

## **Chapter 3 - THE SURVEY METHODOLOGY**

### **3.1 Tool for Data Collection – Design of Questionnaire**

Four sets of questionnaires were developed for the survey, namely, for

- i. the private sector
- ii. the government agencies and research institutions
- iii. the higher learning institutions, and
- iv. the non-profit organisations

The questionnaires were based on those used in the "1994 National Survey on R&D". A special task force was formed to oversee the conduct of the survey, with MASTIC being the secretariat, consisting of representatives from the following agencies;

- i. Malaysian Industrial Development Authority (MIDA)
- ii. Industrial Policy Division, Ministry of International Trade and Industry (MITI)
- iii. Intellectual Property Division, Ministry of Domestic Trade and Consumers Affairs
- iv. Federation of Malaysian Manufacturers (FMM)
- v. PERNEC Corporation
- vi. Bureau of Research and Consultancy, ITM
- vii. Research Management Unit, University of Malaya
- viii. Malaysian Industry-Government Group for High Technology (MIGHT)
- ix. Space Science Studies Division (BAKSA)
- x. Malaysian Institute for Nuclear Technology Research (MINT), and
- xi. Department of Statistics Malaysia.
- xii. Science and Technology Division, Ministry of Science, Technology and the Environment Malaysia

### **3.2 Survey Administration**

Mail survey was used to collect data on R&D activities. The survey was administered in accordance with a standard procedure documented in the procedure manual. Several procedures were added onto the survey methodology to ensure high quality outputs, namely

- i. The revised "Malaysian R&D Classification System" was used together with the survey forms.
- ii. Telephone and facsimile hot-line services were made available for the respondents to seek any queries pertaining to the survey.
- iii. A strict quality assurance program was implemented throughout the data input and analyses.

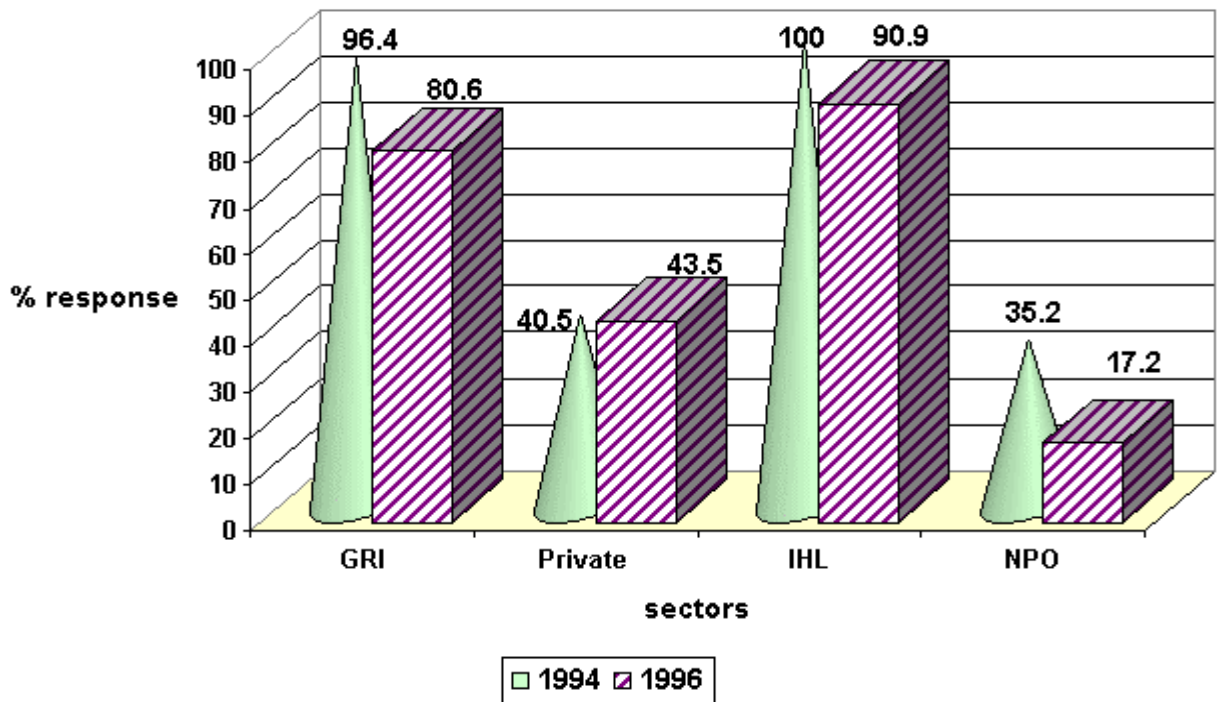
### 3.3 The Coverage and Response Rate of the Survey

The survey covers four sectors; private sector, government agencies and research institutes (GRI), institutions of higher learning (IHL), and non-profit organisations (NPO).

Sector	No. of organisations	No. of organisations responded	% responded	Organisations with R&D	Organisations without R&D
GRI	62 (56)	50 (54)	80.6 (96.4)	28 (37)	22 (17)
Private	1743 (1776)	759 (720)	43.5 (40.5)	158 (140)	601 (580)
IHLs	11 (10)	10 (10)	90.9 (100)	9 (9)	1 (1)
NPO	58 (54)	10 (19)	17.2 (35.2)	1 (3)	9 (15)
Total	1874 (1896)	829 (803)	44.2 (42.3)	196 (189)	633 (623)

Note: *The values in brackets are the response rates recorded in 1994.*

Overall, the response rate was only 44.2%, a slight improvement over the rate in 1994(42.3) [see Fig. 3.1]



*Fig. 3.1 : The Response rate by the various sectors*

Among those responding to the survey, there was not much change in the number of organisations carrying out R&D activities. Only 23.6% carried out R&D activities as compared to 23.5% reported in 1994 [see Fig. 3.2]. In the case Non-Profit Organisations (NPO), only one out of ten NPOs carrying out R&D and therefore, they were not considered for further analysis.

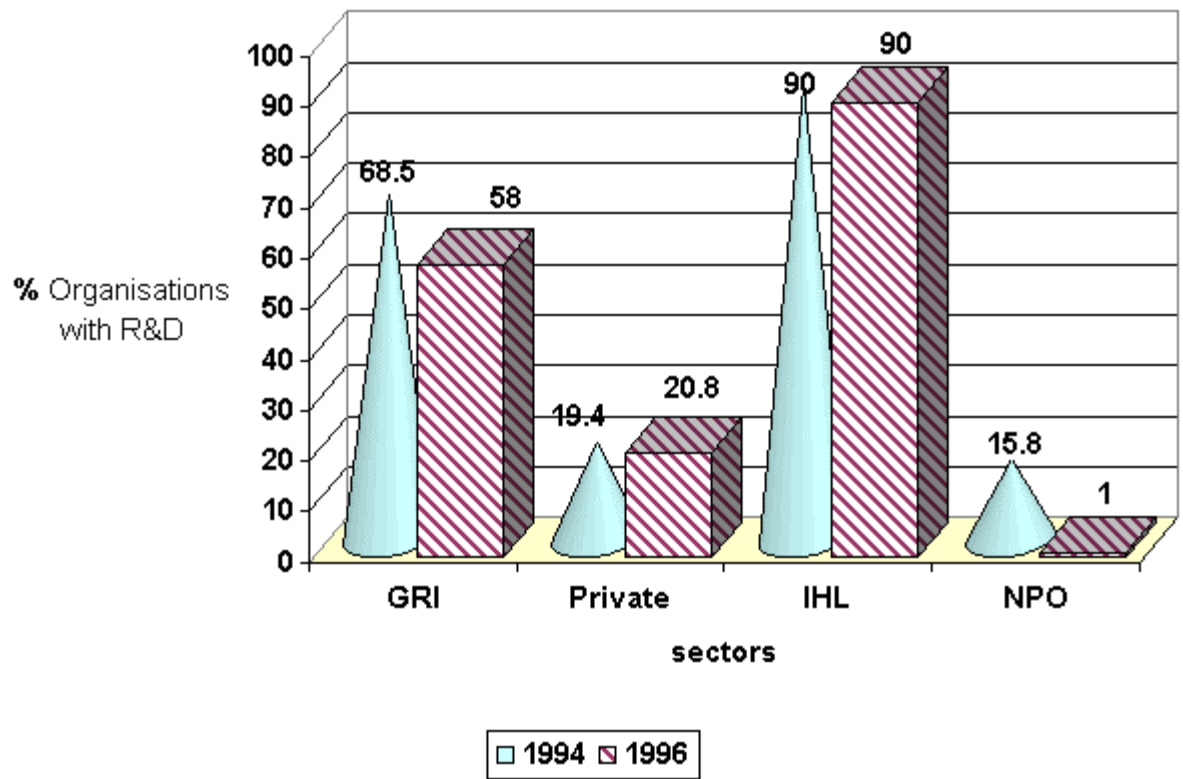


Fig. 3.2: *The percentage of organisations with R&D*