

Children Environmental Awareness - Local Agenda 21

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INTRODUCTION

Local Agenda 21 (LA 21) was born in the United Nations Conference on Environment and Development most commonly known as the Earth Summit, which was held in Rio de Janeiro in June 1992. A total of 178 countries including Malaysia attended this conference and adopted its findings, including Agenda 21. The full implementation of Agenda 21, the Programme for Further Implementation of Agenda 21 and the Commitments to the Rio Principles were strongly reaffirmed at the World Summit on Sustainable Development held in Johannesburg, South Africa from 26 August to 4 September 2002.

Agenda 21 is essentially a global action plan for sustainable development. Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organisations in the United Nations system, governments, and major groups in every area which has human impacts on the environment. The key point is that the success of Local Agenda 21 (LA21) is based on good coordination between local authorities, industries and communities. In this project, the relationship between communities and local authorities is important.

Malaysia, with technical assistance from United Nations Development Programme (UNDP), initiated the Local Agenda 21 Pilot Project in four selected local authorities: Miri Municipal Council, Petaling Jaya Municipal Council, Kerian District Council and Kuantan Municipal Council. The project studied in this report is a part of the Local Agenda 21 in the Kuantan Municipal Council. [1]

Kuantan Municipal Council was one of the four pilot projects selected to undertake the Local Agenda 21 Pilot Project in 1999. It is the only state capital selected and represents medium-sized towns and the East Coast of Peninsular Malaysia for the Local Agenda 21 Pilot Project.

The Kuantan Community Vision for LA 21 is:

- together to shape Kuantan as a progressive, systemic; and
- environmentally friendly city with a society that is caring, cultured, learned, disciplined and that upholds noble values continuously.

The areas of concerns in LA 21 are Social Development, Environmental Protection, Infrastructure and Public Amenities, Public Awareness and Education.

Kuantan's Action Plan Programmes and Activities could be divided into 4 categories as listed below:

1. Social Development Action Plan
2. Environmental Protection Action Plan
3. Infrastructure and Public Amenities Action Plan
4. Public Awareness and Education Action Plan

The programmes under the Social Development Action Plan are Civic Awareness for Secondary School and Visit to the landfill for Primary School Pupils. For the Environmental Protection Action Plan; the programmes are the Awareness Campaign to De-sludge Septic Tanks and Beach Cleanliness Campaigns; the programme under the Infrastructure and Public Amenities Action Plan is Kuantan Walkabout and for the Public Awareness and Education Action Plan, the programme is Public Aerobic Sessions.[1]

Many schools and children are involved in Local Agenda 21 activities especially in the action on waste in schools.

In the Social Development Action Plan in Kuantan, the "Visits to the landfill for Primary Schools Pupils" programme incorporates environmental education focusing on waste treatment and disposal. The 3R Program, "Reduce, Reuse, Recycle" has been introduced, including the way to minimise waste production and the use of landfills.

For this project, the students visited a selected landfill. Alam Flora gave a short lecture on the process involved. This half-day programme was to show how waste is treated and at the same time educate them on Reducing, Reusing and Recycling (3R), cleanliness and environmental protection.

It is a monthly programme and usually about 40 students from Standard 6 are selected for the visit. The expenses for this programme was about RM250.00 per visit. All primary schools in Kuantan participated and they were selected on a random basis. For this particular project, the schools selected were located in urban areas. Therefore, there might be a significant result observed.

Other agencies involved are Alam Flora Sdn. Bhd., Community of Development and Tourism and the industries. [5]

This report includes an impact evaluation of a project from the Local Agenda. The focus of this work is education and awareness, one of the main points in LA 21 in Malaysia and one of the areas of concern in the Kuantan Community Vision.

In the Social Development Action Plan in Kuantan, this study focuses on the "Visits to the landfill for Primary Schools Pupils" programme. The influence of this programme has been analysed by looking into the children's environmental awareness. [1]

TOOLS FOR ANALYSIS

This part of the report aims to define key concepts and the analytical framework. The concept of capacity building will be explained and used as a base to analyse the project.

According to the United Nations Development Programme (UNDP), the definition of capacity building is:

Capacity is defined as the ability of individuals and organisations or organisational units to perform functions effectively, efficiently and in a sustainable manner. This definition implies that capacity

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is not a passive state but part of a continuing process and those human resources are central to capacity development. The overall contexts within which organisations undertake their functions are also key considerations in capacity development. Capacity is the power of something (a system, an organisation, a person) to perform or to produce. Capability, a closely allied term, can be seen as synonymous with capacity, or simply as undeveloped or unused capacity. [2]

This definition shows the importance of the human resource and that capacity building is a continuous process. It is important to understand that it is an ongoing process and not a one-time affair. Related to this case study, the concept of capacity building is interesting, considering that the landfill visits are part of the awareness raising project.

Boesen and Lafontaine have developed a matrix for analysing and assessing Institutional Capacity [3]. This framework will be used as the tool incapacity building analysis. The principle is to assess the five management functions:

Information Management and Awareness Raising: Environmental monitoring, analysis, dissemination of environmental information, education and training.

Policy Making and Planning: Strategic decision-making, problem identification, diagnosis and prioritisation, function analysis.

Establishment and Maintenance of Institutional Framework: Determination of appropriate management levels, organisational development, legislation, regulation and financial management instruments.

Implementation and Enforcement: Delivery of environmental management services and tasks including monitoring environmental conditions and applications of environmental legislation, performance of EIA, reporting, conflict resolution over natural resources management issues, etc.

Mobilisation of Resources: Human resources, appropriate technologies, financial resources, and mobilisation of advisory services. [4]

Institutional Capacity Building (ICB) aims to know if the project contributes to build capacity in society in general and also in which way it contributes. The point is that any project, focusing its own efforts within a small area of this matrix, must regard the capacity gaps at other levels and/or within other management functions as issues of concern. This project represents only one part of the overall projects in Kuantan that aims at strengthening the ICB in the area. This study will be more specific on one part of the ICB during the analysis but it is still relevant to integrate with the other components.

As an analytical framework, it is important to look at how this program has been a part of capacity building in the society and in which way it has contributed. In addition, it is interesting to evaluate the project in relation to the expectation from Local Agenda 21.

RESEARCH STRATEGY

The research was carried out through the evaluation of a questionnaire that was distributed among 77 pupils of Sekolah Kebangsaan Tok Sira, a primary school in Kuantan. The analysis includes analysing the effect of their awareness, both in a class where the activity was carried out and another without any specific activity realised.

For the success of the method, the questionnaire was written in the National Language and it has been developed in a special easy way, so children can understand it perfectly. While they were filling it, any doubts raised were clarified so that there were no mistakes arising from misunderstanding of the questions.

DATA COLLECTED

From the 77 pupils who answered the questionnaire, 64% were male and 36% were female, most of them were Malay (89%) and 40 participated in the awareness activity while 37 did not. They were around 11 and 12 years of age, respectively.

The analysis is based on the comparison of both groups, so as to make it easier and numbers have been transformed into percentages.

Here is a summary of the results:

- All the pupils thought that we need to keep our nature green.
- There was a big difference between the ones that participated in the programme and those that did not participate in terms of knowledge about waste treatment. There was also a difference in awareness about the 3R Program.
- Most of the pupils thought that recycled paper is the most common material.
- The ones who were involved in this programme have more participation in other activities related to environmental awareness. It was mostly due to their own initiatives.
- Most of them perceived Kuantan as a town with some pollution problems.
- In the activities that they did, the most selected ones were: switch off the lights after leaving a room, pick

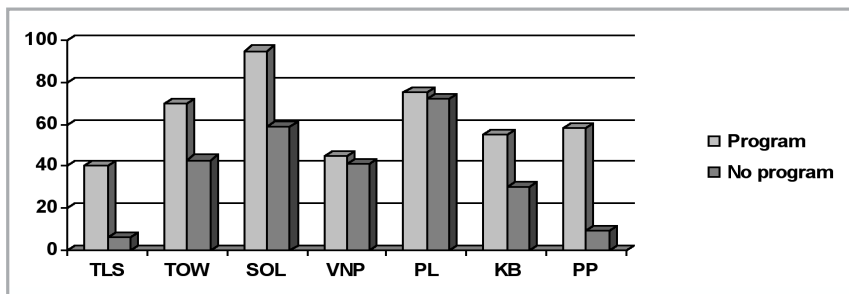


Figure 1: Activities done

Abbreviations for Fig. 1:

- TLS : Throw litter to the streets
- TOW : Turn off the water while you brush your teeth
- SOL : Switch off the lights after leaving a room
- VNP : Visit Natural Parks
- PL : Pick up litter that you see
- KB : Kill bugs
- PP : Pluck plants

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up litter that you see and turn off the water while you brush your teeth. There were some differences between the two classes but the findings were not so relevant for this study. [See Figure 1 on previous page].

- There was a difference in their concerns about environmental problems: 75% of the ones who participated into the programme were concerned versus the 67% of the others.
- The first source of knowledge about environmental problems was the TV and radio. This was followed closely by the schools for the ones that have been involved in this activity.
- Most of the participants have discussed about environmental problems mostly with the teachers while the others did not discuss about it. Even if they did, it was mostly with friends.
- The most important environmental problems were in general the same for all the students. They were air pollution, water pollution and waste accumulation. [See Figure 2 below]
- They all agreed with this sentence: "It is very important to take care of the environment and to participate in environmental activities".
- Most of them would ask someone to repair the damage done if they saw someone acted wrongly in environmental issues.
- Most of the students did well in the game about the destiny of waste. There were just some mistakes such as giving the plastic bottles.

ANALYSIS OF DATA

The aim of this study was to analyse the impact of this project in terms of environmental awareness and therefore it is interesting to look at the improvement noticed in the questionnaire results.

The first impact was the improvement in terms of knowledge on recycling and waste management. Since the program teaches the children how the waste is treated, they would be aware of their own impact on nature and they would feel more concerned about their waste.

In addition, it seems that this study has induced some initiatives to the kids related on environment. They feel more concerned and they do more environmental activities by their own. It shows their involvement to do things better. Related to the question about the activities they do, environmental behaviour is more present in the pupils that have followed the programme. This is representative of a global rising of environmental awareness.

It is interesting to look at the source of information from where they are informed about environmental problems. TV is the main source of information for the kids. Thus, it is important to go through the TV in order to have a good impact on the public. However, what is more interesting is that TV is the only source for those who did not follow the programme. The schools played the same role as the TV for the pupils that followed the programme. It showed that the school has a role to play in terms of environmental awareness and

this project focused on this demand. Regarding ICB discussed on the theoretical part, this project builds the capacity of the school as an institution. In fact, the project fills the gap of environmental awareness that the school has to deliver as part of its function. This program improves the first management function, which is "Information Management and Awareness Raising".

Furthermore, the ICB looks at the whole society. Related to this remark, it is relevant to look at the latest questions about discussion on environmental problems. It is a fact that the pupils that followed the programme discussed more on environmental issues than the ones that did not follow it. Most of the participants discussed with the teacher while the others talked with friends, both discussed with the family as well. Teachers play a role and maintaining the dialogue will allow the pupils to be more open minded on environmental issues. Discussing with family and friends is also part of the capacity building process since it shows that the project has an impact on all in society. But since there is no feedback from the parents, it is hard to evaluate this impact. It can be assumed that the children play an important role in the society.

CONCLUSION

In general the environmental awareness of the pupils is quite good in this school, but there could be a big difference with other schools since this one was in an elite area of Kuantan. The improvement of the children awareness is not very clear from the information obtained with the questionnaire, this may be due to the generality of the

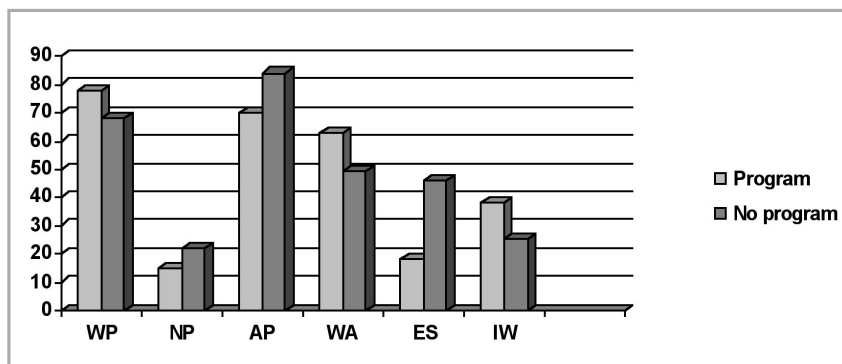


Figure 2: Most important environment problems

Abbreviations for Fig. 2:

WP	: Water pollution
WA	: Waste accumulation
NP	: Noise pollution
ES	: Extinction of species
AP	: Air pollution
IW	: Industry waste

questions and the difference in the age of the pupils, etc.

The most significant difference between both classes is in the people with whom they discussed environmental problems. The teacher was chosen first by the ones who participated and was the last choice for the ones who did not participate. Another important point was the source of knowledge. For the ones who did not participate in the activity, it was mainly the friends and for the ones who participated, it was the school.

It showed a big influence of the school on children and demonstrated that the school is a good medium of environmental awareness and knowledge. But for both classes, the most influential media was TV and radio. So it is very important to include environmental contents in these media.

The family is also very influential with children. It could be great to

implement some activities focusing in environmental education and awareness at home. Some activities include promoting good habits like turning off the water while they brush their teeth, switching off the lights when they leave a room, reusing paper by writing on both sides, use just the necessary soap, etc. ■

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