

Evidences

Study #3947

Contributing Projects:

- P436 - RUL Flagship Funds

Part I: Public communications

Type: OICR: Outcome Impact Case Report

Status: On-going

Year: 2020

Title: WLE/IWMI business models research at the sanitation-agriculture interface used in pan-Indian training program which will target over 5,000 officials in the next two years

Short outcome/impact statement:

WLE/IWMI's analysis of 15 business models for fecal sludge management, including its treatment for energy or nutrient recovery in agriculture, was used by the Indian Water, Sanitation and Hygiene (WASH) Institute to develop capacity building modules. In 2021 and 2022, in collaboration with sector ministries across India, these will be used to train 2,860 government officials, 500 NGO professionals, 60 entrepreneurs, 1,200 sanitation workers, 320 treatment plant operators, and 240 graduates and postgraduates working in the WASH sector.

Outcome story for communications use:

Research on business models for fecal sludge management turns into a training agenda across India. In India, more and more people have access to toilets. But the widespread poor management and disposal of fecal sludge from millions of new pits and septic tanks is a fast-accumulating risk for public health and the environment. That risk is the impetus behind a national series of training sessions, which will introduce sustainable models of managing fecal sludge from its collection to its safe reuse as a resource.

The training modules are based on a pair of publications from the CGIAR Research Program on Water, Land and Ecosystems (WLE) in support of the International Water Management Institute (IWMI) on fecal sludge management and the potential for resource recovery and reuse. WLE/IWMI researched business models for fecal sludge management all over the country and outlined 15 feasible models. This work has become the basis for the fecal sludge and septic management courses organized by the Indian Water, Sanitation and Hygiene (WASH) Institute, an uptake partner of WLE/IWMI. The courses will reach out to both the public and private sectors country-wide. Trainees will include thousands of government officials, professionals at non-governmental organizations, sanitation workers, treatment plant operators, and graduate and postgraduate students, who will learn about the safe emptying of on-site sanitation systems and what to do with the sludge.

Learning about the business models documented by WLE/IWMI, participants will also discover how the right treatment can turn waste into a valuable source to re-use, for example in agriculture. The training aims at making water resources safer by helping avoid illegal dumping and unsafe use of sludge, and at protecting the poorest and most vulnerable in Indian society.

The training, which is part the WASH Institute's capacity building program for 2021 and 2022, will be carried out in collaboration with key national partners including the Ministry of Housing and Urban Affairs and National Mission for Clean Ganga, as well as numerous state ministries, and international donors the United States Agency for International Development and the Bill & Melinda Gates Foundation.

Links to any communications materials relating to this outcome: <Not Defined>

Part II: CGIAR system level reporting

Link to Common Results Reporting Indicator of Policies : No

Stage of maturity of change reported: Stage 1

Links to the Strategic Results Framework:

Sub-IDs:

- Increased capacity for innovation in partner development organizations and in poor and vulnerable communities

Is this OICR linked to some SRF 2022/2030 target?: Too early to say

Description of activity / study: <Not Defined>

Geographic scope:

- National

Country(ies):

- India

Comments: <Not Defined>

Key Contributors:

Contributing CRPs/Platforms:

- WLE - Water, Land and Ecosystems

Contributing Flagships:

- F3: Sustaining Rural-Urban Linkages (RUL)

Contributing Regional programs: <Not Defined>

Contributing external partners:

- WASH Institute - Water, Sanitation and Hygiene Institute

CGIAR innovation(s) or findings that have resulted in this outcome or impact:

The innovation is the analysis and presentation of 15 business models for fecal sludge management, including its treatment for energy or nutrient recovery in agriculture (1).

Innovations: <Not Defined>

Elaboration of Outcome/Impact Statement:

The Indian Water, Sanitation and Hygiene (WASH) Institute transformed WLE/IWMI publications on fecal sludge management and resource recovery and reuse (1, 2, 3) into training modules (4). The WASH Institute is an important uptake partner with WLE/IWMI in its search of empirical and analytical data as provided in the WLE Resource Recovery and Reuse series reports.

This strategic uptake partnership was formalized through a Letter of Agreement between WLE/IWMI and the WASH Institute, which included financial support for module development (5).

The training will be carried out in collaboration with the sector ministries and third party donors (the United States Agency for International Development and the Bill & Melinda Gates Foundation). The key partners are the Ministry of Housing and Urban Affairs and National Mission for Clean Ganga at the national level, as well as numerous state ministries.

The training materials will be part of the WASH Institute's 2021/2022 capacity building program (6) across India, and will be used to train, virtually and face-to-face, female and male government officials (target of 2,860), NGO professionals (500), entrepreneurs (60), sanitation workers (1,200), treatment plant operators (320), and graduates and postgraduates working in the WASH sector (240).

References cited:

Evidence: journal articles, reports, emails, media coverage etc.:

1. Rao, K. C.; Velidandla, S.; Scott, C. L.; Drechsel, P. 2020. Business models for fecal sludge management in India. Colombo, Sri Lanka: International Water Management Institute and CGIAR Research Program on Water, Land and Ecosystems. 199p. (Resource Recovery & Reuse Series 18). <https://doi.org/10.5337/2020.209>
 2. Rao, K. C.; Kvarnstrom, E.; Di Mario, L.; Drechsel, P. 2016. Business models for fecal sludge management. Colombo, Sri Lanka: International Water Management Institute and CGIAR Research Program on Water, Land and Ecosystems. 80p. (Resource Recovery & Reuse Series 6). <https://doi.org/10.5337/2016.213>
 3. Burt, Z. Prasad, C. S. S.; Drechsel, P.; Ray, I. 2021. The cultural economy of human waste reuse: Perspectives from peri-urban Karnataka, India. Journal of Water, Sanitation and Hygiene for Development (<https://doi.org/10.2166/washdev.2021.196>).
 4. Announcement of online training on business models for fecal sludge and septage management: <https://www.washacademy.org/orientation-training>
 5. Letter of Agreement between the WASH Institute and IWMI
https://cgiar.sharepoint.com/:b/s/WLE/EYYBEQEaBuxLo1qQ7Umbu1EBCoFZz_8myDYqwMhYB-LTZA?e=EEL50b
 6. Draft document on first estimate of number of anticipated 2021 trainees provided by the WASH Institute
https://cgiar.sharepoint.com/:w/s/WLE/EXq15It85AdNiNzEQ_ooNK0BxuYYSTdaHtTo2M50MbQtDA?e=gKDEYo
- Promotional products: blogs, outreach materials (cannot be used as evidence but useful for promotion):
- Koziell, I. 2020. How to defuse the human waste time bomb in low-income countries. Al Jazeera. <https://www.aljazeera.com/opinions/2020/12/1/how-to-defuse-the-human-waste-time-bomb-in-low-income-countries/>
 - Farah Cox, P. 2021. Who will empty India's 100 million new toilets? Thrive. <https://wle.cgiar.org/thrive/2021/01/21/who-will-empty-india%E2%80%99s-100-million-new-toilets>

Quantification: <Not Defined>

Gender, Youth, Capacity Development and Climate Change:

Gender relevance: 0 - Not Targeted

Youth relevance: 0 - Not Targeted

CapDev relevance: 2 - Principal

Main achievements with specific **CapDev** relevance: The reports have been used to design a capacity development program (4).

Climate Change relevance: N/A - Not applicable

Other cross-cutting dimensions: <Not Defined>

Other cross-cutting dimensions description: The acceptance by farm owners and farm workers of fecal sludge-based fertilizer in Karnataka, India, was analyzed with special attention to caste hierarchies and caste-related social expectations (3).

The training will support environmental and public health protection against illegal fecal sludge dumping (2).

Outcome Impact Case Report link: [Study #3947](#)

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