OECD workshop on socio-economic impact assessment of chemicals management

Feedback on the Global Chemicals Outlook and Cost of Inaction Reports Experience

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Climate change

Disasters and conflicts

Ecosystem management

Environmental governance

Chemicals and waste

Resource efficiency

Environment under review

The Global Chemicals Outlook

- Provide scientific evidence and information for giving priority to sound management of chemicals as part of sustainable development.
- Make the economic case for investing in sound chemicals management and send a positive message about the economic opportunities that derive from sound management of chemicals
- Elevate chemicals management to the top of the international policy agenda as an essential condition to achieve sustainable development

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Chemicals Intensification of the Economies

Table 1: Chemical Production: Predicted Annual Growth Rates, 2012-2020

	Percent change, 2012-2020	
North America	**25%**	
United States		25%
Canada		27%
Mexico		28%
Latin America	**33%**	
Brazil		35%
Other		31%
Western Europe	**24%**	
Emerging Europe	**35%**	
Russia		34%
Other		36%
Africa & Middle East	**40%**	
Asia-Pacific	**46%**	
Japan		22%
China		66%
India		59%
Australia		23%
Korea		35%
Singapore		35%
Taiwan		39%
Other		44%

Source: Percentages calculated based on projections in Thomas Kevin Swift et al., "Mid-Year 2011 Situation & Outlook." American Chemistry Council, June 2011.

1. Shift in production/ consumption
2. Trade flows – Penetration of Chemical intensive Products
3. Increasing emissions from major economic development sectors

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Cost on National Economy: Unrecognized and Substantial

***Direct Implications: Financial costs to the chemicals and related industries**:*

•Higher insurance costs,
•loss of productivity,
•reputation impacts.

Costs incurred due to asbestos and contaminated drywall, for example, total over **US$125 billion worldwide** – and the figure is still rising.

COSTS OF ACCIDENTS

US$ 19 million reported profit made by Trafigura for the 2006 ship leased "Probo Koala" with a shipment of coker gasoline. Total costs paid out by Trafigura to date for waste dumping incident equal approximately **US$ 250 million.**

US$ 600 million to date: treatment of contaminated sludge from the Minamata mercury pollution incident;
Over 47,600 people likely to be compensated in the legal process.

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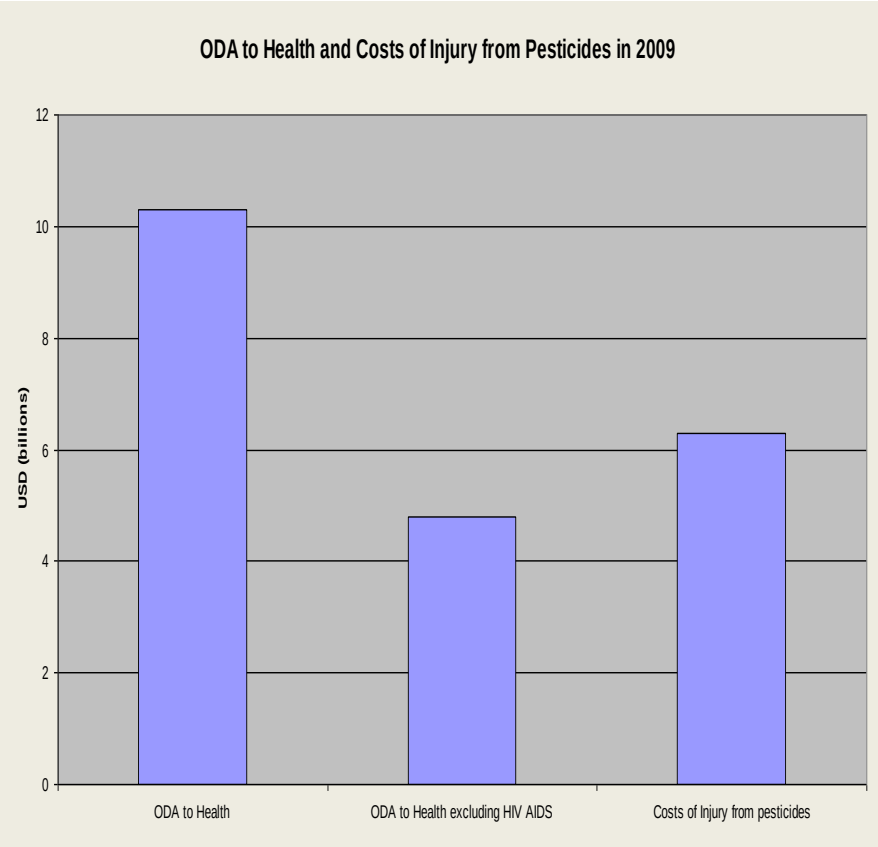
Cost on National Economy: Unrecognized and Substantial

External implications and cost of inaction for human health and environment: large with heavy burden on individual and public budgets



A conservative projection of the 2005 estimate to 2009 shows costs of injury due to pesticide poisoning for pesticides users on smallholdings in sub-Saharan Africa to be USD $6.2 billion. This suggests that the total ODA to general healthcare is exceeded by costs of inaction related to current pesticide use alone.

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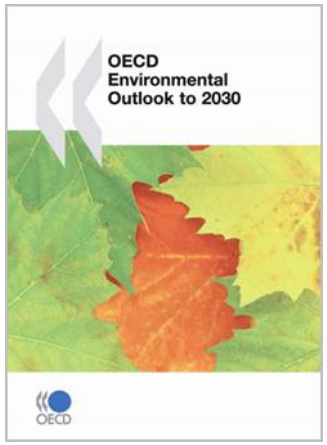
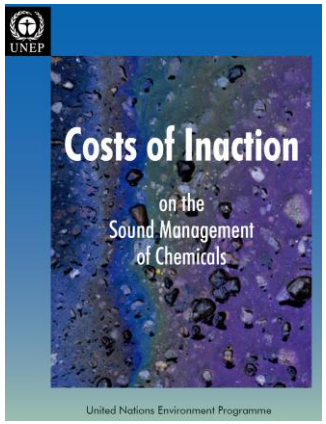
Costs of Inaction Report
Objectives

- Raise awareness of the economic benefits of sound management of chemicals
- Advance the integration of chemicals management into national development plants





. . . by embracing a new approach to the political economy of sustainable development, we will bring the sustainable development paradigm from the margins to the mainstream of the global economic debate.

Thus, both the cost of action and the cost of inaction will become transparent. Only then will the political process be able to summon both the arguments and the political will necessary to act for a sustainable future.

United Nations Secretary-General's High-Level Panel on Global Sustainability (2012)

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The Cost of Inaction Report

- Baseline Assessment Report on the existing information on Costs of Inaction on Sound Management of Chemicals
- An extrapolation study on the cost of inaction of use of pesticide in small holdings in Sub-saharan Africa

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Economic information on environmental effects of chemicals

- More scattered information on environmental effects than for health effects
- few studies focus on the environmental effects of the chemicals
- Environmental effects data relates mostly to water, ecosystem services and biodiversity
- Difficult to disaggregate the environmental effects from chemicals from other causes

To progress we need a better understanding of certain chemical uses or routes of exposure.

Economic information on cost from health effects

Identified examples showed difference in

- Methodologies
- Substances covered
- Health endpoints
- Geographic coverage

Makes it difficult to compare and aggregate into meaningful global or regional estimates

Sufficient information to make an extrapolation study on health cost of pesticides for Subsaharan Africa

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State of Economic Information for SMC

- The available data on the health, environmental, and development planning effects of harmful chemicals shows high costs of inaction.
- The data is fragmentary with little standardization in methods used.
- little assessment of what findings might mean for other sectors and regions.
- Data was found mainly in prominent areas but little data on these chemicals throughout their life cycles.
- No or limited picture of the future risk scenario.

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Cost of Inaction
Main messages

- Data and information on the costs of inaction and benefits of action : A key driver for mainstreaming the sound management of chemicals into national development policies
- Need for enhanced financial inputs into sound chemicals management.
- The costs and benefits of chemicals use must in turn be compared with the costs and benefits of sound chemicals management.
- Need to consider new types of strategies that target broad spectrum gains (for example, strategies that span substances and sectors), and system-wide approaches to complement measures defined in national and international legal and institutional infrastructures

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Filling the Gaps in knowledge

- Inter-agency cooperation to focus on the costs of ecosystem services due to chemicals.

- A consistent applied guidance of methods specified for chemical effect analysis:
  - better access existing in-country information.
  - build capacity for consistently collecting and analyzing policy relevant data.

- Collection of unpublished/ raw data

- Filling the sectoral evidence

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COI Recommendations

- Practical, useable guidance is needed to assess and value the costs and benefits of ecosystem services regarding how these services can be affected by chemicals management.

- focus on economic sectors, specifically agriculture, mining, leather and textiles, and waste management, that are critical to most developing countries experiencing increasing volumes of chemicals and penetration of chemicals intensive products into national economies.

- assess costs of inaction in context of, and relative to:
  a) the costs of actions to improve sound management of chemicals that are practical and achievable and,
  b) the benefits of actions

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Economic instruments GCO analysis

Table 3. Economic Instruments for the Sound Management of Chemicals

Category	Instruments
Price Instruments	Fees, taxes and user charges on production inputs, emissions, outputs or consumption User-charges on natural resource inputs, i.e. water charges Removal/reduction of perverse subsidies Subsidies or environmental funds for environmentally preferable activities Tax adjustments/breaks Chemical leasing, deposit-refund systems, tax-subsidy, refunded emissions fees
Liability Instruments	Environmental fines Liability systems Extended producer responsibility (EPR)
Procurement Instruments	In-house environmentally preferable procurement (EPP) Guidelines for market preferences
Information Instruments	Labeling for market creation and product differentiation Certification for market creation and product differentiation Environmental reporting Information disclosure Eco-design and green chemistry awards

Ref: Adapted from UNEP Chemicals Branch, An Analysis of Economic Instruments in Sound Chemical Management of Chemicals, Draft, May, 2011.

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Economic instruments Strengths and weaknesses

- Can increase safer chemical management, reduce externalities, and improve market efficiency.
- Offer flexibility for industry
- Potentially, generate revenue for public cost recovery,
- However
- Complex and difficult to administer and, in some cases, such as revenue generation
- Can erode as chemical management practices improve (waste or emission fees)
- Not an alternative to legal instruments
- Tend to reduce rather than eliminate hazards

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Economic instruments
Which one to use?

Which objectives: Change economic behaviors; raise revenue or both?

- Fees on targeted chemical
- Waste disposal fees and user charges
- Site clean-up and spent chemical stockpile management fees
- Equipment installation and operating permit fees and license programmes
- Corporate taxes

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Next steps: GCO-II

Three complementary building blocks:

- Part I. Global Context, Trends and Developments
- Part II. Review of Chemical Management Areas of Relevance Beyond 2020
- Part III. Creating an Enabling Environment

To capture the state of scientific, management and policy knowledge to support policy-makers and stakeholders in their assessment of the implementation of the 2020 goal and in deliberating the sound and sustainable management of chemicals and waste beyond 2020.

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GCO-II
Part III. Creating an Enabling Environment

4 envisaged thematic review papers:

- Cost of inaction methodologies and examples and best practices in developing countries
- Set up regulatory capacity through cost recovery schemes
- Economic Cost benefits analysis to address priority interventions and hotspots issues
- Use of fiscal incentives to change producers and consumers behaviors

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Next Steps
Links to the African ChemObs

- The main objective of the observatory is to predict, prevent and reduce chemicals risks to human health and the environment and remediate pollution throughout the life cycle of chemicals through costing of inaction and indicating benefits of action.
  - Component 2: Is focused on the development of broad-based action plans to promote sound chemicals management and reduce negative impacts on health and the environment.
    - ✓ Activities include: definition of benefits and cost of action to mitigate risks and justify specific interventions;

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Thank you

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