

HELSINKI COMMISSION
Baltic Marine Environment Protection Commission



The Down Stream User Approach – a possibility for data collection.

submitted by WWF and the Project-Coordinator on Hazardous Substances (March 2002)

"Implementation of the HELCOM Objective with regard to Hazardous Substances" – Project funded by European Communities (Subv 99/79391), Sweden and HELCOM. Document reflecting the author's views.

Content

1. Background	3
2. Introduction	3
2.1 Data collection in the past.....	3
2.2 What is Downstream User Approach?.....	4
2.3 What can be achieved by such a new approach?.....	5
2.4 Has industry a benefit of it?	6
2.5 Different level of availability of data - different strategies needed	7
3. Contact points/persons in industry regarding certain areas of down stream use ..	7
3.1 National Industry Associations in the Non-EU-HELCOM countries and contact persons.....	8
3.1.1 Estonia.....	8
3.1.2 Latvia	8
3.1.3 Lithuania.....	9
3.1.4 Poland	10
3.1.5 Russia.....	10
4. References	10

1. Background

The Project Team on Hazardous Substances decided during its 4th Meeting in October 2000 to select SCCP, 4-Nonylphenol, Nonylphenol ethoxylates and derivatives and organotin compounds for “downstream-user-approach”. The aim was to get a picture about the major exposure for the Baltic Sea Area, deriving from different industries and different use pattern. This approach should only include the biocide uses of the organotin compounds. The basis for this analysis should include information by EU, OSPAR and downstream user associations. A first draft strategy working document was submitted by the Project-Coordinator and WWF to the 5th Meeting in March 2001. During the Extraordinary Meeting of the Project Team on Hazardous Substances in May 2001 a redrafted working plan for the Project was submitted and approved by the Heads of Delegation Meeting in August 2001. It was decided that different Lead Countries would elaborate guidance documents on the above-mentioned substances, as well as mercury and cadmium. These guidance documents should then include the substance specific information already mentioned in the former strategy draft. Thus, the new draft on a strategy for downstream-user-analysis will now mainly focus on the strategy itself.

2. Introduction

The HELCOM objective with regard to hazardous substances is to prevent pollution of the Convention Area by continuously reducing discharges, emissions and losses of hazardous substances, with the ultimate aim of achieving concentrations in the marine environment near background values for naturally occurring substances and close to zero for man-made synthetic substances. Every endeavour will be made to move towards the target of cessation of discharges, emissions and losses of hazardous substances by the year 2020.

In order to meet HELCOM's objective with regard to hazardous substances, firstly the main uses of the selected hazardous substances have to be identified (qualitatively and quantitatively) to get a picture about the major exposure for the Baltic Sea Area from different industries and different use patterns, and to determine priorities for cost-effective measures. It is also a prerequisite for assessing whether these sources represent either a widespread problem or a problem restricted to regional or local environments within the maritime area.

Furthermore, data on consumption, discharges, emissions and losses are needed to monitor the progress and/or failure of measures aiming at the phasing out of discharges, emissions and losses of hazardous substances and to assess whether the close-to-zero concentration has been reached. Also monitoring programmes can support the assessment of progress, however they have some disadvantages: They are very expensive and high efforts are needed to make them representative.

2.1 Data collection in the past

In its attempt to identify the sources, pathways and fate of selected hazardous substances for immediate priority activity the Project Team sent out a questionnaire to the CPs, asking them to report changes in the discharges, emissions and losses of these substances in the catchment area for the late 1980ies and late 1990ies. The discharges, emissions and losses should be given as national figures. The received data on import, production, stockpiling, use and export of substances, information on discharges, emissions and losses were rather insufficient (quality, quantity, transparency) for the intended calculations. There were various reasons for that, e.g. lack of transparency and practicability of the questionnaire, technical problems to set up the database or poor quality of data. However, the available data have been summarized and discussed in a report, which is available on the HELCOM website <http://www.helcom.fi/>. The basic problem seems to be that i) transposition of EU legislation had priority over HELCOM work at that time, ii) there is a shortage of institutional capacity in

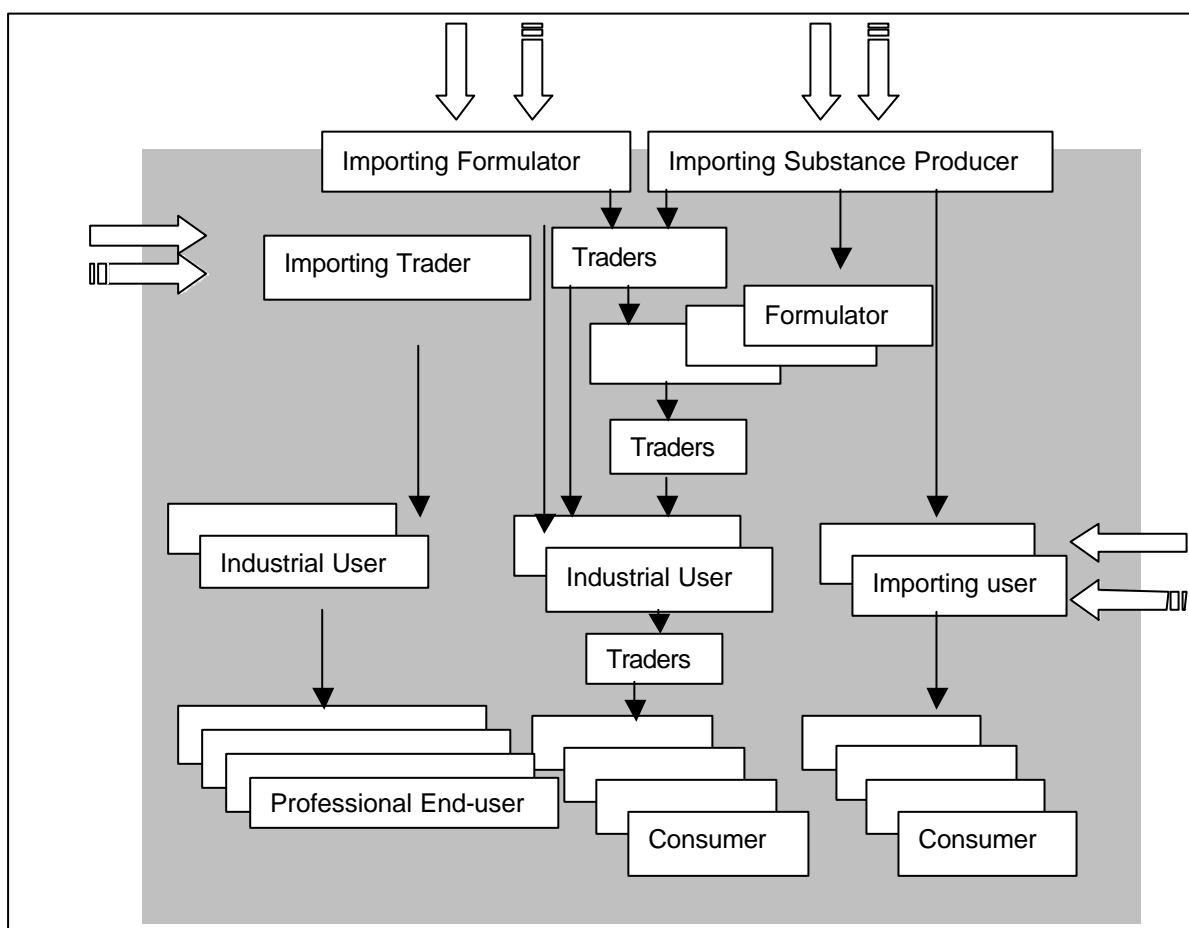
the CPs, iii) data collection systems on industrial chemicals and biocides are not in place yet, and iv) data collection strategies are at a very early stage of development.

2.2 What is Downstream User Approach?

Many players are involved in distributing chemicals within the (national) economy. Producers of substances and importers of chemicals form the top of the supply chain. All companies, which follow in the supply chain (traders, repackers/refillers, formulators, industrial users [e.g. metal processing industry, manufacturers of plastic articles], professional end users [e.g. craftsmen], consumers) could be called “downstream users”.

Usually the importers of chemicals know i) the potential technical use of their products and ii) their direct customers. Mostly they have no information on what practically happens further down the stream. Although this situation may change in future¹, currently the producers and importers do not know much on the conditions of use and the users have problems to obtain sufficient substance information from their suppliers. Communication on the supply chain very often does not function well up to now and hence there is poor information which chemicals end up where in the market.

The National Chemicals Flow



¹ According to the EU Chemicals Policy, in future the producers and importers of substances will be obliged to register their substance at EU level, including definition and risk assessment of the intended uses of their products. They will be required to communicate it to the downstream users (e.g. via the Safety Data Sheets). In future, it will be illegal to use substances for not registered purposes.

The key players in the supply chain could be characterised with some simple criteria:

Producer of substances	Company carries out industrial process aimed to transform chemical substances (synthesis). The raw material may be imported.
Formulator	Company composing a chemical product (preparation) from different single substances. These substances may be mostly imported or bought from a trader.
Industrial user	Company using substances or preparations (imported or domestically bought) to operate production processes (processing aids) or using chemicals as a component in ready-made products (product aids like e.g. stabilisers). The chemicals may be directly supplied by the producer or bought from a retailer.
Professional end-user	Professionals using chemical products outside industrial installations, often in the public domain. These products may be bought from a retailer or directly from the formulators.
Consumer	Private persons use chemical products or articles containing more or less hazardous substances.

In adopting HELCOM Recommendation 19/5, the Contracting Parties committed themselves to identify the sources of release of hazardous substances and to work towards the cessation of releases. Releases could be expected from processes and products in which priority hazardous substances are used and hence there is the need to identify those products and processes. In principle there are three strategies to obtain such information:

- (a) Monitoring of releases from production process in relevant sectors. The target sectors can be obtained from the substance-specific HELCOM guidance documents (cf. HazSub 7/2002, documents 3.3.1 – 3.3.5).
- (b) Asking users in certain sectors about type and amount of chemicals they are using. The target sectors can be obtained from the substance-specific HELCOM guidance documents (cf. HazSub 7/2002, documents 3.3.1 – 3.3.5)
- (c) Asking producers and importers about type and amount of chemicals they are supplying into the market.

Option (b) would be called Downstream User Approach. It is considered an appropriate instrument to investigate the occurrence of priority hazardous substances on the national market, without setting up intensive monitoring. Starting the investigation more downstream may trigger a demand for more information towards the producers and importers. The users of a textile processing chemical might for example be motivated to ask their suppliers whether or not certain hazardous substances occur in the products they are selling.

It may be quite feasible for local inspectorates to ask a limited number of companies under their supervision for information regarding a limited number of priority hazardous substances. Also requesting such information could be part of the environmental permitting process.

It is however not the ultimate solution to make such data available to the authorities. In future importers, producers and traders of chemicals should more and more take the responsibility to provide proper documentation on where their products finally end up.

2.3 What can be achieved by such a new approach?

There is no common system in the EU yet to track the use of chemical substances down to the application of chemical products and articles. Nevertheless, the manufacturers of preparations and other users of substances (downstream users) should know and be able to document the final use of the products they sell. Due to their close contacts to their customers, in particular sales managers quite often know the main types of use very well.

Thus, this approach might be a strategy to obtain chemicals market information in the most (cost) efficient way.

The type of use is an indicator for exposures that might occur and makes pathways of release predictable. This information is needed to discuss measures to prevent emissions, discharges and losses to the environment from process and products flow e.g. by modification of the production process or the substitution of hazardous substances with less hazardous substances.

Starting the data collection work from the user's end may also have the advantage that it facilitates questions to supplier for more information and that it educates industry to work with Safety Data Sheets and other standard information tools. It will also lead to a better knowledge which companies are actually involved in importing hazardous substances onto the national market

According to the implementation strategy, attached to HELCOM Recommendation 19/5, the Helsinki Commission and the Contracting Parties, individually or jointly, will endeavour to maintain and develop further a constructive dialogue on the reduction of hazardous substances with all parties concerned, including producers, manufacturers, user groups, authorities and environmental NGOs to ensure that all relevant information is available for the work of the Commission in connection with this Strategy. That means that industry has to be encouraged to co-operate in fulfilling the Objective by *inter alia* providing reliable data on production volumes, use patterns, emission scenarios, exposure concentrations and properties of substances.

2.4 Has industry a benefit of it?

Trade and industry have the possibility to actively take over their responsibility according to the Responsible Care Program, which includes elements of data collection on enterprise level, product stewardship and public reporting. CEFIC and Eurochlor may in particular be interested to

- reach consensual approaches to chemicals control in the Baltic Region and
- to avoid too much bureaucracy with regard to the developing systems in chemicals control.

Industries in EU accession countries may benefit from the HELCOM project with regard to their future compliance to EU legislation transposed into national requirements:

- Many among the HELCOM hazardous substances are included in the EU List of priority dangerous Substances in the field of Water Policy, which demands monitoring and reduction measures for those substances.
- Furthermore, the EU IPPC Directive requires the assessment of chemicals used in certain production processes and the way in which they are used.

Since customers from western markets get more and more aware on the risk related to hazardous chemicals in consumer products, an open information policy and substitution of hazardous substances might improve the competitive situation of Eastern European companies on the (western) market. The same applies to the introduction of certifiable Health Safety and Environment Management Systems (HSC) taking into account risk reduction with regard to chemicals.

The chemical industries in EU 15 may be interested to combat unfair competition due to continued production and use of hazardous substances in Eastern Europe.

2.5 Different level of availability of data - different strategies needed

According to the availability of data the HELCOM Contracting Parties could be divided into

- The Nordic group (Finland, Sweden, Denmark)
- Germany
- The Accession Countries Estonia, Latvia, Lithuania and Poland
- Russia

or into EU- and Non-EU-Countries

Finland operates a registration system of all chemical products placed on the market based on Safety Data Sheet (SDS) information. A similar system exists in Denmark, which includes also the amounts placed on the market. Sweden operates a product registration system, which includes also the amounts placed on the market and the uses. In several EU member states chemicals inventories have been carried out in certain sectors of industry aiming at the identification of priority needs for measures.

Germany, the Baltic States, Poland and Russia have no “product registers” and hence no readily available information concerning the use of priority hazardous substances.

EU-Countries have already provided some of the data needed and have some experience with instruments aiming at the reduction of hazardous substances. They could assess and spread information on less hazardous substances/alternatives or substitutes for hazardous substances. Their efforts should focus on further reduction measures, agreements and self-commitments of industry, development of substitutes and application of alternatives not involving these chemicals at all.

Non-EU-Countries should focus their efforts on data gathering to get an overview of the occurrence of the selected substances on their markets, and to make industry aware of the upcoming requirements related to hazardous chemicals.

3. Contact points/persons in industry regarding certain areas of down stream use

In order to start the data collection work on down stream use (in particular in EU accession countries and Russia), the CPs should seek to identify and contact national contact persons in down stream user industries. Relevant sectors are for example:

Down Stream Industries other than Chemical Industry

- textile processing industry (in particular textile finishing industry)
- leather processing industry
- plastic processing industries (not polymer producers), including soft foam production
- metal processing industry, in particular shipbuilding
- rubber processing industry

Manufacturers of Chemical Products

- producers of paints, varnishes, coatings, sealants
- producers of textile processing chemicals
- producers of tenside based cleaning agents (in particular for industry cleaning)
- producers of masterbatches for plastic processing
- producers of rubber processing chemicals

3.1 National Industry Associations in the Non-EU-HELCOM countries and contact persons

3.1.1 Estonia

Federation of Estonian Chemical Industry
Contact: Ms. Helgi Rõõs (HSE Specialist)
c/o ES Sadolin AS
Kastani 7
EE-79514 Rapla
Estonia
phone: +372-4892305
fax: +372-4892399
e-mail: Helgi.Roos@sadolin.ee

Federation of Estonian Chemical Industry
Contact: Ms. Riina Altpere (Project Manager)
Kiriku 6
EE-10130 Tallinn
Estonia
phone: +372-620-1912
fax: +372-.648-9004
e-mail: chemleg@keemia.ee
Executive Director: Mr. Hallar Meybaum
<http://www.keemia.ee>

Estonian Plastic Association
Contact: Ms. Varje Kristjuhan
Ahtri 12
EE-10151 Tallinn
Estonia
e-mail: Info@plast.ee

Estonian Woodworking Federation
Contact: Viiri Mangulson
Pärnu mnt 158 B
11317 Tallinn
Estonia
e-mail: viiri@online.ee
phone: +372-655-8525
fax: +372-655-8524
e-mail: info@furnitureindustry.ee

3.1.2 Latvia

Latvian Association of Chemical and Pharmaceutical Industry
Contact : Ms. Guna Caune
11 Tomsona Str.
LV-1013 Riga
Latvia
phone: +371-750-1477
fax: +371-750-1478
e-mail: vjakobsons@latnet.lv

Association of Mechan. Engineering and Metalworking Industry
Contact: Mr. Vilnis Rantins
Talivalza 21
LV-1006 Riga
Latvia
e-mail: masoc@apollo.lv

Latvian Electrical Engineering & Electronics Industry Association
Contact: Ms. Inese Cvetkova
Str. Kurzemes 3
LV-1067 Riga
Latvia
e-mail: letera@latnet.lv

3.1.3 Lithuania

Association of Lithuanian Chemical Industry Enterprises
Mr. Giedrius Mazunaitis (Executive Director)
A. Vienuolio 8-304
LT-2600 Vilnius
Lithuania
phone/fax: +370-2-224-175
e-mail: lchpia@tdd.lt

Society of Lithuanian Chemical Engineers
Contact: Mr. Juozas Ciupaila
Linkmenu 28
LT-2657 Vilnius
Lithuania
e-mail: radek@centras.lt

Engineering Ecology Association
Contact: Mr. Rimantas Budrys
Dominikonu 4
LT-2001 Vilnius
Lithuania
e-mail: rimasbudrys@takas.lt

Association of Light Industry Enterprises of Lithuania
Contact: Linas Lasiauskas
29/3 Saltoniskiu str.
LT-2677 Vilnius
Lithuania
e-mail: llpia@post.5ci.lt

Association Lietuvos mediena (Lithuanian Timber)
Savanoriu 178
2600 Vilnius
LT-Lithuania
e-mail: baldai@vbk.lt

Vilnius Chamber of Commerce, Industry and Handicrafts
Algirdo St. 31
LT-2600 Vilnius
Lithuania
e-mail: vilnius@cci.lt

3.1.4 Poland

Polish Chamber of Chemical Industry - Employers' Organization
ul. Czackiego 15/17
00-043 Warszawa
Poland
phone: +48-22-829-73-35
fax: +48-22-829-73-39
e-mail: pipec@pipec.org.pl

A list of Group Members is available under:

http://www.pipec.org.pl/wsp_a.htm

A list of affiliated associations is available under:

http://www.pipec.org.pl/afil_a.htm

(e.g. Association of Producers for Cosmetics and Household Chemicals)

3.1.5 Russia

contact to the Association representative in the ECE/UN ad-hoc group of experts on chemical industry:

NIITEKHIM - Institute for Technical and Economic Research
Mikhail G. Vasiliev (General Director)
14, Nametkina str., Block 1
Moscow 117420
Russia
phone: +7-095-331-8800
fax: +7-095-331-9200
e-mail: niitekhim@mol.ru

4. References

Federal Environmental Agency (1999): UBA-Texte 89/99, Guidance Manual for Formulators and Other Professional Users of Chemicals. Requirements with regard to the release of chemical substances into water ecosystems – Information for the users of chemicals. By U. Pirntke and A. Ahrens.

HELCOM (2001): The implementation of the 1988 Ministerial Declaration on the Protection of the Marine Environment of the Baltic Sea Area with regard to hazardous substances. A final overall conclusion including the new goals.