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International Partnerships for Sustainable
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German Project Partners:



Vietnamese Partners:



Initiated within the activity framework
of



SAFEUSE

Options of action,
appropriate
approaches and methods
for the safeguarding and
future use of landfills in
Vietnam on the example
of the landfill
Gò Cát in Ho Chi Minh City



Background and Motivation

The rapid growth of the economy and of urban areas in Vietnam entails not only that local landfill sites are growing fast but many of them get gradually surrounded by densely populated dwellings and occupy precious land space. This also applies to the Gò Cát landfill in the west of the Ho Chi Minh City centre which, due to its leachate collection and landfill gas capture system, was classified as being of a progressive design during its operating phase. For this site, which has ceased its active service in the meantime, it is important to **preserve the function as role model** and to **ensure a good risk prevention and intelligent future use**. To achieve this, new approaches and proceedings of planning and safeguarding are required, as they do not exist in the region up to now and must involve different groups of stakeholders including the research sector.

Objectives of the Project

The project will be implemented as a **joint research of German companies with the collaboration of several Vietnamese partner institutions**.

The overall objective is to **improve sustainably the management of landfill sites in Vietnam**. Based on the accepted state-of-the-art and knowledge on landfill characteristics, structural safeguarding capacities and future utilization options, and with focus on international best practice and adapted implementation, **options of action** shall be identified and conceptual **assistance and measures** developed for the further management and use of the Gò Cát landfill. The results should have exemplary meaning and be **applicable to other sites in the region**, too.

Innovation Potential

The project goals require a more extensive approach compared to the local common practice, one which treats the diverse aspects that must be considered in the decision making process until realization of a final landfill utilisation concept (e.g. hazard potentials, remediation needs, possibilities of landfill removal and utilisation options) with highest professional care and expertise and is integrating them into an overall management concept.

Until to date a lack of adequate experience, specialized knowledge and technical qualifications must be noted for this in Vietnam, amongst others due to an insufficient networking between research, urban planning and waste management practice. In most cases the ambitions for a progressive, environmentally and socially compatible landfill management have phased out with the end of the landfills active operating phase.

The project is meant to initiate a change by creating new orientations and baselines for local stakeholders in the above fields, and in that it provides practical means for adopting an improved approach to handle landfill problems in the future and take decisions for site developments efficiently and in a more reasoned way.

Contribution to Sustainability and Environment Protection

The innovative concept for structural safeguarding and future management of the Gò Cát landfill site is focussed on **environment hazards prevention** and the achievement of an **intelligent and sustainable land use**. The options of actions that will be investigated for that purpose should especially be adapted to the following issues:

- Optimisation of the re-cultivation layer;
- Efficient treatment of the accruing leachate;
- Significant reduction of the potential to form and cause emissions of greenhouse gases;
- A possible utilisation of the safeguarded site for renewable energy generation or as a carbon sink;
- The potentials for a possible recovery of secondary materials during a transfer or processing of deposited waste.

Utilization and Relevance

Both, the German as well as the Vietnamese side will participate in the project results and benefit from them. The project:

- is intended to be a **research and pilot project** that hence can sustainably be utilized, scientifically and demonstratively;
- provides an **exemplary concept for the management of old landfills** in Vietnam, which is also applicable in other countries and addressing a vast demand and range of users;
- includes **measures of further training**, knowledge and research transfer and for the **integration of local stakeholders** and
- intensifies and broadens the involved parties regional scope of activity and their **chances for extended co-operations and new projects**.