



Statistics



Proposal for the statistical definition and measurement of green jobs



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- Climate change, environmental degradation
- Current financial, economic and food crises
- Importance of shifting toward a green and sustainable economy
 - ➡ United Nations Conference on Sustainable Development (Rio+20) considers green economy as one of the important tools available for achieving sustainable development
- Need to measure the economic and social impact of various policy interventions, especially with respect to employment
- Need to agree on the method to accurately gauge the green economy's size and rate of growth, and to identify the jobs associated with it.



Why statistics on green jobs?



A growing demand for both statistical data and for conceptual guidelines on the measurement of green jobs (in terms of the size, composition and contribution of the specific groups of workers and economic units to the green economy)

- a) gaining a better understanding of the impact of “greening the economy” on the labour market,
- b) ensuring that effective policy measures and tools are formulated to respond to this shift to a greener economy.

Use of statistics on green jobs: Policy questions



- **Job creation and loss :**

What is the net employment creation effect arising from a particular type of investment, climate change policy, or environmentally motivated economic stimulus? What is or will be the employment shifts across and within sectors? ...

- **Changes in occupational and skills needs**

What is or will be the employment shifts across occupation? What new skills need to be developed, and what are the consequences for education and training systems? How many people need to be trained in what skills in a green economy? ...

- **Organizational restructuring**

How many enterprises restructure their organization and production processes to use less energy, reduce emissions use cleaner technologies and/or produce green products and services?...

- **Decent work**

Are newly created green jobs good and decent? Is transition to the low carbon green economy socially just? Which groups are affected in a positive way, and which groups may be disadvantaged? Are newly created green jobs accessible to all?...



Definitions used in the employment and environment policy contexts



- The concept of green economy and green jobs have not been precisely defined and universally agreed as yet.
- Variety of definitions: A common theme is preserving or restoring the environment.

ILO/UNEP et al, 2008 broadly defines a green job as any decent job that contributes to preserving or restoring the quality of the environment whether it is in agriculture, industry, services or administration.



Proposals for the operational definition



- Linked to System Environmental-Economic Accounting

Employment in Environmental activities

All employment in activities that lead to the production of environmental goods and services ***for consumption by other economic units*** or ***for consumption by the establishment*** in which the activity is performed.

Environmental goods and services are the products of environmental activities as defined in the most recently updated version of the SEEA. This includes activities that improve the establishment's processes in order to reduce or eliminate pressures on the environment or to make more efficient use of natural resources



Employment in environmental activities



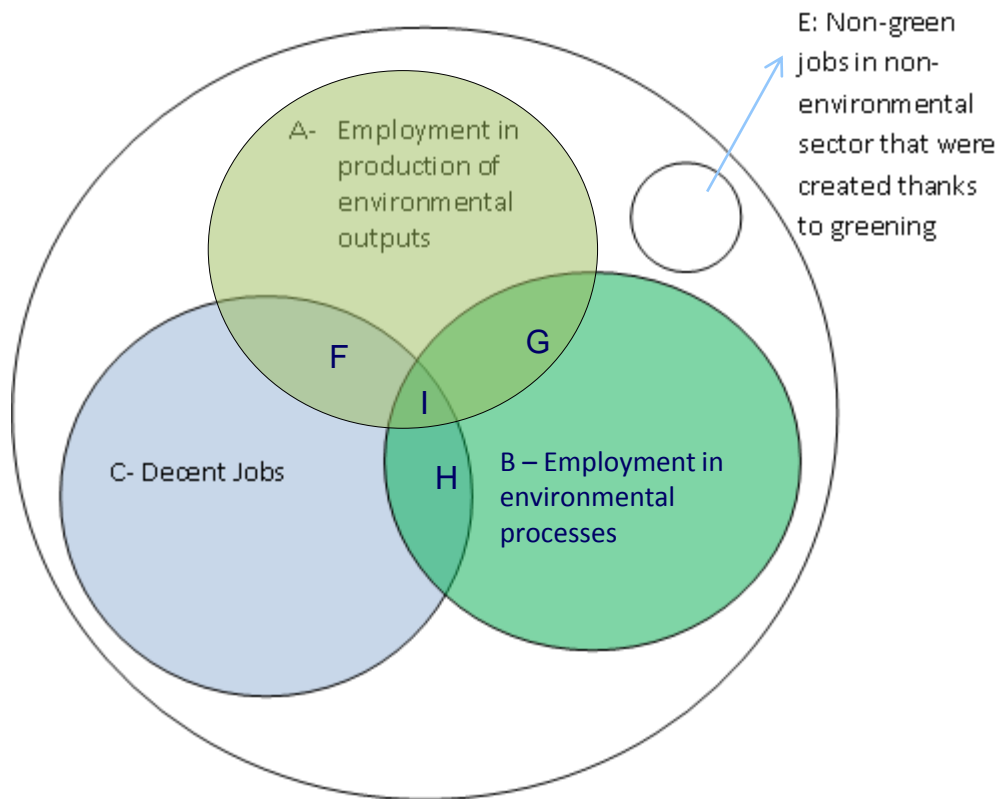
Two components:

- (a) ***Employment in production of environmental outputs*** defined as employment in the production of environmental goods and services for consumption outside the producing unit. It counts the number of employees at an establishment that, based on the establishment's output, *makes the economy greener.*
- (b) ***Employment in environmental processes*** defined as employment in the production of environmental goods and services for consumption by the producing unit. It counts the number of employees at all types of establishment with work activities that *contribute to the greening of the economy.*

Two components refer to different aspects of the 'greening' of employment.



Employment in environmental activities



- Employment in Environmental activities = $A + B - G$
- Employment thanks to greening = $A - G + E$
- Employment in Environmental activities that is decent = $F + H - I$



Measurement: Employment in production of environmental outputs



- *Environmental sectors* are defined as consisting of those enterprises where all or at least some of the goods or services produced belong to the environmental goods and services domain.

Problems:

- Most industries produce both environmental and non- environmental goods and services, so making distinctions is difficult.
⇒ *Employment in the production of environmental outputs, could not be directly measured .*
- What about industries that produce components of an environmental technology or product to the main producer when these components are not to be used exclusively in environmental technologies ? *Outside the scope.*



Measurement: Employment in environmental processes



- Limiting the scope of the definition to just businesses that produce green products or services excludes green-related jobs at traditional firms.
- There are establishments that do not produce environmental output but do make their production process greener.
- Establishments asked to provide information on the number of workers employed in activities leading to the production of environmental goods and services for consumption within the establishment.



What we want to know?



Who, what, when, where and how many?

- Employment by economic activity
- Employment by occupation
- Employment by environmental domain
- Type of green technologies used by economic activity
- Percentage of companies using green technologies
- Employment by sex, region
- Wages and hours worked