

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The report provides the key concepts and a detailed framework for the economic analysis of two risk management scenarios proposed for the AHSL site in Puchong, Selangor, Malaysia. The absence of site-specific designs and cost estimates for the two scenarios meant that costs were estimated generally using quantities and prices from elsewhere. The absence of a scientific relationship linking reduced POPs chemical exposure to reduced human health impact meant that no benefit stream could be estimated from first principles for subsequent comparison with the cost stream.

Therefore, the analysis asked two key questions: a) how much human health impact, expressed in DALYs is required to cover the costs of the two scenarios?; and, b) expressed as a percentage of the total DALY rate for the site, is it reasonable from an epidemiological point of view to expect that these cost-covering DALY levels can be achieved? With the above-cited qualifiers in mind, the analysis resulted in the following tentative conclusions:

- *Scenario 1:* While there are no human health benefits directly related to a risk assessment, there are **significant benefits** to be realized from containment and monitoring, should it prove necessary; hence, an investment in the assessment alone is worthwhile; and
- *Scenario 2:* It is likely that human health impact **alone** is *sufficient* to justify the investment cost of Scenario 2. Other economic, environmental and social benefits will only serve to further justify the investment in assessment, containment and monitoring at the AHSL site.

The quantitative analysis suggests that investing in POPs risk management measures is an effective allocation of public resources, particularly assessment, containment and monitoring. Breaking the contamination pathway is key, and this can be done in a cost-effective manner at the AHSL site. Decision makers must also consider the fact that health improvement policy can be pursued regardless of the outcome of the economic assessment. This is often the case in developed countries where uncertainty in the determination of costs and benefits cannot be used as an argument for inaction. Furthermore, there are moral and ethical reasons to insist on investments that improve human health on the grounds that it is in the public interest and, as a result, outside of any economic consideration.

Finally, should the decision be made to proceed with risk management policies at the local and national level, attention and studies should focus on ensuring that the proposed measures are designed and implemented in a sound and cost-effective manner.