

AB 1807

Toxic Air Contaminants

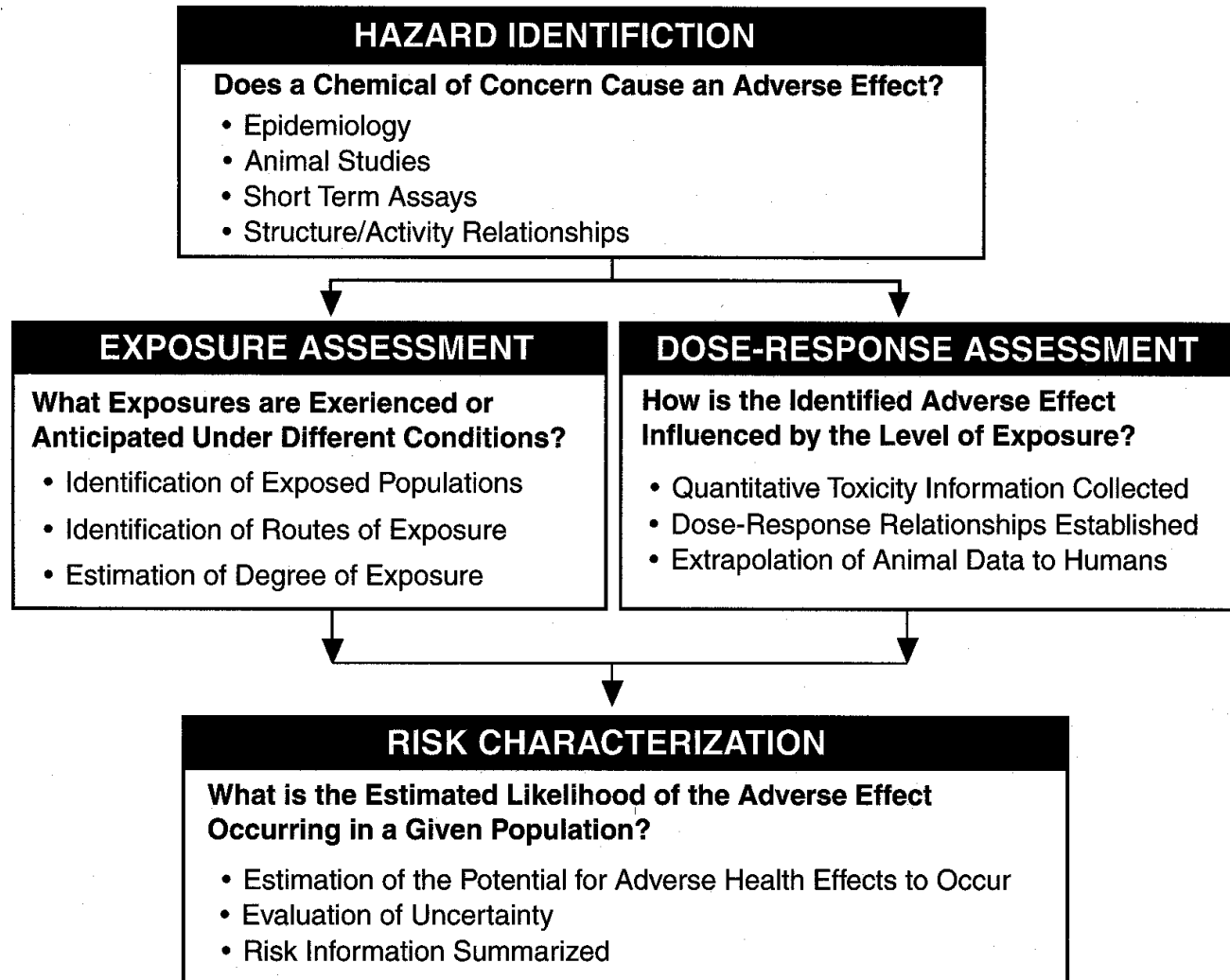
1983

- Toxic air contaminant means an air pollutant which may cause or contribute to an increase to mortality or serious illness, or which may pose a present or potential hazard to human health
- Scientific Review Panel: A nine member Scientific Review Panel on Toxic Air Contaminants shall be appointed to advise the State Board and the Department of Pesticide Regulation

SRP history

- The creation of the Panel derived from the fact that EPA efforts on toxic air contaminants was inadequate; California wanted to address toxics.
- The Panel has followed the policies identified in the 1983 NAS risk assessment document, the Red Book. NAS has issued a new document of the risk assessment process.
- We will discuss implementation of the report at the next meeting.
- It changes the underlying philosophy and recommends changes in the relationship between risk assessment and risk management.

Four Major Elements of Risk Assessment



Improving the Utility of Risk Assessment

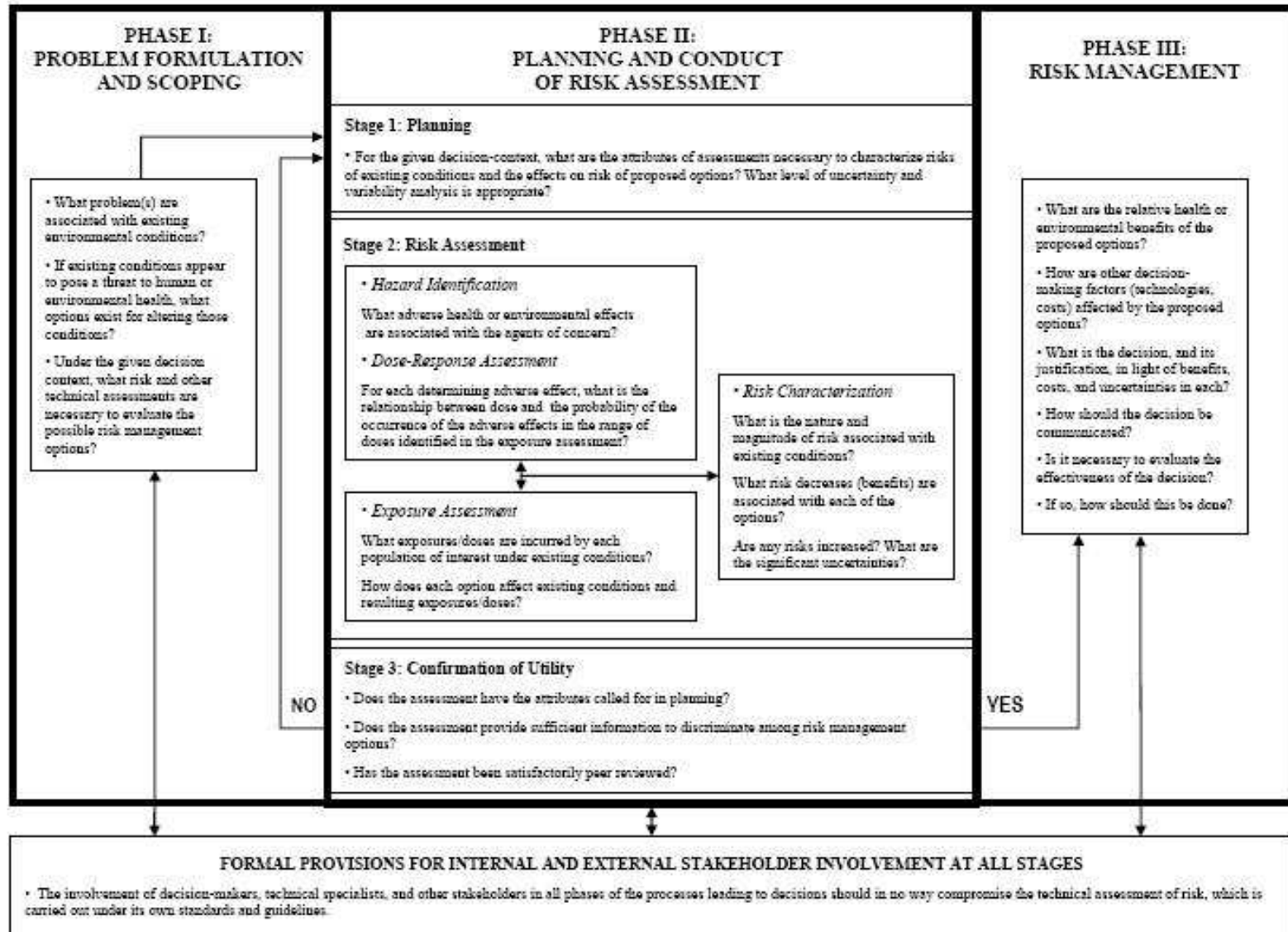


FIGURE 8-1 A framework for risk-based decision-making that maximizes the utility of risk assessment.

Improving the Risk Utility Assessment

Phase I: Problem Formulation and Scoping

- What problem(s) are associated with existing environmental conditions?
- If existing conditions appear to pose a threat to human or environmental health, what options exist for altering those conditions?
- Give context, what risk and assessments are needed to evaluate the possible risk management options?

Technical Peer Review

- 29 toxic air contaminants (TACs)
- 189 Hazardous Air Pollutants (Clean Air Act Amendments of 1990) identified as TACs
- 299 health values for hazardous air pollutants as TACs
 - 51 acute reference exposure levels
 - 80 chronic reference exposure levels
 - 168 unit risk values

Technical Peer Review

- Health risk assessment guidelines for Hot Spots Program
- Formaldehyde/benzene petition
- Litigation over diesel particulate risk assessment
- Prioritization of TACs as disproportionately impacting children
- MTBE

Children's Environmental Health

- **SB 25 (1999)** requires OEHHA to assess whether current air pollution standards are protective of infants and children.
 - Requires OEHHA to ascertain which TACs and criteria pollutants differentially impact infants and children.
 - Requires risk assessment of TACs and criteria pollutants to specifically account for children.
 - Assessment to include exposure, sensitivity, impacts of multiple chemical exposure.

General procedure

- Panel (2) leads on chemicals, one person addresses health and the other exposure. They work directly with the relevant agency
- The relevant agencies present their risk assessments and information on the toxicity and exposure of the chemicals and the Panel asks questions with the leads going first. The Panel has historically found issues with the documents and a second or more meetings are required to come to agreement.
- The Panel is often unanimous in their approval, but that need be the case. For example there were mixed views on the re-evaluation of formaldehyde.
- Following approval of the Agencies documents, the Panel writes findings and the Chair sends the findings with a transmittal letter to the relevant Agency, ARB and DPR. We present our findings to the Air Resources Board, but not DPR.

SRP (continued)

- The Panel reviews written submissions to the Agencies as well as the Agency response. The Panel does not take testimony from outside parties at the meetings preferring to review written submissions. We could change our decision not to take verbal testimony
- Written testimony can be submitted at any time; SRP has historically requested the submissions and Agency response be submitted at a reasonable period before the meeting.
- Jim Behrman is our liaison between the Agencies and the Panel. He is responsible to the Panel. Peter Mathews addresses logistical issues. Peter will address travel and reimbursement needs.
- Both are very experienced a. We try and balance location for the meetings, but most of the meetings are held in the bay area or Sacramento since most of the Panel members are from Northern California.
- We have sued only once since creation of the Panel. It was diesel particulate and we were winners in the suit.

SRP (continued)

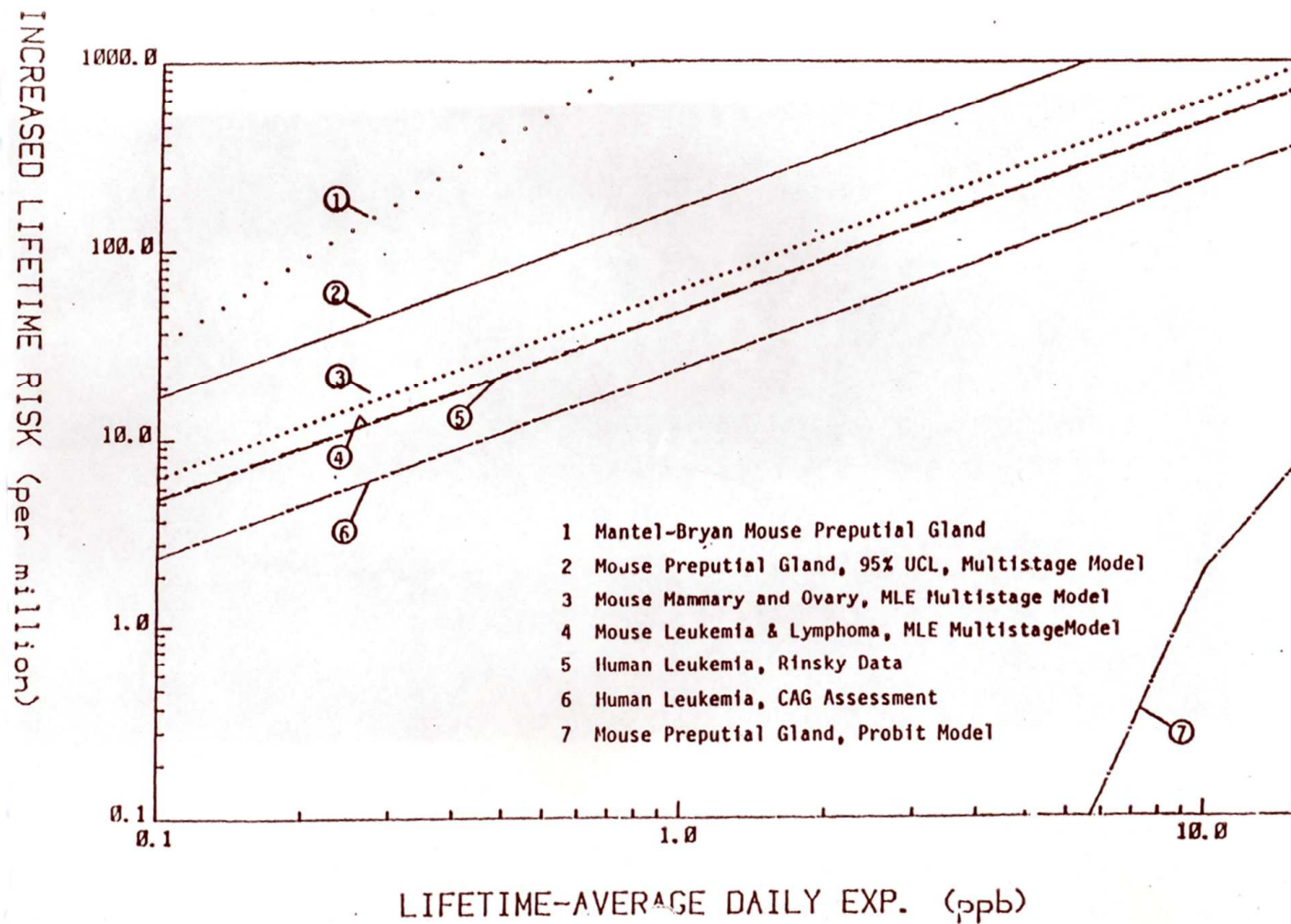
- Industry or others can claim new information is available and requests the relevant Agency consider the information to determine if the risk assessment should be modified or if the designation should be changed.
- The Agency approaches the issue by requesting the SRP make a recommendation on whether the issue should be reopened. We have been asked to review benzene and formaldehyde.
- The last chemical brought to the Panel from ARB was environmental tobacco smoke in the early 2000s. Panel addressed diesel in 1998. I would prefer more chemicals be submitted; a point for discussion.
- DPR did not submit many chemicals in the early years, but their rate has increased recently and our relationship has been positive; there are clear differences in philosophy. These are issues worth discussing.
- The history of submissions by OEHHA has been extensive. I assume Melanie will go over the issues they have brought forward.
- The Panel needs to be familiar with benchmark dose dose-response; do we need a discussion?

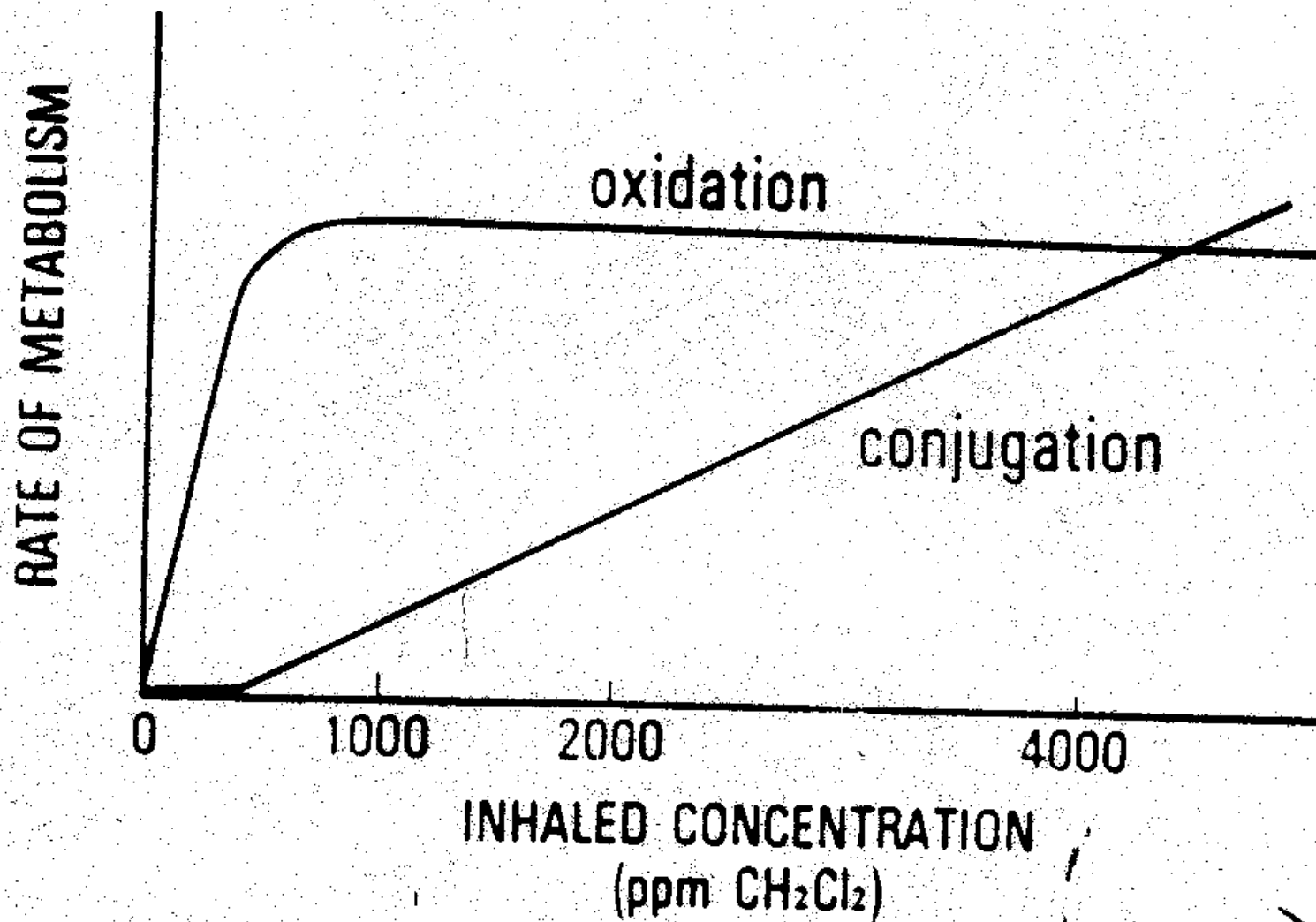
Highly relevant TAC examples

- Peter will send a list of all the chemicals that the SRP has addressed
- Benzene,
- Methylene chloride
- Perchloroethylene
- Diesel particulate-Problem: does not address vapors
- Metam sodium (DPR)
- Chloropicrin (DPR)

Figure A

CANCER RISK FROM BENZENE





Los Angeles Times

THURSDAY, APRIL 23, 1998

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Diesel Exhaust Found to Pose Strong Cancer Risk

■ **Air:** State must decide whether to declare fumes a toxic threat requiring safeguards. Business leaders attack report.

Occupational diesel exposure and lung cancer

- “Our observation of lung cancer risk [*in railroad workers*] is similar to the risk noted by others in the literature. **In more than 35 studies** of workers with occupational exposure to diesel exhaust, **excess risk of lung cancer** is consistently elevated by 20–50%.”
- “These results indicate that **the association between diesel exhaust exposure and lung cancer is real.**”
- **There have been many studies since then that were positive**

Garshick et al 2004, 2008, 2009

Perchloroethylene

- ATCM amendments
- Prohibit installation of new Perc dry cleaning machines after 2004
- Eliminate the use of existing Perc machines at co-residential facilities (2010)
- Require converted machines be removed from service (2010)
- Require all machines be removed when they become 15 years old or by 2023

The Future

- What compounds should form the highest priorities for the future?
- Children's protection
- Pesticides
- Global Climate Change