INTEGRATED SAFEGUARDS DATA SHEET
APPRAISAL STAGE

Report No.: ISDSA15329

Date ISDS Prepared/Updated: 18-Nov-2015

Date ISDS Approved/Disclosed: 18-Nov-2015

I. BASIC INFORMATION

1. Basic Project Data

Country:	Kenya	**Project ID:**	P153493
Project Name:	Promoting Biogas as Sustainable Clean Cooking Fuel for Rural Households in Kenya (P153493)		
Task Team Leader(s):	Edward Felix Dwumfour,Juha Antti Kalevi Seppala		
Estimated Board Date:	29-Jan-2016		
Managing Unit:	GEN07		
Sector(s):	Other Renewable Energy (100%)		
Theme(s):	Climate change (100%)		
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?	No		
Financing (In USD Million)			
Total Project Cost:	7.00	Total Bank Financing:	0.00
Financing Gap:	0.00		

Financing Source	**Amount**
Borrower	0.00
Carbon Fund	7.00
Total	7.00

Environmental Category:	B - Partial Assessment
Is this a Repeater project?	No

2. Project Development Objective(s)

Reduction of GHG emissions from improved access to biogas energy as a clean cooking fuel in livestock-owning rural households in Kenya.

3. Project Description

The project's objective would be to promote the use of biogas as clean cooking fuel in livestock-

owning rural households in Kenya. The program has set up hub offices in Nakuru, Eldoret and Karatina to be possibly followed by Central, North and South Rift areas. Hub offices serve an area with a radius of 50 km. These distribution points are selected close to dairy farmers, which are a main target group. Thus, the biodigesters will be made available to households in a coordinated fashion to ensure there is access to maintenance hubs within 50 km of the installation location.

With a funding amount of US$7.0 million, the project proposes to reach out to about 6,000-8,000 HHs every year between 2015 and 2024. The project would have multiple development benefits resulting from substitution of firewood for cooking by clean biogas. These multiple benefits would include reduced forest degradation and desertification, improved indoor air quality (from reduced indoor smoke exposure), improved health and reduced hardship for women and children who are primarily engaged in the collection of firewood in rural areas, increased income and social welfare improvement for rural HHs, creation of small scale business enterprises, along with contribution to climate change mitigation.

The proposed project is part of the National Biogas Promotion Program KENDBIP (Kenyan Domestic Biogas Programme), which in turn is part of the larger Africa Biogas Partnership Programme (ABPP). ABPP has a target of 100,000 systems installed in Ethiopia, Kenya, Tanzania, Uganda, and Burkina Faso and providing half a million people access to a sustainable source of energy by the year 2017. The KENDBIP program was initiated in Kenya in 2009 with an overall goal of developing a commercially viable biogas sector in Kenya. Since 2009 to 2013 the program has managed to install over 11,000 biogas plants of the traditional brick-laid design. The second phase of the program runs from 2014 to 2017 with a target of installing 27,500 digesters of both traditional and advanced innovative designs, such as the one promoted by this proposed program.

Biogas systems convert manure and/or organic household waste into methane gas. This gas can be directly used for cooking. The technology is well-known in Sub-Saharan Africa and Asia, but traditional brick-laid designs are challenging for large scale implementation. Initially, two types of biogas systems—the float-drum type and the fixed dome type have been promoted. Although these systems have been successful elsewhere, adoption in Kenya has been minimal because of expensive installation costs. SimGas, a private company, has pioneered a new and innovative design for a biogas system unlike the traditional designs implemented elsewhere in Africa and the developing world. Unlike traditional biogas systems targeting households, the SimGas system is an innovative in design, is easy to install and can be mass produced to meet the consumer demand quickly. Also, the system is made of recycled molded plastic that makes it affordable to users which should also allow for a longer operating life than traditional brick laid designs. SimGas has developed two proprietary designs of biogas systems: GesiShamba and GesiSafi. GesiShamba is for rural households and GesiSafi for urban users. The rural Gesi Shamba system is modular and scalable in 1m3 segments from the minimum size of 2m3 even after installation, should the need or opportunity to produce more biogas arise in a household.

SimGas is the Coordinating/Managing Entity (C/ME), which has developed the Clean Development Mechanism (CDM) Program of Activities (PoA) “SimGas Biogas Programme of Activities”, registered under the UNFCCC on December 21, 2012. The first CDM Project Activity (CPA) covering 4,000 rural digesters and 6,000 urban digesters is already being implemented. Additional CPAs would be included in the PoA once all digesters under the first CPA have been installed. The project is already generating emission reductions from the biodigesters installed after the registration of the PoA

Through a carbon finance transaction, the World Bank as Trustee of the Carbon Initiative for Development (Ci-Dev) intends to purchase carbon credits (Certified Emission Reductions, CERs) from the CME which are generated by individual households' biogas units under the CDM-PoA. Carbon payments allow SimGas to sell biogas systems at a discount to consumers and offer a warranty during the lifetime of the CDM PoA, supporting the expansion of access to biogas energy in rural Kenya.

4. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The households throughout Kenya have an opportunity to participate in the program.

5. Environmental and Social Safeguards Specialists

Gibwa A. Kajubi (GSURR)

Svetlana Khvostova (GENDR)

6. Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project will have small scale, site specific environmental impacts related to safety of the biodigesters operation and sludge management. SimGas has produced an ESMF/ESMP checklist to ensure that appropriate mitigation measures are incorporated into the training materials to be used at the household level. The ESMF/ ESMP was publicly disclosed on October 19, 2015.
Natural Habitats OP/BP 4.04	No	
Forests OP/BP 4.36	No	
Pest Management OP 4.09	No	
Physical Cultural Resources OP/BP 4.11	No	
Indigenous Peoples OP/ BP 4.10	No	The participation of the households is demand driven, however, SimGas will ensure that the biodigester use materials are available to all communities that express interest in participating in the program (e.g. means and language of delivering the project information).
Involuntary Resettlement OP/BP 4.12	No	No land acquisition, loss of assets or access to resources is expected during implementation of the project activities.
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	No	
Projects in Disputed Areas OP/BP 7.60	No	

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:
This Program was assigned a Category B as it is likely to have minimal or no adverse environmental impacts, based on the nature of planned interventions. The project triggers OP 4.01 -Environment Assessment – to guide safe handling and appropriate timing of application of the bioslurry onto fields with sufficient period of delay between landspreading organic amendments and crop harvesting. When utilizing the biogas, careful attention should be paid to the safe usage of the biogas and regular checks made on the digesters and piping for cracks to avoid leakage of biogas into ambient air. SimGas has internal protocols for safe installation and for providing its customers with environmental health and safety information together with other technical documentation (which serves as an ESMF/ESMP for the project). The environmental provisions of the technical documentation are publicly available in Kenya and have been disclosed in the Bank InfoShop. SimGas has an established information sharing / grievance redress system for customers and project affected people, which will be utilized for this project.
2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:
Impacts are anticipated to be positive due to reduced demand on non-renewable biomass, improved indoor air quality and improved access to bioslurry which can be used as an effective fertilizer.
3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.
Not applicable.
4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.
SimGas has screened the project according to Kenyan environmental regulations and produced an Environmental Management Framework with a simple Environment and Social Management Plan (ESMF/ESMP) checklist in-line with World Bank policies and procedures to ensure that appropriate mitigation measures are incorporated into the training materials to be used at the household level, including safe application of bioslurry onto fields. SimGas also has internal procedures/protocols for the handing over of the biogas systems to customers and for safe installation.
5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.
Biogas systems are purchased by individual households to be used on their own property, and from a safeguards perspective, these are the main stakeholders. As per Clean Development Mechanism stakeholder consultation requirements, the project organized a stakeholder consultation meeting on November 29, 2011 at the Methodist Guest House and Conference Center in Nairobi, Kenya. The meeting provided an opportunity for stakeholders to provide comments and inputs to the project. Invitations for the meeting were extended through personal email invitations and a public notice published in the Daily Nation newspaper on 22 November 2011.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other	
Date of receipt by the Bank	07-Oct-2015

Date of submission to InfoShop	19-Oct-2015
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	00000000
"In country" Disclosure	
Kenya	20-Nov-2015
Comments: Disclosed in Kenya at SimGas website http://www.simgas.com/newsandoffers/kenya-biogas-project-esmf-esmp/item97 and copy also provided to National Environment Management Authority (NEMA).	
If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/ Audit/or EMP.	
If in-country disclosure of any of the above documents is not expected, please explain why:	

C. Compliance Monitoring Indicators at the Corporate Level

OP/BP/GP 4.01 - Environment Assessment	
Does the project require a stand-alone EA (including EMP) report?	Yes [×] No [ ] NA [ ]
If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?	Yes [×] No [ ] NA [ ]
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [×] No [ ] NA [ ]
The World Bank Policy on Disclosure of Information	
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [×] No [ ] NA [ ]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [×] No [ ] NA [ ]
All Safeguard Policies	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [×] No [ ] NA [ ]
Have costs related to safeguard policy measures been included in the project cost?	Yes [×] No [ ] NA [ ]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [×] No [ ] NA [ ]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [×] No [ ] NA [ ]

III. APPROVALS

Task Team Leader(s):	Name: Edward Felix Dwumfour,Juha Antti Kalevi Seppala
Approved By	

Practice Manager/ Manager:	Name: Sanjay Srivastava (PMGR)	Date: 18-Nov-2015

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