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Gaining control over our food systems

THE RIGHT TO FOOD, AGROECOLOGY AND FOOD SOVEREIGNTY

Despite an increasingly productive food and agricultural system that provides the world with enough food, hunger and malnutrition are still the primary cause of mortality in the world. Daily about 25 thousand people lose their lives as a consequence of a violation of their right to food.[1] Nearly 1 billion people suffer from hunger and malnutrition worldwide. Paradoxically, almost seventy percent of them depend on agriculture for their livelihoods and live in rural areas. At the same time, obesity has reached epidemic proportions globally, with at least 2.8 million people dying each year due to overweight or obesity related diseases.

In order to combat hunger and malnutrition, we need to ensure that the human right to food of vulnerable groups is protected and realized in a way that gives them control over their food and farming systems. There are real opportunities to do so through agroecological farming practices, in which farmers work with nature instead of with chemical inputs, and through producer-consumer initiatives both which increase people's food sovereignty.

HOW DID WE GET HERE?

The global food system, as it is today, is largely the outcome of social and economic restructuring, at the global and national level. From the 1980s onwards, national governments and institutes such as the World Bank, the IMF and the World Trade Organization embarked upon a mission of privatization, commodification, financial deregulation, decentralisation and trade liberalisation. Multinational companies thrived in these new circumstances with more access to resources, markets, labour and political decision making arenas. In agriculture, these developments increasingly intertwined with industrial modes of production and consumption. This approach already started with the 'Green Revolution', a series of research, development, and technology transfer initiatives that can be traced back to the 1940's push for monocropping, specialisation, and the use of chemical fertilisers, improved seeds and agro-toxins. This is an ongoing process. Green Revolution practices have led to major degradation of soils, depletion of natural resources and increasing dependency of farmers on expensive inputs such as seeds and pesticides. Monocropping specifically has led to the loss of 75 percent of plant genetic resources over the past century.[2] With 1.5 billion people depending on ecosystems subject to degradation, this is not only eroding the natural resource base upon which agriculture rests, it is also threatening the livelihoods of farmers.

Vegetables in Xalalá, Guatemala, photo by FIAN Netherlands

WHO IS CONTROLLING OUR FOOD SYSTEMS?

Over the years, agribusiness corporations have grown fewer in number and larger in size.[3] The ten largest animal feed manufacturers control 16 percent of the world feed market, for fertilisers this is 55 percent, for seeds 75 percent, and for pesticides the top 11 corporations control 97.8 percent of the market. In the food processing industry power is also concentrated, with the top 10 controlling more than a quarter of the market. In retail this is 10.5 percent.[4] These corporations increasingly shape the direction of science, public policy and law. Monsanto has for example successfully lobbied for seed patent laws in their favour, some of which have severely affected breeding rights of farmers.[5] New powerful coalitions are emerging between industrial agriculture, agribusiness and other actors. The top 10 receivers of subsidy of the European Common Agricultural Policy for example are all large multinational processors. These collaborate with retailers and supermarket chains who penetrate in developing country markets where they outcompete local producers, retailers and sellers.[6]

Land grabbing adds to the pressure on local food producers. Since 2001, 227 million hectares of land, an area the size of Europe, has been sold or leased to international investors[7], backed by capital and guarantees of the World Bank. Over half of these took place in countries with serious hunger problems, while two thirds of those investors plan to export everything they produce on the land.[8]

FEEDING THE WORLD

As a result of the changes in agriculture in recent decades, productivity has increased in some areas. However, this has had little effect on hunger and poverty. While there is twice enough food to feed the world, the total number of hungry people in 2010 was estimated at 925 million.[9] Whether these systems can maintain current production levels is also questionable, considering the deteriorating qualities of the earth's once fertile soils. Increased productivity is closely related to the increased use of agro-toxins and chemical fertilisers, leading to degradation of land, water, biodiversity and ecosystems.[10,11,12] Industrialisation and the free flow of goods have also brought public health and environmental risks. Major outbreaks of animal

Women preparing food, photo by Mohan Dhamotharan

diseases in Europe have been associated with this. The emergence of diseases resistant to antibiotics have moreover been linked with excessive antibiotics use in intensive livestock systems. Pesticides use in arable systems has been associated with human illnesses. The choice and quality of our food is increasingly determined by large profit-seeking processors. Fatty and sugary diets have led to about 1.5 billion overweight and obese people worldwide.[13]

AGROECOLOGY AND FOOD SOVEREIGNTY

These developments in agriculture have not gone without resistance. Social movements of peasants and citizens have emerged and started to conceptualise and create agriculture and food systems that operate according to very different principles. The most visible manifestation of this in the international arena is perhaps the peasant movement of La Via Campesina, which framed their struggle as one for food sovereignty; the right for people to define their own food systems. Many family farmers and other citizens are already doing so by building on indigenous food and farming systems, by strengthening local food systems that circumvent international value chains, and by using new farming practices that are based on their own experiences, possibilities and observations. These new practices have led scientists and social movements to adopt an alternative approach called 'agroecology'.[14]

WORKING WITH NATURE

Agroecology is an approach to farming that makes the best use of nature's goods and services while not damaging these resources. It is about using local resources and ecological processes to strengthen the farm and the livelihoods of farmers. Farmers have used agroecological practices to derive inputs, food, and functions such as pest control and weed management from within the farming system, reducing their dependency on the market. This allows them to bypass multinational corporations and gives them autonomy and freedom to produce in the way they want.[15] In that way, agroecology can enhance farmers' food sovereignty. Which agroecological techniques are being practiced, depends entirely on local circumstances and the knowledge, values and aspirations of the farmers. Some farmers experiment with crop combinations that deter insects and pests, they recycle nutrients on the farm (for example by using manure from their cattle instead of chemical fertiliser), they keep their soils fertile and covered, or they plant trees in between their crops. Some farmers try many of these and other practices at the same time, reaping a variety of benefits such as increased productivity of crops and soil, a diverse, healthy diet, and more independence from expensive agrochemicals.

PROMISING RESULTS

Agroecological approaches have expanded to encompass whole food and farming systems, linking ecology, culture, economy and society.[16,17] The results are promising. A review of 198 projects in 57 countries found that agroecology improved productivity on 12.6 million farms with an average yield increase of 79 percent.[18] A study in twenty African countries found that, through a variety of agroecological techniques including participatory breeding of indigenous crops, integrated pest management and agro-forestry, yields more than doubled in a period between 3 and 10 years, benefitting 10.4 million farmers.[19] One analysis comparing almost 300 farms globally concluded that agroecological farms can produce 96 percent of a conventional yield while improving soil fertility and strengthening resilience.[20] Over the past decades, millions of family farmers, notably in Asia and Africa, improved their food security through the System of Rice Intensification, which is based on agroecological principles.[21] Numerous other cases have been reported where agroecology has led to increased yields, improved food and nutrition security, reduced rural poverty and resilience to climate change.[22] It also contributes to benefits that go beyond food, such as meaningful work, physical health, recognition of the innovative capacity of farmers, women empowerment and better community health.[23,24,25]

These developments have often been paired with the creation of alternative markets. New, direct markets allow for the interaction between producers and consumers. Farmers are no longer forced to produce for the lowest possible prices but instead negotiate with consumers who in turn get to co-define sustainability and food quality and mutually shape the production system. These markets and practices have contributed to the construction of peasant territories and alternative food systems, places of autonomy and food sovereignty where producers and consumers have gained control over their own agriculture and food systems.

Market in Guatemala, photo by Tom Henning Bratlie / FIAN Norway

THE HUMAN RIGHT TO FOOD

The human right to food is an important achievement as well as a tool that can be used by social movements, civil society organizations, farmers and indigenous people to gain control over food systems that are based on agroecology and food sovereignty. The right to food states that people must have the ability to feed themselves directly from productive resources, or to have the necessary purchasing power to obtain food from markets. It is the right to feed oneself in dignity. This implies ensuring that food is available, accessible and adequate. Availability means that there is sufficient, divers and nutritious food on the markets to meet the needs of the people. Accessibility requires both physical and economic access: physical accessibility means that food markets are within reach; economic accessibility means that food must be affordable without compromising other basic needs such as education fees, medical care or housing. Furthermore, the human right to food implies that food or food aid is adequate and culturally acceptable. Adequacy requires that food satisfy different dietary needs, that it is safe for human consumption and free of adverse substances. Ultimately, food must be produced in an ecologically sustainable way.

HOW CAN THIS RIGHT BE ACHIEVED?

In order to achieve the right to food for everyone, modes of food production must be environmental friendly and socially just. It is estimated that by 2050, an overall increase in agricultural production of seventy percent is necessary[26], taking into account demographic growth as well as dietary preferences and consumption levels associated with more urbanisation and higher household incomes. However, this estimate needs to be put in perspective as it takes the current demand for agrofuels and animal feed linked to excessive meat consumption as given.[27]

At present, almost half of the world's cereal production is used for animal feed. In addition, meat consumption is predicted to rise from 37.4 kilograms per person a year in 2000 to more than 52 kilograms per person a year by 2050. Policies to promote agrofuels also contribute to a reduction of available food as they divert production of

BUILDING FOOD SOVEREIGNTY WITH AGROECOLOGY: THE CASE OF SANTINHA AND JOAO

Santinha and Joao dos Santos are coffee farmers in Araponga, Brazil. With a great diversity of trees, shrubs and herbs growing on their field, a coffee plant cannot be spotted effortlessly. It is the chaotic beauty of their landscape that first hits the eye, arousing a sense of wilderness and an impression of neglect. But nothing lies further from the truth. Each plant has been carefully selected by Santinha and Joao. There are crops such as beans and sugarcane. Some of the trees provide fruit such as banana, mangos and avocados, fruits they could not afford when they only planted coffee.

Because of their longer roots several trees can access nutrients in deep soil layers that are unreachable for the coffee plants. Trees that harbor mychorrizal fungi take up the important nutrient phosphorus, which is tightly bound to soil particles. Leguminous trees take up nitrogen from the air. The coffee plants Santinha and Joao are 'fed' with these nutrients once their leaves fall off and decay, reducing their dependency on the chemical fertilisers that once trapped them in a negative spiral.

Some time ago, their situation was not as positive as it is today. With the increasing price of fertilisers, Joao applied less, leading to reduced yields, and leaving even less money to buy food and inputs for the season to come. Hunger set in as they could no longer purchase food from the supermarket. Joao and Santinha dedicated a lot of time to extra weeding in the hope that would put an end to the declining yields. With agroecology Joao and Santinha were not only able to break out of this cycle, it also triggered them to use the natural resources that they had at their disposal and experiment with ecological practices on the basis of their own ingenuity, knowledge and creativity. Underneath the apparent chaos of their field lies a history of struggle for farmers to produce what and how they want.

food crops to energy crops. In consequence, increasing agricultural production in the coming decades alone is not sufficient to ensure access to food for all. In order to achieve the right to food for everyone, food production needs to be environmental friendly, sustainable and socially just. Agriculture must develop in ways that increase the incomes of smallholders. We need more sustainable and affordable production methods that benefit the rural poor. Hunger is not a consequence of low global supplies, but the lack of access to affordable food in rural areas and the absence of the means of production for small-scale farmers. Increasing the incomes of the poorest, giving them access to resources to produce food, and implementing agroecological practices that rely less on external expensive inputs, are the most efficient ways to improve access to food and fulfil the right to food for the rural poor.[28]

Finally, for the realisation of the right to food of current and future generations it is essential that agriculture maintain its function to meet future needs. It is crucial to preserve ecosystems, biodiversity and address challenges posed by soil erosion, water scarcity and climate change through sustainable practices.

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