

DEVELOPMENT OF HIA MODEL FOR KWAI NOI DAM PROJECT



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Background

- Construction of dam is subjected to do EIA. HIA is incorporated in QOL part
- Qwai Noi dam has got approval to construct and operate
- DOH, involved in monitoring process during the construction, found inadequacy in HIA, used the opportunity to develop appropriate HIA guideline for agricultural dam

Objective: to develop HIA guideline for agricultural dam (integrating HIA into EIA)

Important information of Qwai Noi dam

- Government own project
- Type : concrete rock filled dam for agricultural purpose
- Location: in agricultural areas far away from city
- Dimension: 75 m. high and 570 m. long
- Total storage volume : 769 million cubic meters
- Area : 62,500 acres

- Relocation : 143 houses in 5 villages
- Areas received impact: 2 districts, and 4 sub-districts
9,876 houses, 37,333 people, 2 primary schools, 6 sub-district health centres,
1 Buddhist temple



Methodology

- set up HIA working group (trained by WHO/Robert Boss)
- Applied HIA guideline WHO used for Nam Theun Dam of Lao PDR
- Empowerment of local communities/ stake holders to participate in scoping and appraisal
 - Feedback and response of policy makers and communities to formulate recommendations
- Conclusion of HIA guideline for agricultural dam



Results

Population of concern

EIA/QOL-Public Health	EIA/HIA
General population in communities	Both general population and vulnerable groups in communities

Information sources

EIA/QOL-Public Health	EIA/HIA
Service based (mainly secondary data from hospital and health centers)	Community based and serviced-based

Health issues identified

EIA/QOL-Public Health	EIA/HIA
<p>Identified health problems from top 5 health problems registered at local sub-district health centers:</p> <ul style="list-style-type: none">- parasitic diseases- malnutrition in children- lack of clean drinking water	<p>Health issues identified from health determinants affected by the project :</p> <ul style="list-style-type: none">- accident injuries and dust from construction- noise from machines and construction-communicable and non communicable diseases- nutritional status of children- mental health

Some examples of data:

EIA /QOL Public Health	EIA/HIA
<p><u>Health status</u></p> <ul style="list-style-type: none"> ■ Helminthiasis, e.g., Liver fluke (8 person of 225 ; 4%), Schistosomiasis, Hook worm (54 person of 225; 24 %) ■ Malaria ■ Nutrition 	<ul style="list-style-type: none"> ■ Helminthiasis <ul style="list-style-type: none"> - Hook worm infection (242 person of 1,876 : 12.9%) - Liver fluke infection (86 person of 1,876 : 4.6 %) - Strongyloides infection (45 person of 1,876 : ■ Malaria ■ Dust and noise from transportation during construction ■ Sanitation <ul style="list-style-type: none"> - Poor sanitation such as toilet water supply wa <p>(Workercamps)</p>



EIA (Health issue)



HIA (Result)

■ Injuries and accident

(among construction workers)

■ Nutrition

■ Social-well being

-life style changing from agriculture style was urban style such as have karaoke, mobile phone

■ Mental health

-Mental health problem, i.e., tension or strain (Loss of land)

■ Community Health Services in the area must be

increased, especially workers who come to work at Kwai Noi project.

HIA process

EIA/QOL	EIA/HIA
<p>Minimal community participation</p> <ul style="list-style-type: none">- interview-small meetings <p>Not focus on health but on</p> <ul style="list-style-type: none">-forestry-fishery-socio-economics-tourism	<p>Emphasize empowerment of local people and local health personnel to maximize participation</p> <ul style="list-style-type: none">- group health educations on dust, accident injuries , food sanitation, personal hygiene, garbage management, children nutrition, clean drinking water, stress and mental health- health hazards and risks from the project- focus group discussion and in depth interview

Conclusion: HIA can be integrated in EIA

The guideline provided essential information for developing HIA for agricultural dam (HIA process, health determinants and important health issues, vulnerable groups, data sources)

The guideline emphasized empowerment of local communities and public health officers to participate in the process, resulting in more effective and comprehensive HIA and mitigation plan

The guideline can be officially adopted in the existing EIA/QoI -Public Health guideline for agricultural dam by Thai Government.

HIA practitioners have to be part of the assessment team

At present EIA in Thailand includes HIA

