

IMPROVING ENERGY EFFICIENCY IN FOOD PRODUCTION

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ABSTRACT

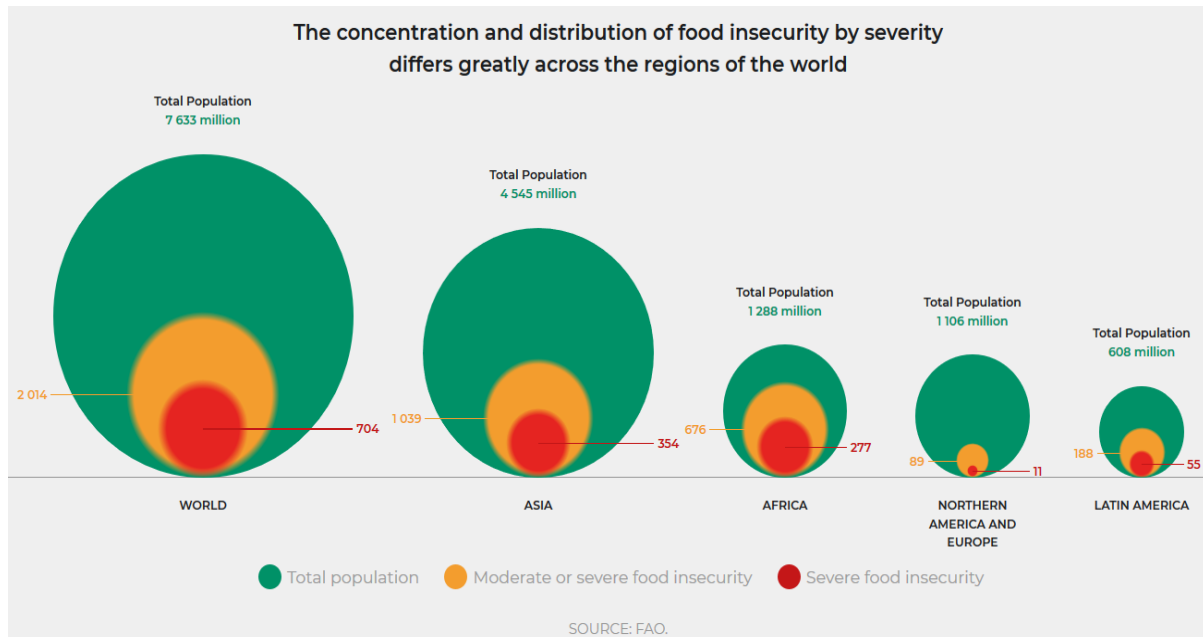
The article presents the importance and problems of food production. Proposals for increasing energy efficiency and reducing waste in food production have been developed. The advantages of using energy-efficient lighting methods in industrial enterprises are shown. The energy and technologies used for heating and cooling houses and industrial buildings were analyzed. Proposals have been developed to improve the efficiency of using energy-using devices in enterprises. Conclusions are given on the importance of minimizing food waste. The importance of qualified personnel in achieving energy efficiency in food production and the need to use creative methods of personnel training were emphasized. Conclusions are made on the importance of increasing equipment utilization efficiency by investing in energy-efficient equipment and implementing automation systems, and minimizing food waste through proper storage practices and optimizing inventory management.

Keywords: Food production, efficient lighting solutions, heating and cooling, energy efficiency, energy used per unit of output, improving equipment efficiency, reducing waste, training and engaging employees.

INTRODUCTION

Today, the need for energy is determined by three main factors: 1) Population growth, 2) Economic development of society, 3) Scientific and technical level of production in technological processes. In the world, these needs are increasing year by year and by 2022 will exceed 10 billion tons of oil equivalent per year. Along with the increase in the world's population, the volume of food production and processing is also constantly increasing. According to statistical data, in the last hundred years, the population of the earth has increased by 4 times, and the annual energy production has increased by 21 times. This, in turn, requires a sharp increase in the volume of food production and processing. Recent studies show that the world's food production systems - from the farms where food is grown to the processing and marketing chain - consume 30% of all available energy. Rising energy demand and prices are pressing challenges for the food sector, which consumes large amounts of energy throughout the energy supply chain. Thus, improving energy efficiency has become an important

priority for the food sector. It's time to welcome our tech-savvy friend, the smart thermostat.



Maximizing Efficiency in Equipment Usage Now that we've shed some light on energy-efficient lighting solutions and smart heating and cooling methods, let's dive into the exciting realm of maximizing efficiency in equipment usage. Grab your wrench and let's get to work! Investing in energy-efficient appliances is the first step to reduce energy consumption. Say goodbye to those ancient appliances that guzzle electricity like there's no tomorrow. Upgrade to sleek, energy-saving machines that will make your production process smoother and your energy bills lighter.

Distribution of energy around the world

Waste Not, Want Not: Minimizing Food Waste When it comes to food production, waste is unfortunately an inevitable part of the process. From spoiled ingredients to overproduction that leads to excess food ending up in the trash, the food industry generates a staggering amount of waste. However, there are ways to minimize this waste and make sure that food is used efficiently. Implementing proper storage practices is a crucial step in reducing food waste. By ensuring that ingredients are stored in the right conditions and at the appropriate temperatures, we can extend their shelf life and prevent them from going bad prematurely. No one wants to eat a mushy banana or moldy bread, right? So let's keep things fresh and tasty.

Power to the People: Educating and Involving Employees Alright folks, listen up! If we want to achieve energy efficiency in food production, it's time to get our employees on board. And no, I don't mean giving them all a crash course in rocket science (unless they're into that sort of thing). First up, let's talk about training. We need to show our team members the ropes when it comes to energy-saving practices.

Teach them the ins and outs of turning off lights when not in use, using energy-efficient equipment, and being mindful of their energy usage. Because, you know, electricity doesn't grow on trees. But hey, training alone won't cut it. We need to get the squad engaged. Make it fun! Create energy-saving challenges or competitions. Who can come up with the most creative way to conserve energy?

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