

Clean Development Mechanism

Sustainable Development co-Benefits Description Report¹

CDM project activity or programme of activities (PoA) information	
Title	Ishasha 6.6 MW Small Hydropower Project
Pre-registration reference no.	
Reference no.	6381
Type	Project Activity
Sectoral Scope	Energy industries (renewable - / non-renewable sources) (1)
Host Party	Uganda

Report information	
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Name of third party verifier and/or comments	Earthood Services Private Limited.

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Overview of sustainable development co-Benefits

A. The extent of environmental co-Benefits:

		N/A	No	Slightly	Partly	Highly
Air	Reducing Sox	•				
	Reducing Nox	•				
	Reducing Fly ash	•				
	Reducing suspended particulate matter (SPM)	•				
	Reducing Non Methane Volatile Organic Compounds (NMVOCs)	•				
	Reducing Noise Pollution	•				
	Reducing Odors	•				
	Reducing Dust	•				
	Other air quality improvements	•				
Land	Preventing end of life products/ equipment (solid waste)	•				
	Producing/using compost	•				
	Producing/using manure, mineral fertilizer or other soil nutrients	•				
	Irrigation	•				
	Preventing soil erosion	•				
	Minimum tillage	•				
	Other means to improve land quality	•				
Water	Improving management/control of wastewater	•				
	Saving/conserving of water	•				
	Improving reliability/accessibility of water supply	•				
	Purification/cleaner water supply	•				
	Improving ecological state of water bodies	•				
	Other means to improve water	•				
Natural Resources	Protecting mineral resources	•				
	Protecting/enhancing plant life	•				
	Protecting/enhancing species diversity	•				
	Protecting/enhancing forests	•				
	Protecting/enhancing other depletable natural resources	•				

B. The extent of social co-Benefits:

		N/A	No	Slightly	Partly	Highly
Jobs	New long-term jobs				•	
	New short-term jobs					•
	New sources of income generation				•	
	Other employment opportunities			•		
Health & Safety	Disease prevention	•				
	Reducing accidents	•				
	Reducing crime	•				
	Preserving food	•				

	Reducing health damaging indoor air pollution		•				
	Enhancing health services					•	
	Improving sanitation and waste management	•					
	Other health and safety improvement	•					
Education	Job-related training			•			
	Enhanced educational services						•
	Project-related knowledge dissemination			•			
	Other educational benefits	•					
Welfare	Improving working conditions	•					
	Community or rural advancement					•	
	Poverty alleviation (more people above poverty level)	•					
	Improving wealth distribution/ generation of income and assets	•					
	Increased municipal revenues						•
	Optimized women's empowerment	•					
	Reduced traffic congestion	•					
	Other welfare benefits	•					

C. The extent of economic co-Benefits:

		N/A	No	Slightly	Partly	Highly
Growth	New investments			•		
	New industrial/commercial activities	•				
	New infrastructure				•	
	Enhancement of productivity	•				
	Reduction of production costs (services)	•				
	New business opportunities	•				
	Other economic benefits	•				
Energy	Improvement in supply of energy					•
	Access to energy				•	
	Affordability and/or reliability of energy					•
	Other energy improvements	•				
Technology	Introducing/developing/diffusing imported technology				•	
	Introducing/developing/diffusing local technology	•				
	Adaptation of new technologies to local circumstances	•				
	Know-how activities for a technology	•				
	Other technological benefits	•				
Balance of payments	Reduction of foreign dependency				•	
	Other macro-economic benefits	•				

D. Further information:

	Information required			
		Yes	No	N/A
				•

Detailed description

B. Social co-Benefits

	Indicator	Specification	Extent
Jobs	The CDM creates new job opportunities including income generation as follows:		
	New long term jobs	<i>The Ishasha Hydropower Project created 16 permanent new jobs in Uganda, and has resulted in the training on several plant technicians on hydropower technology, through on the job training from our experienced international engineers and technicians.</i> New long-term jobs > 1 year - 16	Partly
	New short term jobs	<i>During several months during the peak of construction, maximum temporarily employment well exceeded 300 persons on any given day. While international civil engineer contractors and our in-house engineers oversaw the construction, most of the tradepersons and laborers were hired locally in Uganda.</i> New short-term jobs < 1 year - 300	Highly
	Income generation	<i>Construction and operation of the plant has provided new sources of income to permanent employees, and has also resulted in new indirect income sources for local businesses due to the purchase of good and services by the company and its employees, both during plant construction and during ongoing plant operations and maintenance.</i>	Partly
	Other employment opportunities	<i>Construction and operation of the plant has provided new sources has supported local businesses due to the purchase of good and services by the company and its employees, both during plant construction and during ongoing plant operations and maintenance, and thus indirectly supported local employment. Increased electrification in the area and improved reliability from the project also support local employment.</i>	Slightly
Health & safety	The CDM results in health and safety improvements as follows:		
	Reduction of diseases, disease prevention		N/A
	Reduction of accidents		N/A
	Reduction of crime		N/A
	Preservation of food		N/A
	Reducing health damaging indoor air pollution		No
	Enhancement of health services	<i>The project provides a fortnightly medical clinic in a facility built near the project site, during which the project brings in a doctor to give routine medical examinations and tests, and also provides free medications.</i>	Partly
	Improved sanitation and waste management		N/A
	Other health and safety improvements		N/A

Education	The CDM facilitates education, dissemination of information, research or increases awareness as follows:		
	Job related training	<i>On the job vocational training has been provided to locally hired staff in hydropower plant operations and maintenance.</i>	Slightly
	Enhanced educational services	<i>In 2011, the Kyajura Primary School was built by Eco Power, which serves a population of around 200 students.</i>	Highly
	Project related knowledge dissemination	<i>Ishasha Small Hydropower Plant gives occasional tours, and serves a role in educating on sustainable renewable energy generation through small hydropower.</i>	Slightly
	Other educational benefits		N/A
Welfare	The CDM improves local living and working conditions as follows:		
	Improvement of working conditions		N/A
	Community or rural upliftment	<i>The project supports rural electrification and the provision of reliable electricity to the local community, which indirectly improves living and working conditions for affected local community members.</i>	Partly
	Poverty alleviation		N/A
	Changes in distribution and/or generation of income and assets		N/A
	Increased municipal revenues	<i>The project results in significant additional revenues to the municipality through the payment of taxes associated with the project: (1) property taxes for assessed value of the plant, (2) royalties paid to the municipality for water withdrawals (based on generation) figures, and (3) local service taxes paid by plant employees to the municipality.</i>	Highly
	Empowerment of women		N/A
	Reduced traffic congestion		N/A
	Other welfare benefits		N/A

C. Economic co-Benefits

	Indicator	Specification	Extent
Growth	The CDM supports economic development and/or stability as follows:		
	New investments	<i>The improved electricity generation and reliability of electricity in the area supports economic development in the region, including investment from outside the region.</i>	Slightly
	New industrial/comercial activities		N/A
	New infrastructure	<i>Roads in the community were also improved due to the project, from which the local community gains benefit.</i>	Partly
	Enhancement of productivity		N/A
	Reduction of production costs (services)		N/A
	New business opportunities		N/A
	Other economic benefits		N/A
Energy	The CDM supports economic development and/or stability as follows:		
	Supply of energy	<i>The plant significantly improved the reliability and quality of electricity in the area, through the addition of a new 6.5 MW plant, which provides stable base load generation throughout most of the year.</i>	Highly

	Access to energy	<i>The project involved the construction of a new 7 km power line to connect the project to the national grid; this new grid infrastructure provided by the project supports additional grid connections by the local utility.</i>	Partly
	Affordability and/or reliability of energy	<i>The electricity is sold at a reasonable tariff reflecting market rates and cheaper than importing foreign fuels, and the hydropower generated is reliable and has greatly improved power quality and reliability in the local grid.</i>	Highly
	Other improvements to energy		N/A
Technology transfer	The CDM results in a change in technology as follows:		
	New imported technology	<i>The project brought state-of-the-art European and other international hydropower and electric power generation and transmission technology to the region, which the plant utilizes and showcases.</i>	Partly
	New local technology		N/A
	Adaptation of new viable technologies		N/A
	Know-how activities for a technology		N/A
	Other technological benefits		N/A
Balance of payments	The CDM results in improving the country's balance of payments as follows:		
	Reduction of the dependency on foreign sources of energy	<i>The plant, on average, has generated around 24 GWh of electricity each year, which was supplied to the national grid. Based on statistics from currently operating thermal plants in the region, this has resulted in the avoidance of the need to import well over 6 million liters of imported fossil fuels to run thermal plants to provide a similar amount of electricity.</i>	Partly
	Other macroeconomic benefits		N/A