

Chemicals Substitution in Textile Industry: Implementing Chemical Policies Into the Textile Supply Chain

2013.3.25 Hangzhou

GREENPEACE 绿色和平

- **Greenpeace Toxics Campaign**
- **Chemicals in Textile Industry**
- **Source Elimination & Information Disclosure**

Outline

Toxics Campaign in China

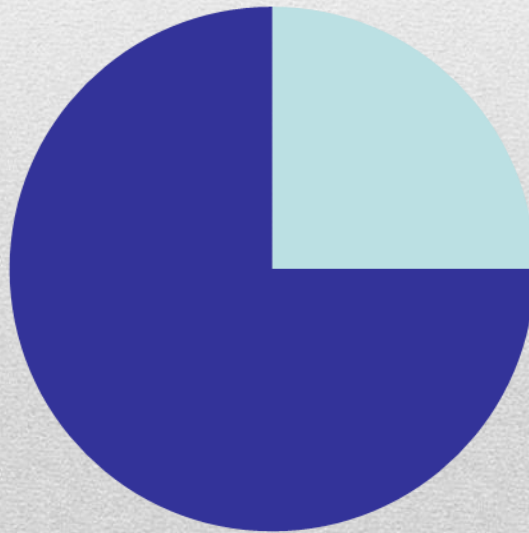
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Public Awareness



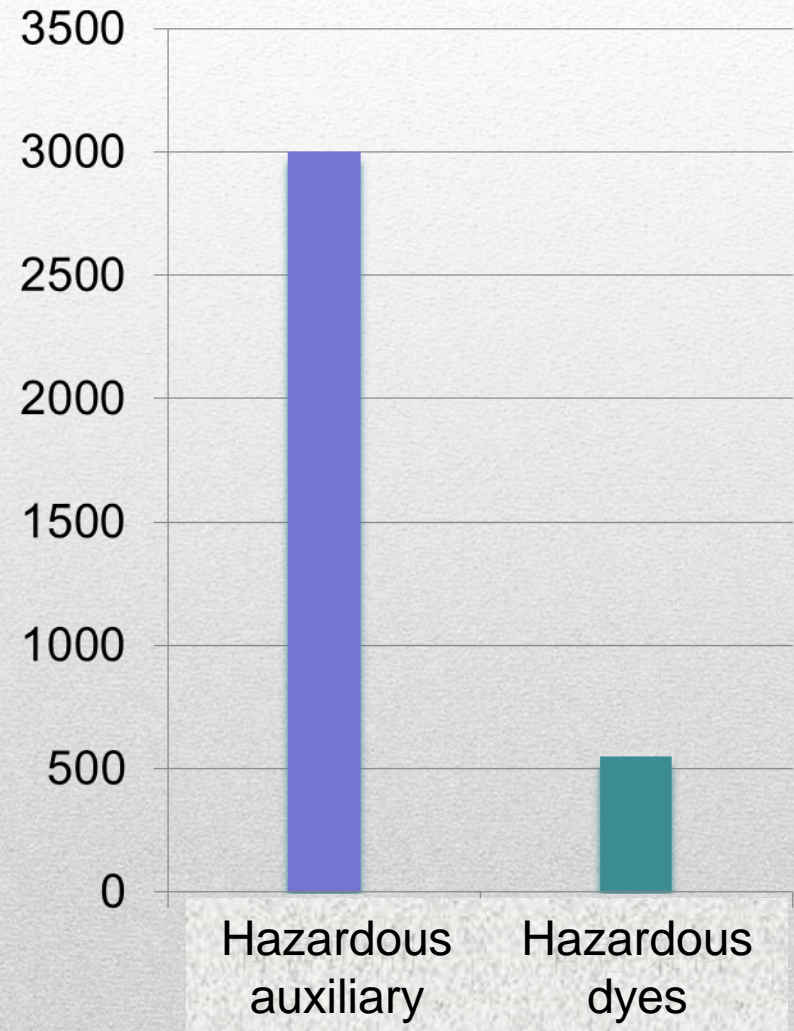
Hazardous Chemicals in Textile Industries

- Approximately 25% of chemicals manufactured globally are applied in textile industry. China's textile industry uses about 42% of the world's textile chemicals.



A large quantities of hazardous chemicals are used in dyes and auxiliaries.

More than 550 types from 9 groups of dyes and over 3000 chemicals from 11 groups of auxiliaries are banned to be used in textile products by professional institutes evaluating eco-labels, or have been banned or restricted in some national legislations

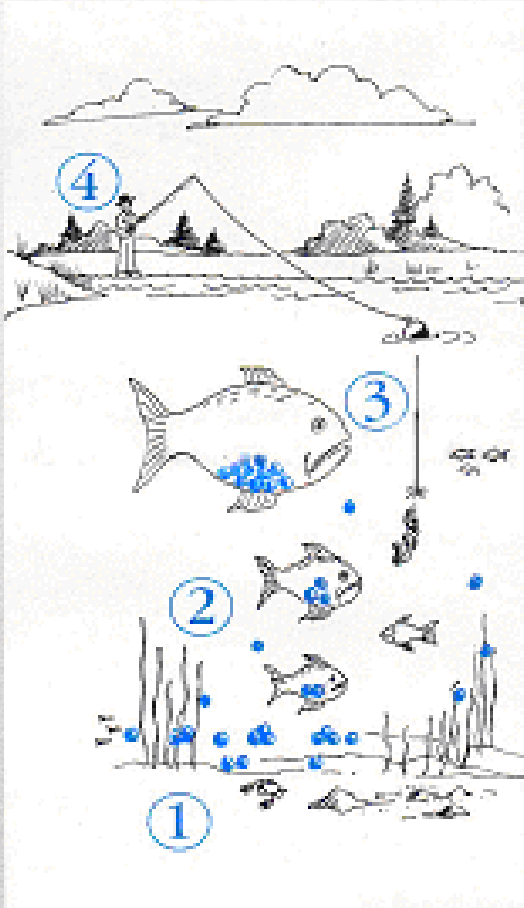


11 Groups of Common Hazardous Substances

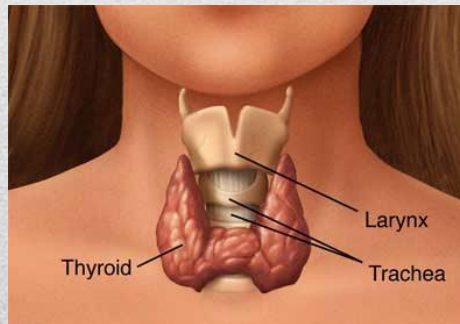
- 1) Alkylphenols (including Nonylphenols(NPs) & Octylphenols(OPs)
 - 2) Phthalates
 - 3) Brominated / Chlorinated flame retardants
 - 4) Azo-dyes
 - 5) Organotin
 - 6) Perfluorocarbons(PFCs)
 - 7) Chlorobenzene
 - 8) Chlorinated Solvent
 - 9) Chlorophenols
 - 10) SCCPs
 - 11) Heavy metals (Cadmium, Lead, Mercury, Chromium etc.)
-

Nonyl phenol & PFCs

Persistent & Bio-accumulative



**Reproduction
Toxicity**



**Endocrine Disrupting
Chemicals**

**Affects
liver and
immune
system**

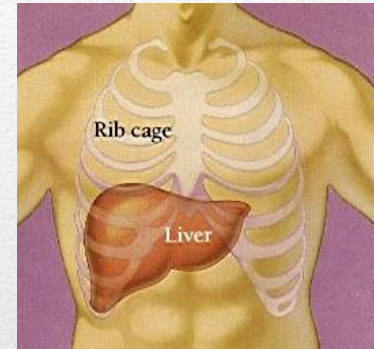
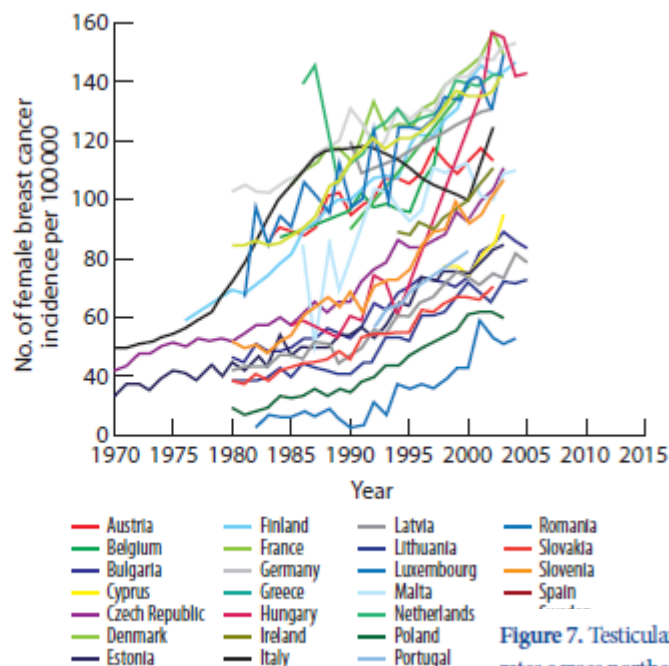


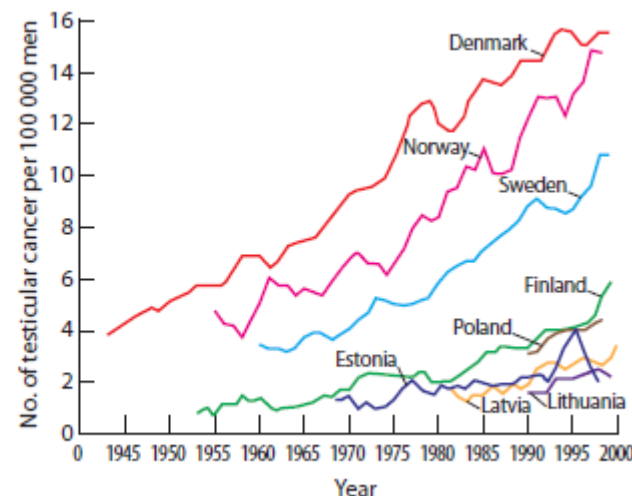
Figure 8. Female breast cancer incidence across Europe
(data from <http://data.euro.who.int/hfad/b/>).



Breast cancer rate
in European
countries*

Testicle cancer rate
in European
countries*

Figure 7. Testicular cancer rates across northern Europe
(from Richiardi et al., 2004; used with permission of the publisher).



Solution ?

Government

Brands



Industry



**Source
Elimination**

**Information
Disclosure**

Government: Intensify chemicals' environmental risk control

“Some hazardous chemicals which have already been eliminated or restricted in the developed countries are still in large-scale production and use in China. There is a phenomenon that the production capacity of some chemicals with high environmental risks is being transferred and concentrated into China. ”

“To establish the hazardous chemical elimination list, to phase out chemicals with high toxicity, hard degradability and high environmental hazards.”

---- China's MEP issued the <12th Five-Year-Plan on chemical environmental risk prevention and control> on Feb 20th, 2013

“To establish the hazardous chemicals for priority environmental management, to restrict the production and use of chemicals with high environmental risks. ”

<Measures for the Registration of Hazardous Chemicals for Environmental Management (Provisional) >took into effect on March 1st 2013

Textile industry has been listed as one of the 6 Key Industrial Sectors for Priority Prevention and Control under the 12th Five-Year Plan

12th Five-Year-Plan: Special column II: Key Industrial Sectors for Priority Prevention and Control

Textile industry: cotton dyeing and finishing (1713), chemical fiber fabric dyeing and finishing (1752), wool dyeing and finishing (1723), silk dyeing and finishing (1743);

Source Elimination

Key Projects under the 12th Five-Year-Plan

No.	Project Item	Project
5	Demonstration projects of risk control of hazardous chemicals	conduct demonstrations of chemical environmental risk control and management in industries, chemical industry parks and enterprises for priority prevention and control.
		Carry out demonstration projects to limit, replace and phase out chemicals for priority prevention and control such as PFOS, Nonylphenols and phthalates.

Source Elimination

58 Priority Chemicals for Prevention and Control in 12th FYP

- ❖ **Trichloroethylene**
- ❖ **4-Nonylphenol**
- ❖ **Diethyl phthalate**
- ❖ **Aniline**
- ❖ **Dibutyl phthalate**
- ❖ **Dioctyl phthalate**
- ❖ **Chlorobenzene**
- ❖ **Phenol**
- ❖ **.....**

During the 12th FYP phase, the list of phase-out chemicals with high toxicity, hard degradability and high environmental hazards as well as the list of restriction chemicals for toxic and hazardous risks will be published.

Source Elimination

Factories using/producing hazardous chemicals for priority environmental management (over 100 types) shall submit

- ❖ The application documents for the environmental protection registration form
- ❖ Environmental Risk Assessment Report
- ❖ Plan for Environmental Risk Prevention Control: Implementation plans to reduce the discharge of priority environmental hazardous chemicals

-----Measures for the Registration of Hazardous Chemicals for Environmental Management (Provisional)

Source Elimination

hazardous chemicals for priority environmental management

- Trichloroethelene
 - Nanophenols
 - Diethyl phthalate
 - 1,2-Dichloroethane
 - Trichlorobenzene
 -
-

Chemical Information Disclosure

Policy momentum---

“To establish the Release and Transfer Report system on hazardous chemicals for priority environmental management, and complete the first round of registration of hazardous chemicals for environmental management by the end of the “12th Five-Year” period.”

---The 12th FYP on chemicals environmental risk prevention and control

“Companies using or producing hazardous chemicals for priority environmental management should disclose the release and transfer information of priority hazardous chemicals and characteristic pollutants as well as the monitoring results before January each year. ”

----- Measures for the Registration of Hazardous Chemicals for Environmental Management (Provisional)

Chemical Information Disclosure

Companies using or producing hazardous chemicals for priority environmental management

Submit the pollutants release and transfer report

Time ----- Release to the public before January 31st every year;

Content -----

- information on the release, disposal and recycling of priority hazardous chemicals and characteristic pollutants.
- relevant calculation data



ZARA



MANGO

17 brands

**Have committed to
eliminating all hazardous
chemicals by 2020**



ESPRIT



VALENTINO

UNITED COLORS
OF BENETTON.

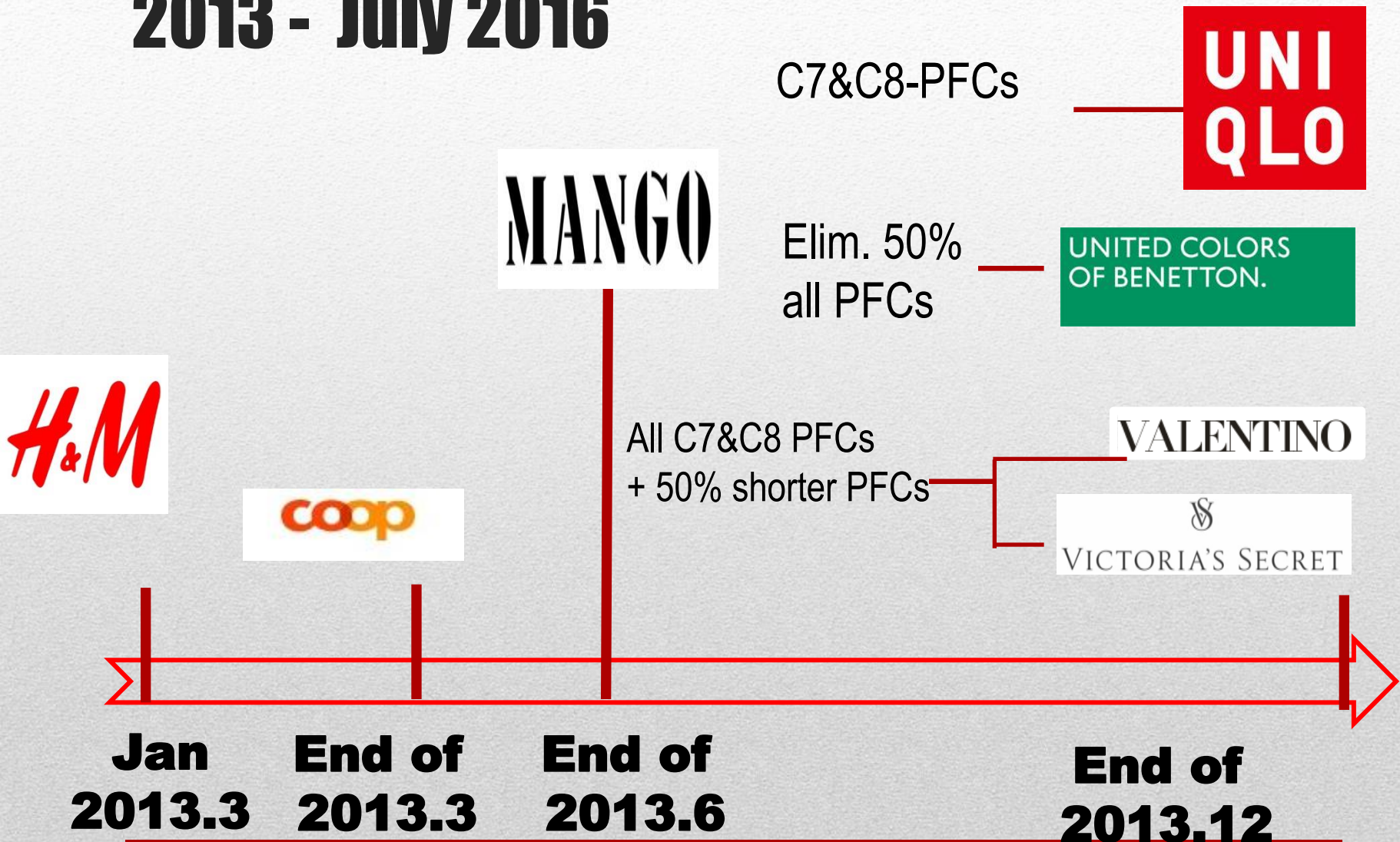
The commitment means:

- ❖ Zero Discharge ----- Not ETP-
Elimination of all releases,
via all pathways ;**
 - ❖ Precautionary Principle -----
Not legal limits-substitution**
-

Source elimination : APEOs



Source elimination : all PFCs ... Jan 2013 - July 2016



Information Disclosure : Chemical discharges of Chinese suppliers



Closing Thought

