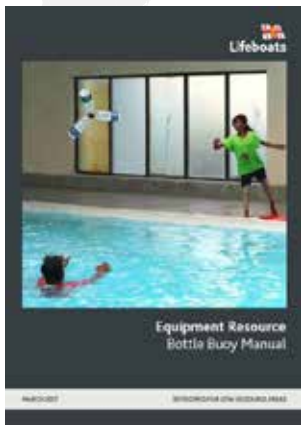


# SUSTAINABLE LIFESAVING EQUIPMENT

Drowning is an epidemic that overwhelmingly affects countries with the fewest resources to prevent it. The RNLI has been working with designers, makers and lifesaving organisations worldwide to develop rescue equipment that can be manufactured and used in low-resource countries.

## Why are we doing this?

Design innovation has already provided many products and systems to aid drowning prevention. These range from high-performance lifeboats to search and rescue drones. While these solutions undoubtedly have an important place in drowning reduction, they are primarily designed by – and for – the developed world. However, over 90% of global drownings take place in low- and middle-income communities, where buying and maintaining this type of equipment is completely unaffordable.



## What do we want to achieve?

This project will provide low- and middle-income communities with resources to make or obtain sustainable lifesaving equipment. It will work alongside other RNLI international projects, raising awareness in the drowning prevention and design communities to encourage sustainable equipment design. Ultimately, we'll help people use 'design thinking' to design and produce their own solutions.

## How are we doing it?

We are working with partners, target communities, designers and students to produce items of equipment that will be accessible in several ways:

- Community production**  
 We are creating instruction manuals (pictured above), templates and videos to enable a small number of items to be made in the community, with locally available materials.
- Regional production**  
 We are producing engineering drawings, manufacturing guidelines and templates for organisations to send directly to manufacturers in their region, for production in medium to high volumes. We're also working with existing suppliers to make their products more accessible to low-resource areas.
- World production**  
 The RNLI is producing equipment that will be available to low- and middle-income communities and organisations at minimal cost.

We are encouraging schools, universities and lifesaving professionals to design and develop sustainable equipment by providing project briefs and development support. We are also presenting our findings at several key education and drowning conferences.

We plan to develop a lifesaving equipment 'community of practice': a central convening point where communities, designers, students, academia, NGOs and industry can co-create and design lifesaving equipment solutions wherever they are in the world.

## Flood rescue throwlines

RNLI-trained flood rescuers from Bangladesh Fire Service and Civil Defence need good quality throwlines to rescue people. These cost £30 each, so the RNLI is designing a version that can be produced locally at a fraction of the cost.



Photo: John Powell

## Community throwline

We worked with the Little Sewing Company in Dorset to develop an instruction manual that allows a local tailor to produce a low-cost rescue throwline for their community. This would then be stored by open water, ready to be used by anyone in an emergency.



Photo: John Powell

## Lifesaving equipment currently in development

## Who are the project team?

Recognising the value of a collaborative approach, this initiative brings together several organisations:

### Rescue board

We have worked with Bangladesh Lifeguard Md. Alamgir to produce a manual that guides the production of a lifeguard rescue board from locally available materials.



Photo: Stuart Thompson



**Lifeboats**

Royal National Lifeboat Institution (RNLI)  
RNLI.org/international



Tanzania Sea Rescue  
tanzaniasearescue.org



Centre for Injury Prevention and Research,  
Bangladesh (CIPRB)  
CIPRB.org



Bournemouth University  
bournemouth.ac.uk



Bangladesh Fire Service and Civil Defence  
(BFSCD)  
fireservice.gov.bd



The Little Sewing Company  
thelittlesewingcompany.com

### Casualty recovery

Bournemouth University student Michael Davies worked on an RNLI brief to design a device to recover a person from the water onto a fishing boat. This product is being tested in East Africa by Tanzania Sea Rescue and has been exhibited at the UK's New Designers exhibition.



Photo: David Whiddon



Photo: David Whiddon

### Bottle buoy

This is an ingenious device, invented by James Benson and developed by the RNLI and Bournemouth University. It is a simple-to-produce wooden centrepiece that holds 2-litre drinks bottles and gives the same buoyancy as a plastic life ring. We are testing this device in communities in Bangladesh – if successful, it will be used in our regional projects.

The bottle buoy being tested by SeaSafe lifeguards in Cox's Bazar



Photo: Stuart Thompson