



MST Seeks Alliance with China to Use Solar Energy in Cooperatives

By Mauro Ramos

Source: Brasil de Fato. Edited: Rodrigo Durão Coelho.

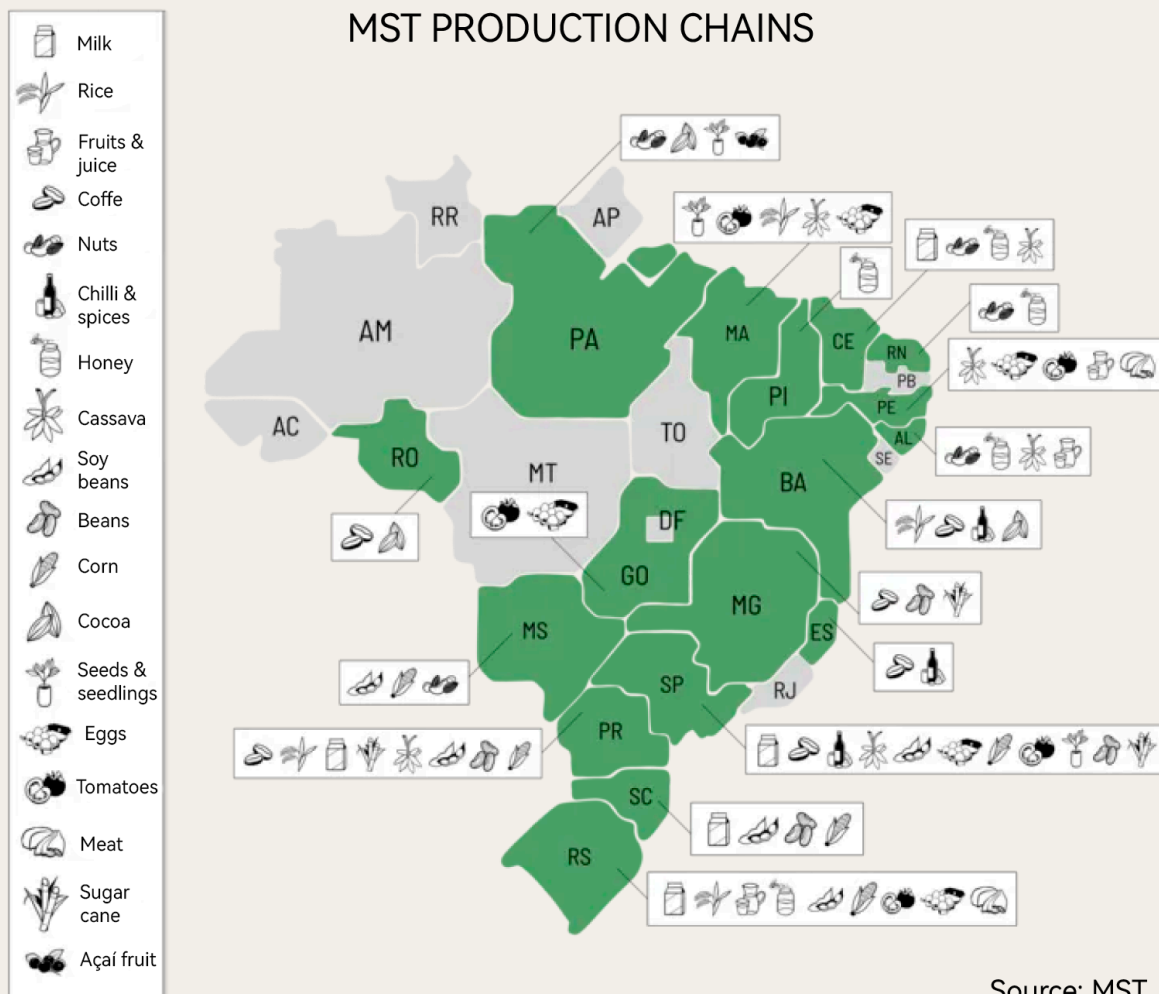
João Pedro Stedile, leader of the Landless Rural Workers Movement (MST), was in China to hold talks with institutions and companies that have already started an alliance involving settlements of the movement.

The MST is also seeking a solution to the energy problem faced by Brazil's peasant cooperatives, including those of the MST. The movement has 185 cooperatives and 1,900 associations that manage 120 small and medium-sized agricultural enterprises.

The main production chains in the MST settlements are rice, milk, meat, coffee, cocoa, seeds, cassava, sugar cane, and grains, according to the movement.



The issue arises from the fact that these agricultural companies require steam and hot water to pasteurize their food. In an interview with Brasil de Fato, the leader explains that wood-fired boilers currently perform this pasteurization. “There are also electric boilers on the market, but they are very expensive—even more so after the privatization process of the hydroelectric plants and, lately, even of Eletrobras,” Stedile laments.



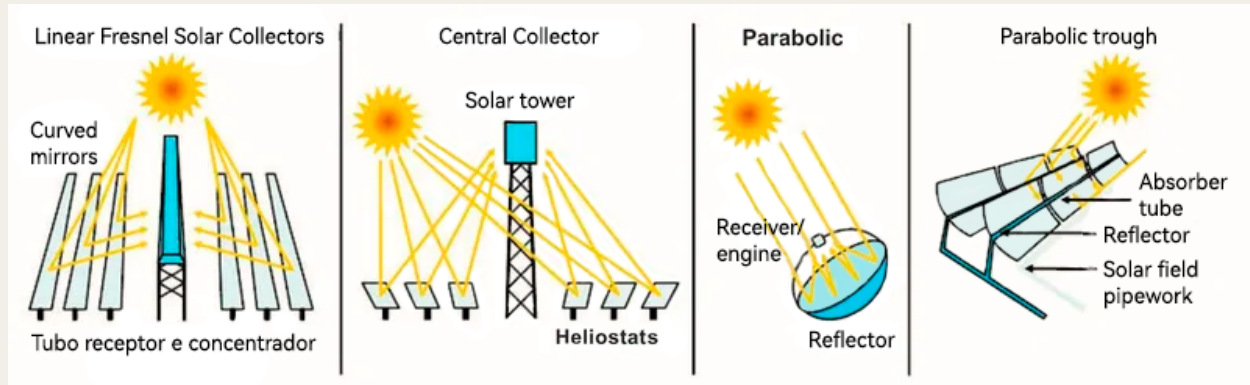
Map of the MST production chains. Source: MST

Concentrated Solar Energy

This technology, also known as heliothermal, is a system that uses mirrors or lenses to concentrate sunlight onto a receiver, where a liquid is heated and can then turn a turbine or power an engine to generate electricity.



There are at least four main types of these systems: the Fresnel type, the central tower type, the parabolic disc type and the cylindrical parabolic collector type.



Solar Energy Technology - 2019. Source: Răboacă, Maria & Badea, Gheorghe & Enache, Adrian & Filote, Constantin & Răsoi, Gabriel & Rata, Mihai & Lavric, Alexandru & Felseghi, Raluca.

The adjustable mirrors in Fresnel technology reflect the sun's rays towards an absorber tube, while the transfer fluid transports the heat. Beijing Zhaoyang Solar Thermal Technology, whose representatives the MST delegation met, developed this type of system.

Ruan Yang, the vice director of Beijing Zhaoyang, also known as Tera Solar, asserts that an increasing number of Chinese companies strive to achieve the energy transition "through technological reform and innovation."

"More than a decade ago, we realized that we had to reduce costs and make a change in the energy structure without increasing costs for the user," says Yang.

Since its inception in 2010, the company has registered 43 patents for innovations in its system. The photovoltaic panels power the automatic mirror cleaner, which is one of the innovations.

Stedile emphasizes that "it is a very interesting technology that we know and can use in Brazil," adding that the next step is to develop an information exchange program "to see what the viable scales are in Brazil and what the costs are."



For his part, Yang says he hopes that China and Brazil can work together in this area since "they are large agricultural countries, and some of the problems and needs we face are similar."

Stedile asserts that in Chinese socialism, the primary focus is always on solving social and economic problems. "It's a different perspective, as this technology is also present in Spain, Sweden, and Germany. However, when engaging with these countries, the prevailing mindset is centered around maximizing profits and exploiting others." On the Chinese side, the leader affirms that an economic project is only viable and successful if all parties involved win.

The political synergy between the governments of Xi Jinping and Lula can facilitate technological transfer between both countries, a necessity for Brazil, according to the leader, since "we are victims of neoliberalism that deindustrialized the country, which made us more dependent on agricultural and mineral commodities." Lula's government is embarking on a strategic project to reindustrialise the country, but he laments that we are lagging behind.

Published on *Brasil de Fato* "*MST procura parceria com a China para utilizar energia solar em cooperativas*". Edited by ROOTS

Original language: Portuguese. Translated to English by ROOTS.

Link to the original article: [MST seeks alliance with China to use solar energy in cooperatives](#)