

# Desertification and Drought Day

## Food. Feed. Fibre.

17 June 2020

Desertification and Drought Day, a United Nations observance day held on 17 June each year, will in 2020 focus on changing public attitudes to the leading driver of desertification and land degradation: humanity's relentless production and consumption.

There is growing demand and competition for land from agriculture, urban expansion and infrastructure. Almost 75% of all land has been transformed from its natural state, and the pace of conversion is accelerating. Moreover, the health and productivity of existing arable land is declining, worsened by climate change.

Some governments and the private sector are starting to act, but individual consumers and producers hold the key to rapid change. Ensuring food and fashion for the ten billion people who will be on the planet by 2050 will require prompt changes to lifestyles, which in turn can influence business practices and policies. Therefore, Desertification and Drought Day seeks to highlight how much of what people eat and wear comes from food and fibre, which comes from the land that supports all life.

### THE IMPACT OF FOOD, FEED AND FIBRE

Plants and animals provide most of our food, clothing and footwear. This means that food, (animal) feed and fibre (for clothing) all compete for arable land. And demand is growing due to population growth and increasing global middle classes.

#### *Food*

- An extra 593 million hectares of agricultural land, an area nearly twice the size of India, will be required by 2050 over 2010 levels.
- Over the same period, the world will need to produce an extra 74,000 trillion calories, equivalent to an increase in crop calories of 56%.<sup>1</sup>
- One-third of all food produced each year is lost or wasted, while 821 million people are undernourished.<sup>2</sup> This is equivalent to 1.3 billion tonnes of food with a footprint of 1.4 billion hectares, close to 30% of the world's agricultural land area. This represents a surface larger than Canada and India together.<sup>3</sup>
- The demand for water in food production could reach 10-13 trillion cubic metres annually by mid-century – up to 3.5 times greater than the total human use of fresh water today.

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<sup>1</sup> [https://wrr-food.wri.org/sites/default/files/2019-07/creating-sustainable-food-future\\_2\\_5.pdf](https://wrr-food.wri.org/sites/default/files/2019-07/creating-sustainable-food-future_2_5.pdf)

<sup>2</sup> <https://www.un.org/en/sections/issues-depth/food/index.html>

<sup>3</sup> <http://www.fao.org/save-food/resources/keyfindings/en/>; <http://www.fao.org/3/a-i2697e.pdf>; <http://www.fao.org/3/i3347e/i3347e.pdf>; and [http://www.fao.org/fileadmin/templates/nr/sustainability\\_pathways/docs/Factsheet\\_FOOD-WASTAGE.pdf](http://www.fao.org/fileadmin/templates/nr/sustainability_pathways/docs/Factsheet_FOOD-WASTAGE.pdf)

### *Feed*

- Land used for grazing and grain production to feed animals accounts for 80% of agricultural land globally.<sup>4</sup>
- Beef production in Europe requires 80 times more land than is needed to produce cereals.
- 85% of the world's fur trade originates from farmed animals, meaning that they also require land to produce feed.

### *Fibre*

- By 2030, the fashion industry is predicted to use 35% more land – over 115 million hectares, equivalent to the size of Colombia. <sup>5</sup>
- The amount of clothes bought in the EU per person has increased by 40% in just a few decades.
- The fashion industry consumes around 93 billion cubic metres of water per year.<sup>6</sup>

### *Land degradation*

Food, feed and fibre must also compete with expanding cities and the fuel industry, which are also gobbling up land at rapid rates. The end result is that land is being converted and degraded at unsustainable rates.

- Today, more than two billion hectares of previously productive land is degraded.
- Over 70% of natural ecosystems have been transformed, primarily to produce food, feed, fibre and fuel. By 2050, this could reach 90%.

### *Climate change*

The amount of productive land will decrease further due to climate change, which will hinder efforts to recover the land's productivity. But land use for food, feed, fibre is contributing to climate change.

- Almost a quarter of greenhouse gas emissions comes from agriculture, forestry and other land use.<sup>7</sup>
- These emissions rise to as much as 37% of total emissions when pre- and post- food production activities are included.
- Clothing and footwear production causes 8% of global greenhouse gas emissions, a figure predicted to rise almost 50% by 2030.

## **WHAT WE CAN DO**

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<sup>4</sup> <http://www.fao.org/animal-production/en/>

<sup>5</sup> [https://globalfashionagenda.com/wp-content/uploads/2017/05/Pulse-of-the-Fashion-Industry\\_2017.pdf](https://globalfashionagenda.com/wp-content/uploads/2017/05/Pulse-of-the-Fashion-Industry_2017.pdf)

<sup>6</sup> [https://inmotion.dhl/uploads/content/2019/03\\_Fashion/whitepaper.pdf#59](https://inmotion.dhl/uploads/content/2019/03_Fashion/whitepaper.pdf#59)

<sup>7</sup> IPCC (2014) <https://www.ipcc.ch/report/ar5/wg3/>

With changes in consumer and corporate behaviour, and the adoption of more efficient land use planning and more sustainable land management practices, we will have enough land to meet the demand for essentials and for a wider array of goods and services.<sup>8</sup>

Urbanization and globalization means that land degradation is driven by demand for products that are consumed in urban areas or other countries. This puts responsibility land degradation on the doorstep of every individual consumer. The choices people make when buying food or clothing have long-term consequences on the land, and on the future generations.

Consumers can make a positive difference because government policy and suppliers are extremely sensitive to individual market choices. If every consumer were to buy products that do not degrade the land, suppliers will cut back the flow of these products, and send a powerful signal to the producer of the change needed to stay in business.

Changing our diet and shopping behaviours can free up land for other uses and lower carbon emissions. Dietary change alone can free up between 80 and 240 million hectares of land.

Specific actions consumers can take include:

- Shift to more a balanced diet, featuring plant-based foods – such as those based on coarse grains, legumes, fruits and vegetables, nuts and seeds. This will improve your health, reduce demand for agricultural land and water, contribute to climate change mitigation and adaptation and preserve habitats.
- Ensure the meat you consume is grown ethically and sustainably, ideally from animals that are fed locally.
- Shop for groceries at local farmer's markets and seek out locally grown produce in the supermarket to support local farmers and reduce the carbon footprint of the food from the farm to their table.
- When you cannot buy locally grown food, choose a supermarket that is dedicated to revealing where products and ingredients are produced, including their impact on land, all through the scan of a barcode. Many supermarkets today are investing in 'farm-to-table' food traceability blockchain solutions of this kind.
- Reduce food waste by buying only what you need, planning your meals and donating excess non-perishables to local food banks.
- Plant fruit trees in schoolyards and in communal parks for a healthy snack within easy reach.
- Grow vegetables on your own property.
- Make compost at home and use it in your own or community gardens instead of chemical pesticides and fertilizers.
- Repair, donate, swap clothes and avoid fast-fashion, to save water and prevent contamination of natural resources.
- Use a handkerchief instead of disposable tissues, as UNCCD Land Ambassador Liu Fangfei is promoting in China. If a person who uses eight tissues a day switches to reusable handkerchiefs, after one year it will save a 20-year-old tree, which absorbs 60 kg of carbon dioxide and releases 1 ton of oxygen.
- Plant green roofs to cool homes in the summer and prevent heat loss in the winter, thus reducing your carbon footprint.

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<sup>8</sup> GLO