

Session 9 – Is Sustainable Consumption a Necessity or a Mirage?

Bina Agarwal's intervention

Of the many global challenges we face today, the most significant and immediate is food security, as also recognised in the SDGs. I will therefore focus on food, and in particular food distribution and production. Both are key elements of sustainable consumption.

Distribution

In aggregate terms, the world produces enough food to feed the global population of 7.7 billion today. But what we produce is very unequally distributed across and within countries. By FAO's *State of food and hunger report 2018*, 821 million people in the world suffer from chronic food deprivation or undernourishment. Of these, 63% live in Asia, 31% in Africa, 5% in Latin America, and 1% in the Global North.

Similarly, *within* countries, some have a surfeit of food to eat, even throw away, while others, who have neither the means to produce enough food nor buy it, go hungry. Vast amounts of food is also wasted by consumers, retailers and on the farmers' fields. In India, despite overall self-sufficiency of food, 24% of children <5 yrs are undernourished.

Inequalities in access to good quality food will grow with inequalities of income and wealth, even as the middle classes in developing countries eat more and better. But, here again, changing middle class diets are more unsustainable in some countries than others. In India, for example, contrary to popular perception, most middle class people are eating sustainably: 30% of Indians (women more than men) are vegetarians for cultural or religious reasons. And cereals still provide 60% of total calories, while meat, fish and poultry combined provide only 3%. This is quite different from China where 17% of calories come from meat, more than in the USA.

Production

Apart from unequal distribution, we cannot sustain current ways of producing food. The way we farm is unsustainable both economically and environmentally. Economically, 84% of farmers in 111 countries cultivate less than 2 ha of land, often in fragments and often without irrigation. They are also seriously resource constrained. They produce below potential, and many barely break even.

Take India, where only 47% of cropped area is irrigated. Much of this is concentrated in a few states or among richer farmers. Also most farmers lack access to formal credit, new technology, extension, crop insurance, and markets. And some 35% of farm workers are women, who have even less access to resources, especially land. All this seriously restricts their output.

Ecologically, we are facing a crises of vanishing groundwater, degraded soils, and climate change. Globally, 70% of freshwater is used only for agriculture. And it is disappearing. In India, in the Punjab—which was a water plenty state and India's breadbasket—the groundwater table has been falling by 2.3 ft/yr since 2000. Many aquifers have run dry. But there are no penalties for overdrawing. In fact, free electricity given by governments to win elections, has encouraged water wastage. And 37% of our geo-area suffers from soil

degradation. Soil depletion has also occurred due to monoculture cropping, excessive chemical fertiliser and pesticide use, and so on.

And looming over this is Climate change (CC). By all forecasts, yields of all major staples will fall in South Asia and Sub-Saharan Africa due to heat stress and weather uncertainty, apart from droughts, floods, etc.

All this makes our farming unsustainable. What is the answer? I will suggest four ways forward.

(i) Irrigation. We need to price irrigation water to reflect its true cost. We also need a widespread shift to water conserving low cost techniques, such as drip irrigation. Most of all, we need to move away from large dams that are especially popular in China and India, to community based irrigation systems. Dams destroy forests and fields, displace people, and if badly maintained create water logging. Community managed irrigation provides an alternative. In India, many rainwater harvesting systems go back hundreds of years. We must revive these and create new ones. In parts of semi-arid India this has led to 9-10% annual agricultural growth rates.

(ii) Agroecological, low chemical farming. A UNEP report, *Towards Green Economy* estimates that green farming practices can raise small farm yields in Africa between 54-179%. The same could be possible in South Asia.

(iii) Institutional innovations: We need new models of farming, such as group farming – where farmers voluntarily pool their land, labour and capital to cultivate jointly. This can help smallholders enjoy economies of scale; add to their capital, labour and skill diversity; raise their bargaining power with governments and markets; and better adapt to CC.

We have examples of group farming in both France and India. France's group farms, GAECs, began in the 1960s and today GAECs & EARLs form 24% of all French farms, as my research shows (<https://doi.org/10.1177/0308518X18802311>)

India too has notable examples of group farming being done solely by women. Kerala today has 65,000 group farms involving 200,000 women. In my research, I compared a sample of group farms and individual farms (95% of which were male managed). I found that group farms relative to individual farms had 1.8 times the annual value of output/ha and 5 times the profit/farm. <https://www.sciencedirect.com/science/article/pii/S0305750X18300913>

(iv) Fields & Forests: We must recognise the symbiotic relationship between fields and forests. One in 6 persons globally depends on forests for supplementary food, apart from green manure and fuelwood. Communities have been successfully protecting forests in many countries, including India and Nepal as my research shows. In the 2000s India had 82,000 community forest protection groups, which led to a significant increase in forest cover.

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To conclude, for sustainable consumption, we need to rethink *how* we produce food and how we distribute what we produce. We need alternative pathways to sustainable food consumption which are equitable, ecologically sustainable, and institutionally innovative. A key element in this will be cooperation among producers and among consumers, and a renewal of trust within communities

Cooperation, community and conservation are the three principles on which we can build a sustainable and food secure future.