



## International Projects Summary

EWB and Pitchandikulam Forest have worked together to identify a range of student projects separated into eight design areas. Students are invited to develop innovative and appropriate solutions that make a real contribution towards the sustainable development of Devikulam in southern India.

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### Design Area 1 / Devikulam Industry Development Plan

- Quilting
- Speriluna project
- Small step bags
- Medicinal plants

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### Design Area 2 / Building Construction

- Creation of design changes to existing buildings
- Design of community hall
- Design of a primary health care centre
- Renovate the village temples
- Design of new village temples

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### Design Area 3 / Transportation

- Develop a long term road maintenance plan
- Design low-cost and appropriate pathway to Pondicherry that would not be affected by the monsoon
- Develop a cost effective and environmentally friendly transport system for Devikulam and the Panchayat region
- Develop an effective way of transporting drinking water from the village to the Thoppu or Colony

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### Design Area 4 / Water Supply and Sanitation Systems

- Cost effective rainwater capture and storage system
- Develop a reliable water delivery system that would be accessible throughout the day
- Propose a method of reducing bacterial contamination from the village pond
- Water consumption efficiency measures
- Reduction of salinity in the water supply
- Determine a method of reducing the salinity in the water
- Toilet waste treatment systems e.g. waste Bio-digester systems
- Determine a method to distil the bore water for consumption
- Develop a proposal for a biomass system
- Develop a cost effective pump to reduce the cost of implementing a pond and baffle reactor



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### Design Area 5 / Energy

- Solar energy
- Wind Energy
- Development of smokeless stove technology
- Building Energy Efficiency
- Alternative cooking systems
- Bio-digesters

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### Design Area 6 / Information, Communication and Technology (ICT) for Educational Activities

- Cost-effective internet and communication systems
- Software (educational games) relating to primary and secondary education
- Hardware for interactive educational games
- Development of a tutorial software program that will provide basic computer awareness training
- Interactive software programs that teaches users sustainable practices

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### Design Area 7 / Waste Management

- Integrated waste management systems including recycling and reuse opportunities.
- Composting system for household waste
- Waste collection devices
- Waste reduction and management education
- Develop a cost effective way of transporting solid waste from Devikulam to the Kadapakkam waste management facility

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### Design Area 8 / Housing

- Re-design existing houses mud-thatch houses at Devikulam
- Develop a way to reduce heat retention and energy costs in government housing
- Design group houses for the colony residents
- Develop a way to improve protection from the rain
- Design toilet facilities for households