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Climate and food - Ensuring world food security in a changing climate will require us to modify our diet, develop appropriate technologies and implement conducive policies

The Intergovernmental Panel on Climate Change (IPCC) released earlier this month one of its three planned Special Reports, focusing on “Climate Change and Land”. In this key contribution, the IPCC stresses that to ensure food security in a changing climate is not an issue that can simply be solved by technological change. It will also require a carefully crafted conducive policy environment and, at the individual level, considerable changes in food consumption behaviour.



This report provides us with an update of the current state of knowledge and builds on a series of reports on which hungerexplained.org already had opportunities to comment [read for example [here](#) and [here](#)].

It presents a series of basic facts related to climate change and land with a special focus on the food issue with which our readers are already well familiarised. In particular, it puts forward an estimate of the share of food in total global greenhouse gases emissions resulting from human activities (21-37%) that fits with the estimate hungerexplained.org made in 2016 [read] and that is substantially higher than the figure generally mentioned in this context which generally excludes emissions linked to pre- and post-production activities taking place within the global food system.

The IPCC report also stresses with high confidence that more than 70% of land is directly impacted by human activities that bring changes in land condition which, in turn, affects the climate. It emphasises also that there is solid evidence that climate change is adversely affecting food security.

It clearly states that *“the level of risk posed by climate change depends both on the level of warming and on how population, consumption, production, technological development, and land management patterns evolve”*, underscoring in particular the risks involved in water-intensive food production technologies. In other words, we have the possibility of reducing the risks due to climate change if we bring certain imperative changes to our behaviour.

From this evidence-based diagnosis, the IPCC report makes several recommendations such as the protection of high-carbon ecosystems such as peatlands, wetlands, rangelands, mangroves and forests and improved soil carbon management, while warning that some solutions such as afforestation or agrofuel production could have a negative impact on desertification, land degradation, food security and sustainable development, if applied on excessively large areas.

It also strongly recommends measures to combat desertification and improve livestock management to cut greenhouse gasses emission, and to reduce food waste. These actions will help mitigate climate change.

Much of the change needed will require to be supported by appropriate policies such as land-use zoning, spatial planning, regulations, financial incentives and other various measures. For this, the [summary for policy makers](#) provides a good framework for any country whose leaders are genuinely willing to develop appropriate policies and programmes.

The report stresses also that changes required will come with considerable economic and social benefits for the more vulnerable and that they will contribute to reduced poverty. This important aspect is often overlooked. Omitting to mention this opens up opportunities for those who refuse change to wrongly claim that measures in favour of a more sustainable and climate-friendly food system are impacting negatively socio-economic development. Such claims are mostly aiming at preserving the interests of those who make huge profits from the current plundering of natural resources and they are made in defiance of any intellectual rigour [[read](#)].

Finally, the IPCC makes clearly the point that a more sustainable and climate-friendly food system will require each of us, individually, to change our eating habits in order to adopt more sustainable, but also more healthy diets, a point that has often been made on [hungerexplained.org](#). This improved diet will be characterised by a moderate consumption of meat, the choice of seasonal products sourced from neighbouring areas to the extent possible and systematic efforts to reduce food waste.

It is good to see that the IPCC does not limit its recommendations to technological solutions as has often been the case in the past, but that it also suggests changes in policy and in individual behaviour. It is by making progress in these three directions that we will strengthen the capacity of the global food system to deliver food security to the world population.

Let's hope that governments, civil society and private operators will seriously take up the solutions collated in their report by the IPCC. It is at this condition that we will be able to avoid an excessive increase in our planet's average temperature and all the ills that would come with it.

To know more:

- IPCC, Climate Change and Land, An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, IPCC, 2019.
- IPBES, Media release: Nature's Dangerous Decline 'Unprecedented': Species Extinction Rates 'Accelerating', Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), 2019.
- R. Scholes, L.Montanarella *et al.*, Summary for policymakers of the thematic assessment report on land degradation and restoration of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, IPBES 2018. Download document in pdf format here: Summary for policy makers.pdf.

Selection of recent articles on hungerexplained.org related to the topic:

- Life plagued by human madness: we must change our paradigms, objectives and values, 2019.
- To manage sustainably our water resources, we need to change our food consumption, 2019.
- Policies for a transition towards more sustainable and climate friendly food systems, 2018.
- Land degradation: a serious consequence of human activities with dramatic implications on food, health and well-being of the world population, 2018.
- Food and climate change: it is up to us, as consumers and producers, to change our food system! 2017
- Climate is changing - Food and Agriculture must too - Towards a "new food and agricultural revolution", 2016.
- Are existing food and agricultural policies supportive to local sustainable food systems? 2015.