

INTEGRATED SOLID WASTE MANAGEMENT PROJECT (ISWMP) - RATNANAGAR PACKAGE

SALIENT FEATURES

SN	FEATURES	CHARACTERISTICS		
GENERAL				
1	Name of Project	Integrated Solid Waste management Project (ISWMP) - Ratnanagar Package (Ratnanagar Municipality, Kalika Municipality, Rapti Municipality and Khairahani Municipality)		
2	Type	Waste management		
3	Population and Daily Waste Generation		Total Population	Daily waste generation (ton/day)
		Ratnanagar	82,224	26.07
		Rapti	67,225	21.31
		Kalika	49,138	15.58
		Khairahani	66,033	20.93
		Total	264,620	83.88
		Average Waste Composition (% by weight)	Organic	74
	Reusable/Recyclables	23.67		
	Others (Including Hazardous Waste)	2.33		

PROJECT LOCATION

1	Province	Province 3 (Location Map)
2	Land Availability	Yes (Ratnanagar Municipality, Kalika Municipality, Rapti Municipality and Khairahani Municipality)

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PROJECT COMPONENT/TECHNOLOGY		
1	Collection of waste	<ul style="list-style-type: none"> Household and commercial collection of waste on certain interval
2	Anaerobic Digestion	<ul style="list-style-type: none"> Mesophilic (35-38 °C) / Thermophilic (above 50 °C) The methane gas will be compressed, bottled and sold to local market Organic Fertilizer and Pesticide will be generated

MARKET ASSESSMENT

1	Project Demand Scenario	<ul style="list-style-type: none"> There is a pressure on municipalities to Improve and modernize the collection methods and disposal technology. There is a need to reduce the pressure on waste disposal practices and prices 80% reduction in the current volume of waste going to landfill site which will extend the life of landfill site in the future. The creation of renewable energy and other environmental benefits Demand for organic fertilizer and pesticide are very high in local market recyclable product could be sold or processed
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DEVELOPMENT MODALITY

1	Development modality	Public Private Partnership
2	Role of the Government of Nepal	<ul style="list-style-type: none"> Provide government land, Land acquisition, facilitation and project security Facilitating various legal approvals/permits for the smooth operations of the project Setting up of institutional framework for review & monitoring

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3	Role of the Private Sector	<ul style="list-style-type: none"> ■ Plan, design, finance, engineer, construct, and develop the envisioned facilities and other components of the project ■ Operate, maintain and manage the project facility throughout the Concession Period ■ Development and execution of marketing and advertising strategies ■ Collection of revenues from the project during the Concession Period ■ Handover to the Government after the Concession Period
4	Development Period	<p>a. Pre- Construction Period: 6 months</p> <p>b. Financial Closure: 6 months</p> <p>c. Construction Period: 3 years</p> <p>d. Concession Period: 25 years (Up to 30 years)</p>

INDICATIVE FINANCIALS

1	Total Project Cost (including Interest During Construction)	~ USD 5.50 million
2	Interest Rate (including hedging cost)	12.00%
3	Project IRR	14.18%
4	Equity IRR	15.08%