

## **Shaping tomorrow: The Bio4HUMAN project aims to improve ways of addressing waste management challenges under humanitarian contexts**

**The European consortium of 10 partners is opening up a streamline of cooperation between humanitarian aid organizations and the biobased sector that will identify the bio-based solutions for solid waste management applicable in various humanitarian settings.**

24 January 2024, Santander, Spain – The Horizon Europe project Bio4HUMAN held its kick-off meeting today, launching its ambitious mission to manage the environmental challenges linked to shipping aid across various humanitarian settings.

*“The solid waste management crisis in humanitarian settings is growing in urgency. One of the sound solutions to address this challenge is deploying innovative bio-based solutions, systems, and technologies. Bio4HUMAN will, for the first time, bring together humanitarian organisations, bio-based sector actors, and circular economy experts. The immediate aim is to provide results to two locations receiving humanitarian aid in Africa. However, the outlook is to identify solutions that have the potential to be applicable in looming humanitarian challenges across Europe and internationally.”* explained project coordinator Andrea Ratkošová from [Enspire Science](#).

To succeed in this endeavor, Bio4HUMAN partners will:

1. Conduct a scoping exercise to develop a list of solutions and identify existing supply chain gaps in solid waste management. So far, there is no study on the topic.
2. Perform life cycle assessments of the proposed solutions and evaluate their applicability regarding socio-economic, and governance aspects.
3. Explore if solutions fit the purpose of key solid waste management stakeholders and explore the possibility of their acceptance by the community, local businesses, and local authorities. Bio4HUMAN will conduct a feasibility evaluation process in 2 African locations.
4. Develop and disseminate a set of replication tools for humanitarian actors (funding and supporting organisations) willing to explore and implement innovative bio-based solutions to perform sustainably and offer circularity when delivering humanitarian aid.

The two African locations for assessing the feasibility of identified solutions are The Democratic Republic of Congo (DRC) and South Sudan where humanitarian organisations from the consortium are already active.

*“In crisis, when we are focusing on the people and their wellbeing, we can easily forget about the aspect of waste generated both by humanitarian actors and recipients of aid. As a result, solid waste can accumulate quickly and in large amounts, posing a real challenge for the local population. It is precisely the case of South Sudan, mainly due to its climate and economic conditions, with no functioning waste management system. Working in this region since 2006, we are very much interested in the innovative solutions which could improve the everyday life in the crisis-stricken country”* – emphasized Ludwika Klejnowska, project coordinator from [Polish Humanitarian Action \(PAH\)](#).

*“The Democratic Republic of the Congo, and especially the east of the country where we work as People in Need, has long been burdened by armed conflicts and the plundering of natural resources. The impact of the war on the population's livelihood is reflected in their relationship with the environment, especially in the fragile ecosystems facing unprecedented exploitation in the Congo Basin and the Great Lakes. These are also the most populated areas and need major emergency support. Finding ways to connect humanitarian aid and gentle treatment of the immediate environment becomes a key aspect of humanitarian crises, with a circular economy and waste management at the core. Within PIN thinking and priorities, climate resilience in humanitarian crises is a key program pillar we want to tackle globally, specifically for DRC. We are excited to be part of the Bio4Human team and contribute to this unique partnership from our perspective as humanitarian actors,” explained Country Program Coordinator Ondrej Suchanek from [People in Need](#).*

In order to have a Europe-wide impact, several activities – including creating openly accessible guidelines, tools, and materials – will be implemented to foster replication of the Bio4HUMAN-identified solutions across Europe and internationally.

Bio4HUMAN envisions a set of clustering activities with project WORM (Waste in Humanitarian Operations: Reduction and Minimisation), the other project with the same goal funded by the Horizon Europe Programme. WORM's overall objective is to design guidelines and support actions for circular economy initiatives in the humanitarian sector. WORM focuses on two selected settings: field hospital deployments, and humanitarian livelihood programmes with a waste-picking component.

The Bio4HUMAN project has received funding from the European Union's Horizon Europe research and innovation programme.

## Project information

- Full name: Identifying bio-based solutions for waste management applicable to the humanitarian sector
- Budget: €1 509 809.06
- Duration: 30 months
- Partners: Enspire Science Ltd (Israel), Instituto Tecnológico del Embalaje, Transporte y Logística (Spain), Universidad de Cantabria (Spain), Fundacja Edukacji i Dialogu Społecznego Pro Civis (Poland), Člověk v tísni Ops (Czech Republic), WeLOOP (France), Irish Bioeconomy Foundation (Ireland), Polska Akcja Humanitarna Fundacja (Poland), AIMPLAS - Asociación de Investigación de Materiales Plásticos y Conexas (Spain), BioEast Hub CR, z. u. (Czech Republic)

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