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STUDY OF PUBLIC AWARENESS OF SCIENCE AND TECHNOLOGY MALAYSIA, 2000

Sponsored by:
MALAYSIAN SCIENCE AND TECHNOLOGY
INFORMATION CENTRE (MASTIC)

MINISTRY OF SCIENCE, TECHNOLOGY AND
THE ENVIRONMENT, MALAYSIA

With the Co-operation of:
UNIVERSITI TEKNOLOGI MARA
SHAH ALAM

MAY 2000

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STUDY OF PUBLIC AWARENESS OF SCIENCE AND TECHNOLOGY MALAYSIA, 2000

JUNE 2000

Assalamualaikum wbt and Greetings,

My name is _____ . This is my letter of identification. We are conducting a study of PUBLIC AWARENESS OF SCIENCE AND TECHNOLOGY 2000. It is hoped that this study will identify public attitudes to and understanding of Science and Technology. The results of this study will play a very important part in the effort to achieve the aim of making this country an industrialized one by 2020. These results will be used in national development planning. You have been selected through scientific means to help with this study. All data that we get from you will be used only for this study and all information will be kept confidential. I have a few questions to ask you and this interview is estimated to take about 25 minutes.

Shall we begin?

Respondent's Name:

Respondent's Address:

Telephone Number:

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A. SCIENCE AND TECHNOLOGY ISSUES

1. For every issue below state your **level of knowledge** and **level of interest** according to the following scale:

Level of knowledge code
1 - Don't know 2 - A Little 3 - Fair 4 - In-depth
Level of interest code
1 - Don't know 2 - A Little 3 - Fair 4 - In-depth.

Zone

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 State

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 Location

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	Level of Knowledge				Level of Interest			
	1	2	3	4	1	2	3	4
a. International policy and foreign countries (e.g. the Non-Aligned Movement Policy)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. National Education Policy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. New discoveries in the field of science (e.g. cloning)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. New discoveries in the field of medicine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. New inventions and technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. New inventions in Malaysia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Applications of computer technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Economics and trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Use of nuclear technology to generate power (e.g. electricity)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Space Exploration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Environmental Pollution (e.g. the burning of forests that causes haze)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B. MEDIA

NEWSPAPERS

2a. Do you read newspapers?

Yes No (please go to Question 3a)

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2b. If Yes, how often do you normally read newspapers?

- Every day
- A few times a week
- Once a week
- Very Seldom

2c Mark three local sections and three foreign ones that you are most interested in in order of preference (i.e. First, Second and Third).

	Local			Foreign		
	1	2	3	1	2	3
1. Politics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Business/Economics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Entertainment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Science and Technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

MAGAZINES

3a Do you read magazines?

	Often	Seldom	Never
1. Non-scientific magazines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Scientific magazines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(If **Often**, please go to **Question 3b**)
 (If **Seldom** or **Never**, please go to **Question 4a**)

3b If you often read magazines/publications, give the name/s of the magazine/s that you often read in the last three months.

1. Non-scientific magazines: _____

2. Scientific magazines: _____

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TELEVISION

4a Do you watch TV?
 Yes No (go to **Question 5a**)

4b If **Yes**, state **three** kinds of local programmes and **three** kinds of foreign ones that you most often watch, in order of frequency (i.e. **First, Second** and **Third**).

	Local			Foreign		
	1	2	3	1	2	3
1. News	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Documentaries (Name _____)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Entertainment (Name _____)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Religious Programmes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Others (State _____)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4c How many hours a day do you usually spend watching TV?
 < 1 hour
 1 -<2hours
 2-<3hours
 3-<4hours (State _____)

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RADIO

5a Do you listen to the radio?
 Yes No (please go to **Question 6a**)

5b If **Yes**, state the kind of radio programme that you **most often** listen to:

- 1. Entertainment
 - 2. News
 - 3. Religious programmes
 - 4. General Knowledge
 - 5. Sports
 - 6. Others
- (State _____)

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5c How many hours do you usually spend listening to the radio in a day?

- < 1 hour
- 1-<2 hours
- 2-<3 hours
- 3-<4 hours
- > 4 hours (State _____)

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NEW MEDIA

6a Do you use the following facilities?

- 1. Internet Yes No
- 2. E-mail Yes No
- 3. IRC Yes No

[If the above are **NOT** applicable to you, please go to **Question 7**)

6b If your answers to 6a are Yes, how often do you use the facilities?

	Internet	E-mail	IRC
1. Everyday	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. A few times a week	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Once a week	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Very Seldom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6c Where do you normally use them?

	Internet	E-mail	IRC
1. Office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. School	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. University/College	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Cyber Cafe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Others			
(State _____)			

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7. If you have answered that you read, watch, listen to and/or use the relevant media, what is the level of your belief in the truth of the information regarding Science and Technology disseminated by those mass media?

	0	1	2	3	4
	Don't Believe		Partly Believe		Believe

	0	1	2	3	4
a. Newspapers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Magazines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Scientific Magazines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C. VISITS / EXHIBITIONS

8. In the last year, how many times have you visited the following places?

	1	2	3	4	>4
a. Museums	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Aquariums	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Science Centre	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Planetarium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Petrosains	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. In the last year, how many times have you visited the following exhibitions?

	1	2	3	4	<4
a. Higher Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Information Technology(IT)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Science & Technology (not including IT)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Art	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Books	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(State _____)

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D. KNOWLEDGE OF S & T

10. Have you ever read or heard about the following issues? If you have read or heard about the following terms or issues, state the level of your understanding of those terms or issues. (If your answer is No, please go to Question 13)

1. None	2. A little	3. Fair	4. Good
		1	2
		3	4
1. Acid rain		<input type="radio"/>	<input type="radio"/>
2. Hole in the ozone layer		<input type="radio"/>	<input type="radio"/>
3. Air Pollution		<input type="radio"/>	<input type="radio"/>
4. Global Warming		<input type="radio"/>	<input type="radio"/>
5. Greenhouse effect		<input type="radio"/>	<input type="radio"/>

11. For each **Good** answer to **Question 10** above, state whether the following statements are **True** or **False**:

0. Not Sure	1. False	2. True
		0
		1
		2
a. Acid rain destroys forests.		<input type="radio"/>
b. The hole in the ozone layer can cause skin cancer.		<input type="radio"/>
c. The use of LPG by motor vehicles can lessen air pollution.		<input type="radio"/>
d. Sea levels can fall as a result of global warming.		<input type="radio"/>
e. The greenhouse effect can cause an increase in sea levels.		<input type="radio"/>

12. Scientists have reported that 'the ozone layer has become thinner.' This is usually eferred to as a 'hole' in the ozone layer. Do you know where this 'hole' is?

Yes (State where _____)

No

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13. What do you think of the following statements ?

	0. Not Sure	1. Don't Agree	2. Agree
	0	1	2
a. Science and technology make our lives easier, more healthy and more comfortable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The quality of science and mathematics education in school is not satisfactory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. The use of computers and automation will increase job opportunities in factories.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. We depend too much on science, and not enough on religious faith.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Although scientific research does not produce immediate benefits, it is necessary in order to increase knowledge. The government should therefore support it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Scientists ought to be given permission to conduct research that causes suffering to animals such as dogs and monkeys, if such research produces new findings for human health.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. We don't really need to know anything about science in our daily lives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Science causes our lifestyles to change too rapidly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Most scientists work in order to make human life more comfortable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Daily work becomes more attractive with the use of science and new technology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. If the development of science and technology produces harmful results, there are bound to be new discoveries to counteract them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14a Do you know about the Multimedia Super-Corridor (MSC) project ?

- Yes No (please go to **Question 15**)

14b If Yes, please name one of the flagships of the Multimedia Super-Corridor (MSC).

E. BENEFITS AND HARM OF SCIENCE

15. Scientific research can cause positive or negative effects. What is your opinion?

- The good effects exceed the bad ones
 They are about equal
 The bad effects exceed the good ones

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16. Please state the effects of S&T on the following:

0. Negative effects	1. No effect	2. Positive effects	0	1	2
a. Standard of living (e.g. Better conditions of life)			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Working Conditions (e.g. Makes workeasier)			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Public Health (e.g. Higher life expectancy)			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. World Peace			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Cost of living			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. The Environment			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Individual enjoyment of life			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17a. Have you ever heard of **genetic engineering** or **cloning** ?
 Yes No (Please go to **Question 18**)

17b. If Yes, please give one example of the above:

17c. If you have heard of genetic engineering or cloning, do you agree that they should be practised?
 Yes No Not Sure

17d. If **Yes** or **No**, please give reasons:

18. In your opinion, what is the relationship between Malaysian economic growth and scientific research?

- None at all
- A slight connection
- A strong connection

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19. Give your opinion on the efforts that have been made by the government in the following matters:

0. Not sure	1. Not enough	2. Enough	3. More than enough		
		0	1	2	3
a. Support for the space industry		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Decreasing pollution		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Improving the level of public health (e.g. building more hospitals)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Support for scientific research		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Improving the level of education (e.g. training more teachers)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Strengthening national defence (e.g. buying more military equipment)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

F. PUBLIC UNDERSTANDING OF S&T

20. State whether each of the following statements is True or False.

0. Not Sure	1. False	2. True		
		0	1	2
a. The centre of the earth is very hot.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. All radio activity is man-made.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. The oxygen we use for breathing is produced by plants.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. The father's genes determine whether a foetus will be born a girl or a boy.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Lasers function by combining sound waves.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Electrons are smaller than atoms.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Antibiotics kill not only viruses, but also bacteria.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. The earth began with a very big explosion.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. The continent we are on has changed its location in the last few million years and will continue to move in future.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Man as we know him today originated from an earlier animal species.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Smoking causes lung cancer.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. The first men lived at the same time as dinosaurs.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Milk that is contaminated by radioactivity will be safe to drink after boiling.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. The earth goes round the sun.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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- 21. Which travels more quickly, light or sound?
 - Not sure
 - Light
 - Sound
 - Both travel at the same rate

- 22. How long does the earth take to go round the sun?
 - Notsure
 - 1 day
 - 1 month
 - 1 year
 - None of the above (State _____)

G. PARTICIPATION IN S&T POLICY

- 23a. Do you know the Government Education Policy regarding S&T ?
 - Not sure (Please go to **Question 24a**)
 - No (Please go to **Question 24a**)
 - Yes

23b. If Yes, state the Policy:

- 24a. Are you participating in the steps taken by the government to increase the public level of awareness of S&T?
 - Not sure (Please go to **Question 24f**)
 - No (Please go to **Question 24f**)
 - Yes

24b. If Yes, please state one of the above steps?

- 24c. What is your opinion regarding the effectiveness of these steps?
 - Not effective
 - Fairly effective
 - Effective

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24d. Give the reason/s for your opinion.

24e. What is the public level of awareness of S&T after the steps taken by the government ?

- Increased a lot
- Increase a little
- Hasnotchanged
- Not sure

24f. Please give one suggestion for further increasing the public level of awareness of S&T.

H. DEMOGRAPHIC PROFILE OF RESPONDENTS

25. Area of residence

- Town Rural area

26. Ethnic group

- Malay
- Melanau
- Iban
- Bidayuh
- Kadazan
- Aborigine
- Other bumiputera group (state _____)
- Chinese
- Indian
- Others (state _____)

27. Age Category

- 12 - 14
- 15 - 20
- 21 - 60

28. Gender

- Male Female

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29. What is the level of your education?
- Never went to school
 - Did not complete primary school
 - Completed primary school
 - Form 3 (SRP/LCE/PMR) and below
 - Form 5 (OSC/SPM/MCE) and below
 - Completed vocational training
 - Completed Form 6 (STPM/HSC) or matriculation
 - Diploma
 - Bachelor's Degree and above
 - Others (State _____)
30. What stream were you in while in Secondary school ?
- Arts
 - Commerce
 - Science
 - Religious
 - Others (State _____)
31. If you are a student, what field would you like to go into in future ?
- Scientific Non-scientific
- Give your reason/s: _____
- 32a. State your employment status:
- Employed Notemployed
- 32b. If you are not employed, state whether you are:
- A full-time student
 - Retired
 - Looking for a job
 - Not interested in a job
 - A housewife
 - Others (State _____)

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33. State your monthly income:

- Less than RM500
- RM500 - < RM1000
- RM1000 - < RM2000
- RM2000 - < RM3000
- RM3000 - < RM4000
- RM4000 - < RM5000
- RM5000 or more

34. In which sector are you employed ?

- Government
- Private
- Statutory Body
- Self-employed
- Others (state _____)

THANK YOU FOR YOUR COOPERATION

14/03/2000