

INSTITUTO NACIONAL DE INVESTIGACIONES AGROPECUARIAS  
INSTITUTO DE INVESTIGACIÓN GEOLÓGICO Y ENERGÉTICO



## Towards a biodigesters sector

### Activity 4.2: Report on outreach workshops/conferences to share findings

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PROJECT: DESIGN AND SCALE-UP OF CLIMATE RESILIENT WASTE MANAGEMENT AND ENERGY CAPTURE TECHNOLOGIES IN SMALL AND MEDIUM LIVESTOCK FARMS - REFERENCE NUMBER: 2015000061



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In association with:



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## 1. Objective, methodology and limitations of this document

This document forms part of the project, DESIGN AND SCALE-UP OF CLIMATE RESILIENT WASTE MANAGEMENT AND ENERGY CAPTURE TECHNOLOGIES IN SMALL AND MEDIUM LIVESTOCK FARMS - REFERENCE NUMBER: 2015000061, funded by UNIDO, in the context of the Climate Technology Centre & Network (CTCN). The project is coordinated by the International Centre for Numerical Methods in Engineering (CIMNE), its local partners being the National Agricultural Research Institute (INIAP) and the Institute of Geological and Energy Research (IIGE, formerly INER), in collaboration with the Ministry of Environment and Ikiam Amazonian Regional University.

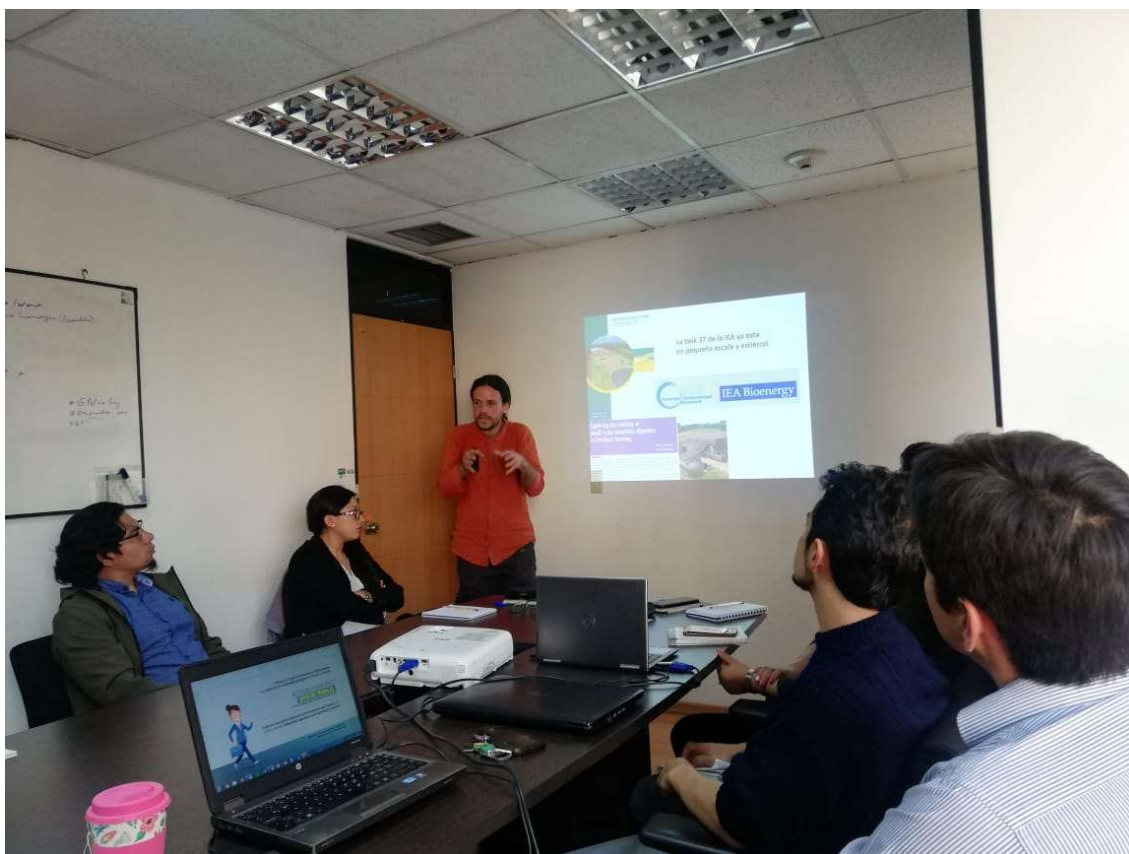
The **project objective** is to provide technical assistance for the development of tools to sustainably promote the biodigester sector in Ecuador, enabling the large-scale promotion and implementation of the technology to harness the potential of livestock-production biomass.

This document corresponds to deliverable 4.1, "Report from workshops/conferences to communicate findings, involving the leading figures in the sustainable development of biodigesters in Ecuador", under the project's Activity 4. The aim is to report on outreach events used to share the study findings.

## 2. Workshop conducted by Ministry of Environment and Ministry of Energy and Non-renewable Resources

On 29 October 2019, at the request of the National Climate-Change Mitigation Directorate of the Ministry of the Environment, a presentation was made of the preliminary findings of the study for a Development Plan for the National Biodigester Programme (PNB). Representatives of the publicly-owned company PetroAmazonas, staff of IIGE and academic staff from the National Polytechnic School also took part in this event.

This technical workshop was used to present the final findings, incorporating components, governance, budget, activities, CO<sub>2</sub> emissions avoided, rate of installation of biodigesters, etc.



Ministry officials attending the event found development of the PNB proposed, in its proposed form (governance, targets, activities, priority regions, budget, etc.), to be feasible. Possible sources of funding (GEF funds, bilateral cooperation, etc.) were indicated during the workshop and it was decided to await the final document in order to begin a fundraising round.

An error was found and corrected in the calculation of the estimated subsidy provided by the government for each LPG cylinder.

The attendance list is annexed (page 6).

### 3. Energy Sustainability R&D&I International Conference

On 19 November a plenary address was given at the Energy Sustainability R&D&I International Conference in Quito. This event is organized each year by IIGE, offering a space for all stakeholders (politicians, businesspeople, academics and the general public) to meet and discuss sustainability and energy.



This plenary presentation, therefore, meant a great opportunity to reach out to a broader audience with the findings of the plan for a national biogas programme.

Reception of the study findings was satisfactory, stressing the need to consider previous social experience in Ecuador around the democratization of biodigesters and the importance of the "technical assistance" component to support biodigester users.

In addition, several participants showed, as an added value, the assessment made of different technology providers, sharing information on those that had been validated in the study.

The agenda is annexed (page 9).


An attendance certificate is annexed (page 10).

Photos are annexed (Page 11).

The conference address is attached (sent by email).

### Annex 1: List of participants: Workshop conducted by Ministry of Environment and Ministry of Energy and Non-renewable Resources

Capacitación Bioenergía		Lugar:		Hora: 15h00 - 17h00		
Fecha (dd/mm/aa): 29 de octubre 2019		MERNER		Firma:		
N°	Nombres y Apellidos	Institución/Organización	Cargo	Sexo	Etnia	Información de contacto
1	Verónica Guayambro	PNUD - MAE	Especialista Energía	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro	M	Tel: 3987600 Ext: 1315 Mail: veronica.guayambro@ambiente.gob.ec
2	David Neira	Participaciones	Coordinador Ejecución Ejecución Ejecución	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Tel: 0996022193 Mail: davidn@participaciones.gov.ec
3	Luis Angel Hueliza	Participaciones	Coordinador Ejecución Ejecución	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Tel: 099853605 Mail: angel.hueliza@participaciones.gov.ec
4	Fernanda Valbuena	MERNER	Especialista	<input type="checkbox"/> Hombre <input checked="" type="checkbox"/> Mujer <input type="checkbox"/> Otro	M	Tel: 0994256528 Mail: fernanda.valbuena@merner.gov.ec
5	Alex Patricio Posso	MERNER	ESPECIALISTA	<input type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Tel: 0987659418 Mail: alex.patricio@recursosyenergia.gov.ec
6	Julio Fuel	MERNER	Especialista	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Tel: 0995272816 Mail: julio.fuel@recursosyenergia.gov.ec
7	Rodrigo Salgado	MERNER	PROFESIONA Z DAPE	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Tel: 3976000 x 2608 Mail: rodrigo.salgado@recursosyenergia.gov.ec
8	Daysi Loachamín	MERNER	Especialista	<input type="checkbox"/> Hombre <input checked="" type="checkbox"/> Mujer <input type="checkbox"/> Otro		Tel: 3976000 x 2219 Mail: daysi.loachamin@recursosyenergia.gov.ec
9	Daniel Villanar	EPN	Ejecutivo Investigador	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro	M	Tel: 0995655005 Mail: danielvillanar@gmail.com
10	Rafael Soria	EPN	Investigador	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Tel: 0987157499 Mail: rafael.soria@energia.gov.ec

		Capacitación Bioenergía				MINISTERIO DEL AMBIENTE	
Fecha (dd/mm/aa):		Lugar:		Hora:			
29 de octubre 2019		MERNNEER		15h00 - 17h00			
N°	Nombres y Apellidos	Institución/Organización	Cargo	Sexo	Etnia	Información de contacto	Firma
1	Andruegas	MERNNE-STA	Analista	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro	M.	Telf: 0984068434 Mail: andruegas@serc.org.ec	<i>[Signature]</i>
2	Paola Caji	IIGE	Analista	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro	M	Telf: 0984068434 Mail: paola.caji@gesenergia.gob.ec	<i>[Signature]</i>
3	JIMENE MARTI	IKIAM	PROFESOR	<input checked="" type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Telf: <i>[Handwritten]</i> Mail: jimene-martia@ikiam.edu.ec	<i>[Signature]</i>
4				<input type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Telf: <i>[Blank]</i> Mail: <i>[Blank]</i>	
5				<input type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Telf: <i>[Blank]</i> Mail: <i>[Blank]</i>	
6				<input type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Telf: <i>[Blank]</i> Mail: <i>[Blank]</i>	
7				<input type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Telf: <i>[Blank]</i> Mail: <i>[Blank]</i>	
8				<input type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Telf: <i>[Blank]</i> Mail: <i>[Blank]</i>	
9				<input type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Telf: <i>[Blank]</i> Mail: <i>[Blank]</i>	
10				<input type="checkbox"/> Hombre <input type="checkbox"/> Mujer <input type="checkbox"/> Otro		Telf: <i>[Blank]</i> Mail: <i>[Blank]</i>	

## Annex 2: Presentation at the Energy Sustainability R&D&I International Conference



# CONFIRMADO



**Jaime Martí Herrero**  
(España)

**Profesor Asociado Universidad Regional Amazónica Ikiám. Ecuador**  
**Profesor Asociado de Investigación Centro Internacional de Métodos Numéricos en Ingeniería (CIMNE). España**

**ORADOR PRINCIPAL** en el IV Congreso Internacional I+D+i en Sostenibilidad Energética.

*Doctorado en Ciencias Físicas y Master en Investigación-Diploma de Estudios Avanzados por la UNED de España. Desde hace cinco años colabora en proyectos de centros de I + D extranjeros (Bolivia y Ecuador). Ha participado en 30 proyectos de I + D e investigador principal de 13 proyectos de I + D. Docente en talleres con agricultores, seminarios con profesionales y cursos de maestría en 8 países diferentes. Cuenta con publicaciones en revistas JCR, 2 artículos populares, 7 libros y 5 capítulos y participación en 32 congresos internacionales con presentación oral.*

[congresoidi.geoenergia.gob.ec](http://congresoidi.geoenergia.gob.ec)

18 -19 - 20 Noviembre 2019 / Quito - Ecuador



INSTITUTO DE INVESTIGACIÓN  
GEOLÓGICO Y ENERGÉTICO



## Annex 3: Energy Sustainability R&D&I International Conference Agenda



### Agenda

#### Martes

19 de noviembre

HORA	CONFERENCIAS PLENARIAS	PONENTES
7:30-8:00	Registro de participantes y Consultas	
8:00-8:05	Bienvenida	MSc. Martín Cordovez <i>Director Ejecutivo IIGE</i>
8:05-8:45	Contribución de las microalgas a la mejora de la sostenibilidad de diferentes procesos industriales	Ing. Gabriel Acien <i>(Universidad Almería España)</i>
8:45-9:30	El potencial de la geotermia en la industria	MSc. Mauricio Muñoz <i>(CEGA Chile)</i>
9:30-10:00	Programa nacional de biodigestores para el Ecuador	PhD. Jaime Martí <i>(CIMNE España)</i>
10:00-10:20	Receso	
10:20-10:50	Innovaciones necesarias para asegurar un futuro impulsado por energías renovables	MSc. Gabriel Castellanos <i>(IRENA)</i>
10:50-11:05	The World Energy Issues Monitor	Andrea Arrobo <i>(WEC)</i>
11:05-11:35	Edificios Verdes y la Eficiencia Energética	Ing. Victor Moraga <i>(Chile ABB)</i>
11:35-12:05	Uso racional y eficiente de energía en comunidades de bajos recursos	MSc. Fabrizio Pellicelli <i>(AVSI Brasil)</i>
12:05-12:40	Mujer y Energía	Ing. Leticia Ortega <i>(OLADE)</i>
12:40-13:30	Almuerzo	
13:30-14:00	Movilidad Eléctrica e integración de energías renovables variables	MSc. Gabriel Castellanos <i>(IRENA)</i>
14:00-14:30	Electromovilidad, de la teoría a la práctica	PhD. Álvaro Guzmán <i>(Director Ejecutivo ANT)</i>
14:30-15:10	Electricity grids transformation to enable deep decarbonization by 2050	PhD. Innocent Kamwa, Instituto de investigación Hydro-Québec, <i>(IEEE)</i>
14:50-15:20	Las energías Renovables en Ecuador	Ing. Marco Valencia <i>Subsecretario de Generación y Transmisión de Energía Eléctrica (MERNNR)</i>
15:20-15:50	Aportes de las energías renovables y el cambio climático	Mgs. Jorge Ortíz <i>Subdirector de Planificación Técnica (CELEC)</i>
15:50-16:20	Receso	
16:20-17:20	Sala temática ODS 9 (Industria, innovación e infraestructura)	Ponencias Papers
16:20-17:20	Sala temática ODS 12 (Producción y consumo responsables)	Ponencias Papers

continúa...



## Annex 4: Energy Sustainability R&D&I International Conference Certificate of Participation



## Annex 5: Energy Sustainability R&D&I International Conference Photographic Record



