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**Rosatom’s technology helping control yellow fever mosquitos in Latin America**

*Successful irradiation of insects transmitting deadly diseases in Bolivia*

**Agencia Boliviana de Energía Nuclear, ABEN (the Bolivian Nuclear Energy Agency), in collaboration with Instituto Nacional de Laboratorios de Salud, INLASA (the National Institute of Health Laboratories), and Instituto Nacional de Investigación en Salud Pública, INSPI (the National Public Health Research Institute), for the first time irradiated yellow fever mosquitoes at the Multipurpose Irradiation Center (MIC) at the Nuclear Research and Technology Center in Bolivia, being constructed by GSPI JSC (State Specialized Design Institute, a joint-stock company affiliated with Rosatom).**

The MIC employs advanced Russian gamma irradiation technology supplied to Bolivia by GSPI JSC and NIITFA JSC (Research and Development Institute for Technical Physics and Automation, a joint-stock company of Rosatom’s scientific division). In agriculture, this technology increases crop yields and prolongs the shelf life of agricultural products. In healthcare, it is used for sterilizing medical products. The technology helps control insect pests found mainly in tropical regions, as well as insects that can transmit deadly diseases afflicting humans. These pests include mosquitoes, known to transmit malaria, as well as yellow fever mosquitos that can transmit dengue fever, chikungunya, yellow fever, and the Zika virus, among other tropical diseases. According to statistics from the World Health Organization (WHO), the number of dengue cases has increased from half a million to five million over the past two decades.

The irradiation method involves mass breeding and sterilizing specific pests with radiation and then releasing them into target areas on a regular basis. Sterile insects are unable to reproduce, which leads to a gradual decrease in the pest population in the region over time.

"This innovative technique for insect sterilization aims to control mosquito populations and, consequently, reduce disease incidence. The irradiation was carried out in collaboration with INLASA as part of a cooperative project between the Plurinational State of Bolivia and the Republic of Ecuador, with the invaluable assistance of international expert William Ponce Yulema. We are committed to advancing our research to offer the most effective solutions to the people of Bolivia," stated President **Luis Arce** in a post on his Telegram channel.

**For reference:**

**The Nuclear Research and Technology Center in El Alto** is a vital initiative aimed at fostering cooperation between nations in Latin America and Russia in the field of high-tech development, while being crucial for enhancing Rosatom's global market presence. In 2017, the two countries signed a contract to build a nuclear research and technology center in El Alto. The Center offers a range of advanced solutions for various sectors of the economy. These include cancer diagnosis and treatment, processing of agricultural products to ensure their safety; sterilization of medical products (including personal protective equipment); research in the fields of radiation biology, ecology; sustainable resource management; as well as the study of material properties, and training for nuclear personnel of Bolivia. Located at an altitude of 4,000 meters above sea level the Center claims to be the world’s highest-level facility of its kind.

Insect irradiation technology was first proposed in the late 1950s and has since proven to be an effective method for eradicating populations of various pests, such as fruit flies, boll weevils, Mediterranean flies, and blowflies. Today, many countries around the world use the technology to control populations of pests and prevent the spread of diseases.

Russia is steadily developing its international trade and economic relationships, prioritizing collaboration with friendly nations. The foreign projects in the nuclear technology remain ongoing with Rosatom and its subsidiaries actively participating in this endeavor.