

INTEGRATED SOLID WASTE MANAGEMENT PROJECT (ISWMP)- BUTWAL PACKAGE

SALIENT FEATURES

SN	FEATURES	CHARACTERISTICS		
GENERAL				
1	Name of Project	Integrated Solid Waste Management Project (ISWMP)- Butwal Package (Butwal Sub-Metropolitan City, Devdaha Municipality, Sainamaina Municipality, Siddharthanagar Municipality, Tilottama Municipality)		
2	Type	Waste Management		
3	Population and Daily Waste Generation		Total Population	Daily waste generation (ton/day)
		Butwal	140659	53
		Devdaha	63552	20.15
		Sainamaina	66282	21.01
		Siddharthanagar	75378	23.89
		Tilottama	118914	37.70
		Total	464784	155.75
		Average Waste Composition (% by weight)	Organic	54.34
			Reusable/ Recyclables	29.35
	Inert	9.65		
	Others (Including Hazardous Waste)	6.66		

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PROJECT LOCATION

1	Province	Province 5 (Location Map)
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LAND AVAILABILITY

1	Butwal Sub-metropolitan city	Bhanbhane basin in Shivapur community forest, ward number 9 of Butwal Sub-metropolitan city
2	Siddharthanagar Municipality	Acquired land in Pattheuli in total area of 3.06 acres for landfill site.
3	Tilottama Municipality	14.01 Acres of land available

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 operation of the project ■ Setting up institutional framework for review & monitoring
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	<ul style="list-style-type: none"> a. Pre- Construction Period: 6 months b. Financial Closure: 6 months c. Construction Period: 3 years d. Concession Period: 20 years (Up to 30 years)

INDICATIVE FINANCIALS

1	Total Project Cost (including Interest During Construction)	~ USD 8.50 million
2	Interest Rate (including hedging cost)	12.00%
3	Project IRR	15.21%
4	Equity IRR	17.13%