







Green Jobs: Growth Engine for the EU or more Hype than Substance?

Sven Hergovich, Arbeiterkammer Wien



Definition of Green Jobs

- Harmonized EUROSTAT DEFINITION: Environmental Goods and Services Sector (EGSS):
 - Definition looks at the objective of the company
 - It's not possible to define Green Jobs Professions

=> Statistical Office of the Republic of Slovenia has an EGSS-Pilot Project



Employment Potential of Green Jobs

- Positive net employment effects could mean less productivity. Interpretation of employment effects isn't clear.
- Most studies look at gross and not on net effects, but only net effects can answer the question if green jobs help to fight unemployment.
- Net employment effect= gross employment effectsubstitution effect +/- income effect (+ exports – imports)



Causes of Green Jobs

Example: Austria

- **ca. 150.000 (not counted as Green Jobs):Puplic Transport**
- **44.841 Green Jobs: Organic Farming**
- **38.723 Green Jobs: Renewable energy**
- **36.026** Green Jobs: Waste and wastewater treatment
- 26.374 Green Jobs: Savings of enery/heat (mainly thermal insulation)
- Most Green Jobs can be explained through this five causes



Net employment effect: public transport

- Positive net employment effects
- Surveys show that people also want more staff
- By investing in public transport it is possible to create a lot of new and good jobs by saving the environment.
- ➔ But: Public Transport isn't a green jobs sector



Net employment effect: organic farming

Organic farming is time intensive

More unpaid family members and longer working hours+ negative Income effects and less workers in fertilizer industry

→ Net employment effect is zero or negative

➔ Organic Farming has a positive environmental impact



Net employment effect of renewable energy

	Effect of investitions	Effect of operation	Income effect	Substitution- effect	Net effect
Wind power	278,91	550,64			
Photovoltaics	220	10,4			
Small hydro power	4268,53	125,8	696 -2784	328	3783 - 8235
Biomass	181,2	993,5-1956,48			
Biogas	77	188,65 – 1590			

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Net employment effect of waste and wastewater treatment

We need an alternative to calculate the substitution effect
Reduction of waste: longer service life

- Usual story: Shift from the secundary to the tertiary sector → substituion of energy through manpower
- But the secundary sector isn't more energy intensive than the tertiary sector → More Waste = More Green Jobs.



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Net employment effect of energy efficiency: exap: thermal insulation

- Energy Efficiency Measures =positive employment effects because of good income effects
- Gross effect: 12-14 jobs/million €: Net effect depends on funding, but is positive in all cases.
- Thermal insulation helps saving the environment and creates jobs.



Are Green Jobs good for the Environment?

More Green Jobs:

- More Waste
- More Cars

Less Green Jobs

- More Public Transport
- More Energy Efficiency

Green Jobs are not a good indicator for the protection of the environment



Are Green Jobs Good Jobs?

- Social Criteria aren't included in the definition.
- Public Image: well paid high-tech jobs
- Reality: Green jobs are (too often) characterized by heavy physical labor, health problems and precarious employment.
- Green Jobs are not automatically good jobs, but we have to make them good jobs!



What to learn:

- Include social criteria (like working conditions) in your green jobs assesments
- Look at net employment effects and not at gross emplyoment
- Include Public Transport in your Analysis
- Bear in mind that Green Jobs aren't an indicator to measure the protection of the environment



How to create sustainable employment:

- Environmental investments: Public transport, thermal insulation, energy efficiency and partly renewabele energy shuld be the focus of your investments.
- Investments in kindergartens, schools, universities and nursing facilities could help to solve social problems without compromising the environment.
- Working time reductions



Conclusio

- To answer the question if green jobs can really help to reduce unemployment, you have to calculate the net employment effect of green jobs
- It is crucial to include social and ecological criteria in an assessment of green jobs.
- There are some sectors where it is possible to create substantially positive net employment effects by saving the environment.



Thank you for your attention!

