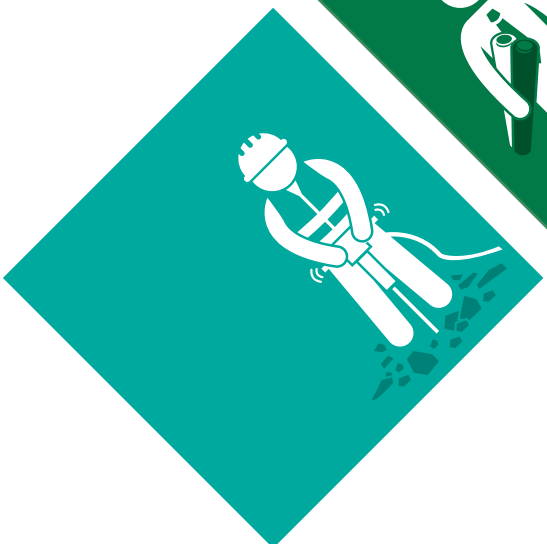




International
Labour
Office
Geneva

GREEN JOBS

PROGRESS REPORT 2014-2015



GREEN JOBS

PROGRESS REPORT
2014-2015

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Welcome to the **3rd Green Jobs Progress Report**

The ILO's Green Jobs Programme remains committed to the promotion of green and decent jobs for women and men worldwide. Green job creation and the greening of existing jobs, enterprises and economies are an essential means of achieving sustainable development and providing decent work for all. Green jobs help increase the climate resilience of countries and communities. If properly designed and managed, green jobs can foster social inclusion and gender equality and contribute to the eradication of poverty. Through a variety of activities, the programme works towards providing opportunities for governments, enterprises and workers to build capacity, develop skills and share knowledge for the greening of policies and practices in support of just transitions to sustainable and low-carbon economies.

Please visit our website www.ilo.org/greenjobs for further information about the Green Jobs Programme. You can access information about our country activities and initiatives, partnerships, publications, upcoming events, trainings and multimedia content.

The Green Jobs Programme would like to thank its partners, participants, and ILO colleagues who have contributed to this Progress Report, as well as all those who are actively involved in the Global Green Jobs Network.

If you would like to be in touch, you are welcome to contact us at: greenjobs@ilo.org

The Green Jobs Programme services include:



Policy advice for the formulation and implementation of effective national or sectoral policies that create green jobs, foster social inclusion and improve sustainability



Capacity building by providing stakeholders with opportunities to learn about key green jobs concepts, suitable approaches, existing tools and best practices



Knowledge creation by documenting experiences, conducting global, regional and sectoral studies, and producing flagship reports and guidelines



Pilot projects whereby tools for sectoral and thematic approaches are developed and tested



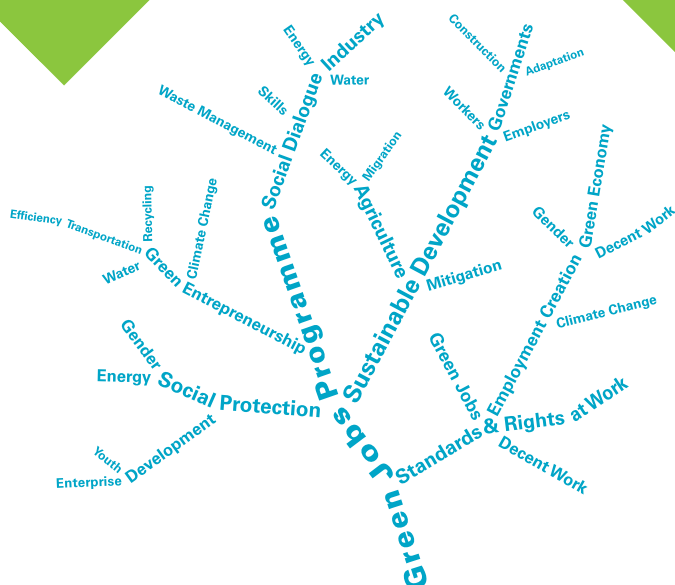
Advocacy by engaging in dialogues and key negotiation processes



Diagnostics and prioritization by identifying economic sectors with high potential for green job creation through national green jobs assessments



Knowledge Sharing through global and regional partnerships and networks



1. INTRODUCTION

Progress 2014-2015

The year 2015 was marked by two major international policy processes, namely, the adoption of the Sustainable Development Goals (SDG) in the framework of the 2030 Development Agenda and the negotiations towards a new global agreement on climate change. These two important processes guided to a significant extent the activities of the Green Jobs Programme.

At the global level, the ILO advocates for the integration of decent work and climate agendas so that they are mutually supportive. The ILO has been actively involved in international climate discussions, including the negotiation process leading to the twenty-first session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC), held in Paris in December 2015. These efforts contributed to a new climate change agreement that recognizes the imperative of a just transition and the creation of decent work.

At national level, the Green Jobs Programme provides an increasingly comprehensive suite of information and advisory services for the formulation and implementation of development plans, policies and strategies that centre on green job promotion, social inclusion and gender equality. The “just transition” policy framework agreed in 2013 at the 102nd session of the International Labour Conference and the guidelines adopted in 2015 identify key policy areas and provide a set of recommendations in order to achieve environmentally sustainable economies and societies for all with positive outcomes for labour markets.

Section 2 of this report provides an overview of the linkages between climate change and the world of work, the just transition policy framework and the ILO’s role in the international climate change negotiations.

Section 3 features the stories of six individuals who have benefitted from the Programme’s project activities in various regions and sectors. These stories are based on personal accounts and demonstrate the positive effect that environmental and social interventions have on workers and workplaces.

Section 4 highlights the most significant developments of the Green Jobs Programme in 2014 and 2015. This includes the noticeable expansion and diversification of the green jobs training portfolio; progress made by our partnerships and networks, namely the Partnership for Action on Green Economy (PAGE) and the Green jobs Assessment Institutions Network (GAIN); the development of a greening enterprises intervention model in the hotel industry in Mexico and Honduras; and the development of new tools for measuring environmental sector employment, tested through pilot programmes in Albania and Mongolia.

Section 5 presents recent publications from the Green Jobs Programme and ILO departments and offices. These cover a range of issues including gender equality, just transition, the role of skills and training, and how-to guides for green entrepreneurship.

Section 6 provides concluding words on the future strategy and priorities of the Green Jobs Programme.

Shades of green

The extent to which a green job benefits the environment and upholds decent work conditions can vary considerably. The shades of green concept acknowledges and represents this by depicting the decency and environmental friendliness of a green job along a green colour spectrum (see diagram below).

Jobs related to reactive and remedial measures to control pollution and waste, often referred to as “end-of-pipe” strategies, fall on the lighter end of the spectrum. Job positions related to more comprehensive measures to avoid and prevent the generation of pollution fall on the darker end of the spectrum.

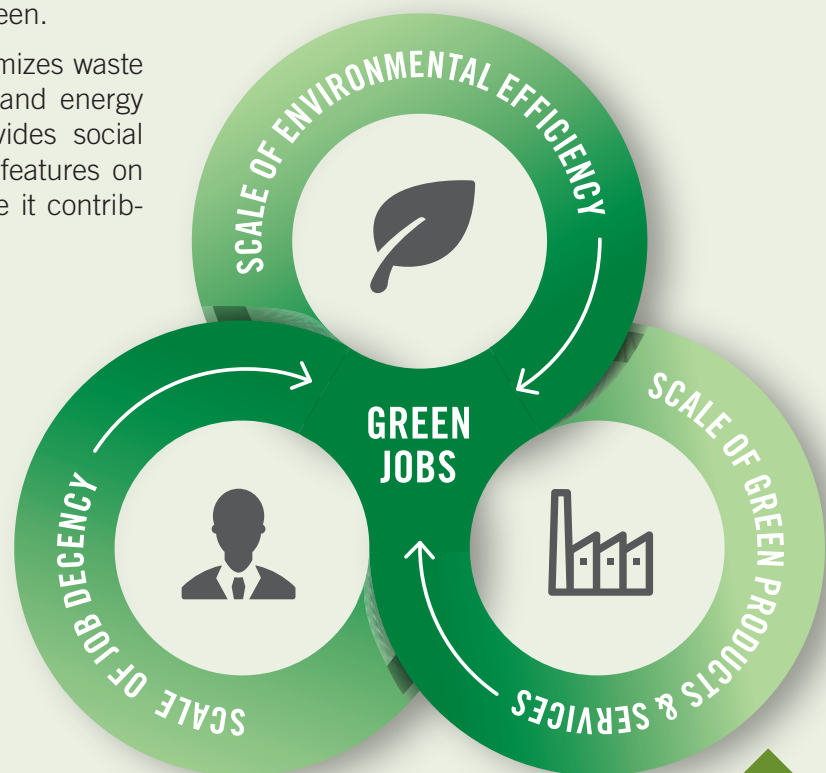
Similarly, jobs in enterprises that only meet the minimum national labour standards are “light” green, while jobs in enterprises that provide additional social benefits for workers, such as maternity protection, are “dark” green.

The more a job or enterprise minimizes waste and pollution, increases material and energy efficiency, and protects and provides social benefits to workers, the darker it features on the colour spectrum and the more it contributes to a sustainable future.

Light green activities have an important role to play in the overall process of greening economies: they can provide the time and flexibility required to pursue the “dark green” initiatives necessary for long-term environmental sustainability and social progress.

Countries at different stages of development have varied capacity to implement the types of changes that are necessary to green jobs and economic activities. The national context must therefore be taken into account when determining the shade of green of a particular job.

Improving the environmental and social conditions of jobs, enterprises, industries and economies is a continuous process. Achieving jobs that are fully decent and green is the ultimate objective.



2. CLIMATE CHANGE AND THE WORLD OF WORK



“To act for climate is to act for growth, justice and labour rights.”

François Hollande, *President of France, the World of Work Summit 2015*

Climate change is at the forefront of national and international agendas. Around the world, calls for climate action are coming from international organizations, NGOs, the private sector, social and political leaders and youth, amongst others. On our website, you can view video messages from Christiana Figueres, Executive Secretary of the UN Framework Convention on Climate Change (UNFCCC), and award-winning musician and producer Pharrell Williams advocating mobilization on climate and decent work agendas.¹

The effects of climate change are already seriously affecting labour markets and employment. Droughts, heat waves, heavy rains, tropical cyclones, sea level rise, rising temperatures and changing rainfall patterns have displaced workers, disrupted business operations, damaged business assets and infrastructure, and negatively impacted working conditions, occupational health and safety and labour productivity.²

These effects are inequitably distributed across regions, economic sectors and segments of society. The countries most affected, the Least Developed Countries (LDCs) and Small Island Developing States (SIDS), are highly vulnerable as they have low adaptive capacities. Sectors dependent on climate and natural resources including agriculture, fisheries and tourism will also be more affected. Workers most affected - the working poor, the self-employed, informal, seasonal and casual workers - and micro and small-sized enterprises, often lack adequate social protection systems, have limited alternative income opportunities, and are highly dependent on climate sensitive resources such as local water and food supplies. Women are more likely to be affected than men because of existing gender inequalities.³

1 [UNFCCC Message to the World of Work Summit and Pharrell Williams calls for green, decent jobs to be put centre stage.](#)

2 Please watch our [short video](#) on climate change and the world of work.

3 To learn more about how climate change affects the world of work, please visit the dedicated section on [climate change and jobs](#) on the green jobs website.

Alongside the climate crisis is the current employment crisis, which is predicted to exceed 200 million people by 2017.⁴

Climate change adaptation and mitigation strategies require investment in new technologies, products, services and infrastructure, which can provide a major stimulus for much-needed new employment. The ILO estimates that up to 60 million new jobs could be created. Tens of millions of green jobs have already been created in countries at various levels of development. In the United States, 2.7 million jobs have been created in the environmental goods and services sector, mainly for low- and middle-skilled workers. In Brazil, 2.9 million green jobs have been created through the pursuit of low-carbon development, accounting for 6.6 per cent of total formal employment. In China, over a million jobs have been created in forestry programmes. In the EU, 14.6 million direct and indirect jobs exist in biodiversity protection and forest and national resource rehabilitation.⁵ The renewable energy sector employs over 8 million workers globally.⁶

While the transition to a low-carbon economy will result in significant job creation, some job loss is inevitable, for instance, if the use of a particular resource or processing method is banned. Some jobs will be substituted (for example, jobs in waste incineration plants will be substituted with jobs in recycling facilities; likewise, cement-making will be gradually be substituted by jobs producing and using alternative and greener building materials), and most jobs will be transformed as the skill sets and working methods of plumbers, electricians, metal workers, construction workers and others, are greened.

Understanding the employment effects and other dynamics of low-carbon transitions is crucial for developing coherent policies that achieve positive social and labour outcomes. Social dialogue, including the practice of tripartism and collective bargaining, is necessary for the design of climate change and transition policies at all levels. Skills building and upgrading, training and education, and entrepreneurship development is needed to maximize the job creation potential of a low-carbon economy in stimulating investment in new green products and services and promoting environmentally friendly workplaces. Adaptation measures offer opportunities for job creation and climate-resilient communities, including through the reinforcement of buildings and infrastructure and construction of new climate resistant infrastructure. They should, however, be coupled with social protection systems,

CLIMATE CHANGE POSES SIGNIFICANT RISK TO JOBS AND LIVELIHOODS: SOME ALARMING FIGURES

In Bangladesh in 2007, Cyclone Sidr disrupted several hundred thousand small businesses and adversely affected 567,000 jobs.

In the United States in 2012 Hurricane Sandy caused billions of dollars of damage to public and private assets and infrastructure, left 150,000 workers displaced; employment in New Jersey was reduced by over 11,000 workers.

In the Philippines in 2014, Typhoon Hagupit affected around 800,000 workers, damaging or disrupting their source of livelihood overnight.

Source: ILO (2015). Decent Jobs in a Safe Climate: ILO Solutions for Climate Action

4 ILO (2016). World Employment and Social Outlook: Trends 2016.

5 ILO (2012). Working towards sustainable development. Opportunities for decent work and social inclusion in a green economy.

6 IRENA (2015). Renewable Energy and Jobs - Annual Review 2015.

microfinance and microinsurance, public employment programmes and employment-focused disaster risk reduction to help the most vulnerable.

In 2015, the ILO issued the **Guidelines for a just transition towards environmentally sustainable economies and societies for all**, which aim to help countries anticipate and manage the employment and social impacts of climate change and greening policies to ensure social dialogue, maximize job creation, and ensuring that the most poor and vulnerable segments of society are not made to be worse-off. The draft Guidelines were reviewed, finalized and adopted by a Tripartite Expert Meeting on Sustainable Development, Decent Work and Green Jobs in October 2015.

The Guidelines for a just transition towards environmentally sustainable economies and societies for all covers the following policy areas:

- **Policy coherence and institutional arrangements** for mainstreaming sustainable development and ensuring stakeholder dialogue and coordination between policy fields
- Establishing mechanisms for **social dialogue** throughout policy-making processes at all levels
- Employment-centred **macroeconomic and growth policies**
- Environmental regulations in targeted **industries and sectors**
- Creating an enabling environment for **sustainable and greener enterprises**
- **Skills development** to ensure adequate skills at all levels to promote the greening of economy
- **Occupational safety and health policies** to protect workers from occupational hazards and risks
- **Social protection policies** to enhance resilience and safeguard workers from the negative impacts of climate change, economic restructuring and resource constraints
- **Labour market policies** that actively pursue job creation, limit jobs loss and ensure that adjustments related to greening policies are well managed



Participants of the Tripartite Meeting of Experts on Sustainable Development, Decent Work and Green Jobs (2015)

The adoption of the Guidelines offered a timely tool in support of the implementation of the Intended Nationally Determined Contributions (INDCs) for climate action.

The Paris Agreement, adopted by the 195 countries present at the COP21, recognizes “the imperative of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities”. This indeed reflects the strong inter-linkages between actions to address climate change, on the one hand, and employment and social inclusion, on the other.

“The recently adopted ILO Guidelines for a transition towards a greener economy can become a powerful instrument to translate this global agreement into national policies that not only protect the environment but also create decent jobs and extend social protection.”

Guy Ryder, ILO Director-General

ILO’s role in the international climate change negotiations

At the international level, the ILO advocates for the integration of climate and decent work agendas. The ILO actively engaged in the multilateral climate change discussions and the UNFCCC process towards COP21, and before, emphasizing the links between climate change and the world of work, the need for just transitions to low-carbon economies, and presenting its solutions for climate action.

The ILO made an official submission to the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP), the body responsible for streamlining and consolidating the COP21 negotiating text. The submission indicated how and where



ILO delegation at the COP21 in Paris (2015)

“decent work and just transitions” could be incorporated and introduced ILO Actions and Initiatives for Climate Change Solutions.⁷

The ILO participated in all Dialogues around Article 6 of the UNFCCC, which calls on Parties to develop and implement climate change education, training and public awareness programmes and to ensure public participation in the development of climate change response measures. The ILO made an official submission to the Doha work programme on Article 6 providing an overview of its approaches, intervention models and technical cooperation programmes that contribute to climate change education and training.⁸ The ILO works directly with Parties to enhance implementation of Article 6 through national-level training and skills and capacity development projects and programmes.

The ILO has provided platforms for international discussions on climate change and decent work. In May 2015, the dialogue on *Climate Change and Jobs: Shaping the COP21 Agenda of Solutions*, provided a platform where climate experts and delegates from governments and employers’, workers’ and business organizations shared views on how climate and decent work agendas can be mutually supportive.⁹

The World of Work Summit at the 104th session of the International Labour Conference on 11 June 2015 focused on the implications of climate change for workers, enterprises and governments. A high-level panel discussion centred on the importance of social dialogue for the development of appropriate climate response strategies to build resilience and create solutions in pursuit of social justice, productive employment and sustainable enterprises, and to ensure a just transition for all. At a special sitting, French President, François Hollande, called on the delegates from governments, employers’ and workers’ organizations from the ILO’s 185 member States to undertake efforts to mitigate and adapt to climate change, to anticipate the skills, training and technological needs of a low-carbon economy, and to ensure international labour law.¹⁰

In October 2015, the ILO organized a dialogue 50 days before the Climate Conference, *Towards a Successful COP21: Decent Work and a Just Transition to Address Climate Change*, supporting the inclusion of these two dimensions in the then-draft agreement.

The ILO and UNFCCC have committed to strengthen their collaboration to mobilize constituents in support of an ambitious and successful global climate change agreement. Putting the planet on the path toward de-carbonization can deliver a safer, healthier, and more prosperous world that provides millions of decent work opportunities.

7 ILO (2015). [ILO Submission to UNFCCC Parties](#).

8 ILO (2015). [ILO submission to the Subsidiary Body for Implementation \(SBI\) on the third dialogue on article 6 of the Convention to be convened during SBI 42](#).

9 To read more about the outcomes of the dialogue, please see the news article [“World of work essential for climate solutions, says dialogue on climate change and jobs”](#).

10 You can view video footage at: [President of France, François Hollande addresses International Labour Conference](#).

3. FOCUS ON: PROGRAMME PARTICIPANTS



Aghna learns how to green her snack food business



Aghna Nurishshifa owns Dapur Abon, a preservative-free snack food business in Indonesia.

“Being green does not mean that I have to disregard the economic aspect of my business. Yet, it makes my business out of the ordinary.”

In 2011, Aghna Nurishshifa and her husband Dali Perdana opened Dapur Abon, a snack food business that specializes in preservative-free abon. Abon is a local dish made from shredded potatoes that are boiled, chopped, flavoured, fried and dried. Located in West Bandung, the Dapur Abon production site employs six local women.

Aghna received some information about the 5-day Start Your Green Business (SYGB) training programme in Bandung from the Ministry of Youth and Sports, an Indonesian Green Entrepreneurship Programme (IGEP) partner. In November 2013, she decided to participate in the programme. Aghna did not take the training to learn how to start a business; Dapur Abon was already

fully operational at that time. Rather, she saw the programme as an opportunity to improve her existing business knowledge and learn how to green her business practices.

At the training, Aghna was taught about business planning elements like costing, financial planning and marketing. She also learned how to green an enterprise by analysing the business cycle to identify opportunities to minimize waste. Aghna was inspired by what she had learned and immediately began to apply her newly acquired knowledge to her daily business practices. Aghna stopped disposing of the oil used in abon production and began to use it as a lubricant in the production site. She began printing *“tertib membuang sampah”*

on the labels of her products, which encourages consumers to dispose of the product packaging responsibly. Her product packaging is also designed so that it is easy to reuse.

The training equipped Aghna with knowledge that made her eligible for other enriching opportunities. In 2014, Aghna successfully passed all stages of the selection process for the Wirausaha Bank Indonesia (WUBI) Entrepreneurs Programme and was ultimately nominated as one of the top 5 entrepreneurs in West Java. In 2015, Aghna was appointed by the Ministry of Cooperatives and Small Enterprises to represent Indonesia at the Malaysia International Halal Showcase, the largest global trade fair for halal consumables, products and services.

Aghna was also approached by the Department of Manpower of West Java to participate in a programme aimed to empower ex-migrant workers by providing them with employable skills. Since then, Aghna has trained twenty ex-migrant workers to

make abon, emphasizing the importance of minimizing waste in the production and consumption process. She has expressed, “It’s such a great pleasure to share my knowledge and skill to other people. Green business is about giving more importance to social conditions.”

Aghna now aspires to altogether eliminate waste resulting from Dapur Abon’s business practices and sales products. She sees two elements as key to this endeavour: management of leftover food and training of employees to practice more green behaviours in the workplace.

Aghna’s business is currently doing very well. Aghna had once aspired for a space to display her products; she now has a sales outlet. Dapur Abon produces preservative-free abon in 14 flavours and has recently expanded their menu to include preservative-free abon snacks for kids - a healthy alternative to what is currently available in local markets. Through Dapur Abon, Aghna generates enough revenue to support her family.

The Indonesian Green Entrepreneurship Programme (IGEP) promoted green entrepreneurship in rural and urban areas in Indonesia, supporting the transition to a green and socially inclusive economy, from 2012 to 2014. One of the main activities of IGEP is the development and implementation of an Indonesia-specific Start Your Green Business (SYBG) toolkit and training scheme.



For more information on IGEP, please visit:

<http://apgreenjobs.ilo.org/project/green-entrepreneurship-programme>

José's career in wastewater management



José participated in a Technical and Vocational Training (TVET) programme in Costa Rica.

“Many companies do not want to invest in infrastructure to minimize waste and emissions; they see environmental protection measures as unnecessary expenses. Environmental awareness is key to achieving a greener economy in Costa Rica.”

In 2011, José Ramirez Blanco decided to participate in a 9-month vocational training course at the Naranjo training centre of the National Learning Institute of Costa Rica (INA) to learn how to become a wastewater treatment plant operator. At the time, he was working as a salesman at a hardware store and studying to improve his English.

José was drawn by the environmental aspect of the course as he has a longstanding personal interest in sustainability and environmental protection. He recognizes that compliance with new wastewater disposal regulations is key to the sustainability of enterprises.

Through the vocational training course, José learned about chemistry work that is fundamental to

the wastewater management industry. He learned how to identify, classify, best utilize and store various chemical products using material data safety sheets and the security rhombus. He learned the right types of personal protection equipment to use when working with specific products including acids, solvents and chlorine, and the safety procedures for spills, fires and contamination. José has suggested incorporating access to laboratories and equipment into the course curriculum to give students hands-on experience of the type of analysis work conducted in wastewater treatment.

The vocational training made José employable in the wastewater management industry. Following the course, José launched his career at the GAIA laboratory, located in the Alajuela district near San José.

GAIA is best known for providing maintenance work to wastewater treatment plants but is also involved in treatment plant design and wastewater sampling and analysis. José worked at GAIA for over a year, learning and gaining experience in treatment plant maintenance, supervision and monitoring, as well as wastewater sample collection and analysis for treatment plant operational reports. Occasionally, he was also required to collect air samples and test for emissions of air pollutants.

José then worked for two years at the LAQAT atmospheric chemistry laboratory at the National University of Costa Rica (UNA). There, he conducted analyses of water samples and air quality for the operational reports of enterprises (these reports are required for businesses to obtain the sanitary licenses that are necessary in order to legally operate). José collected samples of water in sterilized bottles and analysed temperature, pH, fats and oils, methylene blue active substances, sedimentable and hanging solids, and biochemical and chemical oxygen demand, which is commonly used to measure the amount of organic pollution. All have legally defined parameters in Costa Rica.

At present, José works in the Laboratory of Environmental Analysis at UNA, an accredited government laboratory. His work is now less focused on wastewater management, concentrating more on controlling air emissions and atmospheric pollutants. José primarily conducts site visits to enterprises to take air samples to control air quality. This type of fieldwork has given José unique insight into

the operations of enterprises in terms of action to minimize and reduce emissions and their attitudes towards environmental protection.

José reports a general lack of environmental consciousness and capacity in the workplaces that he visits and considers this to be a major hindrance to the pursuit of environmentally friendly practices. He has observed that while some enterprises take great effort to minimize environmental damage, others perceive expenses related to infrastructure for wastewater management and emissions control as investments with no return. In many cases, staff responsible for environmental management in enterprises lack the necessary knowledge and skills to do so, which can make discussions and joint decision-making about environmental improvements complicated and difficult.

Based on his experience, José considers increased environmental awareness as key to greening the economy and achieving sustainable development in Costa Rica. He calls for environmental education programmes in schools and nationwide government action for environmental awareness raising, knowledge and capacity building, and providing information at individual and enterprise level.

José believes that Costa Rica has the potential to become carbon neutral by 2020 if environmental awareness is raised and if stronger environmental laws, regulations and enforcement mechanisms are implemented to ensure that businesses comply with emissions standards and provide accurate information about their environmental impact.

The FOIL (Formación, Orientación e Inserción Laboral) project (2010-2014) aimed to strengthen technical vocational education and training (TVET) institutions in Central America and the Dominican Republic in developing learning standards and curricula to best equip workers with knowledge and skills related to the growing demand for green occupations.



For more information on the FOIL project, please visit:

http://www.ilo.org/global/topics/green-jobs/projects/latin-america/WCMS_213186

Nua and neighbours construct local aquaculture ponds for sustainable fish farming



Nua and her neighbours farm fish locally in Indonesia.

“We set a schedule and each day a household takes its turn to feed the fish and clean the pond.”

Nua used to make a living by catching wild fish on the nearby Lake Tundai and selling them in Bereng Benkel, her local village in Central Kalimantan, Indonesia. Fish are the most important source of income and proteins for many inhabitants of this area.

In the mid-1990s, Central Kalimantan was the site of a large-scale industrial project that aimed to convert over one million hectares of peat swamp land into agricultural lands for rice production. The Mega Rice Project, as it was known, had devastating environmental and social impacts. As a result of massive logging, draining of the peat lands, and pollution from gold mining activities in the area, the fish stock in lakes and rivers became depleted

and local communities were faced with increased incidence of food and income insecurity. These conditions made it very difficult for Nua to earn a sustained income. She worked harder and for longer hours but caught less fish and earned less money.

With diminished fish populations and serious water pollution, alternatives to wild fishing in the river became necessary. In May 2013, Nua and some of her neighbours travelled to Palangkaraya, the capital of Central Kalimantan, to attend a 2-day training on aquaculture offered by the ILO's GLACIER project. There, Nua and her neighbours learned how to construct a fish pond, cultivate fish, prepare fish fodder, and develop a sustainable business plan

based on local farm fishing. In June 2013, Nua and others took part in a 5-day participatory training session where they had the opportunity to gain hands-on experience in all that was covered in the previous training.

By early July 2013, Nua and the other programme participants had applied the skills acquired from the two consecutive training sessions to construct five 6.8 meter ponds in their village. Before filling the ponds with water, the participants sprayed the soil with organic fertilizer to allow the growth of algae, which is the principal source of food for fish in their early stages of development. Once the water quality had been tested as adequate, juvenile fish were introduced.

In September 2013, Nua and her neighbours attended another training to learn how to provide fodder for the fish. Thereafter they were fully equipped with the knowledge and skills to independently run a successful aquaculture operation. The fish species chosen for their pond, *anabas testudineus*, also known as climbing perch, is na-

tive to Central Kalimantan and offers a profit margin of 30,000 Indonesian Rupiah (IDR) for each fish sold.

Nua and four of her close neighbours now manage one easy-to-access pond in their village. They have a system for sharing maintenance duties which include feeding the fish and cleaning the pond. Nua is happy because the work is not strenuous and she is finally able to sell enough fish to support her needs.

Thanks to the investment in aquaculture and the related training, selling fish has once again become a viable economic option for the villagers of Bereng Benkel. Many have followed Nua's example and have begun to construct their own aquaculture ponds to farm fish.

The Green Livelihood Access for Central Kalimantan's Inclusive Environmental Response to Climate Change (GLACIER) is a pilot project from 2012 to 2013 that aimed to improve access to better and more sustainable livelihoods for five local communities in the Ex Mega Rice Project area in Central Kalimantan.



For more information on the GLACIER project, please visit:
http://www.ilo.org/jakarta/whatwedo/projects/WCMS_202802

Wankai's organic greenhouse vegetables



Lin Wankai runs an organic greenhouse vegetable business in China.

“Organic products with low levels of toxic pesticide and chemical fertilizer residues have become powerful market advantages that have allowed me to expand the scale of production and explore new markets.”

In early 2013, Lin Wankai was facing difficulty in finding suitable employment and was considering starting a business. He decided to participate in the ILO's Green Business Options (GBO) training programme in Yinchuan, the capital city of the Ningxia Hui Autonomous Region of China. The GBO training equips participants with the necessary skills for creating and managing their own green enterprise.

A range of green business ideas were presented at the GBO training, including organic agriculture. Wankai and the other participants were introduced to the “four P's” of marketing (price, product, promotion and place) and learned about pollution and waste reduction, as well as other environmental

protection measures. The knowledge that Wankai gained from the training formed the basis for his future green business venture and operations.

In April 2013, Wankai opened *Ningxia Yikeyuan*, an organic greenhouse vegetable production and distribution business in Guyuan City (Ningxia). *Ningxia Yikeyuan* grows peppers, tomatoes, beans and other vegetables. Wankai has taken measures to minimize the use of toxic substances at every stage of vegetable production in his greenhouses. He uses farm manure as a nutrient-rich alternative to chemical fertilizers and uses soil sterilization methods for pest control and plant disease management instead of pesticides. Although organic greenhouse vegetable production has

higher costs and lower outputs than conventional chemical-based methods, Wankai calculates that ultimately *Ningxia Yikeyuan* benefits from organic practices. Indeed, his green products have gained market recognition and yield rewarding returns on investments.

Using organic farming techniques has not only created better working conditions for Wankai and his employees, it has also created healthier food products for consumers. Workers have lower rates of exposure to hazardous chemicals as vegetables produced at Wankai's greenhouses have reduced levels of chemical fertilizer and pesticide residues and are thus safer for human consumption. As business expands, these positive social impacts will benefit more workers and consumers.

Indeed, business is expanding and sales have increased. Wankai is now doing business all over the country and he was able to scale-up production from 30 to 180 greenhouses in just eighteen months. *Ningxia Yikeyuan* initially employed 10

workers and now has a 30-person staff team, providing increasing employment opportunities to local populations.

Despite some existing financial and technical constraints, Wankai would like to further green his business operations. To this end, he plans to raise the proportion of farm manure from 70% to 90%, thereby further reducing the need for chemical fertilizers, to use soil composition as a means of pest control, diminishing the need for pesticides, and to use solar greenhouse technology.

The Green Business Options training scheme (GBO), currently implemented in China, is a training programme that helps young potential and existing entrepreneurs to acquire skills to develop feasible green business ideas and plans. During the pilot phase (2010-2012), thousands of young people in five provinces benefited from the training. Since 2013, GBO has upgraded its training kit and has been implemented in additional provinces.



For more information on the GBO training programme, please visit:
<http://apgreenjobs.ilo.org/project/green-business-option-project>

David and hotel service staff green their practices



Working together to implement green practices in the workplace has improved relations between operational staff and management at Hotel Los Picos in Mexico.

“I am not the same person I used to be. I used to throw trash out the window of the bus. Now, if I see someone littering, I ask them to stop.”

For the past four years, David Isaac Pérez Peralta has worked as a chef in *Hotel Los Picos*, a small hotel in the Nuevo Vallarta region of Mexico. In 2014, David, his kitchen staff and other members of the *Los Picos* staff team (including housekeepers, food servers, and management) participated in an ILO workshop that aims to green enterprises in the tourism sector through worker-employer cooperation.

At first, David was sceptical about the green methods he was taught, as he was doubtful that they would be put into actual practice by hotel staff. In his view, it required too much change on their part. David reports that there was initially very little motivation among hotel workers to take measures to

green their daily routines. However, as awareness about the benefits of on-the-job environmental sustainability increased, changes were gradually made.

At the workshop, David learned how to use materials that he had once considered as waste to create organic cleaning products. David used to apply bleach-based cleaning solutions, going through four litres of bleach every three days. Now, David combines the citrus peels from the lemons, oranges or grapefruits used in the hotel's kitchen with one kilogram of molasses and ten litres of water. He lets this mixture sit for sixty days to produce a natural degreaser that can be used to clean the kitchen floors, walls, cooking grills and more. Ten

litres of this organic formula lasts approximately twenty-five days in the kitchen and has enabled the hotel to save money on soap and chlorine. These savings both benefit the hotels' bottom line and are used to fund staff team events.

The entire *Los Picos* staff now takes measures to minimize waste. In the past, they disposed of glass and PET bottles with the general waste; they now routinely separate plastic, aluminium, and plastic bottle caps for recycling. They gather unwanted and shattered glass and distribute it to glass collectors. They take inventory of the cardboard boxes that come with supply deliveries and keep what can be used and sell the rest.

Working together to implement green practices in the workplace has enhanced communication and collaboration within the staff team. Every member participates in the green initiatives and is able to suggest and develop new ones. Management has recognized that they can learn best practices from operational staff, which has resulted in improved working relationships between the two. David reports that the overall work environment and culture have benefitted from greening workplace practices.

David also takes his newfound environmental consciousness home with him at the end of each working day. He now adheres to the green principles and practices that he learned from the workshop within his household, which has made his entire family more environmentally conscious. They have minimized their use of indoor lighting, switching on only those lights that are needed and opening windows for natural light when possible. They crush and recycle cans instead of discarding them with household waste. They water their garden less often.

David considers himself a changed person from all that he has learned and accomplished. He was most impacted by learning that things that he once considered to be waste can have a practical application. David would like to continue to learn more about environmental sustainability and build his capacity for green practices. He plans to apply the knowledge gained from the workshop and applied at *Los Picos* in all his future professional positions.

This workshop is part of a pilot project that was implemented in 6 hotels in 2014 in Nuevo Vallarta, in Mexico, a well-known tourist destination. The pilot is based on experience from the Greener Business Asia (GBA) project, which aimed to improve labour conditions, productivity and environmental performance in small and medium-sized enterprises in the hotel industry in Thailand. This pilot project is now being extended to additional hotels and also restaurants in the region.



For more information on the GBA project, please visit:

http://www.ilo.org/global/topics/green-jobs/projects/asia/WCMS_218865/lang--en/index.htm

Omba's green building construction business



Omba has greened her construction business in Zambia, reducing building costs by 70 per cent.

“The Start and Improve Your Green Construction Business (SIYGCB) training was an eye-opener. It has enabled me to green my business and has left me determined to continue along this route.”

In 2007, Omba Lacey independently opened *Katcey Constructions Limited*, a housing construction company located in Lusaka, Zambia. There is an overwhelming unmet demand for housing in Zambia; at least 3 million additional dwellings are required by 2030.

In December 2014, Omba received word about the Start and Improve Your Green Construction Business (SIYGCB) training intervention being offered by the ILO in the Zambian capital. She did not hesitate to participate. It was the first opportunity of this kind in the region, and Omba was eager for the chance to diversify her business skills and

thereby open the door to future prospects for herself and her company.

Prior to the SIYGB training intervention, Omba had not considered to use environmentally sustainable building materials. She had been importing aluminium and steel from South Africa and China, which was time consuming and expensive. Omba explained that delivery times for these materials often exceeded project deadlines, and that importing these materials required upfront deposits of approximately ZMK120,000 for a 4-bedroom house. Omba had also been using building materials that are highly toxic to humans including sheets of as-

bestos, putting herself and her employees at risk of exposure.

At the SIYGCB training, Omba learned about environmentally sustainable building practices and how to locally source building materials. She was made aware of the detriments of clear-cutting trees at construction sites and was introduced to the idea of using timber from trees cut onsite for building. Omba was taught how to use wood moulds or hydro foam machines to make clay and earth bricks out of suitable soil, which are used in housing construction. Omba learned how to harvest rainwater for a potable water supply using gutters, downpipes and storage containers.

Omba reports that greening *Katcey Constructions Limited* has reduced building costs by 70 per cent, making houses more affordable for all and has created employment opportunities for local people. *Katcey Constructions Limited* currently employs

20 to 35 workers and she shares her knowledge about green construction to each of them.

The knowledge gained through the SIYGB training inspired Omba and 15 other entrepreneurs, who also participated (11 women and 4 men), to found a green consortium. The consortium aims to deliver green goods and services.

Omba considers awareness raising and practical training as the most important factors to greening the building construction sector in Zambia and would like to see increased opportunities for both. Specifically, she is interested in advanced level construction skills development courses to learn methods to improve the quality of locally sourced building materials. Omba has indicated the need for financial support for the purchase of green construction-specific machinery.

The Zambia Green Jobs Programme, a One UN project, aims to support the creation of 5,000 green jobs among small- and medium-sized enterprises in the Zambian building construction sector by 2018.



For more information on the Zambia Green Jobs Programme, please visit:
<http://www.zambiagreenjobs.org/>

4. KEY AREAS OF WORK

Capacity building

Over the past biennium (2014-2015), green jobs training and capacity-building activities have significantly expanded and diversified. The most outstanding achievements - the Global Academy on the Green Economy, organized within the framework of the Partnership for Action on Green Economy (PAGE), and an e-learning course on green jobs for sustainable development - are presented in this section.

Throughout 2014 and 2015, the International Training Centre of the ILO (ITC-ILO) Green Jobs Learning Cluster delivered 22 trainings to 529 national, regional and international level beneficiaries. The training offers are continually modified in consultation with key stakeholders and ILO constituents to address growing, anticipated and changing needs for promoting socially inclusive green economies.

At present, ITC-ILO's green jobs training portfolio consists of:

- i. a range of tailor-made learning courses offered in Turin, in the field or as distance courses;
- ii. a set of distance learning modules available through the ITC-ILO e-campus;
- iii. training materials for courses targeting governments, social partners, practitioners and ILO staff (available in English, French and Spanish);
- iv. green jobs research and advisory services;
- v. national-level capacity building projects, including the Green Jobs Training Programme for South Africa;
- vi. a green jobs certification programme for ILO staff, which is part of an office-wide human resources staff development initiative.



Training on green jobs in the waste sector in South Africa (2015)

© Chandni Lanfranchi

GREEN JOBS TRAINING FOR SOUTH AFRICA (2014-2015)

The ITC-ILO and the Green Fund of South Africa partnered to implement a two-year training programme for the promotion of green jobs and decent work in the transition to a greener economy in South Africa. The Green Fund is a government-wide undertaking established by the Department of Environmental Affairs (DEA) and housed within the Development Bank of Southern Africa (DBSA), as a vehicle to support the transitioning of the South African economy to a low-carbon, resource efficient and climate-resilient growth path.

Institutional capacity of national and provincial Governments, civil society organisations and the private sector were strengthened to make national-level and sector-specific green jobs promotion policies actionable.

Training and learning advisory services were created to provide 160 national and local stakeholders with knowledge and tools to: (i) assess the potential for green job creation, design and implement supportive policies and strategies; (ii) discuss investment and technology options; and (iii) monitor and evaluate progress towards job creation in the green economy. The Development Bank of Southern Africa provided support to this programme. The programme has also led to requests for targeted capacity building on green jobs from Provincial Governments currently under assessment by ILO Pretoria in collaboration with ITC-ILO and DBSA.

With regards to research and advisory services, two particular long-term initiatives require specific mention: (i) the guide for employers' organisations entitled *Greening the economies, enterprises and jobs: The role of employers' organizations in the promotion of environmentally sustainable economies and enterprises* and (ii) the Euro-Mediterranean Green Jobs (EGREJOB) project. The guide for employers' organisations was developed in collaboration with the Bureau for Employers' Activities (ACT/EMP) and the ILO's Greener Business Asia (GBA) project. It addresses the specific needs of private sector associations interested in participating in global and national green growth policy dialogues and diversifying their membership services. The EGREJOB project, implemented within the framework of the European Neighbourhood and Partnership Instrument (ENPI) Cross-Border (CBC) Mediterranean (MED) Programme, tackled the youth unemployment gap in the Mediterranean basin area through analysis of green jobs creation potential and related skill needs.

The design and delivery of tailor-made sectoral courses for green jobs in waste management and natural resource sectors in South Africa was the focus of late 2015. These sector-specific courses have high potential to become part of other regional and global training offers. In future, the ITC-ILO Green Jobs Learning Cluster may expand to include other sector-specific courses focused on sustainable construction, renewable energy, and other areas of expertise, such as mainstreaming gender equality in green jobs promotion.¹¹

¹¹ Please visit ITC-ILO's website for more information on Green Jobs Programme training opportunities at: itcilo.org/greenjobs.

The Global Academy on the Green Economy

“I think the Academy on the Green economy is an amazing experience and it has brought together quite a lot of issues on our radar. [...] It’s been great having the learning experiences from the other countries, the networking, learning about initiatives ... that is something I can take back and also replicate in my country.”

Ivy Wong, Malaysia

The first Global Academy on the Green Economy was organized within the framework of the Partnership for Action on Green Economy (PAGE). This two-week learning event offered 86 professionals from over 30 countries a unique opportunity for training and knowledge sharing.

The training experience provided participants with an in-depth understanding of suitable approaches, best practices and tested tools at national and sectoral levels. A wide-range of topics were covered, including: green economy concepts, definitions and approaches; green jobs and decent work; strategies for greening economic sectors, industries and enterprises; shaping green economic policies through dialogue and participation; quantitative modelling options; measuring and monitoring indicators; poverty reduction, social inclusion and gender equality; the interplay between

HIGH-LEVEL POLICY FORUM AND KNOWLEDGE FAIR



The Academy began with a two-day High-Level Policy Forum and Knowledge Fair that enabled participants to interact with an additional 30 high-level government officials, donor representatives, and staff from PAGE partnering agencies. To offer greater understanding of policies and strategies for promoting inclusive green economies, PAGE country reviews were conducted and achievements made thus far were presented, highlighting key drivers in the transition process and existing challenges to the advancement of national green economy policy initiatives. A sectoral perspective on sustainable food systems was also presented, focusing on the SLOW FOOD movement in and around Turin. On the second day, at the Knowledge Fair, 21 experiences were presented, enabling participants to share and discuss best practices in past and on-going initiatives at country level.

international trade law, macroeconomic policies and green economy; and skill-needs analysis and skill building programmes; and the business case of greening.

The Academy included plenary sessions that aimed to create a common knowledge base and elective courses that covered specific thematic topics and included study visits to complement the class teaching. Participants selected a total of six of the 18 available elective courses. This learning approach enabled participants to customize their learning experience according to their individual and institutional needs.

The Academy provided an opportunity for participants to share knowledge and experience with a large international community of practitioners and establish networks with other national, regional or global organizations and centres of excellence. Tablet devices connected to a dedicated online platform, featuring all resources and learning activities, facilitated real-time sharing of resources and materials.

The Academy was hosted at the ITC-ILO in Turin, Italy, from 6 to 17 October 2014. Feedback from participants and the faculty inspired the creation of Regional Knowledge Sharing and Learning Forums that were implemented in Latin America and Africa in 2015.

The second Global Academy on the Green Economy will take place 3 to 14 October 2016.¹²



Participants of the PAGE Academy on the Green Economy (2014)

The e-learning course on green jobs for sustainable development

The interactive e-learning course entitled *Green Jobs for Sustainable Development: Concepts and Practice* is a 6-week training that was developed to provide an op-

¹² For more information about the Global Academy on the Green Economy, please see the brief [Highlights of the 2014 Global PAGE Academy](#).



portunity to improve understanding of green jobs key concepts and definitions and emerging practices for the promotion of sustainable development.

Structured around 4 learning modules, the e-learning course addresses the following fundamental questions through a review of tools, best practices and selected literature: WHY are green jobs key to sustainable development? WHAT is exactly a green (and decent) job? WHERE can green jobs be found and/or created? HOW can green jobs be promoted and by whom?

By following the course, participants are able to understand the linkages between environment, economy and society and associated challenges; learn to define green and decent jobs and identify sectors where green jobs are concentrated in different regions and countries; recognize the role of governments and social partners in the promotion of policy coherence for the transition to greener and more sustainable economies; and be aware of best practices and useful case studies that illustrate the variety of approaches to green jobs promotion such as green entrepreneurship, green enterprise development and skills development.

Currently available in English and Spanish, the e-learning course targets professionals interested in understanding green jobs basic concepts and linkages with the ILO agenda and the sustainable development framework. This includes representatives from governments, employers' organizations, trade unions, national and international development agencies, civil society organisations and development practitioners.

Green Jobs for Sustainable Development: Concepts and Practice is hosted on the ITC-ILO's e-campus, a virtual platform supported by a multidisciplinary team of experts who provide high quality learning guidance, pedagogical advice and technical support.

The first edition of the course was offered in November 2013 and it runs yearly. 92 participants have so far benefitted from this training opportunity.¹³

"ILO's training on Green Jobs for Sustainable Development was an extraordinary learning experience. It gave me excellent tools to deepen my knowledge of the strategies and practices that effectively promote green jobs in different sectors at national, subnational and local levels. The engagement of global experts and practitioners in the matter helped me develop a greater understanding of the potential of green employment, and build partnerships with ILO constituents for further learning and cooperation activities towards an inclusive low carbon economy."

Waleska Guerrero Lemus, Mexico

¹³ For more information about the e-learning course on green jobs for sustainable development, please visit the [training section](#) of our green jobs website.

Joint UN programme for country support: PAGE

Over the past biennium (2014-2015), PAGE has increased in scope, activity and global relevance. In 2014, country activities also began in Burkina Faso, Ghana, Mauritius and Senegal. Country scoping exercises, diagnostic assessments and capacity-building events were critical to opening dialogue around planning processes with key ministries and national stakeholders.

PAGE activities continued in Mongolia and Peru, the two first countries to join the partnership in 2013. With the support of PAGE, in 2014 Mongolia developed and adopted the Green Development Policy, promulgated by the Parliament and Peru adopted the Lima Declaration “Towards an Economy with Green Growth” and developed their *Roadmap to a Green Growth Strategy*.

In March 2014, the inaugural PAGE Global Conference¹⁴ was hosted by the United Arab Emirates in Dubai. Over 450 participants representing sixty-six states attended in support of the Partnership’s goal to build national capacity to develop and implement socially inclusive green economy policies and strategies.

In September 2014, PAGE launched *The Green Economy Toolkit for Policymakers* at the Green Economy Coalition Annual Conference in London. The toolkit includes three manuals to support green policy-making, green policy assessments and monitoring progress at country level.

As mentioned in the previous section, the first Green Economy Academy, organized within the framework of PAGE in October 2014, was hosted by the ITC-ILO in Turin, Italy. The two-week learning event offered a unique opportunity for training and global knowledge sharing for the promotion of socially inclusive green economies.

In the context of PAGE, UNITAR offers a web-based introductory course on the concept of green economy and its application in the policy-making process to support a green transition. In 2014, a total of 112 participants took part in the *Introduction to a Green Economy: Concept and Application* course and sixty PAGE-sponsored fellowships were awarded to participants from developing countries, including PAGE partner countries.

PAGE activities implemented in 2015 include: providing tools and assistance for measuring environmental sector employment and generating national green jobs statistical data in Mongolia; assisting the Peruvian government to finalize a sustainable and inclusive national green growth strategy; creating a green jobs incubator

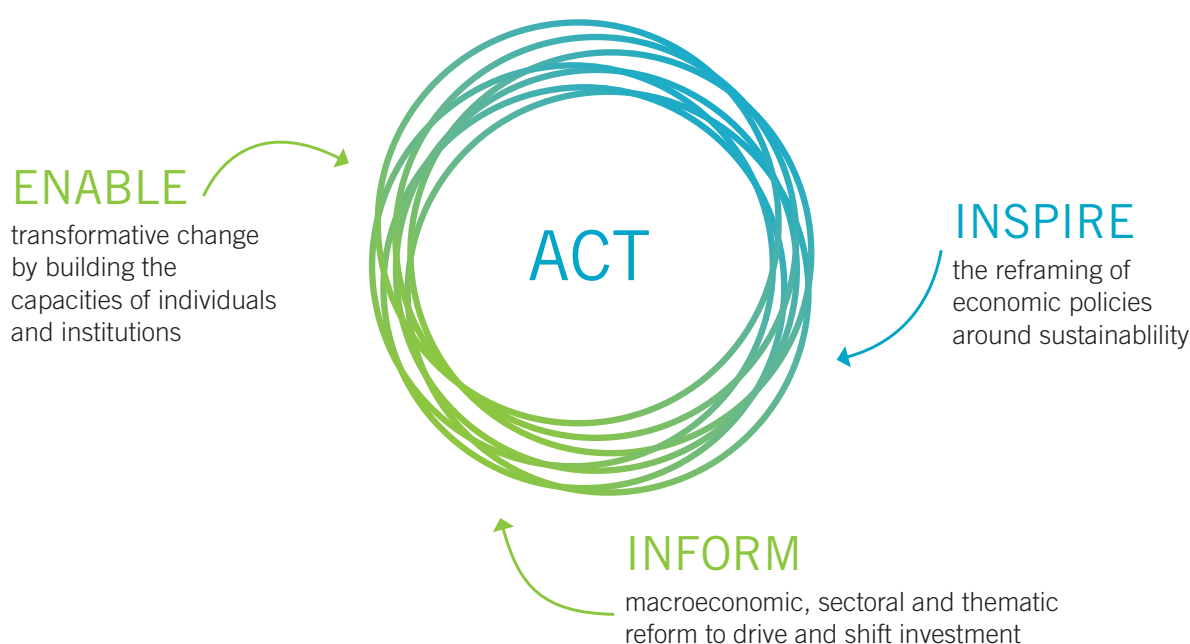
¹⁴ For more information on the 1st PAGE Global Conference, please visit: <http://www.un-page.org/events/first-page-conference>.

in Senegal, and conducting sector-specific policy assessments in waste management, trade, green industry and green infrastructure. PAGE has also initiated work in South Africa and China (Jiangsu province).

In collaboration with ITC-ILO, PAGE continues to organize and host training and learning events to provide policymakers and other interested professionals from civil society organizations and the public and private sector with opportunities to gain knowledge and develop skills for the active promotion of environmentally sustainable and socially inclusive economies. Through these events PAGE also aims to generate and facilitate regional level knowledge exchange and networking.

For instance, a Regional Green Economy Forum for Latin America was organized in Cartagena de Indias, Colombia, 2-6 November 2015, with representation from 10 countries of the region. Topics covered included: key green economy drivers, macroeconomic policy instruments, quantitative modelling tools, and both sector-specific and cross-sector approaches. Knowledge sharing at all levels was encouraged to help create a regional community of practice on the green economy. Moreover, a Regional Forum in Africa entitled *Greening industries and green entrepreneurship promotion as a driver of sustainable growth in rural Africa* was hosted in Accra, Ghana, from 9-13 November 2015 with participation from 29 Anglophone and Francophone countries. It provided a platform to explore key opportunities for efficient use of resources and green entrepreneurship specifically in the green economy in rural Africa.

Looking forward, PAGE will provide an increasingly comprehensive and coordinated package of technical assistance and capacity building services to support nations and regions interested in reforming economic policies and practices around sustainability to foster growth, create jobs and reduce poverty and inequality. Following the “inspire, inform and enable” approach, PAGE will support countries at various stages of policy development to put greener and more inclusive economies into action. In 2016, PAGE will expand its activities to 2 or 3 new countries.



 PAGE *inspires* by:

- Promoting strategic national development planning that integrates the objectives of an inclusive green economy;
- Mobilizing public, private and civil society stakeholders for reframing economic policies and practices around sustainability;
- Engaging financing partners - development banks, development cooperation agencies and business - in financing and supporting the transition to an inclusive green economy;
- Sharing best practices and exchange country experiences to inspire change at the global level.

 PAGE *informs* by:

- Supporting national governments to identify options, opportunities and challenges of an inclusive green economy through multidisciplinary research and scenario development;
- Providing technical assistance to design policies, strategies and plans at the macroeconomic and sectoral levels;
- Developing tools and measurement frameworks to support analysis and monitoring of progress towards an inclusive green economy;
- Generating knowledge about inclusive green economies through South-South and North-South collaboration.

 PAGE *enables* by:

- Strengthening national institutional capacities through country-specific programmes and learning strategies;
- Offering global and regional training on inclusive green economy for individuals and institutions.

The Partnership for Action on Green Economy was launched in 2013 by UNEP, ILO, UNIDO, and UNITAR, and joined by UNDP in 2014. PAGE aims to contribute to the equitable and sustainable transformation of national economic structures in twenty countries by 2020.¹⁵

¹⁵ For more information about PAGE, please visit: <http://www.un-page.org/>.

Diagnostic tools and practitioners' network: GAIN

With increasing country interest in climate action and environmental sustainability, policy-makers require information about the social, economic and employment implications of greening policies. In particular, countries are interested in available options for maximizing employment gains and creating social safeguards where needed. Acquiring this information requires thorough empirical assessment; many countries lack technical capacity and expertise to conduct assessments with appropriate methodologies and quantitative tools.

The Green Jobs Assessment Institutions Network (GAIN), a network of research institutions and experts, aims to fill this knowledge and capacity gap. The network works towards developing and improving tools and methodologies for empirical green jobs assessments and building institutional capacity for conducting these assessments, particularly in developing and low-income countries.

Building on previous ILO work in this field, GAIN is currently testing and developing green jobs assessment models (GJAMs) that can: (i) produce quantitative estimates of existing and potential green jobs in a national economy, by sector and; (ii) simulate the short- to medium-term impacts of green and conventional policy scenarios on employment and income distribution, enabling decision makers to identify the best policy options for green job creation. GJAMs are also able to project the employment and income effects of a shift away from conventional sectors, such as mining, towards greener sectors, such as renewable energy, enabling policy-makers to forecast and prepare for these types of sectoral shifts, also known as green transitions.



Participants of the second GAIN Conference
(2015)

The second International GAIN Conference, which took place in April 2015 at the ILO in Geneva, provided an opportunity for technical experts and policy-makers to review their experiences applying various GJAMs and analyse their ability to inform the policy-making processes.¹⁶ Discussions provided constructive feedback to improve the GJAMs and to inform strategies to augment their usability for policy-making.

GAIN is in the process of developing a green jobs assessment training package to serve as a hands-on manual for relevant policy-makers and researchers to strengthen and enhance national capacity. The first draft of the training package was presented and discussed at the above-mentioned conference. Experts were invited to comment on the draft training modules with focus on methodologies, format, tools and exercises.

GAIN was conceptualized at the Inter-Agency Workshop “Employment and Social Inclusion in a Green Economy”, organized by the ILO in collaboration with UNEP, UNIDO and UNITAR in March 2013 in Turin.¹⁷

16 To access more information about the 2nd International GAIN Conference, please see the news article [“Robust assessments for better policies: experts review training package”](#).

17 For more information about GAIN, please visit: http://www.ilo.org/global/docs/WCMS_230513.

Tools for enterprises

Greening enterprises is the ongoing process of improving the environmental performance of an enterprise by taking measures to increase material and energy efficiency and reduce or eliminate waste and pollution resulting from business practices. All types of enterprises can be greened, and this will eventually lead to certified green products and services.

The ILO promotes a people-centred approach to greening enterprises with a strong emphasis on skills development, improved working conditions, occupational safety and health, and social dialogue. It works directly with businesses and supports national stakeholders to identify and apply policy options that promote the greening of enterprises through social dialogue. Workers and employers play equally important roles, and worker-employer dialogue and cooperation is encouraged.

The ILO's Greener Business Asia (GBA) project addressed the need to shift towards more sustainable and responsible business models through worker-employer cooperation.¹⁸ In the framework of GBA, a greening enterprises pilot training intervention programme was implemented in Phuket, Thailand in 2011-2012. The programme targeted small and medium-sized hotels and provided workers and management with practical tools, knowledge and incentive to work together to change workplace practices to improve resource efficiency, environmental performance and market competitiveness. Worker-management teams were established in participating hotels to identify areas where environmental improvements could be made, develop realizable strategies, and continually work together on green improvement plans.¹⁹ Networks and support services were also established to facilitate the exchange of knowledge and best practices amongst participating hotels. A second phase of the pilot project was implemented in 2013-2014, which focussed on the involvement of ILO's social partners and assisted workers' and employers' organizations in supporting their members and affiliates in understanding and promoting the concept of green jobs and green enterprises.

In many cases, greening these enterprises enhanced mechanisms for on-going communication and cooperation between workers and management, activated occupational safety and health committees, improved workspace organisation, and established waste management systems based on the 3R approach (reduce, reuse, and recycle) in participating hotels.

¹⁸ To read more about the Greener Business Asia Project, please visit: http://www.ilo.org/global/topics/green-jobs/projects/asia/WCMS_218865/lang--en/index.htm.

¹⁹ To learn more about greening the hotel industry in Thailand, please see the project brief [Greening the hotel industry in Thailand](#).

Based on the experience and lessons learned from the pilot programme in Thailand, the ILO is developing a global intervention model for greening enterprises in the hotel industry. This new intervention model also integrates best practices from ILO's System for Integrated Measurement and Improvement of Productivity (SIMAPRO), applied in Latin America and the Caribbean. Through social dialogue amongst managers, middle managers, workers and unions, SIMAPRO's methodology enables to create mutually agreed strategies to improve productivity, working conditions, and social equality within organizations, with an increasing focus on environmental performance. SIMAPRO's unique approach includes independent-learning handbooks and an interactive problem and solution identification and monitoring system. SIMAPRO has had proven and sustainable results in participating enterprises.

The new consolidated intervention model for greening enterprises is currently being piloted in Honduras and Mexico in small, medium and large-sized hotels. David Isaac Pérez Peralta, profiled in section 2 of this report, works at *Los Picos*, one of the hotels that participated in a pilot intervention in Mexico. Through his testimonial, we can see the positive effects that this training has had on workers' environmental awareness, daily work practices, worker-management relations, and environmental performance.

In Honduras, the implementation of the pilot programme has taken place alongside a national tripartite dialogue on green jobs and green enterprises. The objective of the dialogue is to develop a national strategy to create incentives for green transformation in enterprises and the creation of green jobs. A "training for trainers" manual will help create national capacity to scale up programme activities.

Additionally, the Asia Pacific Green Jobs Network (AP-ILO) has created a global Community of Practice (CoP) that aims to provide a platform for sharing and leveraging knowledge, deepening understanding, networking and engaging in dialogue and debate on green jobs with constituents, committed professionals and practitioners.²⁰

20 For more information, please visit the [Community of Practice on Green Enterprises Tourism](#).

Tools for governments

Harmonized statistics are necessary for designing, planning and evaluating the impact of green policies on labour markets and for monitoring transitions towards a greener economy.

At the 19th International Conference of Labour Statisticians (ICLS) in October 2013 the ILO adopted a set of guidelines²¹ for defining and measuring employment in the environmental sector, which is defined as all economic units that produce, design and manufacture goods and services for the purposes of environmental protection and resource management. Green jobs are referred to as a subset of employment within the environmental sector, accounting for all decent jobs. Delegates at the conference agreed that intensive testing and piloting are required to accumulate country experiences based on the guidelines and that further research on methodologies for estimating employment in the environmental sector was needed.

To this end, the ILO Statistics Department in collaboration with the Green Jobs Programme has developed a methodology for collecting statistics on a set of variables that relate to the existence and nature of green jobs in a national economy. The methodology consists of two specific questionnaire modules; one designed for households, to be distributed alongside regular labour force surveys, and one designed for establishments (i.e. enterprises), to be distributed alongside regular employment and earnings surveys.

Thus far, two countries have participated in the pilot programmes to test the practical application of the new guidelines and data collection methodologies: Albania in 2013 and Mongolia in 2014.

In Albania, the pilot programme aimed to: evaluate the feasibility of collecting data on environmental sector employment and green jobs through household and establishment surveys, test the suitability of the model questionnaires, and determine whether or not respondents understood concepts and definitions. Basic information on the industrial, occupational, and geographic distribution of green jobs was collected and possible areas for further research were identified.

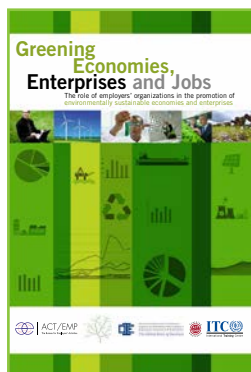
21 ILO (2013) Report of the Conference - 19th International Conference of Labour Statisticians.

In Mongolia, the methodology and survey instruments for collecting data on employment in environmental sector and green jobs were further tested. The objectives of the programme were: to estimate environmental sector employment, to compile information that would enable an assessment of job quality in the environmental sector, to produce a number of indicators that would provide statistical profile of those employed in the environmental sector and green jobs, and to provide characteristics of active economic units in the environmental sector.

In the context of ILO's activities on green jobs promotion, further pilot programmes will be implemented to accumulate country experience, develop a sound methodology which can be applied in different country contexts and to establish - in the long-term - a global database on employment in the environmental goods and service industries.

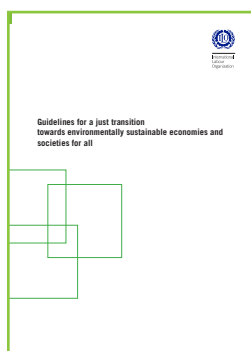


5. RECENT PUBLICATIONS



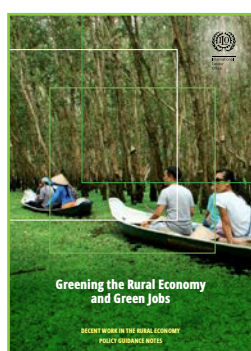
Greening Economies, Enterprises and Jobs: The role of employers' organizations in the promotion of environmentally sustainable economies and enterprises (2016)

Business is at the forefront of delivering economically and environmentally viable products, processes, technologies, services, and solutions that are necessary in the transition toward a greener economy and for sustainable development. Yet, business, employers and business organizations need information, tools and good practices to become effective advocates for their members in national policy dialogues, and to develop strategies to minimize risks and identify opportunities for their own organizations and members. This new resource guide provides an overview on: the evolving contribution of business to the sustainable development debate; planetary boundaries, environmental challenges and their implications for business; the greening of enterprises and workplaces, and; the role that business and employers' organizations can play in lobbying and service development in the environmental field.



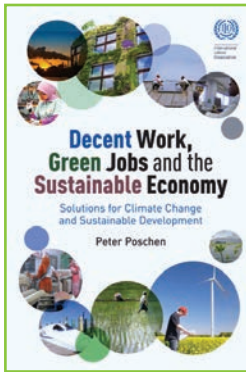
Guidelines for a just transition towards environmentally sustainable economies and societies for all (2016)

The Guidelines are both a policy framework and a practical tool to help countries at all levels of development manage the transition to low-carbon economies and can also help them achieve their Intended Nationally Determined Contributions (INDCs) for climate action and the 2030 Sustainable Development Goals. The Guidelines cover nine policy areas and are designed to create decent work on a large scale and ensure that social protection exists where needed. They also include mechanisms for social dialogue among governments, workers and employers' organizations throughout policy-making processes at all levels.



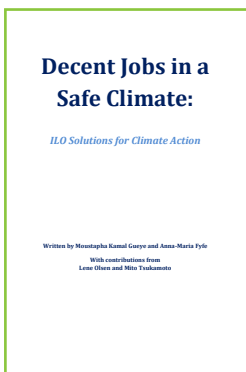
Greening the Rural Economy and Green Jobs (2015)

Greening the rural economy is central to enhancing resource and labour productivity, boosting poverty eradication, increasing income opportunities and improving human wellbeing in rural areas. Rural populations often depend directly on the environment and natural resources for their livelihoods, such as in agriculture, forestry, mining and tourism. This policy guidance note focuses on a number of areas that are at the heart of rural economies and could be engines for a sustainable economic transformation and green jobs creation. It is part of a portfolio of policy guidance notes that illustrates the ILO's holistic approach to promoting decent work in the rural economy.



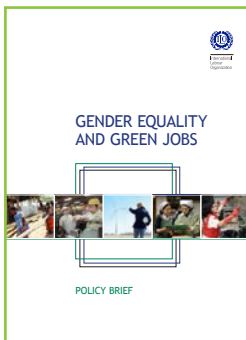
Decent Work, Green Jobs and the Sustainable Economy: Solutions for Climate Change and Sustainable Development (2015)

This book argues that environmentally sustainable economies will not be achieved without the active involvement from the world of work. Enterprises, workers and governments are essential agents of change in the green transformation that is urgently needed in our economies, able to develop new ways of working that safeguard the environment, create decent jobs and foster social inclusion. This book highlights the solutions that the world of work offers for policy and practice to tackle climate change, achieve environmental sustainability and build prosperous and cohesive societies.



Decent Jobs in a Safe Climate: ILO Solutions for Climate Action (2015)

Climate action can lead to more and better jobs, poverty reduction and social inclusion in the quest for a sustainable and low-carbon economy. This brief presents a selection of ILO initiatives, successful practices, tools, instruments and policy guidelines contributing to the advancement of both climate and decent work agendas. It argues that (i) increased understanding of the employment and income impacts of climate change is essential for coherent policy development; (ii) adaptation measures should support the most vulnerable through social protection, micro-insurance, fair migration options and public employment programmes for disaster risk reduction; (iii) mitigation actions should be facilitated through skills building and upgrading, training, education and entrepreneurship development are needed to maximize the job creation potential of a low-carbon economy, and (iiii) social dialogue, tripartism and collective bargaining are key to effective decision-making.



Gender Equality and Green Jobs (2015)

Gender inequality is acknowledged as one of the fundamental requirements for achieving sustainable development. This policy brief aims to contribute to the discussion on how gender equality can become an integral part of green economy strategies and how equal access to green and decent jobs for women and men can be enhanced. The brief explains the relevance of gender to greening economies and discusses opportunities to address pre-existing employment challenges for women in emerging green sectors.



A just transition for all: Can the past inform the future? (2015)

Sustainable development and climate change are issues of critical importance and high on the international agenda. In this context, the ILO calls for a just transition for all towards a greener and more socially sustainable economy. This issue of the International Journal for Labour Research examines past international transition experiences through the perspective of the “just transition” framework, aiming to draw lessons to inform and shape future just transition policies and strategies. The importance of policy coherence, social dialogue, and consultation and participation from all relevant stakeholders is highlighted.



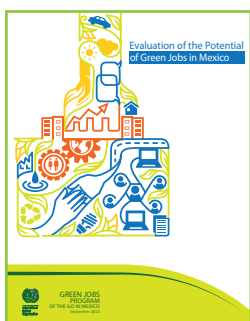
Decent Work in the Green Economy: Business Cases from Turkey (2015)

Green economy and green jobs are new concepts that have only recently become more widely discussed in Turkey. This report, prepared within the framework of ILO's *Decent Work in the Green Economy* project (2013-2015), showcases the experiences of selected enterprises in implementing green business models. Information was collected through in-depth in person interviews with staff responsible for sustainability within each enterprise. Directed towards policymakers, this report sheds light on how enterprises can be major engines of change by creating employment and positively impacting the environment. The report aims to contribute to the knowledge sharing and analysis that will lead into the shaping of socially inclusive green jobs strategies for the promotion of decent work in Turkey's transition to a greener economy.



Greening the Economies of Least Developed Countries: The role of skills and training (2014)

Many of the world's Least Developed Countries (LDCs) face major challenges related to the effects of environmental deterioration and climate change. These effects affect economic production, employment and social well-being; a transition to a greener economy is therefore an economic and social necessity in these cases. This policy brief focuses on the role of skills development in building greener economies in LDCs. It identifies key skills challenges in greening the economies of LDCs and presents a set of policy recommendations for boosting skills to create more and better jobs in this context.



Green jobs in Mexico (2014)

This report summarizes the findings of a nationwide assessment of existing and potential green jobs in Mexico. The assessment reveals a total of 1.815 million direct environmental jobs in nine key green economic activities, representing 4.5% of the workforce in 2011. The assessment shows that these sectors generate 971 thousand indirect jobs, totalling 2.786 million direct and indirect jobs. The findings indicate that all of the green activities included in the analysis have an employment multiplier larger or equal to their corresponding conventional activities, particularly in the agriculture, construction, and electric energy sectors.



Are you in search of a Green Biz idea? (2013)

This manual, produced in collaboration with the Youth Entrepreneurship Facility, aims to serve as a practical guide for entrepreneurs interested in starting a green business. It presents an overview of available and business-feasible green technologies and services, outlines the type of skills required to start a business in each of these areas, and provides access to related research and information. The manual focuses on specific green sectors including renewable energy; agriculture, forestry and fisheries; waste management and recycling; construction, nature and eco-tourism; and efficiency technologies for energy, material and water.

6. FINAL WORDS

The end of 2015 was marked by the adoption of the Paris Agreement to combat climate change - a historic agreement to pave the way to a low-carbon and sustainable future. Importantly, the agreement includes the recognition of the imperative of a just transition for the workforce and the creation of decent work. Albeit a short reference in a much longer and complex agreement, the phrase echoes the call for a more pronounced role of the ILO and places an important responsibility on the world of work to contribute to climate action in ways that promote both job creation and social justice.

To that effect, consolidated action will be needed at national level from all relevant stakeholders in implementing these commitments, as well as effective responses from UN agencies to facilitate the process. Bringing together the expertise of five UN agencies – UNEP, ILO, UNIDO, UNDP and UNITAR – and working closely with national governments, the Partnership for Action on Green Economy (PAGE) offers a comprehensive and coordinated package of technical assistance and services to build socially inclusive green economies.

As described in this report, ITC-ILO's green jobs training portfolio, which has significantly expanded and diversified to meet increasing demand, has proven essential in providing stakeholders with the necessary knowledge to engage efficiently in strategy design for green jobs creation. Likewise, GAIN, a network of research institutions and experts that works towards developing and improving tools and methodologies for empirical green jobs assessments, is fostering national institutional capacity for conducting these assessments which are key for policy formulation and implementation.

The six selected accounts presented in this report of individuals that have benefited from the Programme's activities in different regions and sectors, are illustrative of the positive impacts that green jobs interventions can have on workers, workplaces and enterprises by embracing environmental practices and decent work conditions.

Clearly, the ILO as a whole is going steadily forward in making environmental sustainability a central tenet of country programmes, strategic outcomes and global advocacy.

Building on the existing Green Jobs Programme, the ILO's Green Centenary Initiative will significantly scale up the ILO's office-wide knowledge, policy advice and tools for managing a just transition to environmentally sustainable and low-carbon societies. This will better equip the actors of the world to understand the challenges and opportunities of the coming transition, and help them take up the active role they must play in managing this change. At national level, focus will fall on the practical use of the ILO's Just Transition Guidelines in order to develop and promote an intervention model that can be applied across member states in the framework of the 2030 Development Agenda.



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