United Nations Environment Programme

UNEP Ogoniland fact sheet

Recommended new institutions in Nigeria

The *Environmental Assessment of Ogoniland,* conducted by the United Nations Environment Programme (UNEP), recommends the creation of three institutions in Nigeria to plan, oversee and implement the clean-up of widespread oil contamination in Ogoniland, a kingdom in Rivers State.

According to the report, released in August 2011, these new institutions would be funded through a proposed Environmental Restoration Fund for Ogoniland, to be established with initial funding for the first five years of US$1 billion contributed by the Government of Nigeria and the oil industry.

Ogoniland Environmental Restoration Authority

The sustainable environmental restoration of Ogoniland will take 25 to 30 years to achieve and will require coordinated efforts by all tiers of government in Nigeria. The report therefore recommends that the Federal Government establishes an Ogoniland Environmental Restoration Authority to provide central coordination.

This institution would have the mandate to oversee implementation of the clean-up of Ogoniland and would also manage the Environmental Restoration Fund.

Integrated Contaminated Soil Management Centre

The report recommends establishing a centre in Ogoniland for treating soil contaminated with hydrocarbons and other oil-related pollutants.

If established, the Integrated Contaminated Soil Management Centre (ICSMC) will be a modern industrial enterprise occupying many hectares of land and employing hundreds of people.

It would contain an incinerator, thermal desorption unit, soil washing unit, water treatment unit, waste oil treatment facility and containment cells, as outlined overleaf.

On-site 'mini treatment centres' for bioremediation and excavation water would act as staging areas feeding the main soil treatment centre. The mini centres will be based on a generic design but scaled according to the nature of the pollution at each site.

Proposed elements of the Integrated Contaminated Soil Management Centre

- **Incinerator.** Using contaminated soil and vegetation as feedstock, this will burn off hydrocarbons from contaminated soil which has a high bitumen content. Organic matter (e.g. contaminated shrubs and bushes) will be reduced to ash during this process.
- **Thermal desorption unit.** Thermal desorption can achieve rapid reduction of hydrocarbons, possibly recover some of the oil and make the treated soil re-usable for backfilling.
- **Soil washing unit.** This will be most appropriate for treating contaminated soil with lower fractions of clay particles polluted with light-end hydrocarbons. The cleaned soil may also be used for backfilling excavation trenches.
- **Contaminated water treatment unit.** Soil washing will result in large quantities of water being contaminated with hydrocarbons necessitating the recovery of these hydrocarbons and cleaning of the water prior to its discharge into the environment.
- **Waste oil treatment centre.** The thermal desorption unit will recover some hydrocarbons but the unit will often be contaminated with other organic and inorganic substances. There will also be waste oil recovered from the contaminated water treatment. The output from these two units will need to be treated in a waste-oil treatment unit in order to recover hydrocarbons, which may be used as fuel in the thermal desorption unit or sold for co-mingling or re-refining with crude oil.
- **Containment cells.** There will be contaminated materials collected in the field as well as produced during the process (e.g. incinerated ash) which will need to be disposed of in containment cells.

In the future, the Integrated Contaminated Soil Management Centre would also be able to cater for future spills across the Niger Delta. A suitable location will need to be identified, with construction subject to the results of an environmental and social impact assessment.

Centre of Excellence for Environmental Restoration in Ogoniland

The soil management centre and associated mini centres will require a substantial number of well trained staff and contractors. Further employment opportunities will be available for workers needed to conduct environmental restoration activity in the creeks, and these people also may require specialized training.

A recommended Centre of Excellence in Environmental Restoration in Ogoniland would provide training for the community in aspects of environmental restoration and contract management. It could potentially become a model for environmental restoration, attracting international attention.

More information

The *Environmental Assessment of Ogoniland* report is available at: **www.unep.org/nigeria**

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