



PROJECT TEASERS FOR INVESTMENTS IN PAKISTAN'S CARBON MARKETS

High level Visit from Kingdom of Saudi Arabia

9-11th December 2025

MINISTRY OF CLIMATE CHANGE &
ENVIRONMENTAL COORDINATION
GOVERNMENT OF PAKISTAN

Ministry of Climate Change & Environmental Coordination

1. Lakhodair Dumpsite (LWMC) Landfill Gas Recovery

Opportunity Summary		Project Financials	
Ministry	<ul style="list-style-type: none"> ▪ Ministry of Climate Change 	Project Cost	Project IRR
Project description	<ul style="list-style-type: none"> ▪ A Greenfield Investment in Landfill Gas Recovery Project ▪ Landfill in use since 2016; existing waste about 20 million tons, receiving around 5000 tons per day 	20 Million USD	15.01%
Market Dynamics	<ul style="list-style-type: none"> ▪ High demand for Methane Projects delivering ITMOS ▪ Distribution of methanized landfill gas through the existing natural gas supply system in Lahore ▪ It has strong social, environmental, and health co-benefits 	Equity IRR	Payback
Unique value proposition	<ul style="list-style-type: none"> ▪ High quality Carbon credits ▪ Estimation of 350,000 reduction tCO2e per year for 10-15 years ▪ Supported by an existing CDM Methodology ▪ The project may thus comfortably be fully financed through carbon credits 	30% equity investment, IRR =57.4%	4.5 years
Business Model	<ul style="list-style-type: none"> ▪ It might be offered to an investor on a BOT basis where the return on the investment could be a guaranteed issuance of ITMOs ▪ Distribution of methanized landfill gas through the existing natural gas supply system in Lahore may be technologically. ▪ Off-take of biodiesel for fleets of vehicles may considered be legally easier, but technologically complex. 	Assumptions: 30% equity investment, 70% loans, at interest rate 8% per year; ITMO price: USD 15 per tCO2e; 18% host country fees; project crediting period: 10 years	
Investment	<ul style="list-style-type: none"> ▪ 20 m USD, which means an abatement cost of 1.7-2.5 USD/tCO2e 		

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2. Peshawar Landfill Site

Opportunity Summary		Project Financials	
Ministry	<ul style="list-style-type: none"> ▪ Ministry of Climate Change 	Project Cost	Project IRR 4.4%
Project description	<ul style="list-style-type: none"> ▪ A Greenfield Investment in Landfill Project ▪ Integrated waste management projects in four cities 	40 M USD	
Market Dynamics	<ul style="list-style-type: none"> ▪ The project does not include methane capture of legacy waste ▪ High demand for Methane Projects delivering ITMOS 		
Unique value proposition	<ul style="list-style-type: none"> ▪ High quality carbon credits ▪ Assessed emissions reduction potential is 300,000 tCO2e/year ▪ Supported by an existing Methodology ▪ Strong sustainability qualities ▪ higher costs of toward waste management compared to backward tidying up. 	Equity IRR 22.6%	Payback 10.8 years
Business Model	<ul style="list-style-type: none"> ▪ It is already loan financed by ADB and thus may raise additionality concerns ▪ It is expected to be implemented on BOT basis without immediate considerations for revenues from the carbon market 	Assumptions: 30% equity investment, 70% loans, at interest rate 3% per year; ITMO price: USD 15 per tCO2e; 18% host country fees; project crediting period: 15 years	
Investment	<ul style="list-style-type: none"> ▪ 40 million USD investment 		

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3. Brick Kilns Project

Opportunity Summary		Project Financials	
Ministry	<ul style="list-style-type: none"> Ministry of Climate Change 	Project Cost	Project IRR 27.7% Highly Scalable
Project description	<ul style="list-style-type: none"> An Umbrella Project for Brick Kilns in Punjab An emissions reduction project The project encompasses 1000 out of 13000 small brick kilns Inherently programmatic so there is no reason to limit the number The projected costs per zig-zag kiln is 3 times higher than estimates in India, the efficiency gain is 15% compared to 20% in India, and the crediting period is set to 5 year instead of 10 Budget is only 30% of the total investment required – or alternatively, with Indian prices, the project covers the full cost of the conversion. 	15 m USD	
Market Dynamics	<ul style="list-style-type: none"> Project characteristics would probably have significant appeal to government and corporate buyers alike Immense sustainable development benefits due to current air pollution 	Equity IRR 127%	Payback 0.8 years
Unique value proposition	<ul style="list-style-type: none"> High quality carbon credits Assessed emissions reduction potential is 370,000 tCO2e/year Extended cooperation and capacity building on both sides Supported by an existing Methodology Strong sustainability qualities 		
Business Model	<ul style="list-style-type: none"> It is expected to be implemented on BOT basis without immediate considerations for revenues from the carbon market Private sector will be encouraged to participate 	Assumptions: 30% equity investment, 70% loans, at interest rate 8% per year; ITMO price: USD 15 per tCO2e; 18% host country fees; project crediting period: 10 years	
Investment	<ul style="list-style-type: none"> 50 m USD 		

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4. Biogas for Households in Khyber Pakhtunkhwa

		Project Financials	
▪ Ministry of Climate Change	▪ A Greenfield Investment in Biogas for households in KP ▪ An emissions reduction project ▪ Installation of 70,000 household size biogas digesters at the target households and provision of technical support for biogas digester installation and commissioning ▪ A PoA model which makes it scalable across the country ▪ Has potential in terms of gradual implementation and thus does not require the full implementation finance up front ▪ May be fully financed through carbon credits	Project Cost 30 M USD	Project IRR 15.8%
▪ It has strong sustainability qualities and may attract buyers. ▪ Immense sustainable development benefits due need for energy in rural areas	Equity IRR 48.7%	Payback 2.1 years	
▪ High quality carbon credits ▪ Assessed emissions reduction potential is 500,000 tCO2e/year ▪ Supported by an existing Methodology (CDM AM0075) ▪ Community based project which advances the uplift of poverty struck agriculture areas and families.	Assumptions: 30% equity investment, 70% loans, at interest rate 3% per year; ITMO price: USD 15 per tCO2e; 18% host country fees; project crediting period: 10 years		
▪ Community based project which advances the uplift of poverty struck agriculture areas and families. ▪ By capturing and utilizing methane, biogas technology reduces greenhouse gas emissions, mitigates climate change, and provides a sustainable energy source for rural communities.	▪ 30 M USD		

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5. Generation of Mangrove Carbon Credits

Opportunity Summary		Project Financials	
Ministry	<ul style="list-style-type: none"> Ministry of Climate Change 	Project Cost	Project IRR
Project description	<ul style="list-style-type: none"> A Greenfield Investment in Mangrove Carbon Credits Sindh-Port Qasim (Korangi & Phitti Creeks (62,833 ha), Balochistan-Sonmiani Khor, Kalmat Khor, Sahidi Khor, Sawar Khor, Shabi & Ankra Creeks, Jiwani (5690 ha) An emissions reduction project May be fully financed through carbon credits Stages: Signing of LOI, Development of PDD, Registration by International Body, Periodic monitoring, Offer of Credits etc 	522.5 M USD	115.51%
Market Dynamics	<ul style="list-style-type: none"> It has strong sustainability qualities and may attract buyers In 2022, about 30% of all carbon offset credits for forestry projects came from voluntary registries, including IFM, REDD+, and afforestation, among other types Data also suggests that in Asia and Central America, each credit for blue carbon projects costs the range between \$13 – \$35 	Equity IRR	Payback
Unique value proposition	<ul style="list-style-type: none"> High quality carbon credits Supported by an existing Methodology Afforestation, conservation and regeneration of forests and green landscapes Improved resilience in terms of climate and environment Multiple co-benefits such as improved health, revenue generation, air quality and more 	31%	1.5 years
Business Model	<ul style="list-style-type: none"> Hiring of consultant for feasibility assessment is under process through WB support. 	Assumptions: 30% equity investment, 70% loans, at interest rate 3% per year; ITMO price: USD 15 per tCO2e; 18% host country fees; project crediting period: 10 years	
Investment	522.5 M USD		

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6. Generation of Mangrove Carbon Credits (ITMOs)

Opportunity Summary		Project Financials	
Ministry	<ul style="list-style-type: none"> Ministry of Climate Change 	Project Cost	Project IRR
Project description	<ul style="list-style-type: none"> Balochistan-Sommiani Khor, Kalmat Khor, Sahidi Khor, Sawar Khor, Shabi & Ankra Creeks, Jiwani (5690 ha) An emissions reduction project May be fully financed through carbon credits Stages: Signing of LOI, Development of PDD, Registration by International Body, Periodic monitoring, Offer of Credits etc Stages: Signing of LOI, Development of PDD, Registration by International Body, Periodic monitoring, Offer of Credits etc. 	47.99 M USD	114.03
Market Dynamics	<ul style="list-style-type: none"> It has strong sustainability qualities and may attract buyers In 2022, about 30% of all carbon offset credits for forestry projects came from voluntary registries, including IFM, REDD+, and afforestation, among other types Data also suggests that in Asia and Central America, each credit for blue carbon projects costs the range between \$13 – \$35 	Equity IRR	Payback
Unique value proposition	<ul style="list-style-type: none"> High quality carbon credits Assessed emissions reduction potential is 500,000 tCO2e/year Supported by an existing Methodology Afforestation, conservation and regeneration of forests and green landscapes Improved resilience in terms of climate and environment Multiple co-benefits such as improved health, revenue generation, air quality and more 	47%	1.8 years
Business Model	<ul style="list-style-type: none"> Hiring of consultant for feasibility assessment is under process through WB support. 	Assumptions: 30% equity investment, 70% loans, at interest rate 3% per year; ITMO price: USD 15 per tCO2e; 18% host country fees; project crediting period: 10 years	
Investment	<ul style="list-style-type: none"> 47.99 M USD 		

THANK YOU