UAB Universitat Autònoma de Barcelona

Faculty of political science and sociology

Bachelor's Dissertation

Executive summary

Food Systems, Tech, and Local Empowerment

Food Sovereignty and Technological Sovereignty in the Digital Era

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Climate Change is recognized as a global issue, with the world's food system consuming around 30% of global energy (Climate Group, n.d.), and an estimated 600 million people facing hunger by 2030 (FAO, 2023a:vii). Agriculture is vital for addressing hunger, improving health, and lifting rural populations out of poverty (World Bank Group, 2015:6). Despite peasants providing between 66% to 75% of the global food, using 25% of the world's arable land (Mooney, 2018), agriculture is increasingly dominated by large companies, especially when it comes to technology development (Kaur, 2014), which is increasingly permeating every stage of the food supply chain. All the latter, in context, perpetuate social inequalities, particularly for women and indigenous peoples (Grey & Patel, 2015; Montenegro de Witt, 2021). The Food and Agriculture Organization (FAO), as a leading authority on food policy, focuses on achieving Food Security (Fse), unfortunately failing to achieve structural changes and adopting a rights-based approach (Wittman, 2011; Holt-Giménez, 2014; Jarosz, 2014). While Fse is embedded in the capitalist economy and holds hegemony, Food sovereignty (FSo) emerged as a response to neoliberalism, offering an alternative to the corporate food system. Echoing Montenegro de Witt's (2021) and Mooney's (2018) arguments, the thesis contends that technological innovation incentives are not neutral. While technology itself isn't inherently good or bad, its benefits are limited if profit-driven entities, rather than affected social groups, control them. The focus of the present document, thus, is whether the FAO is taking the steps to advance towards sovereign food systems, in case it is not, what can it do to change such a path? By shifting its narrative, the FAO can contribute to achieving a global food system that meets the current needs of the people, safeguarding those of future generations and the planet in the era of new technologies. Analyzing 32 initiatives via document analysis sourced from the FAO's website, this study evaluates the achievement of FSo and TSo. Additionally, a SWOT analysis is conducted, complemented by the examination of other FAO and external best practices. The analytical framework is based on the 7 aspects that conform to the concept of Food Sovereignty, also applied to Technological Sovereignty (TSo), which then, are translated into a 15-question survey to answer during the analysis. The 7 aspects include: 1) the prioritization of culturally appropriate food, while rejecting its commodification and making technology available to all, 2) the respect of diversity among food providers and consumers, empowering them in decision-making and fostering technological governance, 3) localization of food systems, with technology facilitating collaboration between providers and users for informed decisions, 4) promotion of local control over resources, rejecting privatization, including the control over tools, data, and digital and material infrastructure, and prioritization shared knowledge and resource management, 5) promotion of local knowledge

and skills in sustainable food production, opposing to technologies that harm ecosystems, advocating for the respectful sharing of traditional wisdom, 6) prioritization of nature-friendly agricultural methods, enhancing ecosystem contributions and resilience, also promoting innovative technologies to maximize biodiversity, minimize toxic inputs, and strengthen local food systems, and 7) prioritization of health by addressing issues from low-quality processed foods. Technologies should enhance nutrition without compromising locals' well-being. (Nyéléni, 2007:1; Montenegro de Wit, 2021:16; Hoover, 2017). The survey questions are grouped according to various domains. These domains include goals and approach; community engagement; education and training; environmental impact; economic impact; health impact; market dynamics; and word-use and general impact. As for case selection, the FAO was the focal point, by accessing the project repository website, which includes 118 projects. Selection criteria included the presence of a technological component, current status (active or inactive), and a focus specifically on agricultural projects, thus, excluding those centered on fishing or forestry. 32 projects met these criteria and were, thus, chosen for analysis. The analysis concluded that while some progress was noted, significant opportunities for enhancement across all areas of study were identified. Results highlighted that FAO should foster deeper community engagement and empowerment, especially among historically marginalized groups like women and indigenous peoples, drawing upon their unique insights. Moreover, bridging the divide between intention and implementation is crucial in health, while education and environmental initiatives have made notable strides. However, achieving economic inclusivity remains a significant challenge, underscoring the critical importance of prioritizing support for small-scale farmers. The need for FAO to steer towards more inclusive, rights-oriented, and transformative food systems derived into a series of 17 chronologically ordered recommendations. Such recommendations are provided across 8 keys. Areas. The identified areas include community engagement, empowerment, and inclusion; education and training, environmental aspects; nutrition and health; technology; policy and reach; and organizational enhancements within the FAO. These recommendations aim to offer a clear pathway for enhancing FSo and TSo in FAO’s projects.

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