

# FEEDING THE PLANET

# **BUILDING ON THE MILAN CHARTER**

**EXECUTIVE SUMMARY** 

### **ENDING HUNGER AND MALNUTRITION**

Lack of adequate nutrition is primarily due to lack of access to food and this is in most cases due to poverty. Increasing food production will not of itself be sufficient to combat hunger. It must be combined with greater social equity and improved livelihoods for the poorest, particularly small-scale farmers in the developing world.

Smallholder livestock farmers must be helped to increase their productivity in ways that are appropriate for their circumstances. This should not entail the introduction of industrial livestock systems as these exclude participation of the poorest farmers. Small-scale farmers need assistance in providing improved healthcare and nutrition for their animals; this would result in increased livestock productivity and longevity. This will improve smallholders' purchasing power, making them better able to buy the food that they do not produce themselves and to afford other essentials such as education and health care.

Addressing deficiencies in essential micronutrients requires greater dietary variety, increased consumption of fruit and vegetables, fortification of food with vitamins and minerals and avoidance of a high proportion of processed foods.

The high levels of meat consumption that have been made possible in the western world by industrial farming are having an adverse impact on human health. Overconsumption of animal protein can lead to obesity, diabetes, heart diseases and certain cancers. While meat consumption is quite low for many of the world's poor, the developing world should aim for a balanced intake of animal-source foods and should not adopt harmful western diets.

#### **FOOD SECURITY**

It is often asserted that, in order to feed the population of 9.6 billion expected by 2050, food production is going to have to increase by around 60-100%. And on the basis of these figures we are told that further intensification of agriculture is essential. However, enough food is already produced to feed well over 9.6 billion people. But over half this food is wasted.

Industrial livestock production is dependent on feeding human-edible cereals to animals. For every 100 calories fed to animals in the form of human-edible crops, we receive on average just 17-30 calories in the form of meat and milk. This is staggeringly inefficient. Animals should be fed on pasture, crop residues, by products and unavoidable food waste. These are efficient forms of feed as animals convert inedible matter into food we can eat.

Worldwide 25% of food calories are lost or wasted post harvest or at the retail and consumer levels. 9% of global crop calories are used for biofuels and other industrial uses. 36% of the world's crop calories are fed to animals but three-quarters of this is wasted due to the low efficiency with which animals convert cereals to meat and milk. If waste in all these forms were just halved the anticipated population of 9.6 billion could be fed without increasing global production.

Increased production is needed in the world's poorest regions but this must be achieved in a genuinely sustainable manner. Hilal Elver, the UN Special Rapporteur on the right to food, states: "policy prescriptions that typically call for the expansion of industrial-scale agricultural development and ignore the real threats to global food supply ... must be reconsidered".

#### **ENVIRONMENTAL DEGRADATION**

Animals' inefficiency in converting human-edible crops into meat and milk brings other inefficiencies in its train. It is a wasteful use not just of the crops but of the land, water and energy used to grow them. Because of its dependence on feeding cereals to animals, industrial livestock production generally uses more arable land and surface- and ground-water than other forms of animal farming. It also usually leads to greater water pollution.

Globally, around 33% of soils are facing moderate to severe degradation. Industrial livestock production is a key factor in the decline of our soils. The need to grow huge amounts of grain to feed factory farmed animals has fuelled intensive crop production with its use of agro-chemicals and monocultures. This has eroded soil quality, undermining the ability of future generations to feed themselves.

#### **CLIMATE CHANGE**

The livestock sector is responsible for 14.5% of greenhouse gas (GHG) emissions. Mitigation techniques (such as improved manure management) can reduce emissions though care must be taken to ensure that any technique used does not harm animal welfare. A recent Chatham House paper concludes that technical mitigation measures and increased productivity will be insufficient on their own to prevent an increase in farming's GHG emissions, let alone achieve a reduction. The study stresses that it is unlikely that global temperature rises can be kept below 2°C without a reduction in meat and dairy consumption.

### ANIMAL WELFARE: ADVERSE IMPACT OF FURTHER INTENSIFICATION ON ANIMAL WELFARE

Extensive indoor systems and outdoor systems have the potential, if well-designed and well-managed, to deliver good welfare outcomes. However, even where stockmanship is good, industrial systems have little potential to provide satisfactory welfare. Globally many indoor-housed animals are kept at high densities in barren conditions or confined in cages or crates. In such conditions animals experience a range of welfare problems including inability to perform their normal behaviours. The health of intensively farmed animals is often seriously impaired by genetic selection for fast growth or high yields.

### THE WAY FORWARD - FEEDING PEOPLE SUSTAINABLY

The FAO's Director-General has stressed that a paradigm shift is needed in our model of food production as the current model cannot ensure food security and prevent soil degradation and biodiversity loss. Continuing with current food policies will be a disaster. Business-as-usual will lead by 2050 to big increases in global cropland, deforestation, GHG emissions, biodiversity loss and use of irrigation water and fertilisers. These changes can only be mitigated by a major reduction in global consumption of animal products (while allowing for an increase in regions with very low consumption) and a 50% fall in food waste. For many a shift to diets with lower levels of animal protein would produce health benefits.

Animal farming should be based on systems in which animals convert matter that cannot be eaten by humans (grass, crop residues, by products, unavoidable food waste) into meat and milk. The use of human-edible crops should be minimized. Good standards of animal welfare should be a core objective.

Crop production should be based on methods which can both restore the natural resources on which farming depends and increase productivity. These include integrated nutrient and pest management, rotations, building soil quality, water conservation and harvesting, agro-forestry and restoring biodiversity including at seed and soil levels.



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May 2015

The full report, Feeding the Planet: Building on the Milan Charter - Position Paper, is available from www.ciwf.org/milan

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