

Mitigation of Urban Solid Waste in Lubango (Angola): Looking for the impact and sustainability of an international collaborative project

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Despite positive changes in Angola environmental policies, urban solid waste (USW) is still a major problem in the country. This scenario sustains a project (2022-2024) coordinated by the Institute of Education Sciences of Huíla (ISCED-Huíla) who has been collaborating with CIDTFF/UAveiro over 10 years, mainly in postgraduate activities.

The project, financed by the Ministry of Higher Education, Science, Technology & Innovation of Angola (40000 USD), has as its main goal the design of educational activities, in cooperation with schools and surrounding communities, concerning USW (e.g., school cleaning campaigns, waste separation, development of pedagogical gardens and compost bins). These activities are being monitored in order to evaluate their impact, and to understand how project sustainability can be enhanced. The main audience are six schools and management bodies, teachers (around 300), pupils (around 3000, from 1st to 9th year of schooling) and local communities.

Data gathered by different instruments along the project (e.g., written and photographic records, questionnaires, interviews – Figure 1) show changes at the schools' yards (e.g., construction of a place for composting, development of pedagogical gardens), and in pupils' behavior – Figure 2.

Questionnaires answered by the research team (15 members, 3 from CIDTFF and 13 from Angolan institutions) and diary notes of the CIDTFF team have shown a very positive attitude towards the project work, as a whole, and, also, the need to develop investigative competences. Notice that almost all Angolan partners answered that they had not participated in an educational research project before.

Three lines of action have been identified to enhance the projects' sustainability: involve further school actors in monitoring activities (e.g., make them responsible for this kind of activities); empower team members (e.g., on academic writing); and improve researchers' autonomy towards new activities about USW, and between them and schools and local communities (e.g., organize regular meetings to discuss how to maintain the actions implemented in the project).

More information at: <https://lubcidsust.isced-huila.ed.ao/sobre>; <https://www.facebook.com/LubCidSustRs> and <https://www.ua.pt/file/79962>.




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FIGURE 1
Monitorization activities in a school to understand and improve the composting process.

FIGURE 2
What is changing? Describing the project's impact.



	 SCHOOL YARD	 PEDAGOGICAL GARDEN	 COMPOSTING SITE
THEN...	4 schools show USW, which were burned inside school. Public defecation inside some school yards.	0 schools with pedagogical garden. In 5 schools employees use land inside school to cultivate for own consumption.	0 schools had a composting site.
...NOW	In these 4 schools less UWS is observed. Sensibilization need to be continued.	All 6 schools identified a place to initiate a pedagogical garden (near to the other garden for individual use) and 2 of them schools have already started to cultivate the pedagogical garden.	All 6 schools have a composting site. Educational session to collect and separate organize waste are being organized involving the surrounding community.