

Forschungsnetzwerk Neues Kreislautsystem



Demonstrationsbetrieb

Im Rahmen der Nationalen Strategie zur Reduzierung
der Lebensmittelverschwendung



NEW CIRCULAR SYSTEM 2+12

CAN WE FIGHT HUNGER WITH FOOD SURPLUS?

1. Executive Summary

This project presents a circular economy solution to a global paradox: vast food waste amid widespread hunger. Nearly one-third of all food is surplus, while over 800 million people go hungry (FAO, 2023). By redirecting surplus food through value-preserving channels—such as food banks, nutrient extraction, preservation, and redistribution—the initiative turns food surplus into food security. Food surplus is also the third-largest emitter of CO₂ after China and the USA. Human resources and natural resources like land, energy, and water are wasted in the generation of food surplus. This project calls for collective global action to transform surplus into nourishment, emphasizing that the fight against hunger must go hand-in-hand with sustainability and climate resilience.

2. Integrated Solution Framework



1. Fresh Distribution: B2B, fresh food goes to food manufacturers.
2. Food Banks, Food Sharers & Social Redistribution
3. Food Conservation (Drying, Juicing, Canning, Freezing, Sterilization, Fermentation, Powder)
4. Extraction of nutrients, e.g., proteins
5. Animal Feed
6. Production of biological plastics, biosurfactants, and fibers
7. Biogas Production
8. Organic Fertilizer

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