

Food sovereignty in times of agribusiness: fertilizer dependence



Phosphate mining by the OCP company, controlled by the King of Morocco, in the illegally occupied Western Sahara

Photo Credits: Fadel Senna

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In the last few weeks, fertilizers have been in the news, as their price increase has accelerated worldwide. The beginning of the war between Ukraine and Russia had a strong impact on the supply of fuels and raw materials for the production of some chemical fertilizers, reducing the supply and aggravating the sharp increase in fertilizer prices, which has already reached 300% in the last months.

This scenario highlights the dependence of the primarized economies of the global south on the fertilizer market. Chemical fertilizer production is highly dependent on two elements: Fossil energy, which is consumed in enormous quantities to reduce elemental nitrogen present in the air to ammonium to produce nitrogen fertilizers through the Habert Bosch process; and mining, which is necessary to obtain phosphorus- and

potassium-based fertilizers, among others. Fluctuations in energy prices, and the geopolitical rearrangements of the few countries that have phosphorus (the largest exporter is Morocco) and potassium deposits (the largest exporters are Russia and Belarus), make the world market for chemical fertilizers an unpredictable environment, making the production of commodities by agribusiness just as unpredictable.

Why do the countries of the global South depend on imported chemical fertilizers to develop their own agriculture?

The international division of labor leaves the economies of the countries of the global south as exporters of raw materials. We have an economy based on the production of agro-industrial commodities. In this framework, agribusiness and its actors, which are largely multinational companies, are the beneficiaries of the financial margins generated by this production scheme. Agriculture is seen as just another link in a financial business on a global scale, where surface areas are measured in thousands of hectares, volumes of inputs and production are measured in ships and corporate profits in billions of dollars. These ships come south loaded with fertilizers, herbicides, insecticides, fungicides, machinery and even seeds, and leave for the north loaded with grains and other raw materials. When grains leave our countries, soil nutrients are exported: nitrogen, phosphorus, potassium, sulfur, boron and dozens of other elements that are replenished with fertilizers to prevent soil nutritional depletion from impacting crop yields. For this reason, some authors associate agroindustrial activity with mining activity, since it has a marked extractivist component on soil nutrients.

The elements are extracted from the soil by the crops, and must be replenished to maintain crop productivity. Without these fertilizers, the model proposed by agribusiness does not work.

It is becoming increasingly evident that the economies of the global south have become financially dependent on the dollars generated by the agribusiness sector. A large part of these dollars that enter the economies of the global South from the sale of commodities quickly return to the North to buy the inputs and services needed to keep the financial wheel of the global agribusiness model running, which not only uses the lands of the global South as a source of low-cost agricultural products, but also as a market for agrochemical inputs and financial services. Global agribusiness leaves the countries of the global south only as suppliers of soil and a minimal amount

of labor. While the supply of inputs, value addition and exports is concentrated in the hands of transnational capital.

The critical state of food sovereignty of the peoples of the global south is evident. In addition to economic dependence, there is the environmental devastation and social degradation that agribusiness leaves on our lands and societies.

Sustainable alternatives

The agroindustrial model of production, built during the second half of the 20th century from the green revolution, not only endangers the food sovereignty of the peoples of the global south, but also faces increasing physical, biological, economic and socio-environmental limitations. In this context, some of the technologies and principles that the agroecology paradigm has been promoting for decades, are beginning to be appropriated by agribusiness, in the search for alternative technological solutions that are energetically less costly, slow down the depletion of mineral resources and do not generate resistance, as chemical inputs do. A paradigmatic case is the growing valorization of the use of microbiological bioinputs, which is expressed not only in the growth of the market for these products, but also in the large movements of capital towards research, development, production and commercialization of different types of bioinputs by agroindustrial capital.

The appropriation by agribusiness of technologies and logics born of organic agriculture and agroecology may be very encouraging, but they are not capable of solving the underlying problem in terms of dependence or of discussing the serious consequences of the loss of food sovereignty in our countries. In order to move towards sustainable production models, it is not enough for agribusiness to apply "green" technologies, but it is necessary to rethink and rebuild the production system, placing family farmers, and not financial profitability, at the center of a production system capable of managing the agroecosystem in a sustainable way, reducing dependence on imported inputs, but also guaranteeing the production of healthy food and food sovereignty. The agroecological paradigm is being promoted by peasant movements and state and civil society organizations in many countries as an integral approach that seeks social, economic and environmental sustainability of production systems and is supported by increasing technical and scientific knowledge to address the enormous difficulties involved in a change of this magnitude.