



Zero Hunger



Sustainable Development Goals Report 2023

“The ability to feed the world is a key element of sustainable development. If done right, agriculture, forestry and fisheries can provide nutritious food for all. At the same time it can ensure rural development with people at the centre of the process, supporting the incomes of those who rely on agriculture. Universities need to be able to demonstrate how they are contributing to end hunger, achieve food security and improved nutrition and promote sustainable agriculture”

THE Impact Rankings





Zero Hunger



Sustainable Development Goals Report 2023



STATISTICS

151.7 ton

Total food waste

25,340

Campus population

96

Number of publications
2019 - 2023

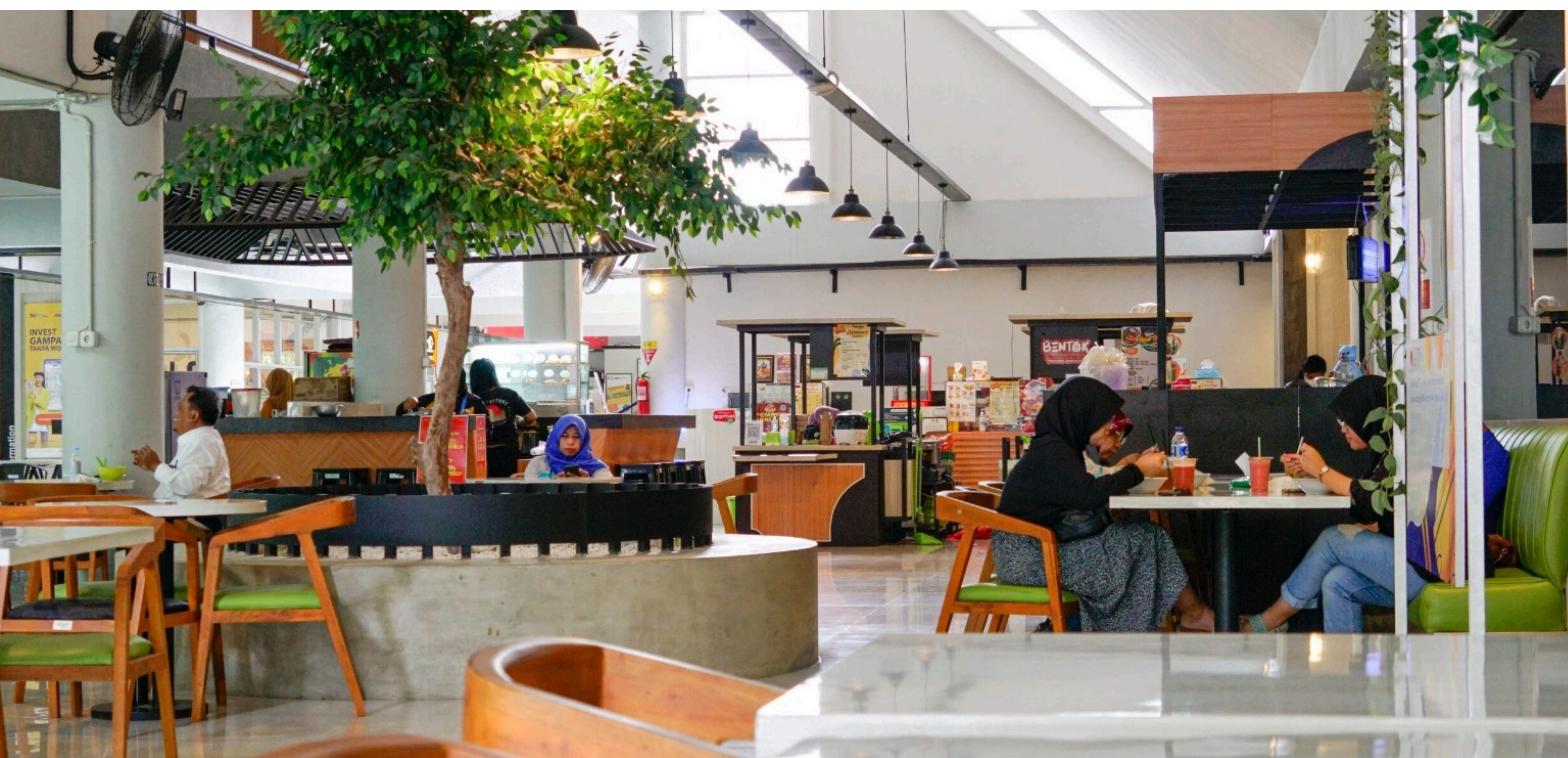


ITS Offers Sustainable Healthy, and Affordable Food Choices on Campus

Institut Teknologi Sepuluh Nopember (ITS) is reconstructing campus dining to prioritize sustainable food choices that enhance the health and well-being of students, faculty, and staff. ITS offers a broad variety of nutritious and affordable options, including vegetarian and vegan meals starting from Nasi Pecel, Gado-Gado, fresh fruit juices, until mushroom-based dishes making it an award-winning Central Canteen and other dining facilities. These are the efforts to support physical and cognitive health with sustainable choices, fostering a culture of wellness and productivity.

The ITS Central Canteen recently received top honors in the National Halal, Safe, and Healthy Culinary Zone (KHAS) program by the Indonesian Ministry of Health and the National Sharia Economic and Financial Committee. This recognition highlights ITS's commitment to strict hygiene, sanitation, and comprehensive halal certification, ensuring a reliable and inclusive dining experience for all.

Aligned with ITS' Smart Eco Campus initiative, the Central Canteen also incorporates sustainable practices such as a waste bank and cashless payment systems, promoting environmental responsibility alongside healthy eating. ITS' focus on sustainable food choices creates an inclusive campus environment that encourages lifelong healthy habits within the academic community.



ITS Advances to Prevent National Hunger by Scaling Agriculture with Smart Farming

At the heart of Indonesia's struggle with food security, rising food prices, and land conversion lies a pressing need for change in how we approach agriculture. To help tackle these challenges and work toward achieving Zero Hunger, ITS has introduced the concept of Smart Farming — a game-changing approach that uses technology to make agriculture more efficient, sustainable, and productive.

In the event of Professor Summit 2023 in ITS Research Center Auditorium, Prof. Dr. Ir. Teguh Soedarto MP from UPN "Veteran" East Java presented an innovative Smart Farming system. This provides an answer to the obstacle of Indonesia's food security, especially in the conversion of agricultural land and declining rice reserves in the National Logistics Agency (Bulog). The system involves using automated machinery like rice planters, soil processors, and harvesters that work together to streamline the farming process, reduce time, and increase yields. Drones, too, play a key role, offering a high-tech solution for managing pests, applying fertilizers, and planting seeds with incredible precision. These technologies not only improve productivity but also help to cut costs and reduce waste, making farming more efficient.

For Indonesia, Smart Farming is a major breakthrough to prevent hunger. By leveraging technology, farmers can increase crop yields while minimizing the environmental impact — using less water, fewer chemicals, and maximizing the land they have. This is particularly important in a country where traditional farming methods are struggling to keep up with the growing population and shrinking agricultural land. By helping farmers grow more food, more efficiently, and sustainably, Smart Farming brings us a step closer to a future where hunger is no longer a reality but a thing of the past.



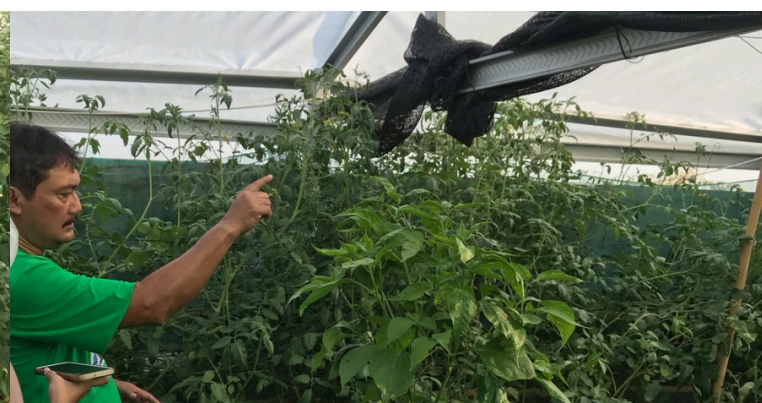
Tackling Urban Hunger: ITS Community Service Internship Program Empowers Local Communities with Hydroponic Farming

In an effort to address food security and reduce hunger in urban areas, Institute of Technology Sepuluh Nopember (ITS) has launched an innovative hydroponic farming initiative through its Community Service Internship Program (KKN Abmas-Kuliah Kerja Nyata Pengabdian Masyarakat). With limited productive land available in urban environments like Keputih Timur Pempa Air, this program aims to empower local residents to grow their own food sustainably.

The KKN Abmas team provided hydroponic farming training to members of the Family Welfare Development (PKK) community group. The training included everything from seedling planting to crop maintenance and harvesting, with a focus on creating a new source of food production in spaces where traditional agriculture isn't feasible. The hydroponic system used in the training relies on a circulation mechanism that efficiently moves water through pipes, allowing crops such as mustard greens to grow quickly — with a harvest time of just 28 days. In addition to mustard greens, participants also learned to grow tomatoes and chilies using polybags with an automatic irrigation system.

One of the key benefits of this initiative is its potential to generate additional income for local families. By selling their produce, PKK members gain a source of revenue while improving local food security. The KKN Abmas team hopes that the success of this program will inspire other communities to adopt similar sustainable farming practices.

This initiative is a direct response to the growing challenge of hunger in urban environments, showing how small-scale, innovative farming methods can improve food availability and empower communities. By providing both practical skills and a sustainable income stream, ITS is making a meaningful contribution to the SDG of Zero Hunger and supporting national efforts to address food insecurity.



Supporting Food Security: ITS Launches Smart Mini Sorghum Sweetener Factory

In an effort to support the Indonesian government's goal of achieving national food self-sufficiency, the Institut Teknologi Sepuluh Nopember (ITS), in collaboration with CV Agriutama, has launched the Smart Mini Sorghum Sweetener Factory in Jombang. This state-of-the-art facility is designed to contribute to the country's food security and ensure a stable supply of raw materials for the national industry, aligning with the objectives outlined in Presidential Regulation (Perpres) No. 40/2023 on accelerating national sugar self-sufficiency and bioethanol production.

The factory is part of a broader research initiative exploring the potential of sorghum, a versatile crop that can be used to produce various products beyond sugar. In addition to sorghum-based sweeteners, the research team has developed other innovative products such as sweet soy sauce, red and white rice, vegan honey, and flour. This research is expected to play a key role in strengthening the country's food security and diversifying the agricultural supply chain.

One of the main advantages of the Smart Mini Sorghum Sweetener Factory is its use of sorghum, a crop that can be harvested multiple times per year, unlike sugarcane. This makes sorghum an attractive alternative raw material for sugar production, providing an opportunity for Indonesia to diversify its agricultural base. With this innovative approach, the factory aims to revitalize the sugar industry and attract investment from both domestic and international sources.

The success of the Smart Mini Sorghum Sweetener Factory is also supported by the Indonesian Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) and the vision of CV Agriutama to advance national food security. This project is seen as a vital step toward achieving greater food sustainability in Indonesia and addressing the nation's growing demand for secure, high-quality food sources. Through this initiative, ITS hopes to contribute to the long-term goals of national food self-sufficiency and resilience.

