



Bamboo – restoring landscapes, rebuilding lives



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Allahabad, India,
Bamboo improves thousands of livelihoods
devastated by land degradation.



Improved livelihoods:

- 786,000 people
- 96 villages

86,000 Ha
rehabilitated



Bamboo provides 10% of
farmers' annual income.

From the 1960's farmers sold their topsoil to brick-making companies.

Soil was mined to 3m – destroying fertility, halting productivity.

Many farmers moved away.

Some remained....living in extreme poverty.



4000 hectares of land were destroyed.

How to bring them back to life?



“Utthan – Centre for Sustainable Development & Poverty Alleviation”, started a large-scale ‘re-greening’ with bamboo.

*Bamboo binds the soil and
Prevents erosion*

*Bamboo boosts nutrients
and organic matter*

Bamboo grows fast

*Bamboo provides material
that can be sold*

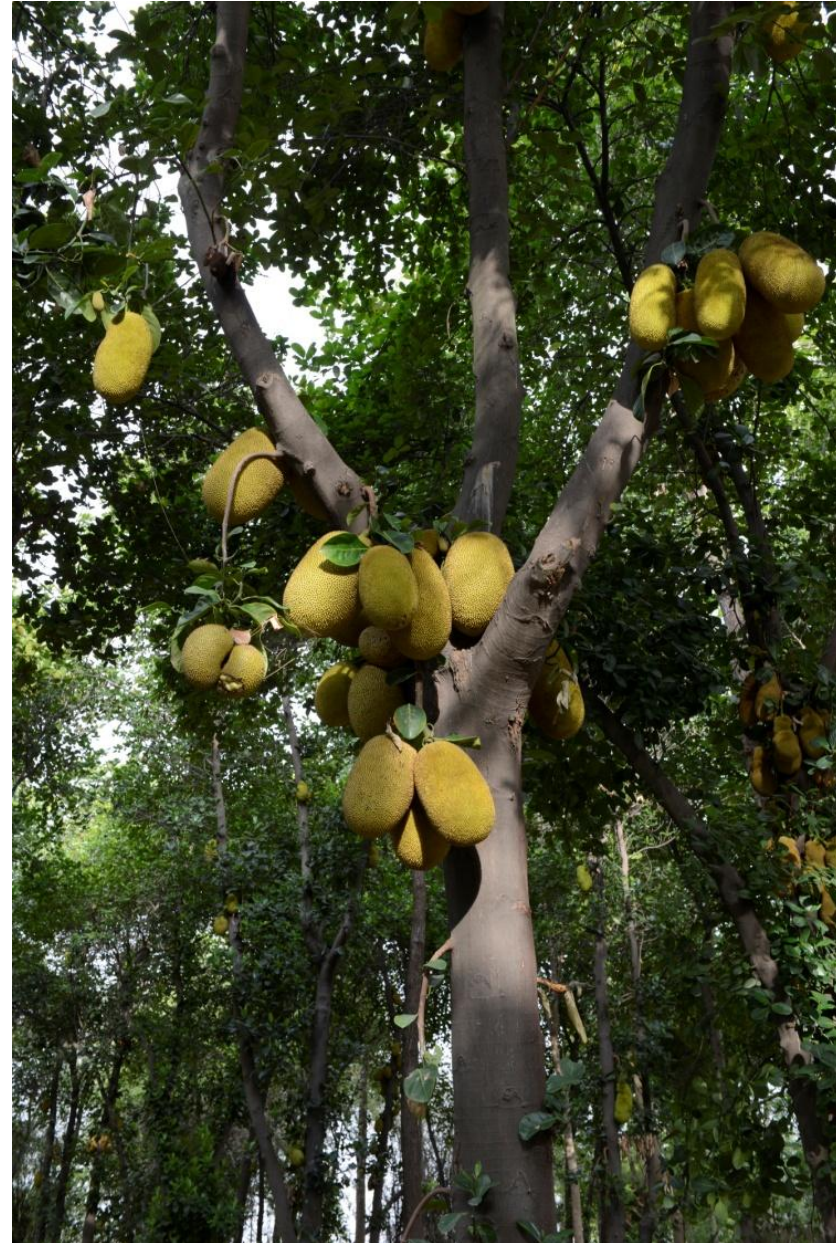


After 10 years,
86,000 ha of
land has been
regenerated
using bamboo



Bamboo is the centre of an integrated cropping system:

- Leguminous trees (*Moringa*, *Acacia* and *Neem*)
- Fruit trees (*Zizyphus*, breadfruit and *Guava*, banana),
- Vegetable production
- Rice,
- Wheat
- Fish
- Fibres,
- Medicinal plants,
- Livestock



Helped raise water table from 40m below surface in 1996, to minus 15 - 18m today

Added 6-8 cm of humus to soil through leaf fall

Increased soil carbon content from 0 - 0.9



- Bamboo leaves returned micronutrients to the soil (Boron & Zinc).
- Soil pH has fallen from 10 - 11 to 6 - 7 and continues to acidify.
- Over 200 bird & 60 mammal species recorded.



- Farmer Jhoti in the village of Kushanbi village:
- Earns up to 60, 000 Rs/year selling fish raised in his ponds, fed with bamboo leaves
- Grows wheat, banana, lentils and fruit trees
- Sells bamboo
- Enough to send his seven children to school



Utthan works with 120 NGOs in Allahabad, each with its plant nurseries supplying high-income plants, including bamboo

Bamboo and other plants sold to residents at low cost.....or no cost to the very poor.



Fuel 120 biogas
electricity
generators (with
Jatropha and
bamboo)
Biofuel reduces
carbon emissions –
80% of cooking done
with biogas.



*Charcoal is a byproduct of the process –
which itself can be used as fuel*

- Constant electricity supply for refrigerators allowed vaccination of 10 million people against diseases such as TB
- Child mortality fell by over 66%, maternal mortality by 60%.



The promise of Bamboo – a proven resource for restoring degraded lands and building livelihoods.

Millions of hectares of land are highly degraded

With a predicted population of 9 billion by 2050....

...the need for bamboo has never been greater.

