

NEW PROJECTS

<p>ROLES</p> <p>Remediation of Old Landfills for Environmental sustainability and final Sink</p>	Name	ROLES - Remediation of Old Landfills for Environmental sustainability and final Sink
	Partners	University of Padova, Italy; Tsinghua University, China
	Funding scheme	Project of "Particular Relevance", funded by the Italian Ministry of Foreign Affairs, in the framework of the Scientific and Technological Cooperation Agreement between the Government of the Republic of Italy and the Government of the People's Republic of China
	Project duration	Three years (2016 – 2018)
	Principal Investigators	Prof. Raffaello Cossu, Dr. Roberto Raga for the University of Padova; Prof. Dongbei Yue for Tsinghua University
	Website	www.rolesproject.com

ROLES - Remediation of Old Landfills for Environmental sustainability and final Sink

ROLES project aims at investigating sustainable solutions for enhanced landfill aftercare. A concept is developed involving:

- Landfill in situ aeration for waste biological stabilization, with simultaneous leachate extraction from aeration wells;
- Low cost solutions for leachate management, with the installation of phytotreatment parks on top of the land-

fill and with the use of selected energy crops; Lab scale tests are in progress for the optimization of landfill in situ aeration and of the low cost solutions for leachate treatment (Figure 1). A pilot scale in situ aeration project is ongoing in China (Figure 2a).

- Landscaping, architectural and functional requalification of the landfill (Figure 2b).

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FIGURE 1: Lab scale tests for the optimization of landfill in situ aeration and of low cost solutions for leachate treatment.

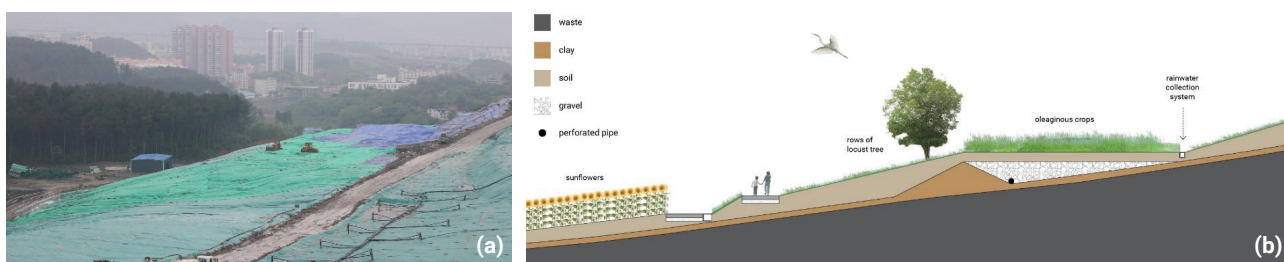


FIGURE 2: (a) Pilot scale in situ aeration in China; (b) Landscaping, architectural and functional requalification of the landfill (design by Arcoplan, Italy).