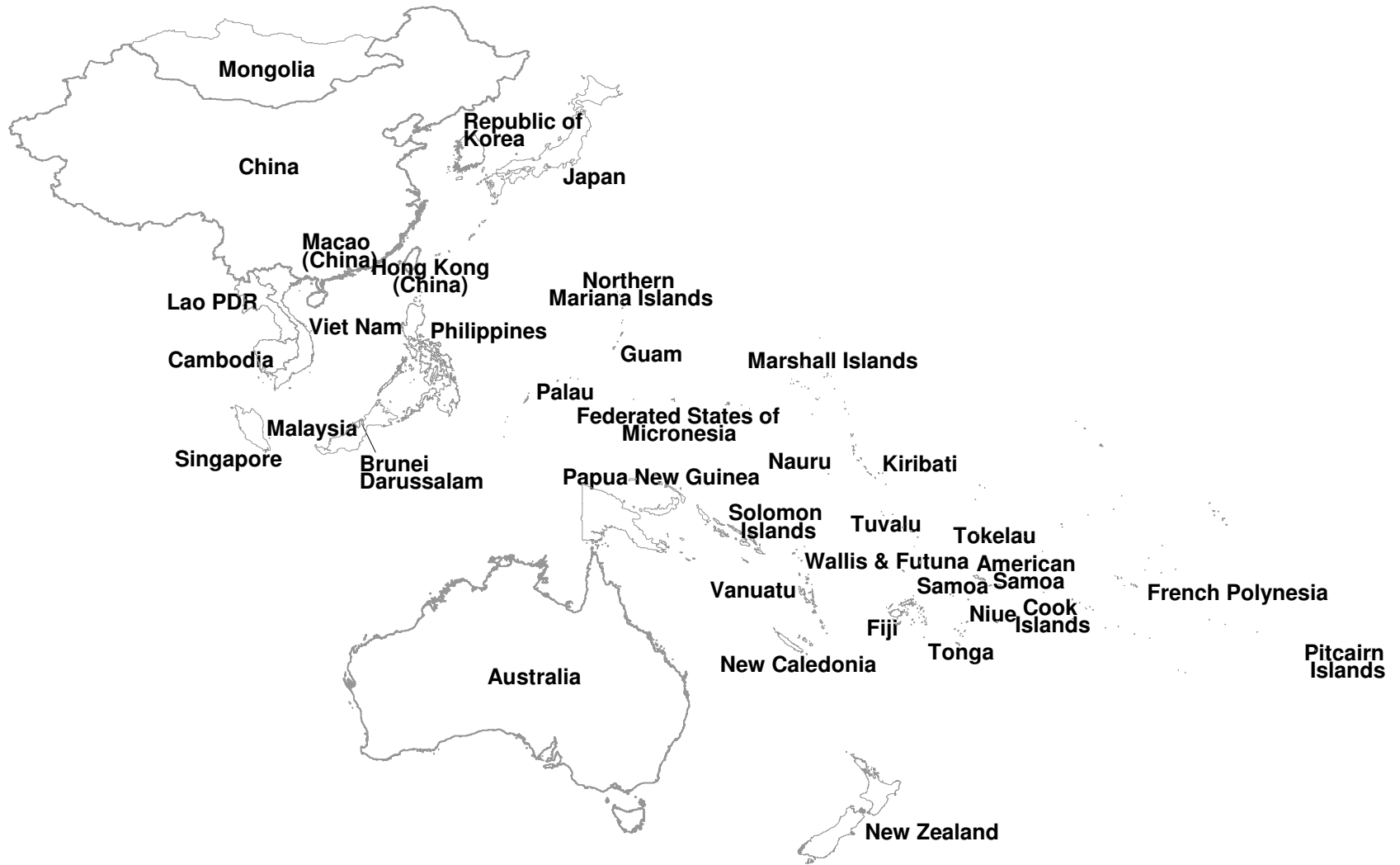


Third Asia-Pacific HIA Conference, Dunedin, New Zealand, 17-19  
November 2010

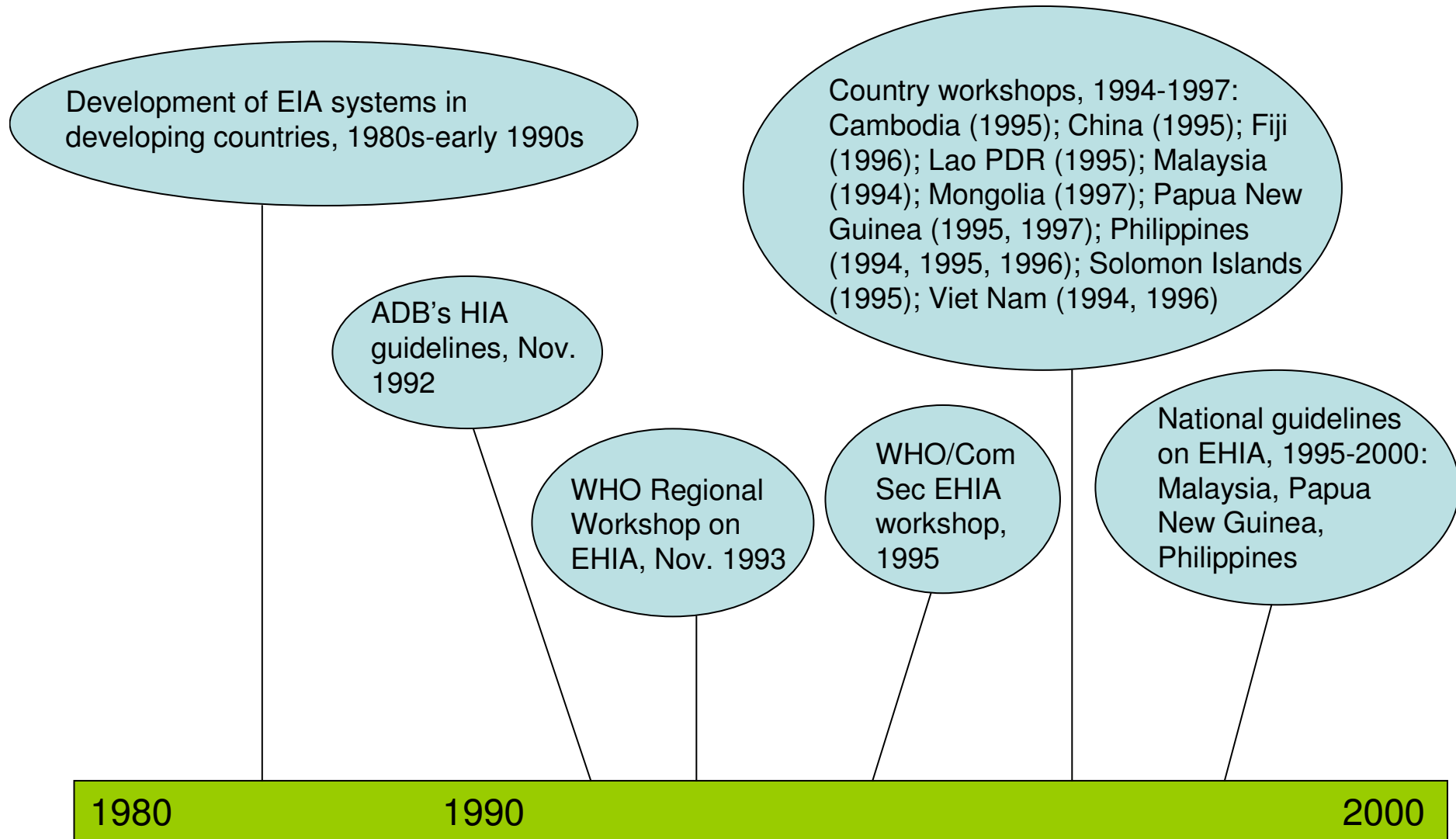
# Overview of HIA Development in the Western Pacific Region

Hisashi Ogawa  
WHO Western Pacific Regional  
Office

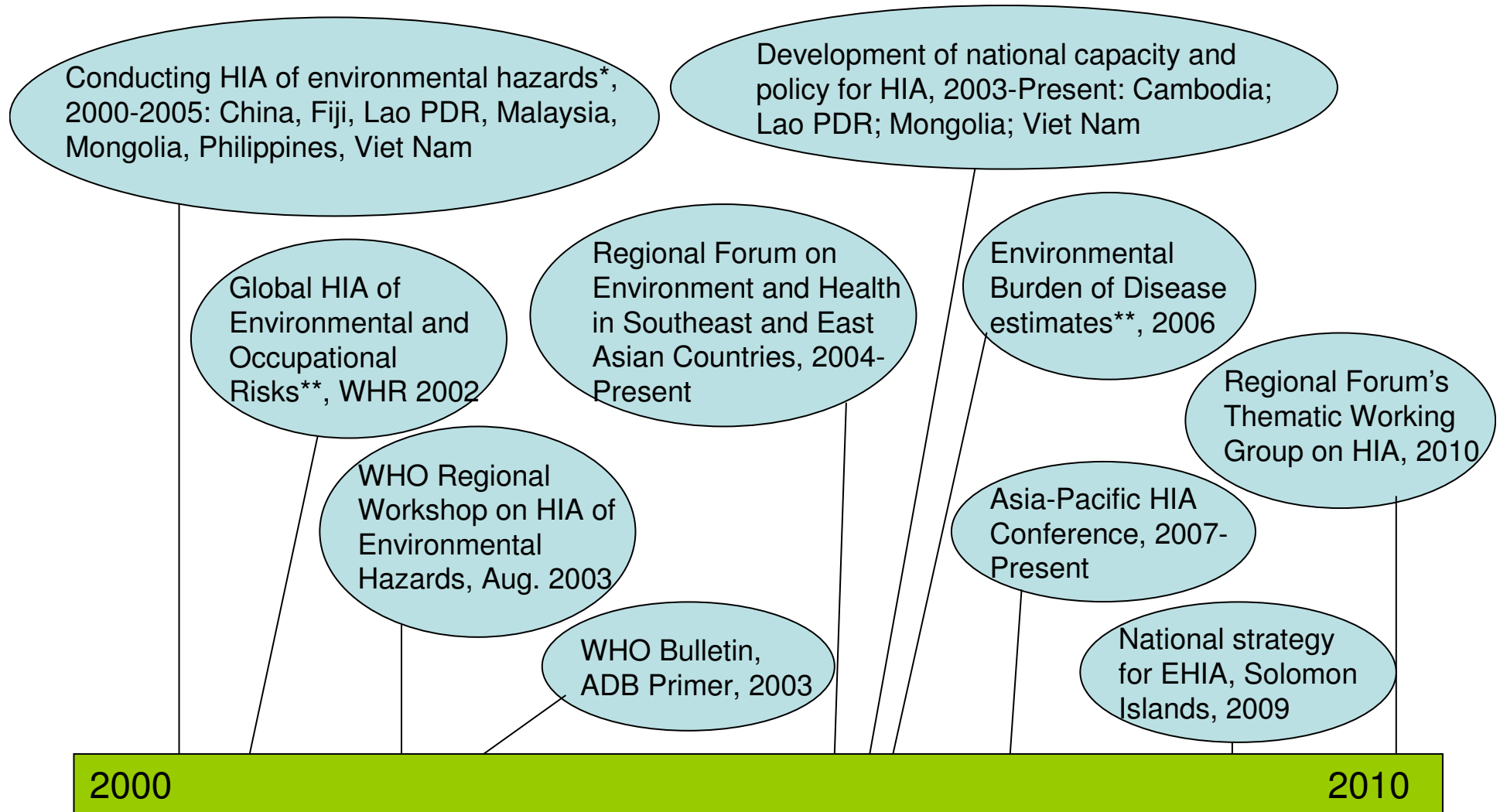
# WHO Western Pacific Region



# History of WHO Support, 1980-2000: From EIA to EHIA



# History of WHO Support, 2000-2010: From EHIA to HIA



# HIA of Priority Environmental Hazards in Countries

- China, 2001 – Environment and People's Health (urban air pollution; water pollution; and pollution from small industries)
- Fiji, 2003 – An Assessment of Health Impacts from Environmental Hazards (water supply; air pollution; and chemical and hazardous waste)
- Mongolia, 2003 – Assessment of Health Impacts from Environmental Hazards (air pollution, water contamination)

# HIA of Specific Environmental Hazards

- Malaysia, 2004 – A Study of Health Impact and Risk Assessment of Air Pollution in Klang Valley
- Mongolia, 2004 – Health Risk Assessment of Indoor Air Pollution in Ulaanbaatar
- Philippines, 2004 – Public Health Monitoring (A Study under the Metro Manila Air Quality Improvement Sector Development Programme)
- China, 2005 – Climate Change, Climate Variability and Health
- Lao PDR, 2007 – Investigation of Indoor Air Pollution and Relationship to Housing Characteristics and Health Effects

# HIA of Environmental Hazards in Development Sectors

- Regional EST (Environmentally Sustainable Transport) Forum, 2004 onwards
  - Providing inputs on public health concerns
  - Supporting the health sector participation in national and regional EST forums
  - Environmentally Sustainable and Healthy Urban Transport (ESHUT) since 2009
- China, 2005 - Transport and Health (traffic-related air pollution; noise; road traffic injuries; and physical activity)
- Viet Nam, 2005 – Health and Environmental Impacts of Pesticide Application
- Regional Workshop on Health and Environment Linkages (HELI) in Agriculture, 2006

# Global Estimates of Health Impacts from Specific Environmental Risks

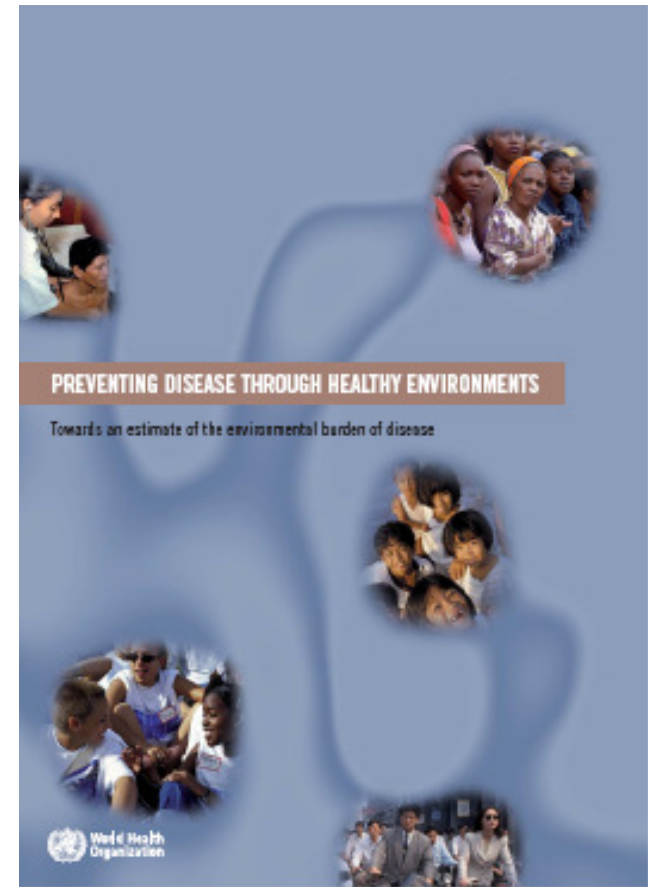
- Published in “World Health Report 2002: Reducing Risks, Promoting Healthy Life”
- Estimated mortality and DALYs attributable to specific environmental and occupational risks by region and sex
  - Environmental risks - unsafe water, sanitation and hygiene; urban air pollution; indoor smoke from solid fuels; lead exposure; climate change;
  - Occupational risks - risk factors for injury; occupational carcinogens; air borne particulates; ergonomic stressors; noise
- Method used – Comparative quantification of health risks (exposure-based)  
([http://www.who.int/quantifying\\_ehimpacts/methods/en/index.html](http://www.who.int/quantifying_ehimpacts/methods/en/index.html))



# Environmental burden of disease estimates

- Published in “Preventing Disease through Healthy Environments, 2006”
- Estimated mortality and DALYs attributable to all environmental risks by region and disease (acute respiratory infection, diarrhoeal diseases, cancer, COPD, etc.)
- Country profiles

[http://www.who.int/quantifying\\_ehimpacts/en/index.html](http://www.who.int/quantifying_ehimpacts/en/index.html)



# Country Profiles of Environmental Burden of Disease

## New Zealand

Population	4 mio
GNI/capita	26 340 US\$
% urbanization	86%
% people living in cities greater than 100 000 inhabitants	70%
Population below the poverty line (national)	NA
Population below the poverty line (international, <\$1/day)	NA
Under age 5 mortality rate	6/1000 live births (2006)
Life expectancy	80 years (2006)

### Environmental burden of disease for selected risk factors, per year

Estimates based on national exposure and WHO country health statistics 2004

Risk factor	Exposure	Deaths /year	DALYs/ 1000 cap /year
Water, sanitation and hygiene (diarrhoea only)	Improved water: NA Improved sanitation: NA	NA	NA
Indoor air	SFU% households: <5%	-	-
Outdoor air	Mean urban PM10: 16 ug/m <sup>3</sup>	<100	0.0
Main malaria vectors	No transmission		
Main other vectors	None		

### Environmental burden of disease (preliminary), per year

Estimates based on Comparative Risk Assessment, evidence synthesis and expert evaluation for regional exposure and WHO country health statistics 2004

DALYs/1000 cap	(World - lowest: 13, highest: 289)	17
Deaths		4 600
% of total burden		14%

Environmental burden by disease category [DALYs/1000 capita], per year

Disease group	World's lowest country rate	Country rate	World's highest country rate
Diarrhoea	0.2	0.2	107
Respiratory infections	0.1	0.1	71
Malaria	0.0	-	34
Other vector-borne diseases	0.0	-	4.9
Lung cancer	0.0	0.8	2.6
Other cancers	0.3	2.3	4.1
Neuropsychiatric disorders	1.4	1.8	3.0
Cardiovascular disease	1.4	2.8	14
COPD	0.0	2.2	4.6
Asthma	0.3	1.4	2.8
Musculoskeletal diseases	0.5	0.9	1.5
Road traffic injuries	0.3	0.6	15
Other unintentional injuries	0.6	1.6	30
Intentional injuries	0.0	0.7	7.5

### Other indicators

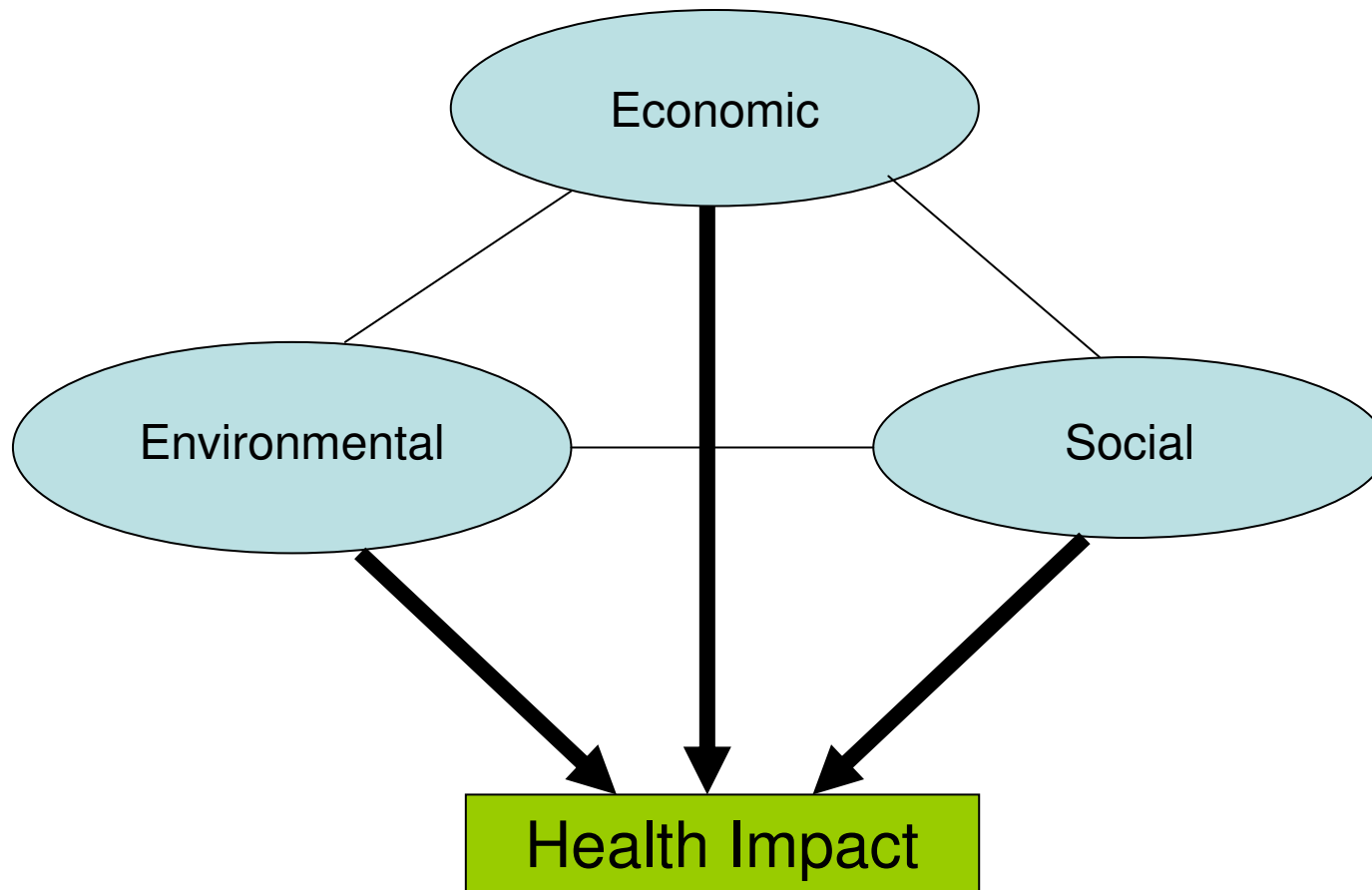
Use of leaded gasoline	No	(2008)
Overcrowding	1%	(2001)
Malnutrition (% stunting)	NA	

[http://www.who.int/quantifying\\_ehimpacts/countryprofiles/en/index.html](http://www.who.int/quantifying_ehimpacts/countryprofiles/en/index.html)

# Use and Benefits of HIA of Environmental Hazards and EBD

- HIA of environmental hazards provides information for prioritizing environmental health problems and locations of the problems in the country, the Region, the area, or the development sector assessed.
- It, therefore, supports the arguments for recommending policy options.

# Sustainable Development and Health



# Institution and Policy Development

- EHIA Division of EHS in the Philippine DOH in 1993
- HIA Unit in MOH, New Zealand
- HIA Division in MoPH, Thailand
- National Policy on HIA in Lao PDR, 2006
- National Policy and Strategy on HIA in Cambodia and Viet Nam
- Proposed HIA Act in Republic of Korea

# Way Forward

- Develop systems and strengthen capacity for EHIA (HIA in EIA) for some developing countries (e.g. Pacific island countries)
- Develop capacity for HIA of priority environmental hazards, including HIA of development sectors, in developing countries
- Further develop HIA of social and economic determinants
- Further develop HIA policies and institutions in countries of the Region