

Building Eco-Block Schools from Recycled Plastic Waste

Lombok, Indonesia



About Block-Modules

Block Solutions is a Finland based company that has developed environmentally friendly “block-modules”. Block-modules are used for building sustainable and safe buildings that are affordable, durable, sustainable, easy to build, and can be dismantled and rebuilt. The carbon footprint of block-modules is close to zero.

[Learn more about Block Solutions.](#)

Plastic Pollution in Indonesia

Indonesia is second only to China as the world’s largest contributor to plastic pollution, generating roughly 24,500 tons of plastic waste per day. 81% of waste in Indonesia is unsorted, making it difficult to recycle and causing plastic waste to end up in landfills or leak into the ocean.

According to the World Bank’s Indonesia Marine Debris Hotspots Rapid Assessment, 20% of plastic waste in Indonesia is believed to end up in rivers and coastal waters. Four of Indonesia’s rivers rank among the top 20 most polluted rivers in the world. The Indonesian government has been working hard to resolve these issues and has set a target to reduce plastic waste by 70% by 2025 in line with its circular economy strategy.

Building Eco-Block Schools in Lombok, Indonesia

Indonesia’s Lombok was jolted with devastating earthquakes in mid-2018. These earthquakes caused the deaths of more than 500 people, left hundreds injured and forced thousands of people to evacuate their homes. The earthquakes also destroyed over 400 schools, leaving young students with no place to learn. Now, years after the earthquakes, thousands of children are still out of school. Classroom of Hope, in partnership with Pelita Foundation, has been building temporary pop-up schools to provide children with an earthquake-resistant structure, school materials, and child-centered activities as a temporary solution to get children back into school.

There are still over 200 schools that need to be rebuilt. This is where Eco-Block Schools come in. Our vision is to build these schools using block modules made from Indonesia’s recycled plastic waste. These Eco-Block Schools are earthquake-resistant, and can last more than 100 years. Each classroom removes 2-3 tons of plastic waste from the environment, can be built in as little as 8 hours, and is more cost-effective compared to conventional building materials.

Our Model

We partner with local NGOs

We develop “smartnerships” with best practice local NGO’s who have the vision, drive and community standing to create change. Empowering locals creates positive change. As projects progress, and all the way through to completion, we create proof of impact reports for our donors with updates, photos and GPS co-ordinates on google maps and inspiring stories from the field.

About Our NGO Partner in Lombok

Pelita Foundation

Pelita Foundation runs educational programs to empower the children of Lombok, Indonesia to reach their fullest potential through education. Pelita Foundation provides educational programs that help these children adapt to their rapidly-changing environment and participate in the global community. Pelita Foundation has been in partnership with Classroom of Hope building temporary pop up schools on Lombok since 2018.



Approach & Benefits

Guided by a collaborative approach, community leaders, school management, our local NGO partner and the government are engaged from the early stages through to the development and construction of the facilities. Classroom of Hope and Pelita Foundation believe in fostering good relationships with the communities, as it enables us to understand their real needs and ensure the projects’ sustainability. Through regular follow-ups and communication, we remain sensitive to the needs of the community even after the project is completed, enabling us to continue supporting them in promoting education and increasing children and youth’s participation in school.

Budget & Reporting

Initially, the construction cost per Eco-Block classroom will be approximately USD 10,000 - 12,000. We estimate this cost for the first 30 classrooms because we will be importing blocks from Finland in the early stages of this new innovative pilot project. Once the first Block Solutions factory is set up in Indonesia (by 2022), we anticipate the cost per classroom will be roughly USD 8,000 - 10,000 because blocks will be produced locally, rather than imported. As with all our projects, a detailed final impact report and financial reconciliation will be provided together with a financial reconciliation, at the latest 2 months after completion of the project.