

## HOBAS® Hydropower | Part 1

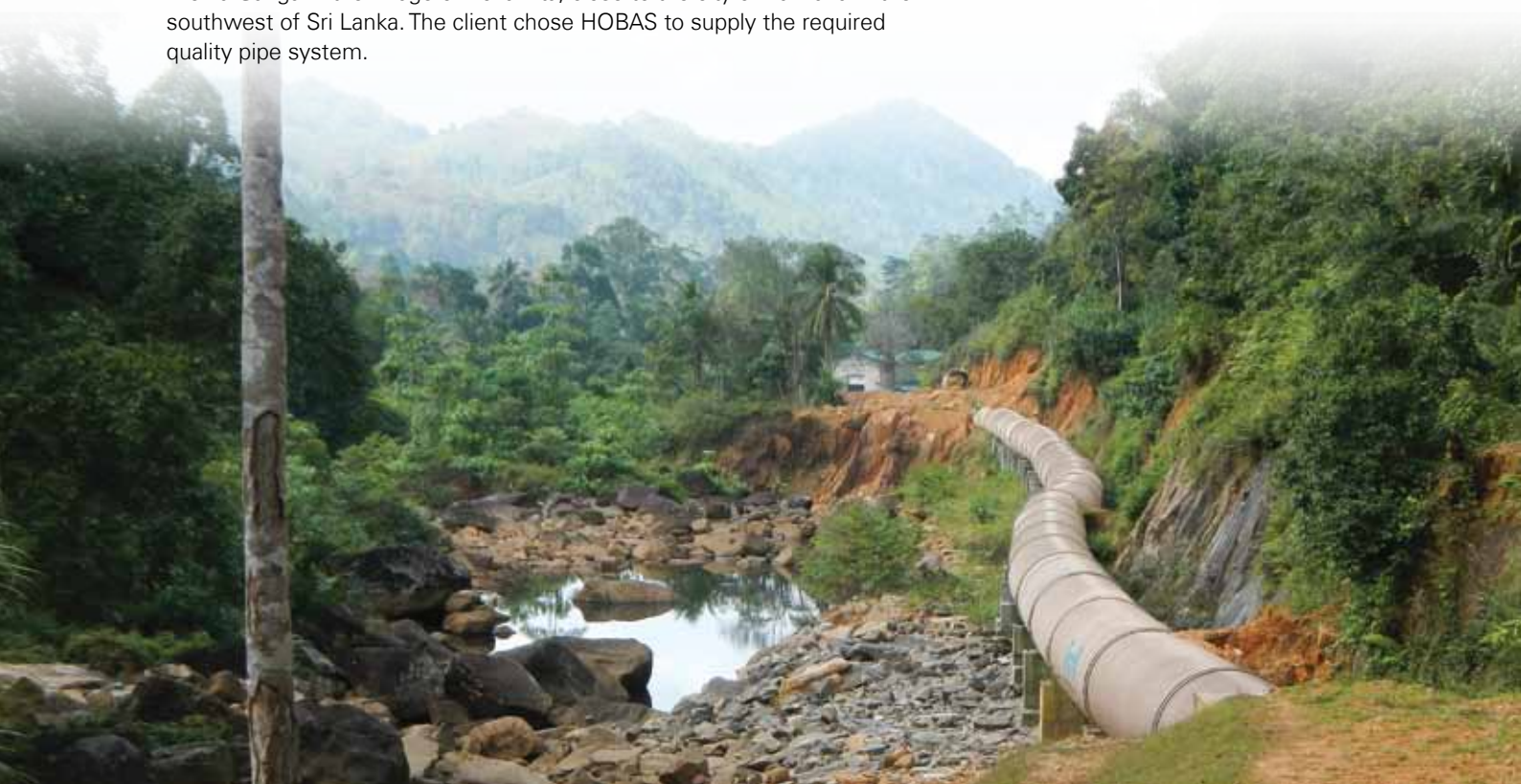
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## HOBAS® Hydropower in the Rainforest, Sri Lanka

### HOBAS® Pipes help produce 1.2 MW of clean energy

In the southwest of Sri Lanka, 1000 households are reliably supplied with green energy as of a few months ago. 478 m HOBAS GRP Pipes DN 2000 to 2200 help make the hydropower project Upper Kokawita a powerful source amidst the rich green rain forest.

Since the commissioning of the first hydroelectric power plant in 1950, hydropower has played a major role in electricity generation in Sri Lanka\*. Thanks to the country's humid climate conditions and its hilly terrain, Sri Lanka offers excellent opportunities for generating hydroelectric power both through larger government-owned and private small hydropower plants. In 2012, a new small hydro facility was put into service at the river Wewa Ganga in the village of Kokawita, close to the city of Kalwana in the southwest of Sri Lanka. The client chose HOBAS to supply the required quality pipe system.



|                          |   |
|--------------------------|---|
| Year of construction     | Capacity  |
| <b>2012</b>              | <b>1.2 MW</b>   |
| Construction time        | Installation method                                     |
| <b>12 months</b>         | <b>Above ground on supports (275 m), buried (203 m)</b> |
| Total length of pipe     |   |
| <b>478 m</b>             |   |
| Diameter                 | Client  |
| <b>DN 2000-2200</b>      | <b>Terra Aqua Kokavita (Pvt.) Ltd</b>                   |
| Pressure class           | Designer / Constructor                                  |
| <b>PN 1-4</b>            | <b>Pacific Hydro Electric SL (Pvt) Ltd</b>              |
| Stiffness class          | Advantages  |
| <b>SN 5000 and 10000</b> | <b>Minimum head loss, long service life</b>             |
| Head                     |   |
| <b>17 m</b>              |   |
| Flow rate                |   |
| <b>10 m³/s</b>           |   |

The terrain on site posed quite a few challenges to the installation. It is hilly, made up of partly loose and partly very rocky soil, and the planned pipe route along the Wewa Ganga river bank was very difficult to access. By means of a 20 ton excavator, the pipe sections were transported to their required positions and then installed according to the soil conditions: Roughly half of the 478 m long pipeline was laid on supports above ground (275 m), the other half was buried (203 m).

After 12 months, the installation was successfully finished. With a head of 17 m, a capacity of 1.2 MW and a flow rate of 10 m³/sec, the hydropower plant Upper Kokavita now supplies 1000 homes in Kokavita with clean energy. The client Terra Aqua Kokavita (Pvt.) Ltd is more than satisfied with the minimal head loss in HOBAS Pipes thanks to their mirror-like inner surface and very much appreciates their proven durability. This makes them the perfect solution for a sustainable, environmentally friendly energy project.

Fmd: [info@hobas.com](mailto:info@hobas.com)



\* Source: Sri Lanka Sustainable Energy Authority 2013