Health impact assessment (HIA): lessons from Thailand
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Introduction
An environmental impact assessment (EIA) is an assessment of the possible positive or negative impact that a proposed project may have on the environment, together consisting of the environment, social and economic aspects. The purpose of the assessment is to ensure that decision makers consider the ensuing environmental impacts when deciding whether to proceed with a project.

The International Association for Impact Assessment (IAIA) defines an environmental impact assessment as "the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made."

EIAs are unique in that they do not require adherence to a predetermined environmental outcome, but rather they require decision makers to account for environmental values in their decisions and to justify those decisions in light of detailed environmental studies and public comments on the potential environmental impacts of the proposal.

World Health Organisation, European Centre for Health Policy, has defined health impact assessment (HIA) as “a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population”.

The reasons we use HIA are that we have to think about the effects policies have on health, and in particular, how they can alter the health of all people in the population. Non-health sector proposals, where health is not the main objective, may have major effects on the health and well-being of people, particularly vulnerable groups. HIA helps because it is an approach that gets people to think about what they are doing, and how it may alter people's health. It promotes health – and in the long term contributes to the health of local people.

Imagine someone was planning to build a new motorway. An HIA would answer 'How would this new development affect people's health?'

An HIA would ask questions such as would the motorway increase or decrease noise, air or light pollution or how would the motorway affect local businesses and jobs or would the new motorway reduce or increase the stress for local people or how would a new motorway change the local infrastructure needs - and would this be good or bad for local people?

The purpose/function of HIA are to inform and influence the decision maker, help address inequalities in health, promote joined-up working, place public health on the agenda, reduce conflict between stakeholders and encourage sustainable development.

HIA does this by using a broad understanding of health, using a participatory approach that considers which stakeholders need to be involved, helping involve local people in decisions and responding to their concerns about health, considering different types of evidence - from local views to scientific information, assessing how the proposal will affect all members of the community – particularly the most vulnerable and assisting with sustainable development by considering short and long term impacts.

An HIA has to be undertaken before implementation (prospective) in order to allow steps to be taken to change a proposal at the planning stage.

HIA in Thailand - past and present
Under the Enhancement and Conservation of National Environmental Quality Act (1992), certain kinds of industries/projects are required by law to do EIA (and HIA as part of it). EIA is conducted by consultants, who may outsource some academia for some difficult issues or expertise. These consultants are paid by the industries, so the EIA reports are usually in favor of the industry.

The Office of Natural Resources and Environmental Policy and Planning (ONEP), Ministry of Natural Resources and Environment, set up committees to...
thoroughly consider EIA reports. These committees are appointed by the National Environment Board (chaired by the Prime Minister) with ONEP suggestions. After committee approved and ONEP endorsed, the industries can go ahead with other processes in the area, such as asking for permission to construct and operate the factory, from the Industrial Estate Authority of Thailand or local authority.

Under Section 67 of Thai Constitution 2007, certain kinds of industries/projects, those with potentials to severely negatively affect public health, natural resources or environment, are required to do more EHIA. Sections 66 and 67 are in the category of “Community right”. The community right category has appeared only in Thai Constitution 1997 and Thai Constitution 2007, not in previous constitutions.

In 2007, ONEP issued the guidelines for EIA system and procedure for consultants and industries, functions and roles for Expert Committees to consider EIA reports. In 2009, ONEP also issued the guidelines for HIA system and procedure. In that year, the National Health Commission Office (NHCO) issued rules and procedures for HIA and categorized HIA into 4 types under Item 8.

The HIA is currently known as community HIA or CHIA. NHCO and some communities have recently conducted CHIA, such as those dealing with gold mine in the north and with a petroleum project in the south. Interestingly, there is a school engaged in CHIA and worked with several communities, then presented in digital and printing medias.

Current problems, signs and symptoms
First we have to keep in mind that behind any health/social/environmental impacts there are differential vulnerability, differential benefits or gains, and differential losses. The problems rise when some people gain on some people loses. And the current symptoms that can be generally seen in Thai society are conflicts between people, people and industries, people and government organizations regarding environmental issues on these industry or developmental projects. People do not trust academia (who work as researchers or problem solvers). The 'bad' industries were blamed, also the 'good' ones. Local health sectors have to take care of the environmental health/disease burden without optimum preparation. Industries can hardly construct and operate new factories/projects. These seem to be a dead lock for the country.

My contribution to HIA
Since my work has been focused on occupational health/Medicine, in 2008, I was invited to engage in EIA (HIA) as a health expert member in EIA report consideration committee, working for ONEP, Ministry of Natural Resources and Environment, under National Board of Environment, for the projects on petroleum, petrochemicals and chemicals (year 2008-2009), and petroleum, refineries and gas separation (year 2009-2011).

Seeing problems as mentioned and being a university professor, I decided to conduct research on HIA. Currently, my colleagues and I have been conducting 2 ongoing research and development projects. One is capacity building on HIA for local authorities. The other is capacity building on HIA for school teachers and students in communities. Moreover, I have also joined the HIA consortium (funded by NHCO) in the past 2 years. This consortium is a working group consisting of academia from various universities and organizations relevant to environment. The consortium are doing research, training (short course and master degree program), field work, and learning from/with communities through CHIA.

Lessons learned
At present, industrialization and urbanization are growing, and they are complexly politics. For any developmental projects, some people gain but more people lose. Some people gain much in short term such as save cost on waste management. But more people lose and it will cost even more for environmental remediation/reclamation in long term. This will inevitably raise health and social inequities.

Industrialization and urbanization do not have to be “dirty”, HIA is one of the tools to have them “clean” even before they construct. If you believe in
sustainable development, you have to maintain good environment (or better environment) for your children. Medical school and community physicians have to be prepared for knowledge and expertise on environmental health issues. You may choose to be passive, i.e., wait and more environmentally-related patients/problems will come. Or you can be reactive, i.e., wait till you see one environmentally-related patient (as index case), then react such as treat that case, and look for causes then perform secondary prevention. But it should be bestow be proactive, i.e., use HIA as part of primary prevention tools and you can hope that no environmentally-related patients will come to you.

**What else should we do?**

We should develop tools and procedures for various kinds of projects HIA, make them scientifically sound and community accepted. We should do more training in HIA, to get more competent HIA personnel. We should conduct integrated impact assessment (health, social, environment, and economics). We should conduct a SEA (Strategic Environmental Assessment) for the regions and the country.

For instance, Sri Lanka plans to strengthen tourism industry. Was any SEA done? Where, how, how much, and how fast should this industry be? There will be more tourists, more hotels, more restaurants, more roads, and more constructions. Will there be more waste and pollution? There will be more rich people, but will the gap between the rich and the poor be widened? If these potential changes are bad, how can we prevent or mitigate them? These are essentially EIA.

Will there be any short or long term effects on health? Will they be good or bad? If they are good, how to enhance them? If they are bad, how to prevent or mitigate them? These are essentially HIA. Finally, you should not forget the power and potentiality of people and stakeholders in the communities.

**References**