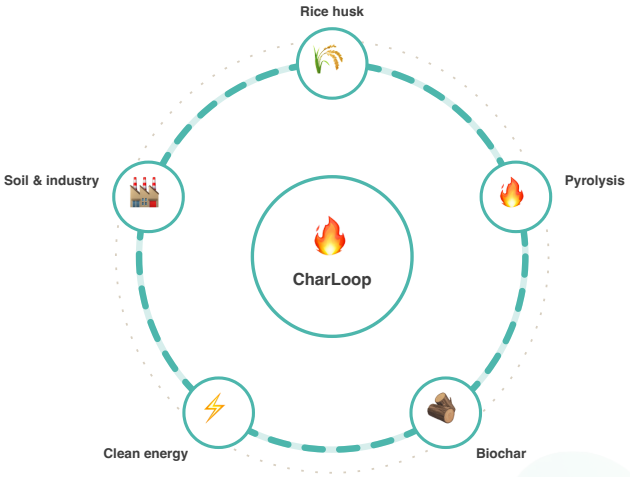
WASTE → VALUE

CharLoop

Husk → biochar

Mill-scale rice-husk pyrolysis yields durable biochar credits, heat, and gas-independence



Rice husk → Pyrolysis → Biochar → Clean energy → Soil & industry

✓ PROVEN PRECEDENT
Takachar won the 2021 Earthshot Prize on the same husk-pyrolysis

▲ WHY IT MATTERS
Tk35,000cr of factories idle for gas · 7.5–9 Mt rice husk/yr

THE SITUATION IN BANGLADESH

Bangladesh's industrial backbone is starving for energy: roughly Tk35,000 crore of private investment sits idle across economic zones, and nearly 400 gas-dependent factories cannot run at full capacity for want of gas [5]. Domestic fields are drying up — supply has fallen toward 2,500 mmcfd against demand near 3.8 bcfd — leaving the country dependent on costly LNG that industries pay Tk30 for while imports cost around Tk100 per unit [5]. Yet the same country is the world's third-largest rice producer, milling about 39 million tonnes a year and generating roughly 7.5–9 million tonnes of rice husk, a residue that is 22% of paddy weight and concentrated at the mill gate [2]. Today most of that husk is simply burned for crude parboiling steam or dumped, wasting both its energy and its carbon value [4].

OUR PITCH

CharLoop installs small, portable pyrolysis units at rice mills that convert this concentrated husk into process heat first — replacing scarce, expensive gas with on-site energy independence the mill already feeds itself [4]. The same reaction yields biochar, a soil amendment whose fused-aromatic carbon resists decomposition for centuries (IPCC-recognized 100–1,000-year permanence) and lifts crop yields by roughly 10–16% on average [16]. That biochar is also a durable carbon-removal credit: biochar already accounts for over 90% of CDR tonnes delivered, certifiable under Puro.earth's audited CORC methodology at steady 2025 prices of about $125–$145 per tonne CO_2 [893]. The model is proven — MIT spinoff Takachar won the 2021 Earthshot Prize deploying near-identical portable husk pyrolysis, cutting open-burn smoke up to 98% and raising farmer income 30–50% [7]. CharLoop's honest wedge is energy first, carbon as upside: the heat savings justify the unit even before a single credit sells [45].

Built so the operator never fails

HelperChain doesn't hand out a loan and walk away. Every operator gets the **full rail** — inputs, training, finance, supervision and a **guaranteed buy-back** of what they produce. We carry the risk so an ordinary person can succeed.

Equipped & trained
We provide the tools, inputs and hands-on training to start — turning **rice husk** into a working operation. No prior capital or expertise required.

Funded, not indebted
Pay-as-you-go, **riba-free** finance turns a poor person into a *funded* operator — with **no debt if a cycle fails**. The network carries the downside, not the operator.

Supervised & supported
Ongoing follow-up and quality assurance — the single factor peer-reviewed evidence shows decides whether ventures survive **(p<0.001)**. The operator is never left alone.

Guaranteed buy-back
HelperChain **commits to purchase the output at a fair, pre-agreed price**, so there is always a market — the operator just produces; **we guarantee the offtake**. This is what removes the fear of failure.

Surplus recycles
A thin margin is recycled to fund the next operator — so help compounds and the network grows stronger with every person it lifts.

The promise: we give the operator everything needed to succeed — and we buy back the output at a fair, pre-agreed price. Inputs in, output bought back, risk carried by the network — so they never fail alone.

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