

Empirical Results on the Environmental Sustainability in Melaka City

Noor Mohammad¹, T.R. Vijayaram² and Hafiz Bin Hassan³

¹ Multi Media University, Melaka Campus ² Multi Media University, Melaka Campus,
Melaka Campus ³ Multi Media University, Melaka Campus

Abstract. Melaka is notable in its historical events currently listed as a UNESCO Heritage Sites facing a lot of environmental pollutions in Malaysia. Some important initiatives such as different types of environmental enactments including international have also been made to address these issues. The study will examine the results on the environmental sustainability issues based on the people's perceptions based on the primary and secondary sources consisting of 100 respondents in the different criteria such as lecturers, foreigners, workers, employees, common people, students, security personnel etc.

Keywords: Environmental Sustainability.

1. Background and Literature Review

Melaka has been listed as a UNESCO Heritage Site since 7 July 2008 which is has been facing numerous environmental impacts such as ecological disruption, water borne diseases, resource depletion and noted as historic city [3, 6]. In order to protect the environment in Malaysia particularly in the Melaka City, the State Government has passed some important environmental laws and policy that have been implementing but regrettably these machineries are not properly implemented due to non-coordination, weak enforcement, customary attitudes etc., as mentioned in some published works and literatures in these fields. Among them, Noor (2009) examines the present state of the environmental issues in Kuala Lumpur in 2009 and finds that a lot of similarities are identified in this study [7]. In another study in Melaka City (2010) covering 50 respondents that finds that the results are the same kind [8]. A joint study of the author with, T.R. Vijayaram, & Hafiz Bin Hassan finds that enforcement mechanisms and implementations of the existing findings are not properly done [9]. Wan Portiab Hamzab (2001) has discussed about overall environmental situation in Malaysia based on the environmental governance [4]. The Department of Environment in Malaysia (2011) examines the need for environmental legislations and policy to protect the environment [11]. Azmi Sharom (2002) examines the legislations and compliance issues in Malaysia in protecting the environment [11]. Terri Mottershead (2002) has discussed about the enforcement mechanisms of the environmental laws and policy in South Asian context including Malaysia [10]. According to Alexander Kiss & Dinah Shelton (2003) has discussed the impacts of the international environmental laws on the environmental development context [5]. The websites relating to Melaka Environmental Issues Ishttp: //suwaibah (2010) and others discussed the various issue on the Melaka environmental matters [2].

2. Empirical Results and Discussion

The results of this study have been made here as per the methodology discussed in the abstract of this paper as follows:

Descriptive Statistics (%)					
	N	Minimum	Maximum	Mean	Std. Deviation
Access to Clean Drinking Water	100	50	100	77	2.30655
Access to Sanitation/Clean Environment	100	30	100	74.1	2.40773
Forest Areas for Good Environment	100	40	100	71.1	2.40630
Wetland/Ponds/Haors/Beels for Fisheries	100	20	100	66.4	2.35974
Amusement/Park/Garden ing for recreation	100	30	100	70.1	2.51421
Car Parking Facilities	100	20	100	67.8	2.50138
Motor Vehicles for Pollution	100	20	100	69.2	2.48854
Population in Melaka good for Environment	100	30	100	72.9	2.88720
Urban Infrastructure Facilities	100	30	100	72.7	2.39157
Access to Gas for Cooking	100	40	100	82.7	2.48973
Quality Medical Services	100	40	100	75.3	2.30620
Fresh Food in Melaka	100	30	100	77.4	2.43280
Electricity	100	30	100	85	2.72035
The Price of Daily Commodities friendly with the people	100	30	100	71.4	2.46350
Poverty Range Friendly to Melaka (Poor/the Rich)	100	20	100	50.2	2.89086
Waste Dumping System	100	20	100	66.3	2.47474
Diversified Culture	100	20	100	71.3	2.60589
Law & Order Situation in Melaka	100	20	100	68.4	2.47518
Local Administration in Melaka	100	30	100	65.9	2.39331
Availability of Daily Commodities for Shopping	100	40	100	73.5	2.37727
Income & Expenses Friendly with the People	100	20	100	68.6	2.31056
Relationship Between the Foreigners' & Local People	100	20	100	68.3	2.77556

Misdeeds (Robbery, Dacoits/Theft) etc	100	20	100	48.2	3.02699
Security to the Residential Areas	100	30	100	71.2	2.48583
Accountability in Administration	100	30	100	70.4	2.52369
Transportation Facilities	100	20	100	68.2	2.69002
Quality Education in Melaka	100	30	100	70.5	2.50000
Corruption in Melaka	100	20	100	48.5	3.24902
Natural Environment	100	40	100	75.7	2.38721
Access to Justice	100	30	100	72.1	2.49271
Using of Polythene (Harmful for Environment)	100	20	100	64	3.33117

Access to Clean Drinking Water-According to the survey test which is carried out, 50 people participated and voted that the access of clean drinking water in Malacca is 77% of in good quality (according to their perceptions). This also includes that the access of water directly from our home, working places, restaurants, campus, and residential areas. However sometimes, there were complaints made once in a while in Malacca that the access of water is not very good and not very clean. Occasionally, much of it depends on the location where the people live. For instance, in certain areas in Malacca especially the rural area (kampong) sometimes the people there are said to have difficulties in accessing water. Even if they had the chance to access water, sometimes it is not even clean. One of the factors is that the rural area (only certain rural area) is not geographically and economically well developed. In conjunction with that, the facilities to access clean water are not well established as the surroundings there do not occupy much people. The needs to upgrade the facilities in order to provide better quality water is not major as the costing is high and the population of people there is only a small amount. The lack of monitoring at water catchment areas had likely affected the quality of drinking water in Malacca, according to the Auditor-General's Report 2008. However in Malacca town, the access to clean drinking water is quite good. Of course, in Malacca we cannot literally drink water directly from the tap water though it is said to be clean.

Access to Sanitation/Clean Environment- In Malacca, the overall cleanliness environment is only highly average (based on personal observation). Occasionally, much of it depends on the situation/location. Most town and neighborhood area seems to have a lot of positive feedbacks concerning the cleanliness environment. Anti-littering policies implemented in most public places and the placement of dustbins has dramatically helped keep most environments clean. Added on to that, the cleansing services are actively engaged in collecting trash and waste refuse from individual households on daily basis in order to keep the environment clean and neat. On the other side of that, there is also certain part/location of Malacca which has a bad reputation of cleanliness. Such places are basically the people themselves who have bad habits of throwing rubbish anywhere and everywhere. They have a bad discipline of keeping the environment clean. Based on the survey carried out, the respondents vote that the overall cleanliness of the environments is 74.1%.

Forest Areas for Good Environment- Overall in Malacca, when it comes to forest areas the environmental evaluation is considered good. Many steps and rules have been implemented in order to maintain the clean environment. For instance, let's take a look at the Hutan Rekreasi of Ayer Keroh. The environment there is said to be very nice and clean. This is why it was categorized under the tourist attractions. The place is also good for picnic and jogging. The people think that they have at least 71.1% forestry for their environmental facilities.

Wetland/Ponds/Haors/Beels for Fisheries-It is one of the important issues for their environment. The people think that they have at least 66.4% wetland areas in Melaka for their sound environment.

Amusement/Park/Gardening for recreation- As mentioned previously the place for recreation like Ayer Keroh has good facilities. Also other amusement park like Taman Rama-Rama and Taman Buaya is all well equip with good facilities. Votes for percentages totally receive are 70.1% for good environmental facilities.

Car Parking Facilities- Due to the rapid growth rate of car users in Malacca, most of the time we are now having difficulties in finding a parking lot especially in the weekends where most people are out to town. Even though the car parking facilities here in Malacca is good but it is still not sufficient. Many times we will see people park their vehicles on the "yellow lines" which are prohibited under the law. It's not because these people are stubborn but they actually can't find a parking. We only receive 67.8% overall of good car parking facilities according to the survey.

Motor Vehicles for Pollution-Motor Vehicles here (as in Malacca) are highly contributed to the environmental pollution. According to the surveyed carried out the rates of pollution contributed by the motor vehicles are as high as 69.2% averages. This is why the air here is not that clean.

Population: Population is not a problem in Melaka. It covers 72.9% friendly with the environment.

Urban Infrastructure Facilities- People think that around 72.7% urban facilities in Melaka which is good for the environmental issues.

Access to Gas for cooking-Access to gas for cooking is easily obtained here. The service is quite good. All we need to do is make a phone call to the gas supplier and they will deliver the gas to your address. The respondents vote 82.7% facilities for gas in Melaka.

Fresh Food in Malaysia- Fresh food is easily obtained here in not only in markets but also at shopping like Tesco where we can actually find fresh meat, fish, chicken, and vegetables. Over all the fresh food supply here is good. So far the voters vote in amount of 77.4% of food good supply/facilities.

Quality Medical Services- We can easily find clinic in most part of Malacca. As for their medical service, it is consider very good. Our Prime Minister (Malaysia) even introduced the Clinic satu Malaysia. Therefore, it is no surprise to know the fact that it is 75.3% of good quality medical service. The study also finds that the medical services for the foreigners is the highest expensive compared to Malaysian which 14 times more.

Electricity- The electricity supply here is good. There is nothing much problem or complaint made here in Malacca concerning the electricity. That is why we receive a total vote of 85%. Perhaps, they got more than 85%. It seems to me that they got more than 95%.

Price of Daily Commodities friendly with the people-People deems that they got 71.4% facilities that they have. The availability of the facilities is very good.

Poverty Range (Poor/the Rich)-In Malacca, obviously the poor class people are more compared to the rich class. We are living in a modern slavery, where working hard does not necessary make you rich. Usually the rich will only get richer, by using other peoples time (modern slavery). According to the survey 50.2% of voters agreed with this. I think that it would be less than 30%.

Waste Dumping System-It seems to me that this system is not very good and it is also inadequate compared to other countries like Singapore, Sweden, and Finland etc. It got the 66.3% in Melaka.

Diversified Culture-It is very good for the Malaysian environment that attacks people in this country. Most of the respondents appreciate this issue and voted for more than 71.3%

Law & Order Situation in Malaysia- Malaysia is still good compared to the developing countries in this world that got 68.4%

Local Administration- Most of the cases, the people are quite happy with the local administration and got 65.9%

Availability of Daily Commodities is quite good for overall in Melaka. The shopping in JUSCO, TRESKO, MYDIN and also local shopping centers is quite different in terms of pricing of the same items. Over all, it got 73.5%.

Income and expenses friendly with the people- People deem that still the income and expenses are the friendly with the people in Malaysia. But it regrets that the price of the daily commodities have been

increasing day by day but no remuneration and salaries are not increasing accordingly and facing a lot of problems now a days and people are happy with the percentage of 68.6.

In terms of foreign relationship with the local people-The relationship between foreigners and the local people are not very friendly in terms of their rights and their working environment. They are suppressed somehow directly or indirectly but still the people think that the relationship is quite good and got 68.3%.

Misdeeds including robbery, dacoits and thefts- It is increasing in Melaka city with the help of the foreigners. The foreigners and local people are doing together.

Security to the Residential Areas- It is still good in condition but in the residential areas, particularly, apartments the risk and insecurity is increasing. Right now the in terms of security, it got 71.2%.

The Accountability in the Administration- the Malaysian government is emphasizing the good governance issues and the trend is increasing and got 70.4%.

Transportation facilities- The transportation facilities are not adequate and the people are surprised that they don't have any train facilities in Melaka although it is a historical city compared to other states in Malaysia which is a barrier to their development.

Quality Education-In Malaysia including Melaka is going ahead to the quality education compared to the developed and some of the developing countries in this world and people are happy with the 70.5%.

Corruption- People thinks that it is increasing in Melaka including Malaysia and remarked that it is very bad situation and got 48.5%

Natural Environment- In Melaka, it is full of natural environment and people are happy with it and got the 75.7%

Access to Justice-the Malaysian people is quite with the justice systems in Malaysia and got 72.1% and in terms of using polythene, it is not very harmful to their environment and it is friendly to their environment up to 64%.

3. Recommendations and Conclusion

In Melaka, overall environment is very good but from the above study, some recommendations may be considered such as stopping open burning, providing many dust bins, imposing heavy punishments, adequate campaigning, monitoring in all issues related to the environment, implementation of policy properly, enhancement of the penal provisions, facilities for transportation including train services, frequent monitoring to the restaurants, enforcement mechanisms, enhancement of the ICT application, ensuring good governance issue in protecting environment, mechanisms for stopping corruption to be done from the government levels that could enhance the environmental sustainability in Melaka, Malaysia.

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