

Reporting Research

[Home](#)
[About Relay](#)
[Where we work](#)
[Learning & Impact](#)
[Practical resources](#)
[Blog](#)


Climate change and livelihoods

[Leave a comment](#)

Tags

Guide type:

[Topic guides](#)

Region:

[Eastern Africa, South Asia](#)

Theme:

[Environment & natural resources](#)

Overview

This week world leaders are meeting at the United Nations' climate change summit to discuss the best ways to mitigate the effects of climate change. Current research indicates that it will be people living in developing countries that will bear the brunt of climate change. This topic guide offers insights for journalists interested in reporting on issues around agricultural, fisheries and industrialisation.

Contents

- [Overview](#)
- [Key issues](#)
- [Resources](#)
- [Links](#)



A fisherman works near the village of Gunjur, Gambia. Climate change may cause problems for people dependent on fishing / Gary Calton - Panos pictures

From 7th to the 18th of December 2009 the 15th Conference of the Parties (COP 15) of The United Nations Climate Change Conference will be taking place in Copenhagen and looking at ways to mitigate the possible impacts of climate change. These measures range from bio-fuels to offsetting carbon or a Reducing Emissions from Deforestation and Forest Degradation (REDD) scheme, as well as looking at areas such as industry, or transport, to release less carbon into the atmosphere. There is little consensus around many of the issues, and it is difficult to see how a concrete agreement is going to be reached.

If climate change continues unchecked there will be huge implications on our way of life, especially on livelihoods. Nearly half of the world's population live in developing countries –over 2.5 billion people; many of them depend on agriculture to make a living, which means that climate change will have a huge impact on their livelihoods.

According to the report *Climate change and Agriculture*, published by the International Food Policy Research Institute, although crop yields will increase in certain parts of the world, the overall impact of climate change on agriculture and human well-being will be negative.

Closely linked to agriculture, and another livelihood that many developing countries depend on, is the fishing industry. The report *Vulnerability of national economies to the impacts of climate change on fisheries*, published by the UK's Blackwell Publishing, found that the fishing industry will be adversely affected by climate change. The countries that will be most affected are the world's least developed, such as Angola and Bangladesh. The people living in these countries are twice as dependent on fish for nutrients and responsible for producing 20 per cent of global fish exports. The impact of climate change for the many people who depend on the fishing industry for nutrients and livelihoods could be disastrous.

Initially, agriculture and fishing sectors play an important part in the development process for many developing countries. In mainstream economic development literature, one of the ways to achieve development is to industrialise. Traditionally industrialisation has involved the development of carbon-intensive activities such as steel production.

However, there has been great emphasis on reducing carbon dioxide emissions in climate change research literature. This policy recommendation is at odds with certain types of industrialisation. Countries such as China and India are pushing carbon intense manufacturing activities. The report *Can global de-carbonization inhibit developing country industrialisation?*, published by the Centre for Global Development, analyses the impact on manufacturing output and exports by disaggregating impact of mitigation actions in individual countries.

Share

 Tweet 0

 Share

 Share

 +1 0

The report found that high carbon intense countries were sensitive to even modest agreements on cutting carbon emissions that will adversely affect manufacturing output and exports. Low carbon intense countries, such as Brazil, were not adversely affected. The report show that whilst reducing carbon emission are a necessary course of action, policy makers should be cautious when dealing with high carbon intense countries.

[Back to top](#)

Key issues

Agriculture and Climate Change

The report *Climate Change: Impact on agriculture and costs of adaptation*, published by the US-based International Food Policy Research Institute, found that the overall impact of climate change on agriculture will be negative. The report concluded that the agricultural sector is extremely vulnerable to climate change. The study used detailed modelling of crop growth under climate change with insights from a global agricultural model, employing two climate scenarios to simulate future climates. It found that agriculture and human well being will be negatively affected by climate change:

- South Asia will experience the highest amount of crop yield reductions than anywhere else in the world as a result of climate change.
- By 2050, calorie availability will have declined in relation to 2000 levels throughout the developing world. As a result the number of children suffering from malnourishment will rise by 20 per cent compared to a world with no climate change.
- There needs to be an increase in investment for agricultural productivity. The report found that an extra US \$ 7.2 to 7.3 billion is needed to raise calorie intake to offset the negative impacts of climate change on the health and well-being of children.
- Policy recommendations include integrating agricultural productivity in climate change negotiations, reinvigorating national research and extension programmes as well as supporting consumer based adaptation strategies.

Climate change and fisheries

The report *Vulnerability of national economies to the impacts of climate change on fisheries* presents the findings of a study that used an indicator-based approach to find out where climate change impacts on fisheries will have the greatest social and economic significance. The study compared the vulnerability of the economies of 132 countries to potential climate change impacts on their fishing industries. It combined a risk-assessment framework developed to identify countries highly exposed to the effects of climate change – where livelihoods and economic growth depend on climate-sensitive industries and where limited resources, infrastructure and societal capacity constrain adaptation – with three indicators:

- Exposure to climate change: variables include changes in air and water temperatures, salinity, sea and lake levels, ice cover, storm frequency and intensity, etc
- Sensitivity of the national economy to potential climate change impacts on the fisheries sector
- Adaptive capacity to enable potential impacts to be offset (based on healthy life expectancy, education, governance and size of economy)
- The study found the countries most vulnerable to the impacts of climate change on fisheries were also among the world's least developed countries, where people are twice as reliant on fish for nutrients and 20 per cent of global fish exports are produced. It concluded that both developed and developing countries need to build their capacity to cope with and adapt to climate change. Otherwise, its impact on fisheries is likely to affect large numbers of poor people and reduce the options for future economic growth in places that depend on the fishing sector for food, employment and export revenues.

Climate change and Industrialisation

The report *Can global de-carbonization inhibit developing country industrialization?*, published by the Centre for Global Development, looks at climate change mitigation measures and how they affect industrialisation in developing countries. The study disaggregates mitigation measure's impact by

sector, particularly on manufacturing output and exports.

- In low carbon intense countries such as Brazil, manufacturing output and exports are not adversely affected by mitigation efforts.
- High carbon intense countries, such as India and China, are adversely affected. Even a modest agreement depresses manufacturing output by 6 to 7 per cent and manufacturing exports by 9 to 11 per cent.
- Emissions tradability has sparked an increase in the price of carbon that hurts manufacturing output, while Dutch disease affects transfers that hurt exports the most.
- The study recommends a revision in current policy consensus that favour emissions tradability supplemented with financial transfers.

[Back to top](#)

Resources

Questions to ask policy-makers and politicians

- What kind of policies does your government has in place to cope with the impacts of climate change?
- What is preventing the government from implementing new policies concerning the impacts of climate change?
- How can policy-making help build the adaptative capacity of communities vulnerable to the impacts of climate change?
- How are the impacts of climate change in your country's agricultural and fishing industries affecting the national economy?
- How are climate change-targeted policies affecting national industries and industrialisation processes?

Questions to ask local people

- Are you aware of climate change?
- Have you observed any of its impacts in your community?
- Has climate change been affecting your livelihood in any way?
- What have you been doing to cope with the impacts of climate change on your community?

Questions to ask NGOs

- What impacts from climate change have been observed in the communities where you work?
- How are climate change impacts affecting the livelihoods of local people? Are local people able to cope with these impacts? How?
- What needs to be done to increase communities' capacity to cope with these impacts?
- What has your organisation been doing to support communities that are vulnerable to the impacts of climate change?

Glossary

Climate change is the change in the statistical distribution of weather over a certain period of time. In terms of environmental policy, the concept refers to the changes in modern climate.

Dutch Disease is an economic concept that describes the decline of manufacturing sector as the result of discovering natural resources. Increases in revenue as the result of finding natural resources will de-industrialise a country by pushing up exchange rates that makes the manufacturing industry less competitive.

Industrialisation process of economic and social change as a result of modernisation process where economic development is strongly associated with technological innovation.

[Back to top](#)

Links

Climate change and agriculture:

<http://www.ifpri.org/sites/default/files/publications/pr21.pdf>

Climate change and fishing: http://www.imcsnet.org/imcs/docs/vulnerability_of_fisheries.pdf

Climate change and development: http://www.ccdcommission.org/Filer/report/CCD_REPORT.pdf

Guardian Environment section: <http://www.guardian.co.uk/environment/2007/jul/26/climatechange>

Intergovernmental Panel on Climate Change: (IPCC): <http://www.ipcc.ch/>

Department for Energy and Climate Change, UK: <http://www.decc.gov.uk/default.aspx>

Conflicts fuelled by climate change causing new refugee crisis, warns UN, Guardian:

<http://www.guardian.co.uk/environment/2008/jun/17/climatechange.food>

[Back to top](#)

Leave a Reply

Your email address will not be published. Required fields are marked *

Name *

Email *

Website

Comment

In partnership with



Supported by



wellcome trust



Panos London is a registered charity, number 297366 • Company number 01937340 in England and Wales • [Terms & Conditions](#) • [Creative Commons](#)