

NEPAL



Bio gas ovens for rural households

The system is simple, it uses plant, animal or human waste which digests and produces methane, which is then piped into the kitchen for 1-2 hrs of cooking. When the gas is lit it produces an odour free fuel. The waste can also be reused as a rich fertilizer in the fields. One large family will benefit from the installation of a bio gas oven. We are currently installing the ovens in a community north of Kathmandu called Trapek. The beneficiary households are chosen based on need and interest. Once installed the ovens require little maintenance and the recipient family is trained in maintenance at the point of installation.

PROJECT PROFILE



The social and development issues addressed by this project:

- Deforestation: on average a rural Nepali family burns 3.5 tonnes of wood per year for the purpose of cooking. Biogas ovens require no wood.
- Time and Money: It takes one full day each week to collect wood from the forest. Alternatively a family pays 600 rupee for someone to collect the wood for their family. The biogas ovens cut families

chores by 3.5 hrs per day, allowing more time to generate income and care for the children.

- Health: Traditional wood fires create a toxic gas, causing lung disease. In Nepal indoor air pollution causes around 23,000 premature deaths per year. Biogas ovens produce no smoke.
- Global Warming: When the animal dung that is used in biogas ovens is left in the fields it produces methane, contributing to global warming. In the lifetime of one biogas chamber, approximately 160 tonnes of CO2 emissions are offset, that is roughly equal to the CO2 produced by 145 people on a 4 hour flight.

The Sustainable Development Goals (SDGs) addressed by this project:

- 1. No Poverty
- 3. Good Health and Well-Being
- 7. Affordable and Clean Energy
- 13. Climate Action



PROJECT PROFILE

Learning outcomes for students

- Applied mathematics and science
- Team work and collaboration with their fellow students and the local community
- Taken outside of their comfort zone to build resilience and independence
- Authentic insight into rural subsistence lifestyle

Partnership

In Nepal World Youth Adventures partners with a purpose based organisation running small scale development programs with ethnic minority groups in South East Asia.

WATCH THIS VIDEO >> <https://www.youtube.com/watch?reload=9&v=dzeKkc5qEjE>