Contact
Sustainable Hydropower Website
C/- Hydro Tasmania
4 Elizabeth St
Hobart TAS 7000
AUSTRALIA

sustainable.hydropower@hydro.com.au

Public health

Hydropower projects can provide significant new public health benefits to previously impoverished areas, but at the same time it is essential that they adequately assess, plan for and mitigate against any potential negative human health impacts.

Issue

Construction of hydropower schemes, especially in tropical and sub-tropical regions, can in cases have adverse health impacts on people in the immediate catchment area and downstream of the construction site. It is essential that public health risks are adequately assessed and addressed, while at the same time opportunities to improve public health benefits are considered.

Some vector borne diseases can be associated with reservoir development , for example malaria and schistosomiasis, and schemes constructed in malaria prone areas have the potential to increase transmission of this disease. People subject to resettlement can be more at risk from health problems where stresses are created by the new project development; i.e. a poorly managed project could result in lack of jobs or income, poor sanitation, or contaminated water supplies. Loss or contamination of traditional food sources and access to traditional fisheries would exacubate project-induced health issues. Anaerobic decay processes in large reservoirs has in some cases increased levels of contaminants such as mercury in fish through bio-accumulation.

An itinerant construction workforce may add to health problems in construction camps and resettlement areas, if it results in the spread of HIV, Aids or other diseases such as malaria. TB and measles may compound these issues.

Management

Well planned and executed hydropower projects can provide significant new public health benefits to previously poorly developed areas. This objective can best be achieved by not just maintaining local health conditions pre-dam, but by improving public health conditions and facilities for communities impacted by developments overall. The upgrading of electricity services to a region, and associated economic development including infrastructure, transport and other services, can provide a major opportunity to improve existing regional public health care facilities.

It is sound management practice to incorporate health impact assessment as part of the wider environmental and social impact assessment process for a hydropower scheme. Assessment of the requirements for provision of any health services and assignment of responsibility should be undertaken in conjunction with relevant health authorities. Funding health services requires long-term commitment with the role of the project proponent, government agencies and local public health officials being clearly defined to ensure that necessary resources are provided on an agreed and on-going basis.

A public health plan would include the development of preventative measures such as disease prevention education and awareness campaigns, monitoring of vectors and disease outbreaks, vector control, and clinical treatment of disease cases, as needed. Practical measures such as control of floating aquatic weeds near populated areas could reduce mosquito-borne disease risks. Mechanical or chemical treatment of shallow reservoir areas, to reduce proliferation of insects that carry waterborne diseases, also offer a means of risk reduction.