CSIR- CLRI Technology for Rural Development

1.	Name of Product / Process/Technology	**Collection of Fallen Carcass and its utilization**
2.	Application / Use	It involves integrated utilization of all tissues of fallen carcass for value added product. Finds application in Animal feed/Leather industry/Fertilizer/Chemical Industry
3.	Salient features of technology/process	It is an eco-friendly and sustainable technology developed by CLRI for total utilisation of fallen animals (cattle and buffalo). It provides economically useful products from waste. The process includes lifting of fallen animals, flaying techniques, preservation of hides and skins, rendering (cooking) of the flayed carcass, preparation of meat meal, bone meal, tallow, besides treatment of effluent waste water and utilisation for agri-horticultural purposes and conversion of rumen contents into manure. Transportable devices for effective collection of fallen carcass are enclosed in Annexures 1 & 2.
4.	Raw materials	Fallen animals (cattle and buffalo)
5.	Machinery/Equipment	Flaying tools, wet rendering cooker, meat mincer, bone crusher, drier and pulveriser, transportable flaying and lifting device.
6.	Status of technology	Well developed and available at CSIR-CLRI.
7.	Minimum economic unit and total investment	3-4 carcasses per day Rs. 20 lakhs.(It may go upto Rs.40Lakhs when transportable device is included)
8.	Technology transfer methodology	As per CSIR guidelines
9.	Technology demonstration – cum – Training facilities	Demonstration can be done at Bardouli, Gujarat or some other location, if possible.
10.	Product acceptability	Excellent Market potential
11.	Marketability	Highly potential
12.	Is this technology location-specific? If so, please elaborate	Need to ensure availability of 3-4 carcasses per day within a radius of about 30 Kms.
13.	Any gender-bias in technology utilisation?	No. Traditionally flaying activities are carried out by males in rural areas.

14.	Is any video-cassette available on the technology?	Requires to be arranged, if necessary.
15.	Any other relevant information not covered above	The centre can cater to the needs of a group of villages within a radius of 15 Kms. The likely benefits provided by the technology is not only economical but also in social and environmental spheres provides employment to rural poor and clean environment. Efficient carcass recovery not only reduces losses but also facilitates the availability of cheap and quality leathers to rural folk. Production of quality meat meal, bone meal would help to prepare animal feeds of better quality and help the feed industry to be less dependent on imports.
16.	Terms and conditions for technology transfer	Negotiable under the framework of CSIR guidelines.
17.	If required, can you provide prototype/working model for display/demonstrations	Yes
18.	Name and address of technology generating institute/ individual	CSIR-Central Leather Research Institute, Adyar, Chennai - 600 020, India.
19.	Name and address of technology transfer agency, if different from above	Same as above (Sl. No.18)

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Annexure 1

1.	Name of the Device	**Transportable Device for lifting of Carcass**
2.	Application / Use	➢ Collection of fallen animal especially in rural areas. ➢ Ensure economic utilization of the hide/skin and even other body parts of a dead animal. ➢ Ensure cleanliness of environment by not allowing it to be spoilt by the putrefaction of carcass.
3.	Salient features	The device can be fitted on the rear side of a vehicle and can be operated by a flayer cum driver to lift the animal and also flay the hide if the animal is dead. This device has several advantages over the existing methods presently used for lifting animals. The device has tremendous potential to improve the availability of quality hides from fallen animals to Indian leather industry if used by flayers and their societies in the country. The device also ensures proper collection of the remaining parts of the carcass for further processing into value-added products like bone meal, meat meal, tallow etc.
4.	Any other relevant information not covered above	It ensures economical utilization of fallen carcass, while keeping the environment pollution free. The knowledge lead has been applied for patent protection (Indian Patent application no. 200Del2007).
5.	Name and address of technology generating institute/ individual	CSIR-Central Leather Research Institute, Adyar, Chennai - 600 020, India.

Annexure 2

1.	Name of the Device	**Transportable Device for lifting and flaying animals**
2.	Application / Use	➢ Collection of fallen animal especially in rural areas. ➢ Ensure economic utilization of the hide/skin and even other body parts of a dead animal. ➢ Ensure cleanliness of environment by not allowing it to be spoilt by the putrefaction of carcass.
3.	Salient features of technology/process	An improved transportable device for flaying of fallen animals from rural and urban areas has been innovated. The design features are exclusive for lifting and flaying of dead animals. The device is mechanized vehicle which uses power transmission system for loading, hoisting for flaying, carrying and unloading of the fallen animals. It has several advantages, in view of its (a) easy operability (b) reduction in time for flaying (c) provision for carrying and unloading two large or three small dead animals after flaying (d) hydraulic or mechanical system which increases efficiency (e) drastic reduction (by 50%) for capital investment (f) designed exclusively for flaying of dead animals.
4.	Any other relevant information not covered above	It ensures economical utilization of fallen carcass, while keeping the environment pollution free. The knowledge lead has been applied for patent protection (Indian Patent application no. 269DEL2011).
5.	Name and address of technology generating institute/ individual	CSIR-Central Leather Research Institute, Adyar, Chennai - 600 020, India.