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STIMULATING LOCAL INNOVATION ON SANITATION FOR THE URBAN POOR

IN SUB-SAHARAN AFRICA AND SOUTH EAST ASIA

BILL & MELINDA GATES foundation



POST-GRADUATE RESEARCH AND EDUCATION PROJECT



UNESCO-IHE Institute for Water Education and partners were awarded a US\$8 million grant from the Bill & Melinda Gates Foundation. The grant will be used to excel postgraduate sanitation education and research with a focus on solutions for the urban poor in sub-Saharan Africa and South-East Asia. This 5-year capacity building and research project was developed by Prof. Damir Brdjanovic, Professor of Sanitary Engineering at UNESCO-IHE and his team.

STIMULATING LOCAL INNOVATION ON SANITATION FOR THE URBAN POOR IN SUB-SAHARAN AFRICA AND SOUTH EAST ASIA



The Bill & Melinda Gates Foundation announced this grant at the AfricaSan conference in Rwanda as part of more than \$40 million in new investments launching its Water, Sanitation, & Hygiene strategy. "UNESCO-IHE and our partners: the Asian Institute of Technology (AIT) in Thailand, the Institut Teknologi Bandung (ITB) in Indonesia, the International Institute of Water and Environmental Engineering (2iE) in Burkina Faso, the Kwame Nkrumah University of Science and Technology (KNUST) in Ghana, Makerere University Institute of Environmental, the Natural Resources (MUIENR) in Uganda, the University of Cape Town (UCT) in South Africa, the Federal University of Minas Gerais (UFMG) in Brazil and the Universidad del Valle in Colombia, have been working hand in hand with the Gates Foundation in developing the project ideas and shaping it in a way to address the needs of the 2.6 billion people worldwide who do not have access to improved sanitation," Prof. András Szöllösi-Nagy, Rector at UNESCO-IHE explained. "I would also like to commend the Gates Foundation for recognizing these needs and for supporting innovative approaches that lead to sustainable local solutions through the foundation's Water, Sanitation & Hygiene strategy and Global Development Programme," the Rector continued.

"This is probably the largest research and postgraduate education project targeting sanitation for the urban poor ever conducted," Prof. Damir Brdjanovic, Project Director, elaborated. "Through education and research activities this exciting project will increase the number of adequately trained sanitation professionals in developing countries. Also, it will provide research possibilities, education and training for the new generation of "all-round" sanitary engineers, make postgraduate education in sanitary engineering more accessible to individuals from developing countries and further strengthen the pro-poor sanitation component at the academic institutions involved.

Among other outputs, the project will deliver 5 post-doctoral fellows, 20 PhD researchers, 60 Master degree laureates, and in excess to 500 trained professionals from developing countries, an estimated stunning total of 130 man-years of research. "To address the needs of people who don't have access to safe sanitation, we not only must reinvent the toilet, we also must find safe, affordable and sustainable ways to capture, treat, and recycle human waste," said Sylvia Mathews Burwell, president of the Global Development Programme at the Bill & Melinda Gates Foundation. "Most importantly, we must work closely with local communities to develop lasting sanitation solutions that will improve their lives."

Research within the project is clustered around five major themes: smart sanitation provision for slums and informal settlements; emergency sanitation following natural and anthropological disasters; resource recovery oriented decentralized sanitation; low cost wastewater collection and treatment; and fecal sludge management.

The total project budget is US\$11.1 million. Rather than classical input-funding, the project is partially based on output-based funding. Such innovative financial engineering provides incentives to excel and outperform the project expectations. The project will run until 2016 and will be jointly executed by UNESCO-IHE (principal grantee) and its eight partners from developing countries in sub-Saharan Africa, South East Asia and South America.

OUTPUTS

The expected outputs of the project are:

- 5 competent post doctoral fellows,
- 20 competent researchers and 20 PhD degrees,
- 20 PhD theses,
- up to 60 educated professionals,
- up to 60 MSc degrees, up to 60 MSc theses,
- at least 80 publications,
- up to 8 experimental lab and/or pilotscale setups in place,
- up to 8 upgrades of partners' organization laboratories,
- up to 4 prospective patents,
- the establishment of 'The Best Pro Poor Sanitation MSc Thesis Award',
- development of 2 new online courses,
- 3 new book titles published,
- the establishment of the new online Postgraduate Professional Diploma training in sanitary engineering,
- 15 trained professionals and 15 Postgraduate Professional Diplomas,
- the launch of the novel online Master Specialization in Sanitation and Sanitary Engineering,
- 20 educated professionals via the online mode and 20 online MSc degrees, 20 online MSc theses,
- 500 sanitation professionals trained through individual online courses.

OUTCOMES

Outcomes of the project can be summarized as:

- the research capacity and facilities of the partner institutions will be enhanced;
- an international academic network on pro poor sanitation will be established;
- practical applications of innovation in sanitation for the urban poor will be put in place;
- a proposal for the business spin offs will be developed;
- human resource capacity will be increased in the sanitation sector; and
- there will be increased access of professionals from developing countries to education and training.



PROJECT FRAMEWORK

