



FACTSHEET

IND

2012

## Sustainable Energy Access

# Biogas for Tigers in India

Terai Arc Landscape, India,  
WWF Eastern Himalayas Ecoregion



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90%

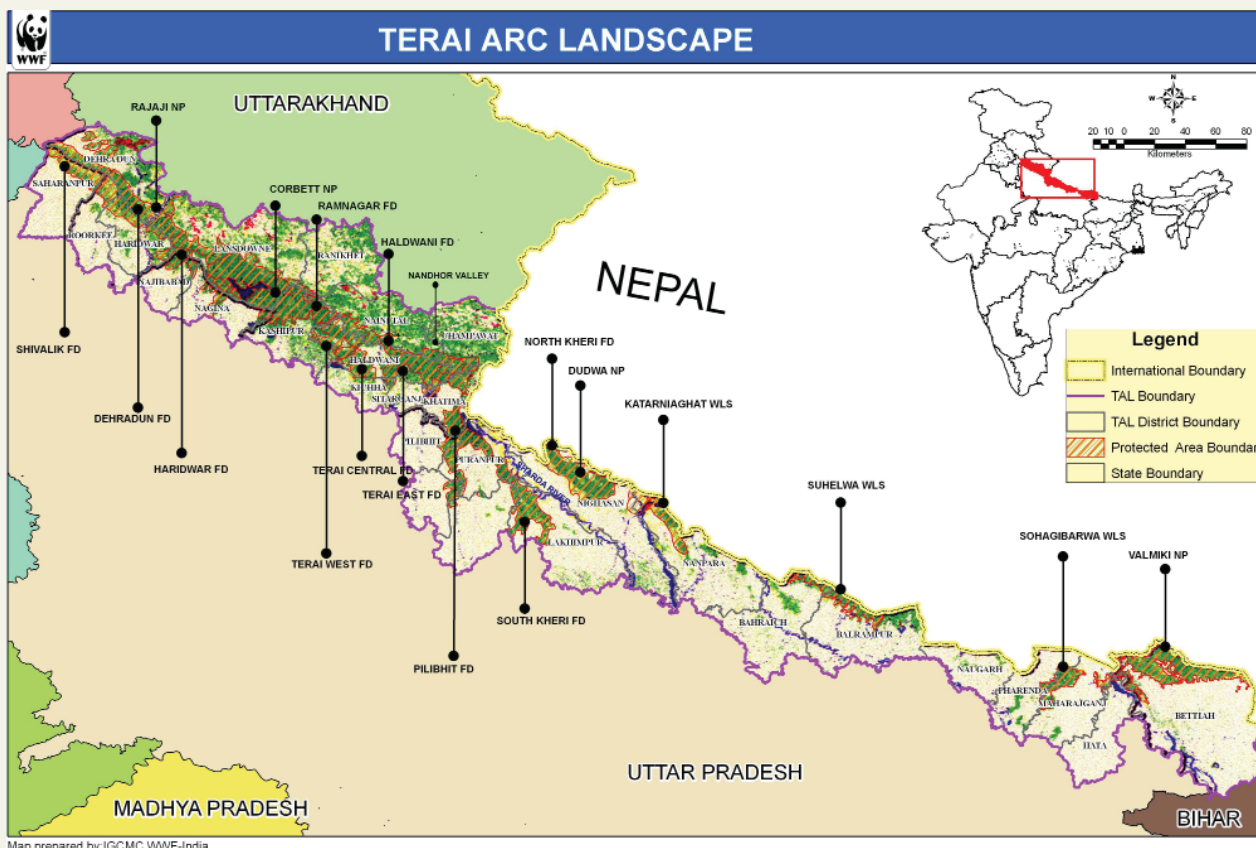
**OR MORE OF THE FUEL  
NEEDS OF THE PEOPLE  
IN THE AREA ARE MET  
WITH WOOD GATHERED  
FROM THE FOREST.**

The goal of WWF Terai Arc Landscape program is to create a single functioning landscape through restoration and maintenance of key corridors for wildlife, linking 11 protected areas in the 800 km long landscape along the foothills of the Indian Himalayas. The threats to this landscape are forest conversion due to agricultural expansion, unsustainable harvesting of timber, unsustainable extraction of fuel wood and fodder, overgrazing, and poaching. The region has 60% forest cover with approximately 15% of land dedicated to wheat, rice, and vegetable cultivation. More than 90% of fuel needs in the area are met with wood gathered from the forest. This means people walk into the forests to collect firewood. This increases the potential for conflict between people and wildlife. On average, a family consumes approximately 23-24 kg of wood per day in winter and about 15-16 kg per day in summer. One or two members of the family forage for fuel wood, carrying 30-35 kg per load, as the result of 4-5 hours of searching. This project addresses unsustainable harvesting of fuel wood and overgrazing in the forest by cattle. Self-help groups provide a channel for local learning and implementation of biogas plants. These provide a direct alternative to fuel wood for cooking, and since they require cattle dung as an input they also encourage stall feeding of the cattle. This reduces pressure on the forests and the potential for human-wildlife conflict.



Initial results indicate fuel wood consumption is reduced to 70% of previous levels. Replacing wood burning with biogas reduces CO<sub>2</sub> emissions by approximately 3-4 tons per year, the equivalent annual emission of a small car.

The few biogas digesters that are up and standing have already had a positive impact on tiger conservation. When WWF India initiated the pilot in 2007, the occupancy of tiger was two beats (basic unit of a range). By now, the occupancy has increased to 10 beats. The impact is interesting because with the increase in occupancy the human-tiger conflict has gone down.



Map prepared by: IGCNC, WWF-India

## Timeline and Current Status

To date approximately 120 biogas units have been installed as part of a pilot project. The plan is to build on the biogas experience from WWF Nepal in the Nepali part of the Terai Arc, where 8,000 biogas units are up and running.

## Additional benefits and Potential Risks

Biogas stoves reduce health problems due to smoke and soot. Also, less time and energy is spent collecting wood. Potential risks include the lack of funds and increased forest conversion to agricultural land.

### PARTNERS

Helvetas and Pan Himalayan Grassroots Development Foundation ([www.grassrootsindia.com](http://www.grassrootsindia.com))

### CO<sub>2</sub> REDUCTION POTENTIAL

Around 24,000 tons per year

	<p><b>Why we are here</b> To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.</p> <p><a href="http://www.panda.org">www.panda.org</a></p>
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