

Green jobs as an unemployment solution

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Abstract

Currently, the priority in the EU countries is the subject of unemployment, due to the economic and social situation in many countries and young people unemployment. Although unemployment in some other countries has dropped, it is still quite high. The new economic models based on heterodox economics point to some new and innovative solutions in this area, among others - creating new green jobs. Green employment is the beginning of new solutions that accept the principles of sustainable development, and the green economy, which creates new companies. New professions, as well as new jobs, are created by green organizations which, after brown organizations, are the next stage in the development of human consciousness in the context of sustainable development. The article presents the idea of green jobs as solution of unemployment problem and development of an economic sector that is vital for Europe's transition towards a circular and efficient low-carbon economy.

Keywords: green jobs, green economy

1. Introduction

The green jobs are naturally associated with the ecology, environment protection, waste reduction, recycling and responsibility related to the future generation's prosperity (Rutkowska-Podołowska et al. 2016). This article assumes that green jobs (Fig. 1) are work in agricultural, manufacturing, research and development, administrative, and service activities that contribute substantially to preserving or restoring environmental quality (Maclean et al. 2018). Specifically, but non-exclusively, this includes jobs that help to protect ecosystems and biodiversity (Ryszawska 2013); reduce energy, material and water consumption through high-efficiency strategies; decarbonise the economy and minimize or altogether avoid the generation of all forms of waste and pollution (UNEP 2008; Sulich and Zema 2018). The environmental economy supplies products such as organic vegetables and renewable energy that help to protect the environment and preserve the stock of natural resources (Eurostat 2018).

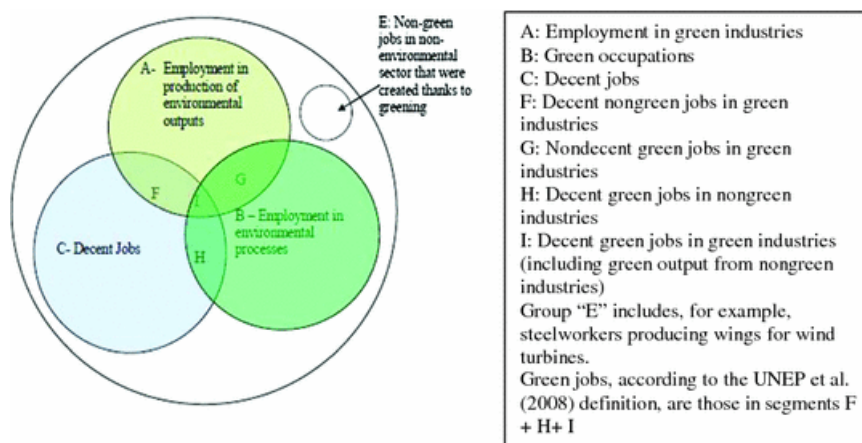


Figure 1. Schematic relationships among total employment, green jobs, and decent work. Source: (Maclean et al. 2018).

2. The future is green

The EU has a long-term strategy to reduce the damage caused by the unsustainable use of natural resources. The aim is to create more value while using fewer resources, and substituting them with more environmentally

favorable choices wherever possible (European Commission 2019). These actions contribute to the green economy idea. Among them, the environmental goods and services sector (EGSS) has seen faster growth in employment and value added than the total EU economy. The sector's contribution to gross domestic product

(GDP) grew from 1.5 % in 2003 to 2.1 % in 2015, while the sector's contribution to employment grew from 1.3 % in 2003 to 1.7 % in 2015 (European Environment Agency (EEA) 2018). Employment trends were mainly driven by the growing importance of activities that manage energy resources, in particular the production of energy from

renewable sources, the production of wind and solar power stations, and equipment and installations for heat and energy saving (Fig. 2). Today, more than twice as many people are employed in solar energy as in the coal industry (Grudziński and Sulich 2018).

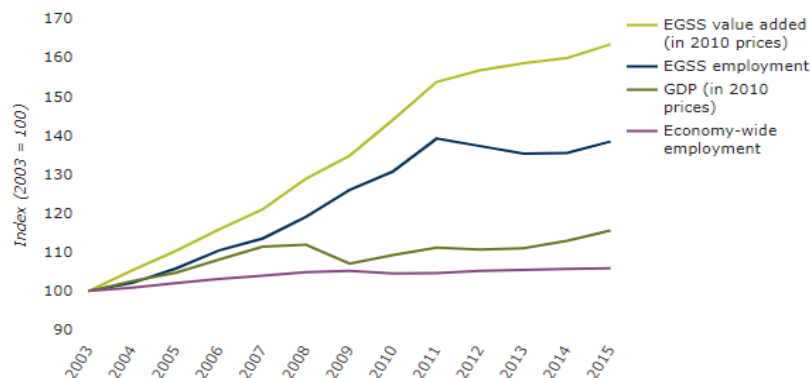


Figure 2. Employment and value added in the EU environmental goods and services sector (EGSS) compared with the whole economy. Source: (European Environment Agency (EEA) 2018).

3. Conclusions

The green jobs are created also in other than listed as green sectors, as an effect of whole economy transformation towards the green economy. Green jobs are unemployment problem solution and are part of both added value of EGSS and GDP. Therefore, the green jobs are intertwined with the so-called sustainable economy or green economy. In which they play a key

role to balance both anthropopressure and unemployment. The green jobs are created because of development of new technologies (reduction of pollution) or usage of traditional methods of balancing between generation and absorption of pollutants by afforestation, soil remediation and biological wastewater treatment plants.

References

- European Commission (2019) Managing resources. In: Environment. http://ec.europa.eu/environment/basics/green-economy/resources/index_en.htm
- European Environment Agency (EEA) (2018) Environmental Goods and Services Sector: employment and value added. In: Annu. Indic. Rep. Ser. — Support to Monit. 7th Environ. Action Program. <https://www.eea.europa.eu/airs/2018/resource-efficiency-and-low-carbon-economy/environmental-goods-and-services-sector>. Accessed 4 May 2019
- Eurostat (2018) Environmental economy - statistics. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental_economy_-_statistics. Accessed 4 May 2019
- Grudziński A, Sulich A (2018) Strategic goals of renewable energy sector. In: Sulich A, Wodo W (eds) Proceedings of 16th Students' Science Conference "Science is our universe." Oficyna Politechniki Wrocławskiej, Boguszów-Górze, pp 36–44
- Maclean R, Jagannathan S, Panth B (2018) Conceptualization of "Green Jobs" and "Green Skills." In: Education and Skills for Inclusive Growth, Green Jobs and the Greening of Economies in Asia. Springer, Singapore, pp 19–40
- Rutkowska-Podołowska M, Sulich A, Szczygieł N (2016) Green jobs. In: Kovářová E, Melecký L, Staničková M (eds) Proceedings of the 3rd International Conference on European Integration 2016, ICEI 2016. VŠB - Technical University of Ostrava, Ostrava, pp 822–829
- Ryszawska B (2013) Zielona gospodarka – teoretyczne podstawy koncepcji i pomiar jej wdrażania w Unii Europejskiej. Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław
- Sulich A, Zema T (2018) Green jobs, a new measure of public management and sustainable development. Eur J Environ Sci. doi: 10.14712/23361964.2018.10
- UNEP (2008) Green jobs: towards decent work in a sustainable, low-carbon world