

Eco-Housing+

AFFORDABLE | ENVIRONMENT FRIENDLY
FINANCIALLY SUSTAINABLE | PROMOTES GREEN JOBS

Addressing the twin challenge of housing shortage and climate change through green construction

430,00,000 people living without adequate shelter in rural India

More than 100,00,000 houses to be constructed or modified

Construction activities contribute 22% of the national green house gas emissions in India

Annual erosion of 350 million tonnes of top soil due to construction activities

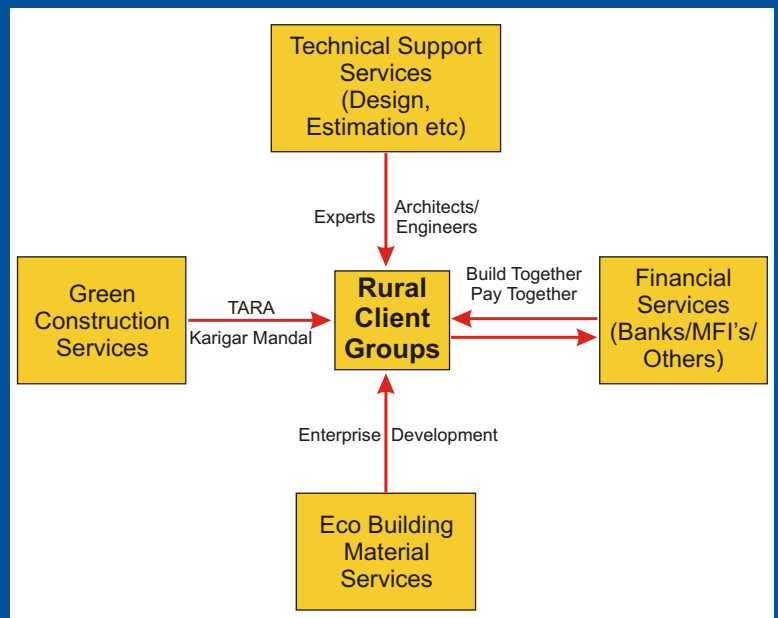
A huge demand for housing with rural families willing to pay for services they value is creating a business potential for green construction products and services.

Development Alternatives in collaboration with **FEM Sustainable Social Solutions** has created a revolutionary 'housing eco-system'.

Eco-housing + tackles the dual challenge of providing adequate shelter to our rural population while reducing the resource and carbon footprint of construction activities. This housing model provides financial and technical services to the rural families through the 'Build Together Pay Together' (BTPT) process and the 'TARA Karigar Mandal' (TKM) services respectively.



Systems Approach to Eco-Housing



Development Alternatives - Market Creation and Institutional Strengthening

The client being the focal point, the model follows a systems approach to ensure its efficiency. The client is linked to the bank or any other financial institution through the 'Build Together Pay Together' process enhancing efficiency and finance procurement for them and ensuring timely repayments to the bank. Technical services are provided by the TARA Karigar Mandal (eco-artisan group). Development Alternatives provides capacity building to the artisans, enterprise development support to local entrepreneurs and market development for demand creation.

Case Study

Janki Prajapati from Pipra village in Bundelkhand, lived in a 'kuccha' (semi permanent) house before reaping the benefits of eco-housing+ model. After easily procuring a loan from the local bank with four fellow members of her village community, she now lives in an eco-house with her family. The green building techniques used are not only more affordable, they also keep the house insulated from harsh weather extremes.

Sustainability

The 12th five year plan estimates a rural housing shortage of 430 lakhs in our country between the years 2012 and 2017. Construction of this scale would leave a large carbon footprint and have a huge negative impact on the environment. This eco-housing+ model uses ecologically and economically efficient construction technologies. According to a study conducted in 2007, the usage of eco friendly building technologies could lead to a potential:

- Reduction of 16.80 metric tonne of CO₂ per year
- Savings to the tune of Rs 24,000 million (20% cost reduction over 40 million sq. m of construction @ Rs 3000 per sq. m).

Reference : <http://www.environmentportal.in/files/USE.pdf>



Build Together Pay Together - A Snapshot

The group housing system helps in financial risk reduction, brings efficiency in the construction process and ensures timely construction and loan repayment through group peer pressure.

- Clients 'group together' and form a 'joint liability group' before the loan is sanctioned, acting as social collateral.
- Members choose their own group. They 'Build Together and Pay Together'.
- Helps iron out the loan procurement process by reducing the hassles presented by individual loan paper work.
- 100 % loan repayment reported in the pilot project.

TARA Karigar Mandal (TKM)

TKM is an initiative of Development Alternatives to undertake eco-construction work at scale through local masons. Registered as a Mutually Aided Cooperative Society (MACS) with the Madhya Pradesh State Government, TKM is an essential component of this eco-housing+ model acting as a 'service provider'. Training local masons for the construction of the houses and toilets and supervising the overall construction work, TARA Karigar Mandal is at the forefront of green job creation and also acts as an important tool for climate change mitigation.



The Opportunity

This model of credit based eco-housing provides economic gain to all stakeholders (clients, banks, artisans and entrepreneurs) along with environmental benefits.

The State Government Housing schemes (such as the Mukhyamantri Awas Yojana in Madhya Pradesh and the Credit cum Subsidy Scheme in Bihar) based on credit and subsidy model can replicate this Eco-housing + model.

This model also has a huge potential to achieve the Ministry of Rural Development's (MoRD) Mission of Greening the National Housing Scheme.

Reference : *Greening rural development compiled by the Government of India and UNDP*