

## River Power Pod in Kenya

After months of planning, Team River Power Pod (RPP) are back from our two week survey visit to Kenya. Here's what we found:

All the Kenyan people we met were welcoming and wonderful. They greet strangers with a smile, are full of energy, good will, hope and a desire to learn so as to improve themselves and Kenya. (It has to be said that so much of what they do is accompanied by spontaneous and infectious singing and dancing!)



However there is drought, starvation, and poverty.



The indelible image outside the capital, on dusty roads, broken dirt-tracks and across dust-bowl fields, is one of children, mostly girls, spending large portions of their day walking miles to fetch water in plastic containers they are carrying or transporting on the backs of

almost-lame donkeys. Yet beautiful, healthy, fast-flowing rivers, with enormous untapped potential, run through the arid land and fields of dust; their precious, but unused, fresh-water flowing off and away into the Indian Ocean.



With funds to build and install turbines, RPP and our Kenyan partners forming RPP Team Kenya could provide locally owned and managed, accessible and sustainable hydro-power to transform the lives of so many communities and, ultimately, significant swathes of the Kenyan population.

### Who are we?



Four of our RPP Kenya Team members seen above: **Caitlin Thompson** (UK based, MSci Physical Geography graduate from Lancaster University); **Michelle Kiboi** (Kenyan student studying Civil and Structural Engineering at Manchester University); **Fr Maina**, (Director of Don Bosco, Embu); **Alois Ngari** (Kenyan BEng Mechanical Engineering graduate and ex-pupil of Don Bosco Technical College, Embu)





Here above, the fifth team member: **Ged Heffernan** (UK based Managing director of Fern Innovation and RPP) using a River Power Pod as part of an interactive Physics lesson in Don Bosco Girls Secondary School, Embu – along with keen future-employees for Don Bosco Embu’s business developing and manufacturing turbines for Kenya.

### What is River Power Pod?



- RPP is a patented in-stream hydro-turbine providing mechanical or electrical power. It is ideally suited as a remote/isolated power solution as it is easily transportable, scalable and can be rapidly deployed and/or relocated.
- It is simple, easy to install and maintain, employs proven, widely supported automotive-derived technology and is capable of being configured to operate on-grid or completely stand-alone – even options without the use of any electronics.
- RPP has demonstrated in rivers and channels in the UK, Nepal and Kenya
- Our key product aims are: Reliable; Economically viable; Sustainable; Accessible to all.

### What are we doing?

- Working with Caritas, CAFOD and Salesians, with their expertise, skills and track record of bringing about change, to deliver practical action to the people in most need of help; free from the potential uncertainty and waste associated with many other routes.
- Using hydro-technology as a practical example to provide inclusive education for young people to develop passion and skills for sustainable futures in vital energy and fresh-water provision.



In the image above: RPP generating electricity in the Rupingazi River – suspended from a bridge/working platform made and installed by Don Bosco Technical College, Embu.

### How it will be of value

- We will engage with communities; working with them before, during and after installation.
- We will use as much local content as possible, with materials and technology appropriate to each location; employing local capability where it exists.
- We will train local people to select sites, install, maintain and repair turbines. With additional staged, progressive training so that they can ultimately manufacture turbines themselves.

- This will provide both locally sustainable power and locally owned and managed entrepreneurial employment opportunities.
- Our ultimate objective is local manufacture, maintenance and sale of RPPs.
- Many existing Don Bosco enterprises can provide the skills and manufacturing capability to support the application of this technology throughout Africa, Asia and central/Southern America.
- In Kenya, this could provide a vital revenue stream for the sustainable future of both Don Bosco schools/college in Embu and Boys Town in Nairobi (providing technical training for both boys and girls).

## Kenya

- We were overwhelmed by the response of people at every stage of our Kenyan project. The immediate reaction of the parishioners of the Good Shepherd in Pendle, Lancashire was amazing; raising the funds to cover the travel for our initial surveying trip and offering practical support. Once in Kenya, everyone we spoke to was engaged and excited to see what we were doing.



- We experienced numerous amazing projects such as The Salesian's Mama Margaret's in Dararetti, Nairobi and Caritas' Water project near Kitui. They've had a significant impact within communities; The RPP Kenya Team in conjunction with the Salesians aim to build on and emulate that success on a country-wide scale.
- People are desperate for help but are extremely optimistic.

- Recognising the great potential of River Power Pod, the help they provided in identifying, and getting us to, potential locations was brilliant and quite innovative!
- RPP can help a whole host of different communities – we can provide irrigation in Kitui where droughts have led to starvation and employment and electricity through manufacturing at Don Bosco Embu. The impact will be self-perpetuating.

## Where we are up to and what we are planning to do?

- There are currently 1.3 billion people in the world without access to electricity. Approximately 170 million of these are within 1km of a river – RPP can provide accessible, achievable access to produce electricity/pump water where most alternatives cannot.
- During our two week surveying visit we have identified initial site locations for River Power Pods in both Kitui and Embu, along with their corresponding projects to bring social and economic benefit to the local schools/colleges and communities.
- We now need to raise funds to install turbines, to help transform communities and secure the futures of people such as Don Bosco pupils and students.
- Communities, parishes, schools, colleges and businesses in better circumstances could 'Sponsor a Pod'; transforming the lives of people who are struggling to survive in Kenya – Right now!
- It's time to make a real difference; it's time to become part of Team RPP Kenya.
- Follow us on Twitter @RiverPowerPodAP or Facebook @RiverPowerPodAfricaProject
- We will share the smiles, singing and dancing that your contribution creates!

Thank you / Asante sana!

**Team RPP Kenya :-D**