TECHNOLOGY FACTSHEET

HEATING TECHNOLOGY FOR RECYCLING TYRES [1]

1. **Sector/ Sub Sector:** Waste Recycle / Heating

2. **Introduction:** This is an innovative patented technology for recycling of Worn-out Automobile Tyres (WAT). WAT heating method does not create any significant temperature gradient within the reactor.

3. **Technology Name: Heating Technology for Recycling Tyres**

4. **Technology Characteristics:** The induction heating of the metallic wire, which is surrounded by rubber from all sides, allows the heating of every tyre piece uniformly and without overheating. The width of the rubber layer between two adjacent wires does not exceed several millimetres, producing efficient and uniform heating. The heating process, which is automatically controlled, allows not only the production of byproducts of required quality, but also saves energy. Processing under the conditions of low temperatures removes the opportunity of forming such dangerous carcinogenic products as dioxins and pyrenes, as found in high-temperature pyrolysis. In this process all light hydrocarbons are present in the liquid fraction, which is confirmed by means of chromatographic tests. This allows the production of marketable end products by further technological processing.

Worn Out Automobile Tyres (WAT) are commonly (i) treated as waste, and disposed of in dumps and landfills or (ii) treated with recycling methods that do not unlock anywhere near their full potential

5. **Country Specific Applicability:** -

6. **Status of the technology in the country and its future market potential:** -

7. **Barriers:** -

8. **Benefits:** Reduce environment risk, solid waste generation, provide alternative raw material, energy efficiency

9. **Operations:** -

[1] **This fact sheet has been extracted from TNA Report – Mitigation for Sri Lanka. You can access the complete report from the TNA project website** http://tech-action.org/

10. Costs: -

11. Reference: Asia Pacific Centre for Technology Transfer, SkyQuest Technology Consulting (Pvt) Ltd.