

Redrawing the global employment map

Climate change is set to have profound impacts on employment worldwide. But impacts are rarely obvious or direct, and jobs will be created as well as lost. People living in poverty will be most affected.

Key Findings from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) For more information csl.cam.ac.uk/ipcc and etui.org

Climate change will influence both the economy and employment, making it almost impossible to accurately gauge the future. Direct impacts on land, freshwater and ocean ecosystems will affect employment dependent on those ecosystems, such as agriculture, forestry, fishing and some types of tourism. Climate change will also affect the infrastructure on which so much employment depends – particularly through extreme weather events. Energy, water, transport and telecommunications are all likely to face disruption from flooding, storm surges, drought and temperature extremes. However, efforts to mitigate climate change, and to adapt to its effects, will also create employment opportunities. Renewables and energy efficiency, biofuels and REDD markets, and more resilient infrastructure all promise net employment benefits.

Where will climate change affect employment?

Who will be affected?

What employment sectors will be affected?

Why will an impact on one sector affect other sectors?

What new jobs will be needed to tackle and adapt to climate change?

Rural Areas

POOR
Rural areas account for about 70% of the developing world's poor people. They already face a range of challenges and vulnerabilities that climate change is likely to intensify.

The major impacts of climate change on employment in rural areas will be related to water supply, food security and agricultural incomes, although new energy crops, payments under REDD (Reducing Emissions from Deforestation and Forest Degradation) and improved forestry yields could benefit some areas.

- TIMBER AND PULP**
Changing yields, REDD could create jobs
- MINING**
Lack of water and fears over water pollution could see mines close
- AGRI-CULTURE**
Lower yields will affect incomes
- ENERGY**
Biofuels could create employment

SCENARIO ONE
Lower crop yields
Food processing jobs at risk

SCENARIO TWO
Extreme weather events disrupt infrastructure
Electricity supply less reliable

SCENARIO THREE
Flooding disrupts component manufacturers in Asia
IT/vehicle assembly plants in Europe/North America stop work

- Adaptation Service Employment**
Jobs that focus on goods and services that help prepare for climate change impacts.
- Energy Production Employment**
Renewable and decentralised energy roll-out to create jobs.

Urban/Coastal Areas

POOR AND NEW MIGRANTS
Urban areas are set to absorb the world's entire population growth, placing pressure on job markets and potentially concentrating climate risks, particularly in the Low Elevation Coastal Zone.

Much of the impact on urban employment will come from disruption to infrastructure such as water and sanitation, energy supply, transport and telecommunications. Increased investment in more resilient infrastructure would create employment. Meanwhile, changes in distribution of fish stocks will affect fishing communities.

- TOURISM**
At risk from sea-level rise, storm surges and more frequent and intense extreme weather events
- CON-STRUCTION**
Increased infrastructure spending likely
- MUNICIPAL SERVICES**
Increased resources, jobs to adapt to climate change
- ENERGY**
Power generation, energy conservation and low carbon mobility could create jobs

Higher food prices hit purchasing power
Discretionary consumption lower and employment falls

Transport links damaged
Economic activity reduced
Retailers run out of stock

SOLD OUT

- Building Services Employment**
Building resilient infrastructure crucial to maintaining economic activity, and thus jobs.
- Industry Service Employment**
Shifts in agriculture to new regions. Biofuels and REDD could create employment.