or industrial fishing activities. For example, it is estimated that in 2010 the share of large-scale enterprises in global fish catch was 53%, however, their share in the discarded or wasted fish catch was 87% amounting to 15 million tons of fish. A growing number of artisanal fisheries, like those in Senegal, have management committees to regulate and enforce fishing practices that are conscious of local fish stocks and use local and indigenous knowledge. They utilize economic instruments to promote sustainable small-scale fisheries within a community range, from jobs in post-harvest processing, to shipping, to supplying equipment and bait.

Sustainable ecosystem management not only secures the natural resource base on which the poor depend, but can also provide significant employment opportunities. For example, a stimulus package for sustainable forest management could create an additional 10 to 16 million jobs globally —at an estimated cost of US\$ 14 billion in international trade and income for subsistent households. Furthermore, bringing local communities equitably into the growing “green” travel and tourist industry can diversify livelihood options while achieving the conservation of biodiversity. Public work programmes that guarantee paid work for the restoration of natural capital can provide the necessary stimulus to protect the environment while transitioning people out of poverty. For example, over one million new jobs have been created through China’s forestry programmes in this way.

Green and decent jobs in the service sector

Innovation of institutions, supply chains, and technology is critical to achieve the dual goals of greening the economy and increasing access of the poor to sustainably derived basic services. Low-cost housing, clean energy, safe drinking water, sanitation, and other basic services can be provided by Small and Medium-sized Enterprises (SMEs) through cost-effective, low-carbon, ecologically friendly, and low maintenance technologies. SMEs are important drivers of growth in low-income economies and account for up to 90% of all businesses across Sub Saharan Africa. SMEs whose activities are green provide the triple benefits of employment, improvement of local access to basic services, and environmental sustainability.

The Global Village Energy Partnership, for example, has created over 3000 local energy-related jobs in Africa and the Caribbean by supporting entrepreneurship related to the deployment of local clean energy technologies.

Jobs in the recycling chain often provide a source of income for workers with low levels of education, no marketable skills, and limited access to productive assets. In Brazil, China and the United States, the waste sector employs 12 million people, most of them extremely poor. The formalization of this sector via social policy measures and investments in green technology can ensure safer working conditions and open up opportunities to develop new skills and diversify future employment options.

The renewable energy sector employs 5 million people worldwide and continues to show a steady climb. For example, a EU study that simulated the potential employment effects of investing one billion EUR into key green sectors concluded that almost 100,000 jobs could be

created in the renewable energy, energy efficiency, and sustainable transport sectors. Similarly, in China the green component of the fiscal stimulus that started in 2008 may create some 5.3 million direct and indirect jobs, including 430,000 jobs by 2030 in renewable energy² and almost 900,000 jobs relating to solar PVs by 2020. Brazil too could see almost 52,000 new jobs related to solar thermal systems by 2018.

Policy Options for Creating New Green and Decent Jobs

Further investment in green and decent jobs are needed because a severe shortage of skills has been evident in some fast growing sectors such as renewable energy and energy efficiency. There is a need for better defining education policies and opportunities, training teachers, and encouraging public-private partnerships to build skills and capacities. Nations also need to consider investing in re-skilling their populations to meet several emerging challenges. Technological intensification and “robotization” can affect vulnerable, unskilled and semi-skilled workforces. Globally, 22 million manufacturing jobs were lost between 1995 and 2002 as industrial output increased by 30%. Programmes should aim to retrain the poor towards green and decent jobs. Climate change may also force re-skilling; for example, more than half of the world’s population resides in low-lying coastal zones under threat from sea level rise, which could lead to more migration and the need to develop new livelihoods. Skills in starting local enterprises and establishing new trade and customer networks in green jobs can maximize the benefits for the poor.

References can be found at: <http://www.unep.org/post2015>