Asbestos
Lessons learned from the EU

Alexandra Caterbow,
Coordinator Chemicals and Health
Women in Europe for a Common Future
Ukrainian citizens believe their asbestos is safe

- WECF discovered with shock that NGO partners wanted to use asbestos for ecological construction
- NGOs and the public had been told, that “their” asbestos was safe
- People sawing asbestos slates in their house and garden

Common sight in EECCA: asbestos slates used in home and garden www.wecf.eu
WECF tested chrysotile asbestos

- WECF bought asbestos sample in Almaty, Stepanovka and Garla Mare
- Tested in accredited laboratory in Germany
- The chrysotile asbestos from EECCA region is of cancer-causing type
EECCA asbestos is same as the asbestos forbidden in >50 countries

Translation of: Test report – IGUTEC – 07160
The investigation of the samples given on order resulted in the following findings:

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Place and/or description of the place of discovery</th>
<th>materials type</th>
<th>kind of asbestos</th>
<th>sample contains</th>
</tr>
</thead>
<tbody>
<tr>
<td>4375</td>
<td>Ukraine, Stepanovka, school, roof</td>
<td>corrugated sheet</td>
<td>Chr</td>
<td>asbestos</td>
</tr>
<tr>
<td>4376</td>
<td>Rumania, Garla Maria, privat house, roof</td>
<td>corrugated sheet</td>
<td>Chr</td>
<td>asbestos</td>
</tr>
<tr>
<td>4377</td>
<td>Kazakhstan, Almaty</td>
<td>flat board</td>
<td>Chr</td>
<td>asbestos</td>
</tr>
</tbody>
</table>

**abbreviations:**
Chr = chrysotile asbestos
Amph = amphibole asbestos
n.p. = no proof of asbestos

**Note:** (In Germany) Only professional companies with a “Sachkundenachweis” according to TRGS 519 are allowed to work with asbestos-containing materials.

The sample No. 4375, 4376 and 4377 contain asbestos fibres with a diameter < 3 μm, i.e. the samples contain lung-current fibres according to WHO definition.
All types of Asbestos: lethal risk

- WHO, IARC and EC have concluded that all forms of asbestos cause cancer, including the chrysotile form produced in Russia and Kazakhstan and unfortunately still widely used in Ukraine and EECCA.

- Chrysotile asbestos:
  - asbestosis
  - lung cancer
  - malignant mesothelioma
  - gastrointestinal cancers
  - ovary cancers

- There is no known threshold for safety.
Early indications that chrysotile might be less dangerous than other forms of asbestos have not held up.

Due to the long latency period of most asbestos-related diseases, phasing out the use of chrysotile asbestos now will result in reducing the burden of disease in several decades.

WHO: 125.000.000 people occupationally exposed to asbestos, including women and children.

ILO: Asbestos causes 100.000 deaths globally every year through occupational exposure alone.
Use of asbestos in Germany

96% of Use; Chrysotile

Chrysotile: 96%
Crocidolite: 3%
Amosite: 1%

Interdiction of use of sprayed asbestos (1979)

Ban of asbestos in Germany (1993)

Source: Dr. Markus Mattenklott, BGIA - Institute for Occupational Safety and Health of the German Social Accident Insurance Germany
Asbestos related occupational diseases in Germany

Source: Dr. Markus Mattenklott, BGIA - Institute for Occupational Safety and Health of the German Social Accident Insurance Germany
Occupational diseases leading to death in 2008 in Germany

Source: Dr. Markus Mattenklott, BGIA - Institute for Occupational Safety and Health of the German Social Accident Insurance Germany
Asbestos related diseases - Costs per Case in Germany

- Recipients of a pension in 2008: 25,958
- Mean pension per recipient in 2008: 17,400 US-
- Estimated mean duration of pension payment per case: 13 years
- Estimated total pension per case
  - asbestosis: 130,000 US-
  - lung cancer: 320,000 US-
  - mesothelioma: 320,000 US-

Source: Dr. Markus Mattenklott, BGIA - Institute for Occupational Safety and Health of the German Social Accident Insurance Germany
Asbestos related diseases - Costs per Case in Germany

• Costs for asbestos related occupational diseases in Germany 1987 - 2008
  • all costs: 5,840,000,000 US-
  • costs for pensions: 4,840,000,000 US-$ (83 % of all costs)

• Predicted total costs for asbestos related occup. diseases in Germany (based on assumption that peak is reached in 2010)
  • all costs: 20,000,000,000 US-$
  • costs for pensions: 17,000,000,000 US-$

Source: Dr. Markus Mattenklott, BGIA - Institute for Occupational Safety and Health of the German Social Accident Insurance Germany
Further costs from asbestos use arise from:

$ follow up and preventive occupational health checks of workers with past and current asbestos contact

$ costs for asbestos removal/abatement in public and private buildings

$ uncontrolled current exposure: Health risks as a result of inappropriate handling of still used asbestos products in residential homes and industrial applications
UK asbestos death among men and Ukraine?
Case of the Netherlands

- It was known in 1965 that asbestosis, mesothelioma and lung cancer was associated to chrysotile asbestos
- A ban of asbestos at the work place applied in 1993 and a full ban in 1998
- About 1.4 million tonnes asbestos was used in NL

Result:
- 52,000 asbestos death in Netherlands (on 15 Mio inhabitants)
- Mesothelioma: dead within 2 years
- Only 1% survives
- All asbestos death are unnecessary

Source: Dutch Ministry of Environment
Case of the Netherlands

Results:
52,000 asbestos death in Netherlands so far (on 15 Mio inhabitants)

Cost to Economy:
• 67,000,000,000 Euro
• 1,5 billion Euro only for medical care
• 32 million for removal activities

-> If asbestos would have been banned in 1965: at least 52,000 victims and 20 billion Euros would have been saved

Source: Dutch Ministry of Environment
Controlled use is not working

• „Controlled use“ of asbestos products was not demonstrated in the Netherlands or the other EU countries
• Can not be relied on to protect workers’ health
• Not an ‘alternative’ measure to the asbestos ban
Industry sponsored research and lobbying attempts failed

• Asbestos industry unsuccessfully attempted to influence scientific organizations

• It was brought to World Trade Organization (WTO) to overturn national bans on asbestos: unsuccessfully

• Countries have the right to protect their populations health against hazardous substances
Unethical Commercial Tactics

- Most asbestos sales are now to developing countries
- Asbestos companies under-price safer, competitive materials by not bearing the costs of health and economic costs their products are causing
- Asbestos industry lures consumers: „their“ asbestos can be safely used
- Authorities can not protect their populations health, imports remain uncontrolled

Indian child on a heap of asbestos dust, from Russia?
Asbestos use in EECCA region

We discovered:

- Schools, hospitals, other public buildings are build with asbestos
- Households use asbestos
- Asbestos waste problem
- Asbestos Industry is dominant
- Scientists and politicians are not aware

Russia and EECCA: Roofs of Asbestos and asbestos waste are everywhere
Women and children: affected

Mesothelioma development risks increase sharply

- in the case of long-term exposure to low doses of asbestos comparatively
- exposure to high doses

Cases of mesothelomia cancer:

- Washing clothes of asbestos workers
- Playing as child near asbestos factory
- Living near asbestos factory

Burden for the poor: they are more exposed
Ukrainian women and children at risk

- Ukraine regulates primary exposure
- However, secondary exposure is effecting millions of women and children in the EECCA region

Therefore, women and children at risk from:

- Houses, schools, playgrounds with asbestos
- Asbestos dust in cities with asbestos factories
- Wives and children of men working with asbestos
Asbestos Alternatives

There are safer substitutes to chrysotile asbestos

Alternative fibres have been tested to be safer for the human respiratory system

Alternatives include:
• Fibre Substitutes
• Non-fibre substitutes
Asbestos Alternatives

Fibre Substitutes

• Natural organic fibre, e.g. Cellulose fibres
• Manufactured organic fibre, e.g. Polyvinylalcohol (PVA) fibre
• Manufactured inorganic fibres (MIF), glass and stone wool with oils and binders added
• Naturally occurring crystalline fibres and other minerals, e.g. Wollastonite

Non-fibre Substitutes

• Carbonates
• Conventional building materials
Brazilian cellulose / asphalt roof slates cost less than asbestos
Hope for Ukraine: Parma Declaration

The Government of Ukraine signed on to “Parma Declaration on Environment and Health”, 12 March 2010

Regional Priority Goal 4, iii:

“.. we will develop by 2015 national programmes for elimination of asbestos-related diseases in collaboration with WHO and ILO”

Transparent information needed!
A publication prepared for:

WECF - Women in Europe for a Common Future

In cooperation with:

- Women in Europe for a Common Future
- Women in Ukraine

WECF asbestos awareness programme

Abestos in Ukraine, 99% of all roofs are covered by corrugated asbestos-cement

In Ukraine, 99% of all roofs are covered by corrugated asbestos-cement. In 2008, 1.5 million people were exposed to asbestos, including children.

In Ukraine, 99% of all roofs are covered by corrugated asbestos-cement.
Thank you for your attention