# ILO & WHO pursuit of a global asbestos ban and the potential role of the Pacific





# Background

- ILO Asbestos Convention No 162 and Recommendation No 172 (1986)
  - Safety in the use of asbestos, prohibitions, obligations
- ILC Resolution concerning asbestos (2006)
  - Elimination of future use of asbestos
- Resolution WHA 58.22 (2005) on Cancer Prevention and Control
  - Countries should pay special attention to cancers for which avoidable exposure is a factor
- Resolution WHA60.26 (2007) Workers' Health: Global Plan of Action
  - global campaign on elimination of asbestos-related diseases, bearing in mind a differentiated approach to regulating its various forms
- WHO document "Elimination of asbestos-related diseases", 2006
- WHO/ILO outline for the development of national programmes for elimination of asbestos-related diseases, 2007





# Asbestos-related diseases

## Exposures

Latency period Modifying factors

#### **Diseases**

Fibre type

Fibre size

Fibre dose

Industrial process

Concentration

Length of exposure

Type of exposure:

work, home,

environment



10 to 40 years

Tobacco smoke

Lung cancer

Mesothelioma

Laryngeal cancer

Ovarian cancer

Other cancers

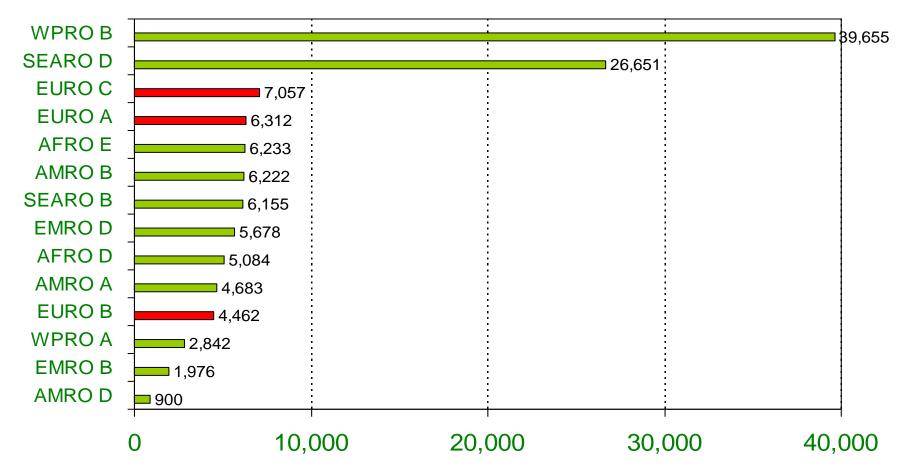
**Asbestosis** 

Pleural plaques, thickening and effusions





# Worldwide 125 million people are exposed to asbestos The majority in Asian countries





Population exposed to asbestos by WHO region and mortality stratum (thousands)



# Asbestos is the most important occupational carcinogen

## Global burden of disease from occupational cancer, 2000

Cancer type	Attributable deaths	Attributable DALYs
Lung cancer	191,000	1,315,000
Leukaemia	7,000	101,000
Mesothelioma	43,000	564,000
<u>Total</u>	<u>241,000</u>	<u>1,980,000</u>

## Global burden of asbestos-related cancer, 2000

Cancer type	Attributable deaths	Attributable DALYs
Lung cancer	39,000	360,000
Mesothelioma	43,000	564,000
Total	82,000	925,000



# Every year at least 107,000 people die from asbestos-related diseases

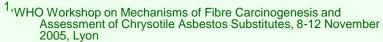
- Annual deaths attributable to asbestos
  - at least 107,000 from lung cancer, mesothelioma and asbestosis due to occupational exposure
  - Additionally at least several thousands deaths can be attributed to other asbestos-related cancers and to non-occupational exposure
- Asbestos is the single most important occupational carcinogen causing one third of all estimated deaths from occupational cancer

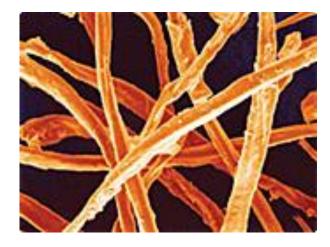




# There are safer substitutes to chrysotile

- Fibre substitutes<sup>1,</sup> e.g.:
  - short fibre attapulgite
  - carbon fibres
  - non-respirable cellulose fibres
  - non-biopersistent synthetic vitreous fibres
  - natural wollastonite
  - xonotlite
- Non fiber substitutes
  - Carbonates
  - Perlite
  - PVC
  - Conventional building materials





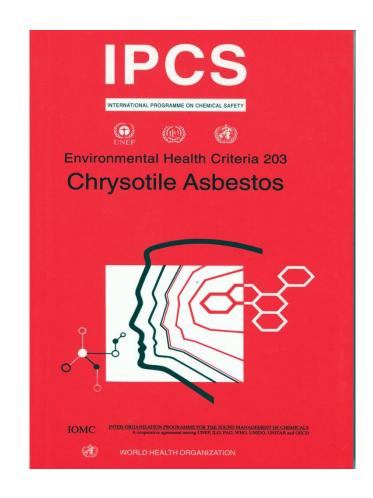
Cellulose fibers





# Summary of the conclusions from WHO assessments

- 1. <u>All forms</u> of asbestos, including chrysotile, are human carcinogens
- No safe threshold level of exposure has been identified for carcinogenic effects of chrysotile
- 3. <u>Safer substitutes</u> exist for all uses of chrysotile
- Exposure of workers and other users of asbestos containing products is extremely <u>difficult to control</u>
- Asbestos abatement is <u>very costly and</u> <u>hard</u> be carried out in a completely safe way







# WHO recommendations for elimination of asbestos-related diseases

- Elimination of the exposure
  - Recognize that stopping the use of asbestos is the most effective preventive measure
  - Provide information about safer substitutes
  - Develop economic and technological mechanisms to stimulate substitution
- Asbestos abatement
  - Avoid exposure during asbestos removal
  - Develop regulatory and workplace control measures for asbestos abatement
- Medical surveillance
  - Improve early diagnosis, treatment, rehabilitation and compensation of asbestos-related diseases
  - establish registries of people with current and past exposures







# Use of chrysotile in settings with constrained resources



Possibly asbestos containing building materials in the Pacific





# ILO Asbestos Convention No 162 from 1986

To date, ratified by 32 countries and widely voluntary applied







# General principles

- National policies and regulations
- Prescription of protective, preventive and control measures
- Review of laws in the light of technological progress and scientific knowledge
- Responsibilities of employers and workers
- System of inspection for enforcement



# Protective and preventive measures

#### Prevention and control of exposure (Art.9)

- adequate engineering controls, work practices occupational hygiene
- prescription of special rules and procedures for use of asbestos or products containing asbestos or certain work practices

## Special measures (Art.10)

when necessary to protect the health of workers and technically practicable:

- replacement of asbestos by other materials scientifically evaluated as harmless or less harmful
- total or partial prohibition of asbestos or asbestoscement materials in certain work practices



Working with asbestoscontaining materials requires enormous measures for protection





# Protective and preventive measures (cont'd)

- Prohibition: crocidolite, spraying all types
- Notification of use of asbestos by employers
- Producers', Manufactures' and Suppliers' responsibilities for labelling
- Prescription of exposure limits by law
- Measures to prevent or control the release of asbestos dust into air
- When protective measures do not bring exposure within exposure limits, employer will provide respiratory personal protection and special protective clothing
- Respiratory protection to be used as supplementary, temporary, emergency or exceptional measure and <u>not as alternative to technical</u> <u>control</u>





# Protective and preventive measures (cont'd)

#### Demolition and removal of asbestos

 to be undertaken only by employers or contractors recognized by the competent authority as qualified to carry out such works

#### Clothing and washing facilities

 to be provided by the employer, cleaning carried out under controlled conditions, prohibited to be taken home

#### Asbestos waste disposal

- to be disposed by employers without health risks to the workers concerned, those handling waste or to populations in the vicinity of the enterprise
- appropriate measures to be taken to prevent pollution of the general environment





## Surveillance of work environment and workers' health

Dust Concentration Evaluation and Exposure Monitoring (Art.20)

Workers' Health Monitoring (Art. 21)

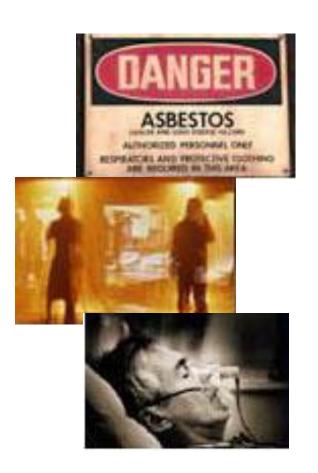
- periodic medical examinations
- development of system of notification of asbestos-related diseases







# Information and education



# Governments, employers' and workers' organizations

 disseminate information and promote education on health hazards and methods of prevention

### **Employers**

 establish written policies and procedures for education, training and re-training

#### Workers

 be informed, instructed in preventive measures, receive continuing training





# 95<sup>th</sup> International Labour Conference, Resolution concerning asbestos, 2006

- the elimination of the future use of asbestos and the identification and proper management of asbestos currently in place are the most effective means to protect workers from asbestos exposure and to prevent future asbestos-related diseases and deaths
- the Asbestos Convention, 1986 (No. 162), should not be used to provide a justification for, or endorsement of, the continued use of asbestos.



International Labour Conference









#### PROGRAMME ON SAFETY AND HEALTH AT WORK AND THE ENVIRONMENT

# DEPARTMENT FOR PUBLIC HEALTH AND ENVIRONMENT

#### Outline for the Development of National Programmes for Elimination of Asbestos-Related Diseases

#### Introduction

The term "asbestos" designates a group of naturally-occurring minerals with current or historical commercial use due to their extra conduction and relative resistance to chemical attack. The principal a serpentine material, and crocidolite, amosite, anthophylite, tre amphiboles.



ПРОГРАММА ПО БЕЗОПАСНОСТИ И ОХРАНЕ ЗДОРОВЬЯ НА РАБОЧИХ МЕСТАХ И В ОКРУЖАЮЩЕЙ СРЕДЕ

WHO/SDE/PHE/07.02



ДЕПАРТАМЕНТ ОБЩЕСТВЕННОГО ЗДРАВООХРАНЕНИЯ И ОКРУЖАЮЩЕЙ СРЕДЫ

Схема разработки национальных программ по ликвидации заболеваний, связанных с асбестом

Введение



# National programmes for elimination of asbestos-related diseases - ILO/WHO outline

- Introduction and purpose
  - Health aspects
  - Magnitude of the problem
  - Economic and social aspects
- Political and legal background
  - National legislation
  - International commitments
- Strategy for elimination of asbestos-related diseases
  - Preventive strategies
  - Strategic actions national, provincial and enterprise levels





# National programmes for elimination of asbestos-related diseases cont'd

- Knowledge management
  - information about substitutes
  - registry of exposed workers
  - capacities and resources
- Implementation
  - Preparatory phase building up political commitment
  - First phase reduce exposure to chrysotile
  - Second phase stop use of chrysotile
- Monitoring and evaluation
  - outcome
  - process
  - Administration





# National asbestos profile

- Current regulations and exposure limits on the different forms of asbestos
- Import, production and consumption of asbestos and asbestoscontaining materials
- Estimated total number of workers exposed to asbestos in the country
- Full list of industries where exposure to asbestos is present in the country
- Estimate of the burden of diseases related to asbestos
- Statistics on asbestos related diseases
- Estimates on the percentage of house stock and vehicle fleet containing asbestos
- System for inspection and enforcement of the exposure limits
- Estimated economic losses due to asbestos-related diseases



## Conclusion: Potential role of the Pacific

- Asbestos causes diseases and deaths of workers and consumers with a long latent period
- Stopping the use of asbestos is most effective (and inexpensive)
- PacWaste Project is an excellent opportunity to assess, manage and communicate on the asbestos hazards in the Pacific island countries
- Strong leadership in the governments is crucial in health, labour and environmental policies against asbestos
- ILO and WHO will work other intergovernmental organizations and civil society towards elimination of asbestos-related diseases worldwide
- The Pacific offices of ILO and WHO will collaborate to support the Pacific island countries in eliminating the use of asbestos in the Pacific





# **Further information**

WHO 2006. Elimination of asbestos-related diseases http://www.who.int/occupational\_health/publications/asbestosrelateddisease/en/index.html

ILO & WHO, 2007 Outline for the development of national programmes for elimination of asbestos-related diseases http://www.who.int/occupational\_health/publications/elimasbestos/en/index.html

WHO 2007, Cancer Control: WHO Guide for Effective Programmes, Module Cancer Prevention

http://www.who.int/cancer/modules/Prevention%20Module.pdf

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