

Skills for Green Jobs: selected stories from the field

There are many stories from the field about how countries have dealt with the challenge of developing skills for green jobs. Here is a sampling of some of these stories, providing a representative overview of the types of projects and initiatives underway around the world today. More of these stories can be found in the new study entitled Skills for Green Jobs: A Global View.

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Industry initiatives

Australia: Green Plumbing Initiative

GreenPlumbers® is a joint initiative between Master Plumbers, Mechanical Services Association of Australia, the Plumbing Trades Employees Union and a number of other stakeholders which seeks to enhance plumbers' skills and knowledge about the environmental considerations of their work. It is a post-trade training programme delivered through a joint employer-union training enterprise through workshops. The opportunities place plumbers in a better position to advise and inform consumers on topics including the benefits of energy efficiency and water conservation. To date, more than 9,000 plumbers representing over 4,000 plumbing businesses have completed one or more Green Plumbers® training sessions in Australia. .

Denmark: Marine Technician

The initiative "Green ship of the future" deals with the changes affecting and facing the marine sector. Participants include Maersk, Aalborg Industries, MAN Diesel, Odense steel shipyard, FORCE Technology, Danish Centre of Maritime Technology, and the Danish Maritime Authority. The initiative identified the requirement for skills training for marine technicians, who are responsible for implementing and handling machines and technologies to reduce emissions, to keep up with technological developments and new energy efficiency measures.

Faced with this apparent skills gap, a network of educational institutions and local companies in the Frederikshavn area entered into strategic dialogue regarding skills needs and suggestions to ensure an adequate skills supply, as well as ideas and guidelines for the educational response. The first cadre of marine technicians who specialized in energy and environmental issues are set to enter the market in the next 2-3 years.

UK: Offshore wind, wave and tidal power

The wind, wave and tidal energy industry is likely to experience a large increase in domestic demand for both offshore and onshore wind generation. Employment in the industry is also predicted to rise: there were 4,800 employees in 2008 but the number may rise to between 23,000 to 57,000 . However, there is evidence that skills shortages across the supply chain may inhibit the growth of this industry in the UK. As a response to the demand for skilled workforce, the British Wind and Marine Energy Association, a trade association representing industry, produced a Wind and Marine Energy Skills Accord which committed business leaders from the UK power sector as well as skills bodies and education providers to train up to 60,000 entrants to the industry by 2020. The accord sets out a strategy for addressing the shortage of qualified and experienced wind energy technicians through designing and delivering the Renewable Energy Apprenticeship Programme.

Specific initiatives by government agencies/ministries, NGOs, research centres, etc.

India: Foundry workers of Samalkha

India is one of the leading producers of castings in the world. The foundry industry is labour intensive and employs around 1.5 million indirectly. Foundries produce a variety of castings, for example for the automobile industry, flour mills and electric motors. The technology used is outdated and inefficient and energy costs comprise 30 per cent of production costs. Samalkha is a small town in the Panipat district, which has about 30 small to medium-sized cast iron foundry units. The Foundation of Micro, Small and Medium Enterprises Clusters, a Delhi-based NGO took the initiative to modernize the traditional technology with the divided blast cupola, with funding from the Ministry of Science and Technology. The Ministry of Micro, Small and Medium Enterprises Foundation has developed a range of training curricula and runs class and field-based training initiatives to bridge the gap. There has been a substantial reduction in energy consumption of about 40 per cent, and an increase in the trained workforce.

Republic of Korea: LED Lighting Technology Education Centre LTEC

The government has implemented various policy measures to expand the LED market throughout various industries including: LED lighting replacement projects in public buildings, international conference halls, subway stations; LED lighting appliances in newly-developed cities; and LED in green houses. LED lighting replacement in public facilities is expected to create 10,030 jobs. To implement these projects, expertise is needed including LED element researchers, LED lighting system specialists and LED heat reduction engineers. The Ministry of Knowledge Economy expected that 13,000 LED specialists will be needed by 2015.

Active labour market policies

Republic of Korea: Forest tending projects: Green New Deal Projects

The National Office of Forestry announced that 66,487 new jobs will be created in 2009 in the areas of cultivating forest resources, maintenance of green space and forest services, expansion of forest biomass collection, national disaster prevention and research and development. The Forest Tending programme was launched in 2005 and is continuously increasing its budget and participants. Since the Green Growth announcement, the budget for the 2009 Forest Tending Programme has doubled. The Programme creates jobs for low-income and unemployed youth. All the participants are required to attend an introductory education and training course, which covers theories and practices about the objectives of forest tending, forest tending techniques, machinery operation techniques and safety management.

South Africa: Working for Water Programme: Payment for environmental services

This case study describes a government-funded programme that aims at controlling invasive alien plant species. The programme is led by the Working for Water Programme and is administered through the Department for Water Affairs, in partnership with local communities and other government departments; in addition, Working for Water Programme is part of the Expanded Public Works Programme of South Africa

which aims to reduce unemployment and poverty by providing government funded work opportunities. This collaboration has trained unemployed people from local communities to use a range of skills to control and remove invasive alien plant species. The skills development and training involves a comprehensive training on safety and technical aspects of the jobs. Social development (life skills) training is provided to all workers and includes: peer education, counseling, HIV/Aids, primary health care, personal finances, home based and frail care. Almost 30,000 individuals have been employed each year.

Regional development initiatives

Green restructuring in Navarre: a successful shift to renewable energies

The Spanish region of Navarre suffered from a severe economic downturn in the early 1990s when high oil prices impaired the competitiveness of its largest and only industrial employer, a Volkswagen car plant. The regional government responded with active industrial policy measures, including worker retraining, to expand the renewable energy sector. A rapid and successful development of a wind power industry followed, facilitated by the favorable geographical and climatic conditions of the region alongside a clear corporate and public strategy. The region expanded the share of its electricity production derived from renewable sources to 65 per cent, with an eventual target of 100 per cent. This small region of Spain, with a population of just 620,000, is now Europe's sixth largest producer of wind power. Between 2002 and 2006, employment in renewable energies across Navarre increased by 183 per cent. In 2007 alone, 100 companies and over 6,000 jobs in renewable energies were created. Navarre maintained the lowest unemployment levels in Spain in 2009.

Good coordination between environmental and skills policies

The French strategy for sustainable development

France has established a comprehensive policy framework fostering cross-agency collaboration and bringing together networks of stakeholders to address skill development for a green economy holistically, and in coordination with the national environmental strategy.

The new National Strategy for Sustainable Development 2009–12 aims at providing a structure to ensure consistency across the range of actions and measures implemented in France.

France's Mobilization Plan for Green Jobs

France has established a comprehensive policy framework fostering cross-agency collaboration and bringing together networks of stakeholders to address skill development for a green economy holistically, and in coordination with the national environmental strategy.

The Mobilization Plan for Green Jobs is an illustration of collaborative work between stakeholders at all levels: ministries, regional authorities, training providers, advisory bodies, social partners and employment agencies. The objective of the Mobilization Plan is to update existing training programmes and qualifications in the light of environmental challenges and create new qualifications where necessary. This process is intended to support the creation of 600,000 green jobs by 2020.

The plan is structured around four themes:

- Identification of relevant professions. This includes setting up a national observatory to gather information about relevant fields and new professions and assess their size and scope.
- Definition of training needs and establishment of training and qualification pathways.
- Matching sustainable development jobs and skills. This includes actions to help jobseekers meet the requirements of the numerous jobs which are currently on offer but cannot be taken up due to lack of skills.
- Promotion and development of professions for green growth.