Updates from ADB's health impact assessment and healthy project design initiative

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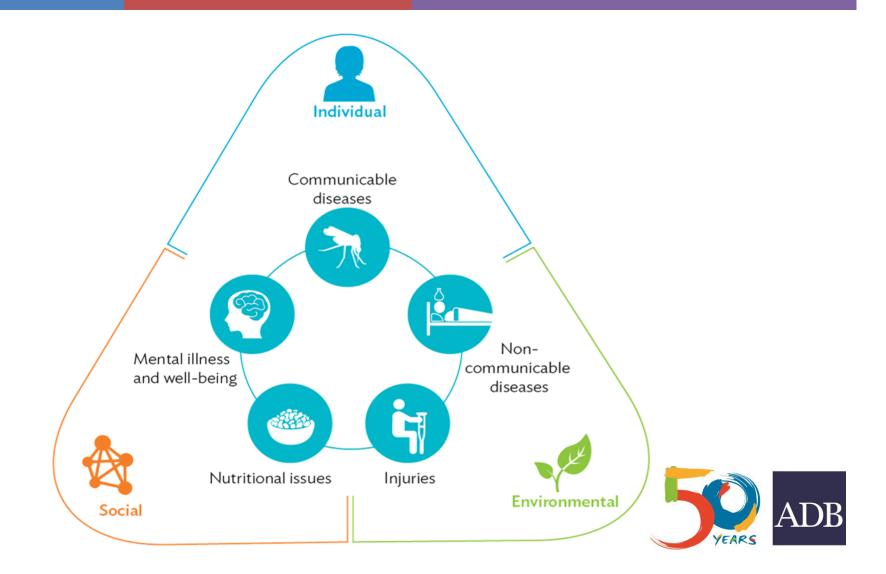
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Outcome 6: Promotion and Prevention

Increased capacity to apply health impact assessment to consider determinants of health and communicable diseases in infrastructure projects
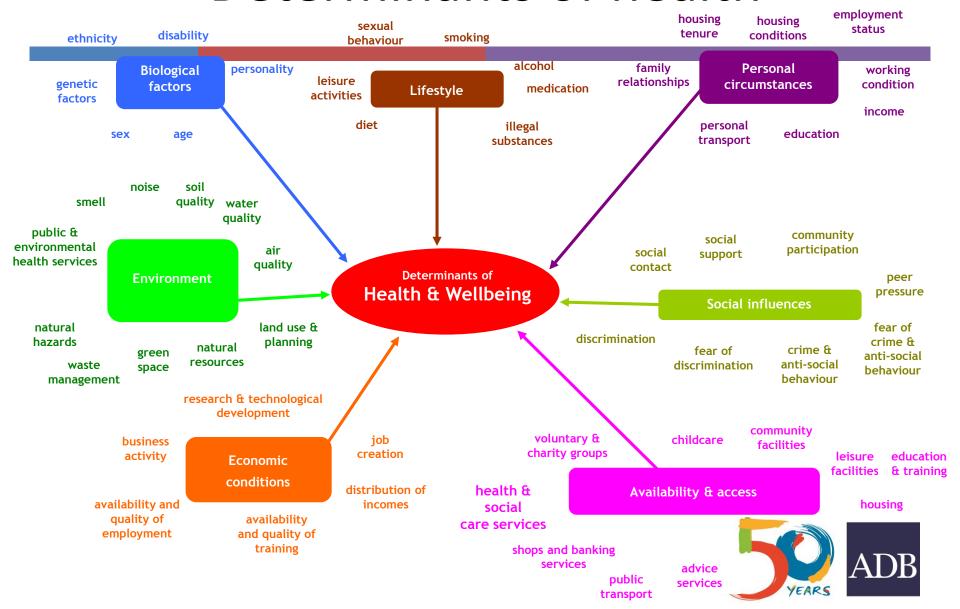
Outcome 6.1: Application of HIA in infrastructure projects at country level

Outcome 6.2: Increased capacity to apply HIA at ADB

5 health outcomes and 3 determinants

Determinants of health

Air Quality and Health

Resource persons on health for the SDES training course on Air Quality on April 4-6, 2017 at ADB HQ

- Human Health Consequences from Air Pollution – Susann Roth
- Air Quality in Health Impact Assessment – Gene Peralta
- Quantitative Risk Assessment of the health effects from exposure to air pollution-Filipe Silva
- Air pollution, health effects and economic valuation -FS
- Health co-benefits and wider benefits of development projects that reduce air pollution – Salim Vohra

PM
PARTICULATE MATTER

NOx
NITROGEN OXIDES

O3
GROUND-LEVEL OZONE

SO2
SULPHUR DIOXIDE

VOCs
VOLATILE ORGANIC COMPOUNDS

Outdoor air pollution is responsible for around **10% OF ALL DEATHS** in ADB regional members countries

29 ADB member countries

an increasing trend in the percentage of deaths that are due to outdoor air pollution (PM2.5) between 2010-2015

Cancer (particularly lung cancer)

Hormone imbalances

Cardiovascular diseases (mostly ischemic heart disease and stroke)

Diseases of the central nervous system (Alzheimer's disease, Parkinson's disease, and neurodevelopmental disorders

respiratory diseases (both infections and chronic respiratory diseases)

Airways inflammation

Low birth weight

Impaired cognitive development

New evidence is available on the link of air pollution and the above issues.

TA 8763: ADB HIA initiative

1. Capacity Building

2. Tools & Guidelines

3. Demonstration Projects

4. Partnership & Networking

5. HIA in Universities

Capacity Building

Workshops

Training

Regional meetings

National meetings

HIA Conference / Forum

K-learn

Development.Asia

Capacity Building - CAM

- HIA Training last 27-28 April 2017 held in Phnom Penh, Cambodia

Capacity Building - MYA

- HIA Training last 9-11 May 2017 held in Mandalay, Myanmar

Capacity Building - VIE

- 2nd Asean HIA Conference last 20-21 April 2017 held in Hue, Viet Nam

2nd ASEAN HIA Conference 20-21 April 2017 Hue, Viet Nam

Tools and Guidelines

- Checklists
- Guidelines/Sourcebook
- Policy Briefs
- Briefing notes
- Advocacy materials
- Case studies

7 Demonstration Projects
*with transboundary & cross-border impacts

CAM (1)

- Rural water supply and sanitation sector project

LAO (2)

-Savannakhet Special Economic Zone*

-Hongsa Thermal Power Project*

MYA (2)
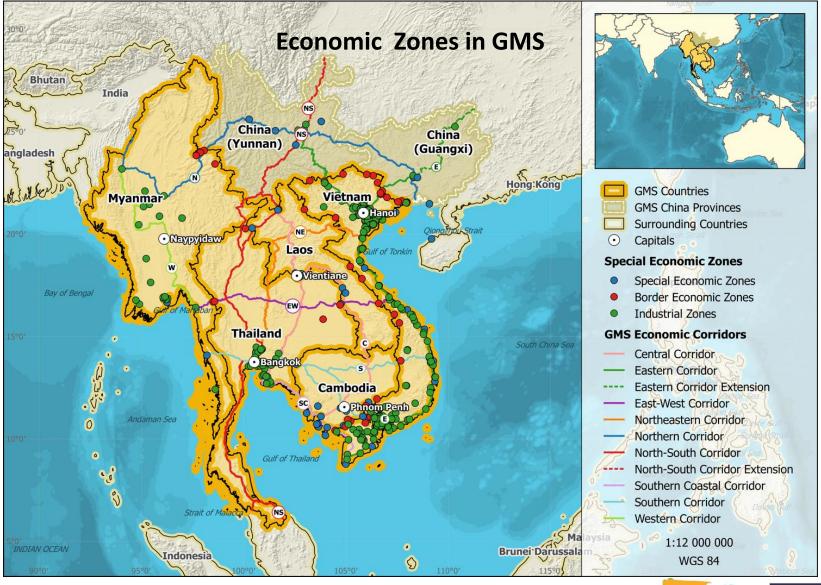
- Urban Development

- Road Project

THA (1)

- Mukdahan Special Economic Zone*

VIE (1)

- Drainage and wastewater collection

50 YEARS

ADB

Economic Zones in GMS

HEALTH IMPACT ASSESSMENT OF SPECIAL ECONOMIC ZONES

WELL FUNCTIONING
SPECIAL ECONOMIC ZONES

Zoning
- proper zoning of residential, commercial, recreation, leisure, and industrial areas
- buffer zones around industrial developments

Well functioning health services
- universal health coverage for workers and community members
- harmonized health information and surveillance system

Emergency preparedness and response
sector has the capacity to respond

Worker accommodations
- in good safe conditions
- located strategically

Community and wellbeing
- Workers and community members get along
- Culturally and spiritually significant locations are preserved

Waste management
- industrial and public waste managed appropriately and separately

Traffic management
- industrial traffic has designated routes
- safe roads

Resettlement
- Resettlement is strategically planned to ensure it only happens once and infrastructure is complete

Safe workers
- good personal protective equipment
- safe behaviours on and off-site

Access to basic essential needs
- clean water
- sanitation
- food safety
- shelter
- security

POOR FUNCTIONING
SPECIAL ECONOMIC ZONES

No zoning

Environmental issues
- dust, airborne, particulate matter is high
- noise, light and vibration impacts
- polluting water—e.g. dead fish

Health issues
- poor health services
- increase in vector-borne and communicable diseases—e.g.TB
- increase in sexually transmitted infections and red light districts
- increased stress-mediated disorders (community members have depression and anxiety)

Emergency preparedness and response lacking

Protests

Chaotic traffic
- mix of industrial, local, livestock

Garbage everywhere

Worker accommodations in poor condition

Unfinished resettlement infrastructure

Lack of cohesion between workers and community members

Unsafe workers
- increased drugs and alcoholism
- human trafficking
- impoverishment

Lack of safe water and sanitation

50 years

ADB

MYA Road Project
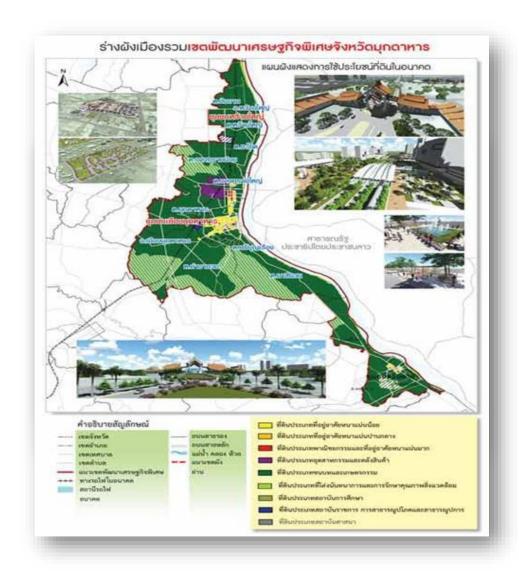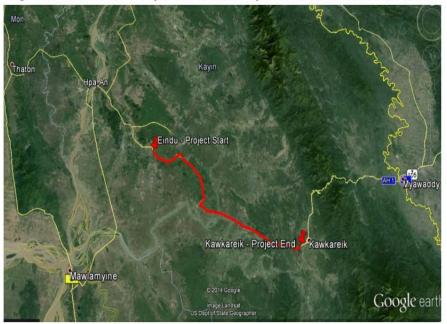
Figure 3: Location of GMS EWEC

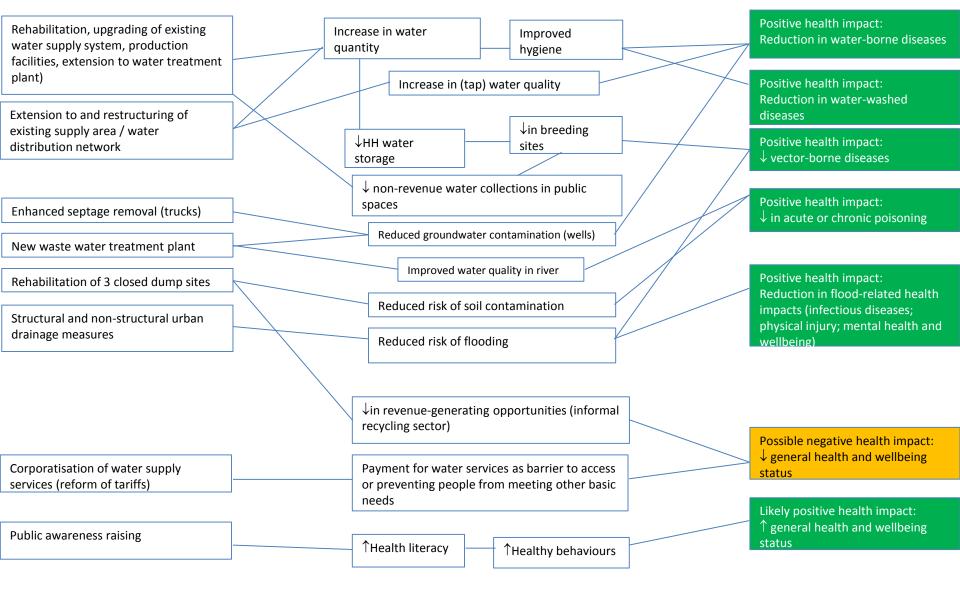Figure 4: Location of Component 1, Road Improvements Eindu to Kawkareik

Rapid HIA Scoping:

- Malaria resurgence
- Air pollution (dust, noise, emissions)
- Vulnerable communities near the road
- Road accidents
- Population influx from Thailand
- Human trafficking

MYA Health benefits of MUSIP1

Second Rural Water Supply and Sanitation CAM

Rapid scoping example in VIE

Project overview	Drainage and Wastewater Collection Project in Ho Chi Min City
Does the project have an explicit health objective?	Read project description and find objectives
Geographical and temporal scope	• **Identify all localities affected by project** • **Include** construction and operation phases • Determine if there is a rehabilitation component
Community scope and stakeholders	• Differential exposure by gender, age, location, other • Identify resettlement, professional stakeholders, workforce, fishing folk, peri-urban users of wastewater, other
Health opportunities, reduction in	• Water-borne diseases associated with pathogen contamination • Vector-borne diseases: lymphatic filariasis • Poisoning associated with chemical pollution • Drowning, other

HIA DEMONSTRATION PROJECT

MANDALAY URBAN SERVICES IMPROVEMENT PROJECT (MUSIP)

MUSIP IS A MULTI-COMPONENT WATER SUPPLY AND WASTE WATER MANAGEMENT PROJECT IN MANDALAY CITY, MYANMAR.

PROJECT OUTPUTS

- IMPROVING WATER SUPPLY SYSTEMS
- IMPROVING WASTE WATER AND DRAINAGE MANAGEMENT
- STRENGTHENING INSTITUTIONAL CAPACITY AROUND WATER SUPPLY, WASTE WATER, DRAINAGE AND SOLID WASTE MANAGEMENT

HEALTH IMPACT ASSESSMENT (HIA)

HIA SCOPING
- DOCUMENT ANALYSIS
- DISCUSSION WITH THE PROJECT TEAM
- A SITE VISIT

ANALYSIS OF HEALTH IMPACTS
- HEALTH DETERMINANTS
- COMMUNITY HEALTH PROFILE

COMMUNITY CONSULTATION
- HEALTH CONCERNS
- OPTIONS FOR MITIGATION AND HEALTH ENHANCEMENT
- ACCEPTABILITY OF THE PROJECT

HIA forward plan recommends measures to protect and enhance community health, buidling on preliminary identification, analysis and prioritization of health impacts, and original project plans

HIA FORWARD PLAN

DURING PROJECT DESIGN

- Minimize temporary land occupation, utilizing government-owned land
- Ensure access to houses and temples.
- Optimize design and location of the waste water treatment plant
- Ensure public information disclosure

DURING PROJECT CONSTRUCTION

- Development of plans for: air and dust control; noise control; dredging and cleaning management; traffic management; waste management; and health and safety management compliant with lenders' requirements and Myanmar labor regulations
- Provide compensation to affected people
- Inform residents before starting creek and canal dredging
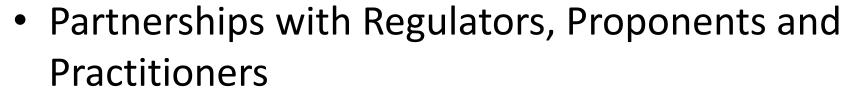
DURING PROJECT OPERATION

- Water quality monitoring, including residual chlorine and coliforms
- Integration to the city's medium term urban development
- Design of the wastewater treatment plant
- Consider a closed building for the pumping station
- Include digestion of sludge with methane gas production and electricity co-generation
- Major awareness campaign and capacity building

COMMUNITY HEALTH MONITORING

- Develop intersectoral working group involving sub-national or local public health institutions, and water supply, wastewater and solid waste management providers

COMMUNITY HEALTH MONITORING

- Create health indicators that can cheaply and effectively monitor ongoing health impacts

Partnership & Networking

- HIA University Network

- Network of HIA Experts

- Partnerships with Regulators, Proponents and Practitioners

- Knowledge and Learning Centers (KLC)

Regional HIA Curriculum Development Workshop
7-8 March 2017, Bangkok

DEVELOPMENT OF **HIA** CURRICULUM

50 YEARS

ADB

ADB in collaboration with the WHO Collaborating Centre for Environmental Health Impact Assessment (WHO CC) at Curtin University developed an HIA Curriculum or teaching course structure at the regional level and in different public health or environmental science faculties of universities in the five Greater Mekong Subregion (GMS) countries (i.e., Cambodia, Lao PDR, Myanmar, Thailand and Viet Nam).

DEVELOPMENT OF HIA CURRICULUM

ADB established the GMS Health Impact Assessment project to increase capacity within this region to apply HIA to consider the determinants of health associated with commercial and development projects.

It recognised that universities can be major development partners through provision of future HIA experts arising from sustainable HIA training programs.

THREE DRAFT CURRICULA

1 HIA-STANDALONE

a semester length course which covered all components of the HIA process and its application, targeting health professionals wishing to learn about and apply HIA to proposals.

2 HIA IN EIA

a 3-4 - day professional development course, targeting health professionals as well as those in environmental, planning or associated activities wishing to understand HIA and its application within Environmental Impact Assessment procedures.

3 HIA IN PLANNING, ENVIRONMENT OR HEALTH COURSES

a short course of 8-10 hours duration, designed to be integrated into relevant university programs to raise awareness about the role of HIA in decision making and its links to these sector's activities.

These curricula were discussed in a workshop in March 2017 and Universities and representatives from the ministries of health (MoH) in the GMS were invited to participate. There was widespread agreement and support regarding the need to expand HIA teaching and research in the region. The general consensus on the draft curricula provides a solid foundation for participants to progress toward a more harmonized approach to HIA in the region.

ADB with WHO CC at Curtin University will continue to work with GMS universities and MoH to progress HIA teaching programs.