



## **Appeal to the representatives of nations and international institutions meeting in Paris**

The 21st Conference of the Parties (COP 21) of the United Nations Framework Convention on Climate Change (UNFCCC) will be held in Paris from November 30 to December 11, 2015. The aim of the conference is to achieve a **legally binding and universal agreement on climate**, accepted by all nations, for the first time in over 20 years of mediation by the UN.

In the run-up to this event, which will put climate at the center of global political debate, attention is focusing on the energy, heavy industry and transport sectors. The **relationship between food and climate**, meanwhile, **remains on the margins of the discussion**.

And yet **food production represents one of the main causes—and victims—of climate change**, and could also become one of the solutions.

According to the IPCC Fifth Assessment Report, **the average temperature of the planet has risen 0.85°C in the last 100 years**. The last decade was the hottest since 1850 and forecasts are not hopeful. According to climate simulation models, without limits on greenhouse gas emissions the average temperature is expected to rise by up to 5°C by the end of the century, but **even 2°C would entail grave environmental and social consequences**. Normally unusual phenomena such as extreme heat waves, floods, droughts and hurricanes are becoming commonplace and biodiversity is being eroded at an unprecedented rate. According to the FAO, in the last 70 years we have lost three-quarters of the agrobiodiversity that farmers had selected over the previous 10,000 years. Meanwhile, the rising temperature of the oceans and their increasing acidification is undermining their capacity to stabilize the climate.

**Climate change has environmental consequences, but also a social impact**. The main victims are the world's poorest. Every day, millions of people are losing land, sources of water and food, and risk becoming climate refugees. According to a World Bank report, climate change and its consequences could push over 100 million people into poverty by 2030. These people already live in the planet's most disadvantaged regions. At stake, therefore, is also a question of social justice.

By now there is no question that **the main cause of these changes to the global climate is human activities**. Among these, food production and distribution are of primary importance.

Established in the 1950s, the **modern industrial agrifood model** is based on certain distinctive features: **the growing use of oil derivatives**, like fertilizers, pesticides and fuel for agricultural machinery; and **production on a vast scale**, based on a very restricted range of plant varieties and animal breeds; **the indiscriminate exploitation of natural resources** like soil, water, forests and oceans, considered no more than raw materials to be consumed.

**Agricultural production took on industrial characteristics and its main objectives became to increase the quantities produced, maximize yields and reach international markets.**

Environmental conservation is not a priority of this model, which brings together the principles of productivism, infinite growth and free trade.

**This model is based on an idea of infinite growth, but our planet's resources are finite.**

By 2050, it is predicted that there will be 9 billion mouths to feed in the world. To the supporters of the industrial agrifood model, the planet's food security depends on the extension of arable land and the increase of yields per hectare, through irrigation, a more intensive use of agricultural fertilizers, the development and widespread use of selected plant hybrids, commercial livestock breeds and transgenic organisms and a concentration of production (larger and larger farms).

**The impact of this system—on the environment, society and human health—is proving increasingly devastating.**

The consequences are measured in terms of pollution of the air and groundwater, the degradation of the soil, the acidification of the oceans, the reduction of energy resources, the loss of biodiversity (cultural as well as biological) and the deterioration of ecosystems.

In particular, industrial animal production (linked to increasingly high levels of meat consumption) is responsible for 14% of greenhouse gas emissions, according to the FAO, if we take into account the whole chain from feed production to final consumption. Similarly, aquaculture consumes immense quantities of fishmeal, pollutes the water and, in many parts of the world, is responsible for the destruction of wide swathes of mangrove forest.

**The imposition of the agroindustrial model is making local communities more and more vulnerable** and risks jeopardizing small-scale, family farming, which still today produces 70% of the food consumed on the planet.

**The transport, processing and distribution of the food also contributes to the environmental impact of this production model.**

The huge distances travelled by food are responsible for high greenhouse gas emissions, due to the heavy use of fossil fuels. The packaging, packing and distribution phases require enormous quantities of energy. Consumers are by now used to finding the same products available all year round, often shipped from faraway countries. The processed and packaged foods found in supermarkets are often made using very energy-intensive industrial processes, require the use of preservatives and additives and are often packaged in materials that are unsustainable in terms of both production and disposal. As a result, the health of both individuals and the environment suffers.

Another consequence of this hyper-productivist system is **food waste along every step of the chain**. Every year, in the world, around 1.3 billion tons of food (a third of the planet's entire production) go to waste, in the fields and farms, throughout the processing and retailing phases, and in our kitchens. The quantity of food waste has a high ecological, economic, ethical and cultural cost.

The most jarring paradox of this system is that, on the one side, more food is produced than necessary (currently enough to feed 12.5 billion people), while, on the other, 800 million continue to suffer from hunger.

**Increased production, therefore, cannot be the solution. What we need is a completely different system**, of production, distribution and access to food.

In order to confront the problem of global warming, **it is essential that governments renew and strengthen their commitment to limiting emissions**. But this alone is not enough. We need a **radical paradigm shift**—economic, social and cultural—and the promotion of a new kind of agriculture, one that is sustainable and respectful of the environment.

Modifying a few production processes is not enough. **The entire agrifood system needs to be taken into consideration, and agroecological practices adopted** that would allow for *remediation*, in other words tackling the causes of climate

change, lessening the impact of agriculture on the climate and reducing carbon dioxide and nitrous oxide emissions; **mitigation**, reducing the impact of climate change on agriculture by making farmers less socially, economically and environmentally vulnerable; and **adaption**, improving farmers' capacity to react to climate change by prioritizing local management practices that protect biodiversity and ecosystems. **Agroecology** integrates environmental, social, economic and political aspects into a global approach. It looks at agrosystems as dynamic entities made up of living organisms (plants, animals, microorganisms) which interact with the environment (soil, water, climate, light). It evaluates their sustainability not only based on ecological factors but also the well-being of populations. It preserves natural equilibriums, integrating traditional knowledge and technical innovation. Agroecology is against monocultures and for diversification, valuing local plant varieties and animal breeds. It reduces dependency on fossil fuels, pesticides and chemical fertilizers. It is based on techniques that preserve the moisture and fertility of the soil, increasing its carbon storage capacity. It protects the land from erosion and slows the desertification process. It promotes sustainable forms of livestock farming, based on native breeds, which are better suited to the local climate and geography, and on techniques that respect animal welfare and good pasture management.

### **We also need a radical reversal of trends in distribution and consumption methods.**

We need to encourage a short distribution chain, reducing the intermediaries along the way and developing forms of direct sale in the countryside, encouraging access to local and sustainable products and supporting solutions that establish a direct relationship between producers and consumers, like food-buying groups and community-supported agriculture projects.

**Consumers' buying power can condition production and distribution**, boosting the spread of environmentally friendly methods. It is necessary to encourage citizens to make conscious choices and adopt sustainable ways of eating, prioritizing fresh, local, seasonal products, limiting the amount of meat and dairy, eating more grains, vegetables and legumes, carefully reading labels, avoiding processed foods with too many ingredients and choosing products with minimal or environmentally friendly packaging.

It is essential to **reduce food waste along all the whole food production and distribution chain, and to restore value to food**, which must neither be treated like a commodity nor become refuse.

It is essential to introduce funding and subsidies specifically for producers who apply agroecological standards, encouraging the adoption of more sustainable practices.

The international system of compensation adopted after Kyoto is based on a maximum tolerable production of greenhouse gases at a global level, subdivided in the form of emission allowances between the different countries. Producers from some countries can sell their emission allowances to producers who cannot manage to stay within the permitted parameters. This emissions trading system does not resolve the problem. At best it contains it, delocalizing improvement actions far from the sources of pollution. The challenge will be to instead radically reduce the sources of pollution, everywhere, turning instead to clean energy and forcing producers to bear the environmental costs of their production, thus contributing to the application of more realistic market prices.

The COP21 meeting must be a turning point and must show the common effort of 196 countries towards tackling the global problem of climate change, leading to the signing of a joint and long-term agreement.

With this document, we ask that the representatives of the nations and international institutions gathered in Paris take into serious consideration **the decisive role of the food system (agriculture, livestock farming, fishing, distribution and consumption), given its profound link with the climate.**

We appeal to them to promote international policies able to radically change the current food system.