



PROJECT NAME: KINOYA SEWERAGE TREATMENT PLANT GHG EMISSION REDUCTION PROJECT, FIJI

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WATER AUTHORITY OF FIJI



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Overview of CDM Project

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Main objective:

- To reduce green house gas emission to the environment by flaring methane gas generated by the anaerobic decomposition of organic matter in Waste Water sludge of the Kinoya Sewerage treatment plant in Fiji.

Advantage

- ▶ Controlled emission of GHG gas to the environment
- ▶ Reduced odour from controlled sulphur discharge
- ▶ Potential for revenue generation for WAF
- ▶ A Move towards international standards of waste Water Treatment (First in the Fiji)

Gas Flare

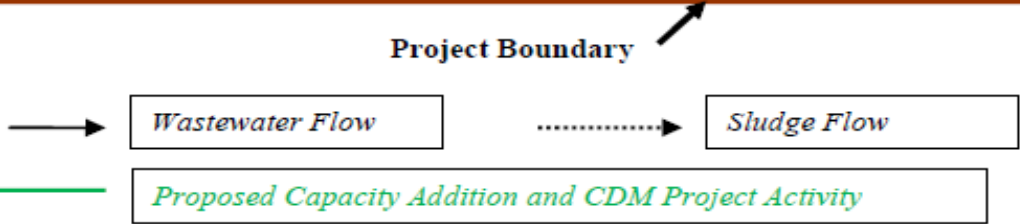
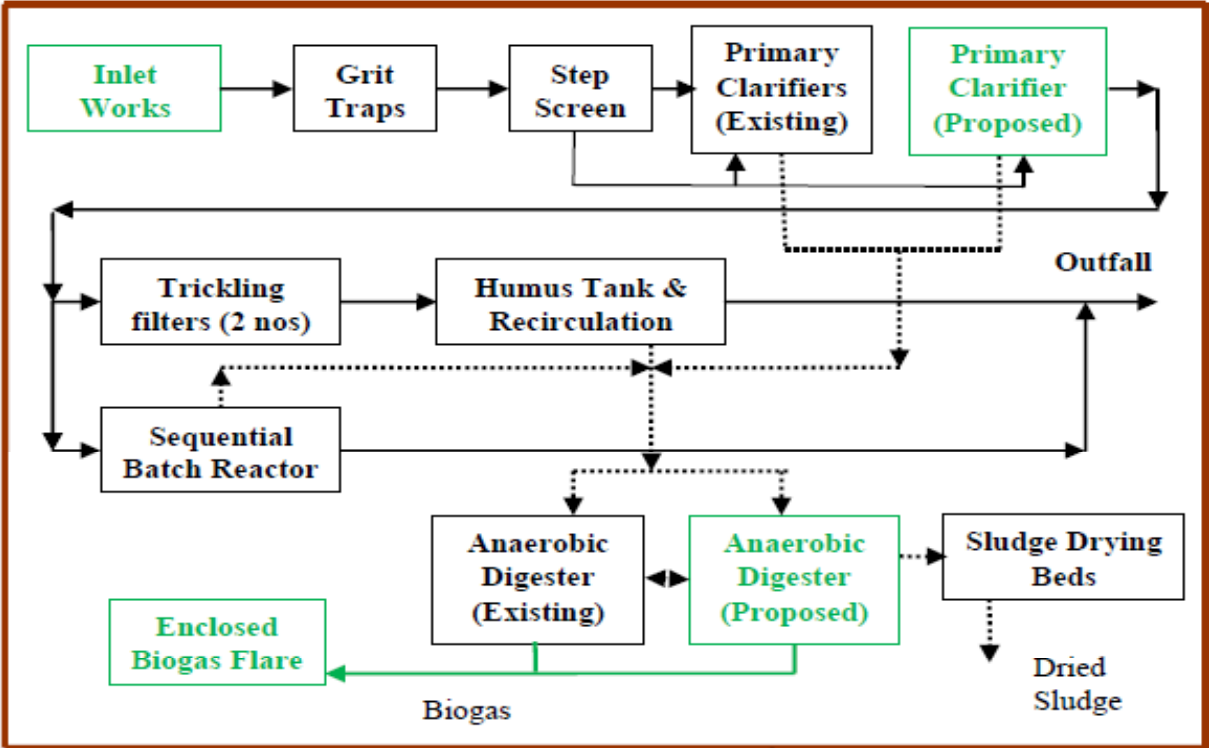
Gas Storage

New Digester

SCADA



Flow Diagram For The Project Site



Status of the project arranged in the chronology of events.

- ▶ ADB and WSD identified Open Flare for GHG reduction as CDM project in 2004
- ▶ ADB started negotiations to carry out feasibility study in 2005
- ▶ Negotiations(ADB/Fiji Government/started early 2008 and Heads of Agreement HOA was signed.
- ▶ First consultancy for registration(UNFCCC) of CDM project done Nov 2008 by TUSUV
- ▶ Asia Pacific Carbon Fund(APCF) CERPA signed in Dec 4 2009 for certified emission reduction (CER) 2010-2012

Cont...

- ▶ Validation of Project by TUSUV undertaken on March 2010 and successful registration of Kinoya GHG emission Reduction project to UNFCCC under **project code: 4552**
- ▶ **Current Status of Project 4552**
- ▶ HOA signed for 2013 to 2020 with “Future Carbon Fund” (FCF) and Fiji Government on Oct 2010
- ▶ Methane Gas Flaring started in February 2014.
- ▶ 65 % of total Gas produced is Methane.
- ▶ Daily monitoring and Data Analysis as per Project Design Document is carried WAF National Lab.

Thank you

Total Estimated Amount of CERs (Methane)

Gen

Year of Generation (1 Jan - 31)	CERs p.a.	CERs p.a. - SOPs adapt	Years	Annual Estimation of Emission Reductions (tonnes of CO ₂ e)
2014	21,487	21,057	May 2011 - April 2012	18791
2015	22,156	21,713	May 2012 - April 2013	19768
2016	22,645	22,192	May 2013 - April 2014	20799
2017	23,495	23,025	May 2014 - April 2015	21831
2018	24,164	23,681	May 2015 - April 2016	22319
2019	24,689	24,195	May 2016 - April 2017	22808
2020	25,196	24,692	May 2017 - April 2018	23839
7	163,833	160,555	May 2018 - April 2019	24327
			May 2019 - April 2020	24870
			May 2020 - April 2021	25359
			Total Estimated Emission Reductions	224710
			Total Number of Crediting Years	10
			Annual Average Over the Crediting Period of Estimated Emission Reductions	22471

CER Payment Details

Period of Generation (1 Jan - 31 Dec)	Scheduled Date of Delivery	Annual Volume PIA (in t CO2e)	Annual Volume POD (in t CO2e)	Cumulative Volume (in t CO2e)	Unit Price PIA in USD	Unit Price POD in USD	Annual Payment PIA	Annual Payment POD	Annual Cumulative Payment (PIA and POD)	Cumulative Payment
until 31 Dec										
2014	30 June 2015	3,750	17,307	21,057	8.20	8.50	30,750.00	147,109.50	177,859.50	177,859.50
2015	30 June 2016	3,750	17,963	42,770	8.20	8.50	30,750.00	152,685.50	183,435.50	361,295.00
2016	30 June 2017	3,750	18,442	64,962	8.20	8.50	30,750.00	156,757.00	187,507.00	548,802.00
2017	30 June 2018	3,750	19,275	87,987	8.20	8.50	30,750.00	163,837.50	194,587.50	743,389.50
2018	30 June 2019	3,750	19,931	111,668	8.20	8.50	30,750.00	169,413.50	200,163.50	943,553.00
2019	30 June 2020	3,750	20,445	135,863	8.20	8.50	30,750.00	173,782.50	204,532.50	1,148,085.50
2020	30 June 2021	3,750	20,942	160,555	8.20	8.50	30,750.00	178,007.00	208,757.00	1,356,842.50

Technical Assistance from ADB

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- ADB is willing to provide Technical Support for the first year in order for WAF to achieve the PIA and POD for the first year of issuance.

Technical expertise provided will be:

- Guidance for the first year an calculations of CERs generated as per ex- ante calculation methods.

- Proper data recording and archiving of the methane percentage captured and burnt.
- Guidance for the arraignments of the first verification of the project at the end of one year period for the issuance of the CERs.
- This will allow WAF staff to understand and learn the correct way of collecting data and submitting information to the UNFCCC board for issuance of CERs.