REAL POLICY ACTION AGENDA FOR SUSTAINABLE, CLIMATE-FRIENDLY FARMING AND DIETS

The *Policy Action Agenda for Transition to Sustainable Food and Agriculture* signed by 45 governments at COP26 in Glasgow on 6 November 2021 begins well, saying "Current public support to food and agriculture has helped to rapidly increase production; but has failed to address growing challenges linked to climate change, environmental degradation of soils and water, biodiversity loss, food and nutrition security and pandemic risks. In many cases, public policies and support exacerbate these risks."

It continues: "Time is running out to address these challenges. Urgent transition is needed towards sustainable agriculture that delivers healthy diets and resilient livelihoods, that takes place within environmental boundaries, maintains\protects or restores natural eco-systems and helps keep the world on track to within 1.5 degrees of global warming."

However, much of the rest of the document is poorly defined and does not provide a clear picture of what it envisages when it refers to sustainable agriculture. Some of its language suggests that it merely wishes to apply a veneer of sustainability to the current industrial model of agriculture, making it somewhat more efficient and somewhat less damaging. The document makes no mention of meat and barely refers to livestock, even though the UN Food and Agriculture Organisation states that livestock produce 14.5% of global greenhouse gas emissions and many studies recognise that without a substantial reduction in global meat consumption it will be very difficult to meet the Paris climate targets.

In light of the *Policy Action Agenda's* failure to set out a clear vision for sustainable food and farming, Compassion in World Farming proposes the following alternative *Real Policy Action Agenda*.

1. We need to move to regenerative, nature-positive forms of agriculture.

Regenerative agriculture aims to work with nature, supporting - and harnessing - natural processes. It aims not just to minimise negative impacts but to be a positive force, for example by producing food while at the same time enhancing soil quality, storing carbon and restoring biodiversity. Sustainable forms of agriculture include agroecology, agroforestry, organic farming, low-intensity permanent grassland, and integrated crop-livestock production.

Regenerative agriculture can minimise the use of chemical fertilisers and synthetic fertilisers. It is able to:

- ***Rebuild soil fertility and structure:*** by the use of cover crops, composts, animal manure, rotations and legumes which are able to fix atmospheric nitrogen in the soil. Enhanced soil structure minimises erosion while improving water retention, soil biodiversity and carbon storge.
- ***Minimise the use of pesticides through Integrated Pest Management:*** This allows the natural enemies of pests to thrive and develops healthy soils which can support strong plants that are better able to resist disease and pest attacks. The use of rotations can impede the build-up of pathogens and pests that often occurs when the same plants are continuously cropped.
- ***Conserve water:*** by improving the water-retention in healthier soils.
- ***Restore biodiversity:*** by farming in harmony with nature in ways that provide food and habitat for wildlife, including farmland birds, as well as pollinators and other beneficial insects.

2. We need to end industrial animal production and rethink the role of livestock. Industrial livestock production – factory farming – is dependent on the use of soy and cereals (e.g. wheat, corn and barley) to feed animals. 77% of the world's soy is used to feed farm animals, mainly factory farmed pigs and poultry. This is a key driver of deforestation.

Industrial livestock's huge demand for feed has fuelled the intensification of crop production which, with its use of monocultures and agro-chemicals, has led to overuse and pollution of ground- and surface-water,[1] soil degradation,[2] [3] biodiversity loss[4] and air pollution.[5]

40-45% of global cereals are used to feed animals; they convert them very inefficiently into meat and milk.[6] [7] [8] [9] [10] Using cereals as animal feed is a wasteful use, not just of these crops, but of the scarce land, water and energy used to grow them. A substantial reduction in the use of cereals to feed animals would enhance resource-efficiency and food security as more people are fed when scarce arable land is used to grow food for people rather than feed for animals. Indeed if the cereals used as animal feed were instead used for direct human consumption an extra 3.5 billion people could be fed each year.[11] [12] This is more than the anticipated increase of 2.2 billion in world population by 2050.[13]

Animals only make a positive contribution to food production when they convert materials we cannot consume – grass, by-products, crop residues and unavoidable food waste – into food we can eat.

If we only raised animals that can be fed in this way, we would benefit from major reductions in greenhouse gas (GHG) emissions, deforestation, soil erosion and nitrogen and phosphorus pollution as well as reduced use of cropland, freshwater, energy and pesticides.[14]

Good grassland systems for raising cattle and sheep do not feed grain to the animals and minimise the use of chemical fertilisers.[15] The animals are fed on grass, crop residues and root crops grown on the farm. Soil fertility and the nutritional quality of the grass are built through animal manure, the ability of the roots of grasses to collect minerals from deep in the soil and the inclusion in the grass of herbs, wildflowers and protein-rich legumes such as clover.

Regenerative agriculture often includes cattle, sheep, poultry and pigs on the same farm. The poultry follow the cattle. They peck around in the grass, feeding on bugs, seeds and worms, but also scratch in the cow dung to find larvae.

3. For the sake of the climate, our health and the environment, we must reduce meat consumption. Data from the UN Food and Agriculture Organisation (FAO) show that livestock are responsible for 14.5% of global GHG emissions.[16] A study published in the journal *Science* in 2020 concludes that even if fossil fuel emissions were immediately halted, current trends in global food systems would make it impossible to meet the 1.5°C target and difficult even to realise the 2°C target.[17] [18]

To meet the Paris targets, all sectors must reduce their emissions. However, on a business-as-usual basis, the emissions from food and agriculture will increase substantially.[19] ***Studies show that only a move to diets with much less meat can reduce food-related GHG emissions below their current levels.***[20]

Shifts towards more plant-based diets would also produce substantial health benefits. The World Economic Forum states: "Reducing meat consumption would be good for nature and the climate. In a growing number of countries it would be good for people as well, as overconsumption of meat could be leading to worse health outcomes".[21]

4. Boosting productivity and livelihoods of small-scale farmers in the Global South. Industrial animal agriculture out-competes small-scale food producers, thereby undermining their livelihoods. In 2018 the then Director-General of the FAO said that small-scale livestock farmers must not be *"pushed aside by expanding large capital-intensive operations."* [22]

Small-scale farmers should be helped to provide improved healthcare and nutrition for their animals through better disease prevention and the cultivation of fodder crops such as legumes. Better animal health and nutrition 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 have money available for other essentials such as education and healthcare.

Agroecology can increase the productivity of small-scale farmers so leading to better nutrition and improved livelihoods. The work of *Sustainable Agriculture Tanzania* provides a fine example of this.[23] The Alliance for Food Sovereignty in Africa advocates strongly for agroecology. It states: "We need a complete transformation of our food systems. Agroecology is a people-centred system of sustainable agriculture, combining indigenous knowledge with cutting edge science, making the best use of nature to create healthy communities and empowering a social movement that resists the corporatization of agriculture.

5. Promote alternative proteins. As livestock production decreases, some consumers will turn to meat analogues based on plants that resemble meat in flavour, texture and appearance. Cultured meat and precision fermentation are also poised to replace a high proportion of traditional meat. Cultured meat is made from cells collected from an animal which are then grown in a culture medium.

Precision fermentation entails programming micro-organisms to produce complex organic molecules. It is based on the same symbiotic relationship formed over millions of years between the cow and the microbes in her gut, only without the cow. It is based on the idea that microbes can be programmed to produce specific building blocks of food without any need for an animal.

Governments should support the development of such foods as these eliminate the risk of pandemics and antibiotics resistance associated with industrial animal agriculture and their production uses much less cropland, water and energy than livestock.[24] [25] Governments should ensure that unnecessary regulatory barriers do not impede the market entry of such alternative proteins.

6. True cost accounting - use of fiscal measures to mend our price system.
Subsidies should be redirected so that they no longer support industrial agriculture. They should instead be used to fund regenerative agriculture where carbon can be stored in well-managed soils and agro-forestry systems where trees draw down carbon dioxide from the atmosphere. Such systems operate without chemical fertilisers, thereby avoiding the substantial GHG emissions involved in the manufacture and application of fertilisers. Livestock can be an integral component of regenerative agriculture.

A report published by the UN in 2021 stresses that "current agricultural support policies are steering us away from achieving the SDGs and the goals of the Paris Agreement".[26] It "finds that unhealthy products, like sugar and emission-intensive commodities (e.g. beef, milk and rice) receive the most support worldwide, despite the potentially negative impacts on health as well as on climate change adaptation and mitigation". An OECD report covering 54 countries found that these countries provide support to their agriculture sectors of $619 billion per year. The OECD reports that more than two-thirds of this support tends to have negative effects including harming the environment.[27] This huge sum should be repurposed to supporting regenerative forms of agriculture.

Many bodies and reports have recommended using taxation to rebalance our food system.[28] [29] [30] [31] The use of taxation should be based on two interlocking principles:

- Internalisation of the costs generated by unsustainable farming methods and diets
- Provision of sufficient incentives and disincentives to promote systemic change.

Taxes should be placed on unhealthy, environmentally damaging food. Crucially, **all** revenue raised on taxes on food must be used to subsidise the price of healthy food produced to high environmental and animal welfare standards. There must be no overall increase in the price of food, simply a rebalancing of the relative costs of sustainable and unsustainable food.

Taxes should be placed on the damaging inputs of industrial agriculture such as synthetic fertilisers and chemical pesticides and feed containing soy and human-edible cereals. Such kinds of feed as well as agro-chemicals are responsible for very substantial damage to the environment and human health. Accordingly, it is appropriate that taxes are placed on them to internalise these negative externalities. The funds raised by such taxes and the repurposing of subsidies should be used to support farmers who produce nutritious food to high standards.

7. Financial institutions. Commercial and public banks provide huge sums to fund industrial livestock production. Investors, including major institutional investors, invest heavily in industrial animal agriculture. Financial institutions and investors should stop funding, or investing in, this type of production. They should instead provide financial support for regenerative agriculture as well as cultured meat and other alternative proteins. A core problem is that public banks generally will only fund large projects that require substantial sums of money. This steers them in the direction of large-scale, industrial agriculture. Banks should rethink this policy and develop ways of funding micro projects that benefit small-scale farmers.

8. Trade policy reform. Trade law can obstruct moves aimed at introducing sustainable and humane food policies, for example by making it difficult for countries to require imports to meet the sustainability standards placed on domestic producers. Reforms are needed to ensure that trade law does not impede governments that wish to tackle priority issues such as deforestation, biodiversity loss and antimicrobial resistance.

9. Animal welfare. Achieving good standards of animal welfare is an ethical imperative that is recognised by the FAO. The FAO stresses:

> "A paradigm shift has become urgent. Animals are to be addressed as living beings to take care of and valorize, not only as a source of commodities to exploit".[32]

There are animal health, productivity, environmental and business case benefits of farming to high standards of animal welfare.

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