Chapter 1 Outline of Environmental Investigation on the Status of Pollution by Chemical Substances

1. History of the General Inspection Survey

The Chemical Substance Control Law (see Table 1-1 and Appendix A) was enacted in 1973 and in response to the law, the Environment Agency of Japan (the former MOE) initiated successive environmental safety inspections, namely the General Inspection Survey of Chemical Substances on Environmental Safety, for the purpose of grasping the persistence of existing chemical substances in the general environment. In the First (FY1979-1988) and Second Comprehensive Survey of Chemical Substances on Environmental Safety, a total of about 800 substances were selected from among the Priority List (First term: about 2,000, Second term: about 1,100 substances). In addition to the above, Wildlife Monitoring, Follow-up Survey of the Status of Pollution by Unintentionally Formed Chemical Substances, and Monitoring of Surface Water and Bottom Sediment had been undertaken.

In the intervening time, in order to correspond to status change relating to the chemical substances and environmental issues such as the enactment of the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvement Their Management (hereinafter called the PRTR Law), effectuation of the POPs Treaty and efforts to address the endocrine disruptor issue, as well as to cope with the current political issues, it became necessary to reconstruct the survey system based on the new standpoint. Thus, revision work on the survey policy was initiated in FY2001 and the Revision of the General Inspection Survey of Chemical Substances was approved at the Special Committee for the Assessment of Chemical Substances, Central Environment Council held on May 2002.

Surveys have been conducted since FY2002 based on the revision policy, where substances were selected by the Expert Group on Substance Selection (in the General Inspection Survey) corresponding to the needs of various divisions of governmental and other organizations so that the survey results might be utilized for the prevention of pollution by chemical substances in the environment. These surveys have been carried out using methods suitable for the respective purposes of the Initial Environmental Survey, the Environmental Survey for Exposure Study and the Monitoring Investigation.

Table 1-1 Outline of the Chemical Substances Control Law (see also Appendix A)

Enactment (amendment): 1973 (1986)

Purpose: 1) Prevention of environmental pollution by chemical substances that are not readily degradable and have the potential to affect human health;

2) Enactment of necessary regulations on the production, import, and use of new chemical substances in response to the examination of their characteristics.

Contents: Regulation (substantial prohibition) on production and import of "Class 1 Specified Chemical Substances" that are not readily biodegradable, are highly accumulative and chronically toxic. Regulation (notification of production, import amount, etc.) on production and import of hardly biodegradable and chronically toxic "Class 2 Specified Chemical Substances," and regulation (report of production, import amount, etc.) on "Designated Chemical Substances" that are hardly degradable and suspected as being chronically toxic.

Figure 1-1 System of the General Inspection Survey (conceptual diagram)

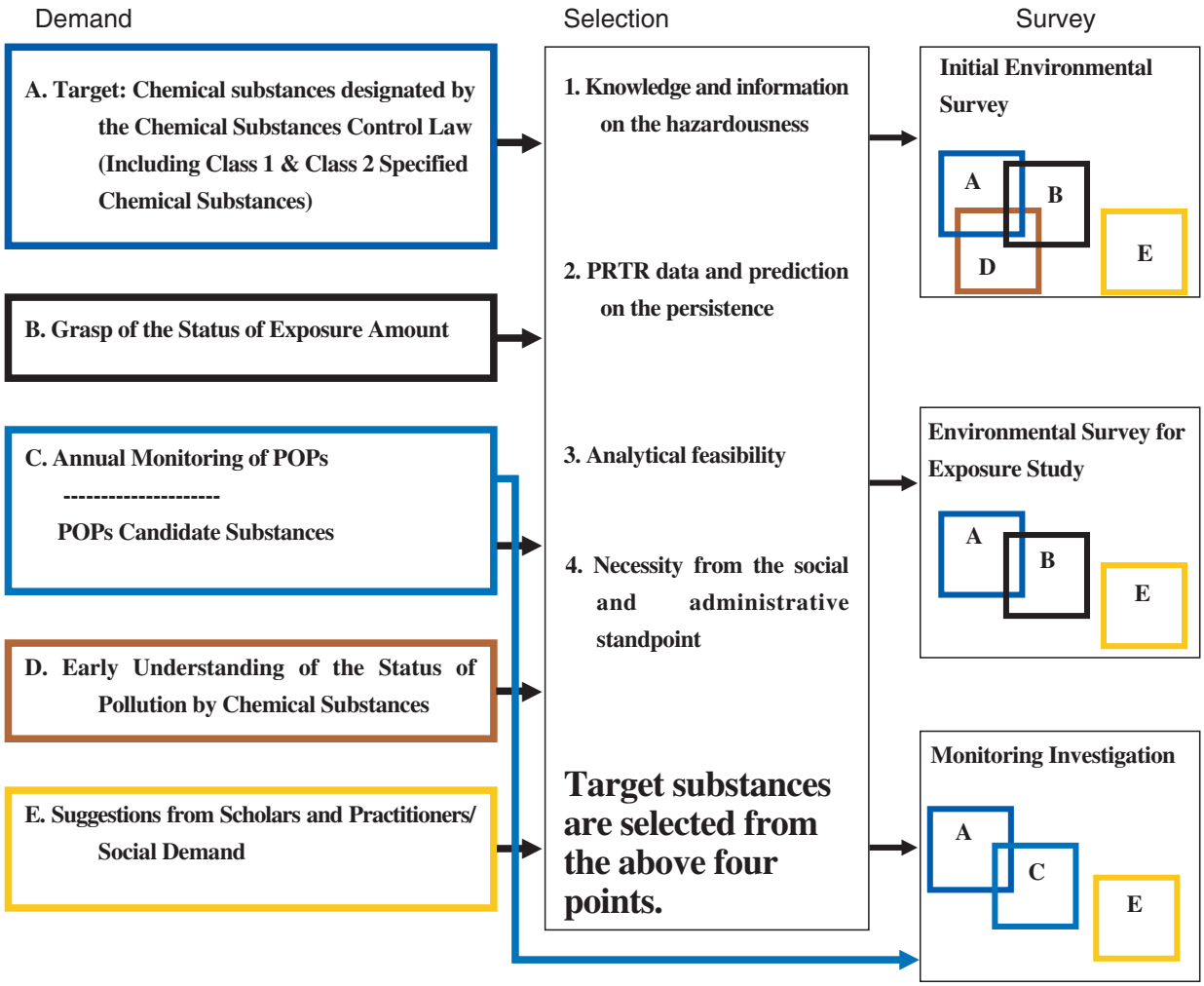
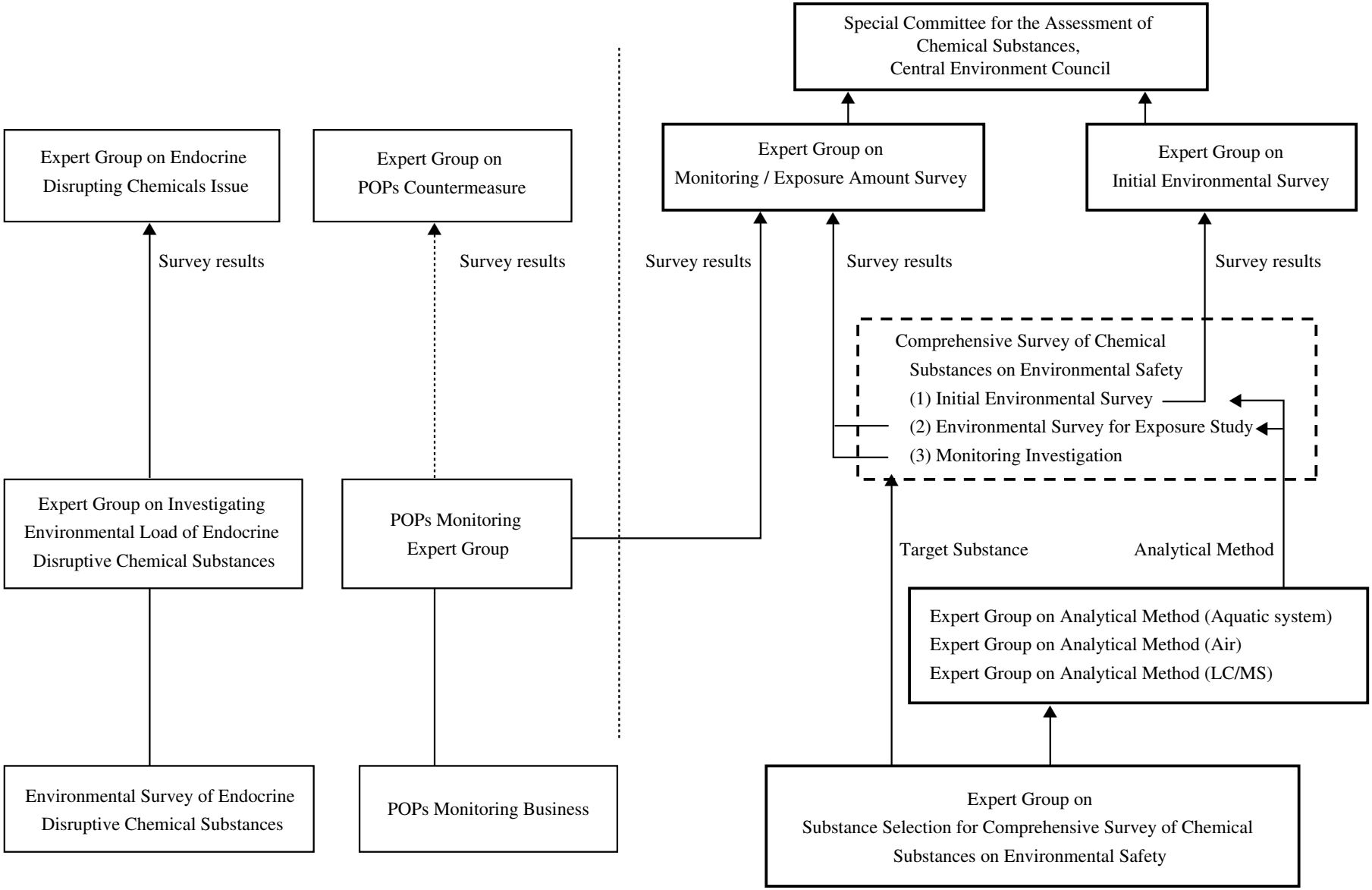


Figure 1-2 System of the Expert Groups for the FY2002 General Inspection Survey of Chemical Substances

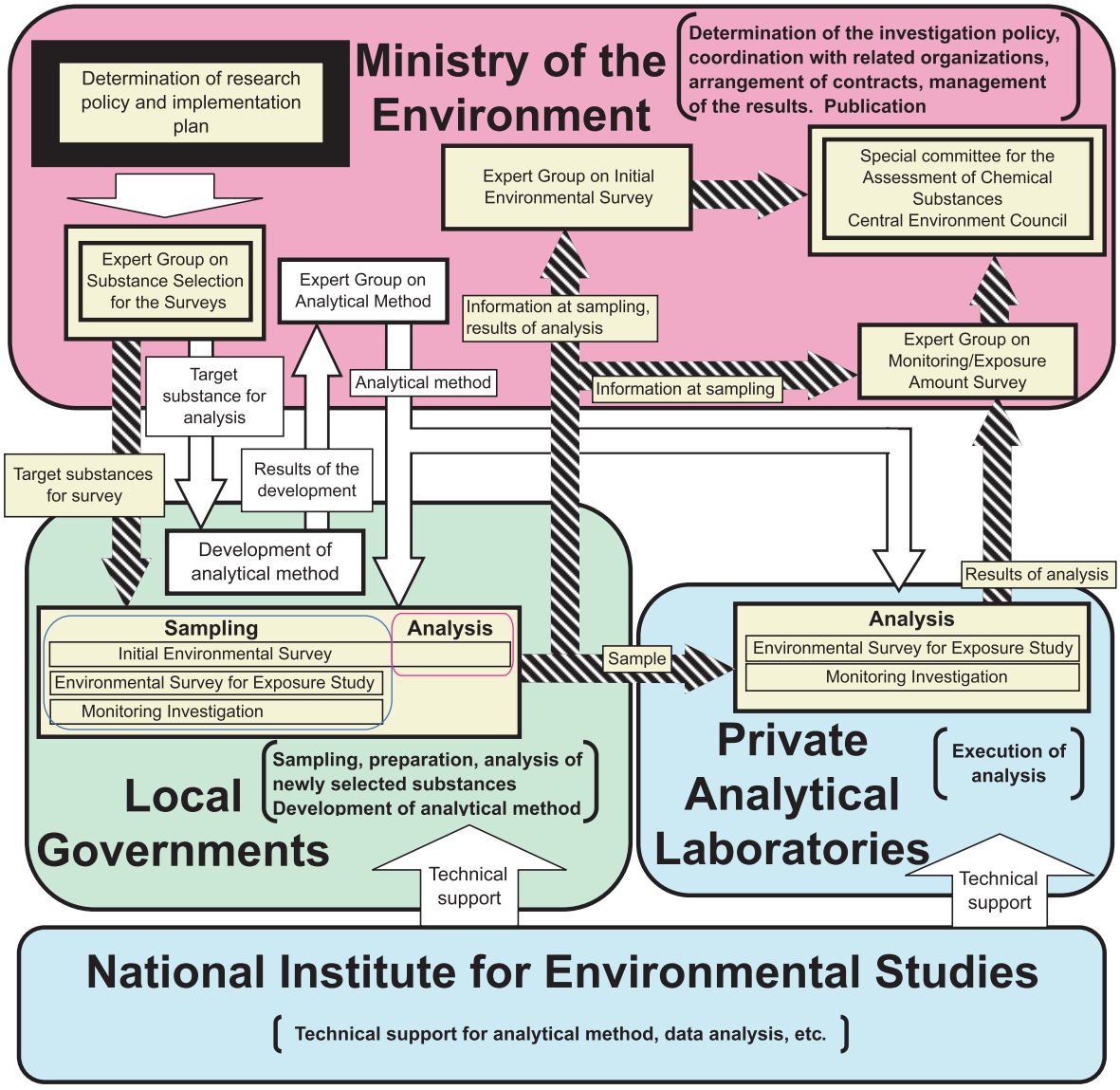


2. FY2002 Expert Group on Substance Selection for the General Inspection Survey

In June and July 2002, meetings of the Expert Group on Substance Selection were held for the purpose of discussing and selecting target substances, requested from various divisions of governmental organizations, and other substances recommended by scholars and practitioners as substances for which investigation is necessary, based on toxicity information; PRTR data and, if possible, prediction results of environmental persistence; feasibility of establishing analytical methods; and from the standpoint of social and administrative needs.

Survey media was also discussed and selected at the meeting, taking into consideration the relationship between the possible exposure route and media, for instance, selecting multiple media for a specific substance. Consequently, target substances and media for the FY2002 Initial Environmental Survey, Environmental Survey for Exposure Study and Monitoring Investigation in the General Inspection Survey were selected.

Figure 1-3 System of the General Inspection Survey – Organizations and Their Roles



3. Scope of the survey

(1) Initial Environmental Survey

The purpose of this survey is to grasp the status of environmental persistence of chemical substances and others targeting the Designated Chemical Substances specified in the Chemical Substances Control Law, candidate substances for the PRTR System, unintentionally formed substances, and substances required by social factors. Furthermore, development of analytical methods and assessment of the survey results were conducted, when necessary. In FY2002, 13 substances (groups) including epichlorohydrin, chlorodifluoromethane (CFC-22), and bromomethane were selected as the survey target. In addition, development of analytical methods for 8 substances (groups) including chlordecone has been started.

(2) Environmental Survey for Exposure Study

In the FY2002 survey, 6 substances (groups) including 1,2-dichlorobenzene, perfluorooctane sulfonic acid (PFOS), polychlorinated naphthalene, brominated diphenyl ethers, and benzo[*a*]pyrene were selected as target substances.

(3) Monitoring Investigation

In this Monitoring Survey, substances for which environmental persistence is high but environmental standards are not yet established and a grasp of their annual environmental status is required, were selected as the target substances for the survey from among those included in the POPs Treaty, substances that could be candidate target substances of the Treaty, Class 1 & 2 Specified Chemical Substances and Designated Chemical Substances specified in the Chemical Substances Control Law. In the FY2002 survey, 8 substances (groups) including 6 POPs and organotin compounds were selected as target substances.