

Introduction & summary

The Sai Gon, Dong Nai and Nha Be river systems and delta of south Vietnam are highly productive areas with intensive agriculture and aquaculture, but also with intensive shipping and waterway traffic.

On October 3, 1994 the tanker Neptune Aires (SPE) collided with the Sai Gon Petro terminal pier at Cat Lai, Dong Nai river, spilling approx. 1600 tonnes of oil (DO). The spill is reported to have spread 60 km along the river and with the tide entered river branches, streams and irrigation ditches, polluting an estimated area of 300 km² of land and water.

Local efforts of mechanical oil spill response failed completely, apart from the 200 tons manually recovered by farmers and fishermen.

Damage assessment reports of varying standards have been concluded by local authorities and institutions. Initial survey reports state that large amount of oil has ended up in rice paddies and fish farms.

The environmental authorities and of course the farmers and fishermen whose livelihood is directly affected by the Cat Lai oil spill have speculated on the magnitude of medium- and long term effects of the spill. As there is very little reference data available, this will remain speculation if not base-line data and a consistent monitoring programme are established.

Fully appreciating the gravity of the oil spill accident, the Environmental committee of Ho Chi Minh city (EC/HCMC), in consultation with the ministry of Science, Technology and Environment (MoSTE), in Hanoi, urgently sought foreign assistance in obtaining guidance for possible clean up measures, and advice on future preparedness for similar incidents.

Trimar AB and the Trimar sterling Group is well known to the authorities in Vietnam, already having provided impact assessment expertise to the EC/HCMC - for the legal claims procedure resulting from the cat Lai oil spill - as well as for working with MoSTE on the National marine Pollution control Programme. Trimar AB was requested to assist in the Cat Lai clean up Project.

The scope of the cat Lai Clean Up Project was accordingly defined as to comment on the existing reports and data, give advice on possible clean up methods, and give advice on future preparedness for oil spills at the Cat Lai oil terminal.

The findings of the field mission can be summarised as follows.

Regarding possible clean up methods, the conditions were found favourable for enhanced bioremediation through application of nitrogen. A test area shall be "treated", by said technique as proposed in this report. The test may well be found of special interest as the "treatment", shall be executed within the normal farming practices.

Regarding future preparedness, general comments are made on two important preventive measures, namely port safety and vessel traffic safety. As regards oil spill containment and recovery systems, the hydrodynamic conditions of the river were found to be very severe. However, the project team has studied various approaches of implementing a newly developed low cost recovery system which is believed to be the best, if not the only, practical approach to oil spill response and recovery at the Cat Lai terminal and for the river systems of similar hydrodynamic conditions.