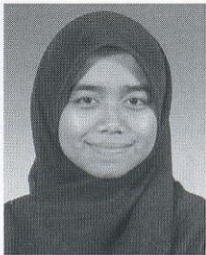


Name	NURUL SHAHIRAWATI BINTI MOHAMED ROSLI
University	University Technology Malaysia
Country	Malaysia
Academic supervisor	Tetsu KUBOTA
Period of Stay	September 30, 2009 - February 28, 2010



Short Description:

Current Job:

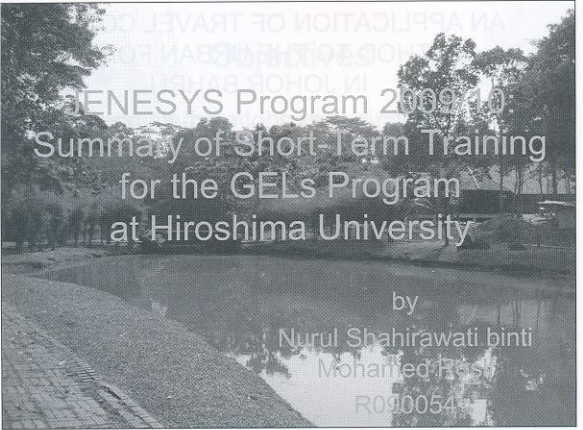
Trainee, Health, Safety and Environment Department, BASF PETRONAS Chemicals Sdn, Bhd.

Current Status:

2<sup>nd</sup> Year Master Student at Faculty of Built Environment, Universiti teknologi Malaysia.

Research Plan:

An Application of Travel Cost Method to the Urban Forest in Johor Bahru



GENESYS Program 2009/10  
Summary of Short-Term Training  
for the GELs Program  
at Hiroshima University

by

Nurul Shahirawati binti  
Mohammed Rusli  
R090054

## CONTENTS

1. INTRODUCTION
2. ON-GOING THESIS PROJECT: AN APPLICATION OF TRAVEL COST METHOD TO THE URBAN FOREST IN JOHOR BAHRU
3. STUDY TRIP TO TOKYO
4. COURSE WORKS
5. CONCLUSION & FUTURE PLAN

## AN APPLICATION OF TRAVEL COST METHOD TO THE URBAN FOREST IN JOHOR BAHRU

- Urbanisation brings a lot of challenges and problems that we have to deal with.
- One of the main challenges is to provide good living conditions to urban populations.
- Urban forest and trees play a very important role in keeping our towns and cities inhabitable.

- Travel Cost Method (TCM) is the common indirect method used to estimate the recreational value of natural areas.
- The basic premise of the TCM is that the time and travel cost expenses which users incur to visit a site represent the “price” or access to the particular site.

## Objectives

- To assess the economic values of the urban forest site.
- To determine the consumer surplus of the visitors to the urban forest site.
- To identify the features and associations those attract or draw visitors to the urban forest site.

## Significance of the study

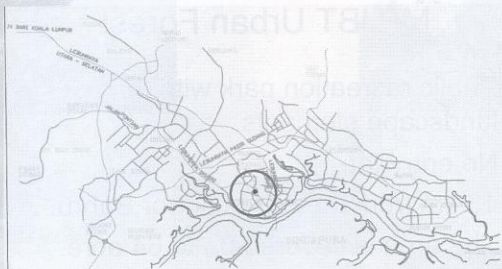
- Determine the value of the site or its recreational service based on the assumption of TCM.
- Estimation of the entry fees if the planners and government decide to impose the fees in the future.
- Help to improve the facilities/amenities in the site.

## Outline Methodology

- Individual TCM is applied in this study.
- Random sampling method is used for selecting the respondents.
- 2 urban forest sites in the district of Johor Bahru.
- 100 on-site questionnaires in each site.

## Johor Bahru Urban Forest

- Public recreation park with the natural environment.
- No entry fee.
- 1.5 km from the city of Johor Bahru.
- The area is covered up to 50 acre.

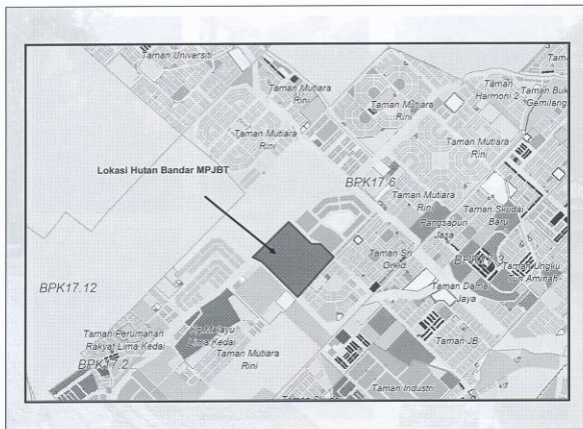


**PELAN LOKASI**  
TANPA SKALA



# MPJBT Urban Forest

- Public recreation park with the landscape elements.
- No entry fee.
- 13 km from the city of Johor Bahru.
- The area is covered up to 64 acre.





## Expected Outcome

- Negative relationship between travel costs and visitor frequency.
- Positive relationship between household income and visitor frequency.
- Positive relationship between level of education and visitor frequency.



## STUDY TRIP TO TOKYO

- Even though Tokyo is the most developed city in the world, it still has numerous parks and gardens in the crowded city.
- The main role of urban parks is to create a safe and comfortable urban environment.
- The green areas in parks clean the air and create a better climate in the metropolitan city.

## Objectives

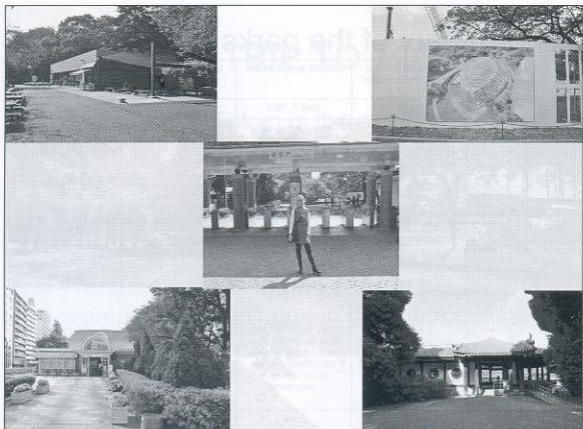
- To make a comparison between urban parks in Tokyo with the urban forests in Johor Bahru.
- To conduct a pilot survey based on the questionnaire that will be used in my research project in Johor Bahru.

# Summary of the parks (Oct 2009)

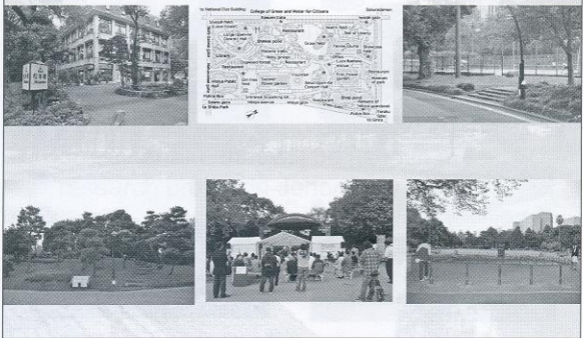
	SHINJUKU GYOEN NATIONAL GARDEN	HIBIYA KOEN PARK	UENO KOEN PARK	YOYOGI KOEN PARK
Opened	1906	June 1, 1903	October 19, 1873	October 20, 1967
Jurisdiction	Ministry of the Environment	Tokyo Metropolitan Government	Tokyo Metropolitan Government	Tokyo Metropolitan Government
Area (acre)	144.00	39.94	132.25	133.57
Main plants	Tulip tree, planes, Himalayan cedars, bald cypress	Ginkgo, Japanese plumb, camphor, buttonball, dogwood, pine, tulip tree, rose, leopard plant	Ginkgo, camphor, Japanese zelkova, cherry (bell-flowered cherry, someiyoshino, yama-zakura, sato-zakura), lotus	Japanese maple, camphor, black pine, Japanese zelkova, cherry (someiyoshino), crepe myrtle, dogwood, stone oak, lily magnolia, Japanese ternstroemia, wax myrtle, tulip tree, orange osmanthus, azalea, rose
Facilities	Greenhouse (reconstructing), Taiwan Pavilion, Old Imperial Rest House, Eco-House, Raku-Tei	Hibiya public hall, large music hall, small music hall, parade ground, Hibiya library, tennis court, children's playground	baseball and athletic field, boat duck, outdoor stage, children's playground	stadium, soccer and hockey field, outdoor stage, cycling course, children's cycling plaza
Admission fee	Adult 200 yen	Free	Free	Free

## Shinjuku Gyoen National Garden





## Hibiya Koen Park

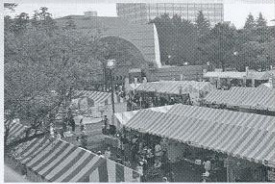


# Ueno Koen Park



# Yoyogi Koen Park





## Survey

- The questionnaire consists of 13 questions:
  - Is this the first time visit?
  - Location of the residence
  - Length of the trip
  - Time to spend on the site
  - Other expenses
  - Some general information, etc

## Analysis of the survey

QUESTIONS	R1	R2	R3	R4	R5
First time visit?	Y	Y	N	N	N
Repeated visits /year	1	1	2	20	1
Mode of transportation	Public transport	Public transport	Public transport	Walking	Public transport
Residence	Hachioji-shi	Shibuya-ku	Toyoshima-ku	Setagaya-ku	Saitama-ken
Total distance	60 km	8 km	8 km	8 km	50 km
Spending time	1 ½ - 2 hrs	1 ½ - 2 hrs	> 2 hrs	15 - 30 mins	1 ½ - 2 hrs
Expenditures	1120 yen	2000 yen	810 yen	2000 yen	800 yen
Sex	M	M	F	F	F
Age	20's	30's	70's	60's	50's
Level of education	Bachelor Degree	Bachelor Degree	Certificate / Diploma	High School	Bachelor Degree
Work status	Student	Employed	Retired	Employed	Employed
Household income	200 000 – 400 000	600 000 – 800 000	600 000 – 800 000	< 200 000	< 200 000

## Analysis of the survey

QUESTIONS	R1	R2	R3	R4	R5
First time visit?	N	N	N	N	N
Repeated visits /year	10	3	15	5	5
Mode of transportation	Public transport	Public transport	Public transport	Public transport	Public transport
Residence	Bunkyo-ku	Adachi-ku	Chiyoda-ku	Koto-ku	Arakawa-ku
Total distance	12 km	31 km	10 km	20 km	20 km
Spending time	1 ½ - 2 hrs	> 2 hrs	1 ½ - 2 hrs	> 2 hrs	> 2 hrs
Expenditures	1000 yen	2000 yen	1000 yen	2000 yen	2000 yen
Sex	F	F	M	M	F
Age	30's	30's	40's	20's	70's
Level of education	Bachelor Degree	Bachelor Degree	Certificate / Diploma	Bachelor Degree	High School
Work status	Employed	Employed	Employed	Student	Retired
Household income	600 000 – 800 000	600 000 – 800 000	600 000 – 800 000	< 200 000	< 200 000

## Summary

- Mode of transportation: public transport.
- Visitors who live farther from the site tend to visit less often because it costs more in terms of travel costs and takes more time to reach the site.
- Visitors who travel longer to the park may have tendency to stay longer.

## Findings

- The parks and gardens in Tokyo have more useful facilities than the urban forests in Johor Bahru for visitors to do their recreational activities.
- The size of these parks and gardens were found to be bigger than those in Johor Bahru.
- These parks are not only full of trees but also with a variety of colourful flowers.

## COURSE WORKS

- Environmental Management Technology
- Environmental Monitoring
- Marine Environmental Conservation
- International Environmental Cooperation Studies II
- Practical Seminar on International Cooperation Project

## Benefits

- Managed to widen the knowledge of my major 'environmental science' such as by taking environmental management, chemical monitoring technologies and marine environmental preservation.
- Help me to know other current environmental issues in other countries.

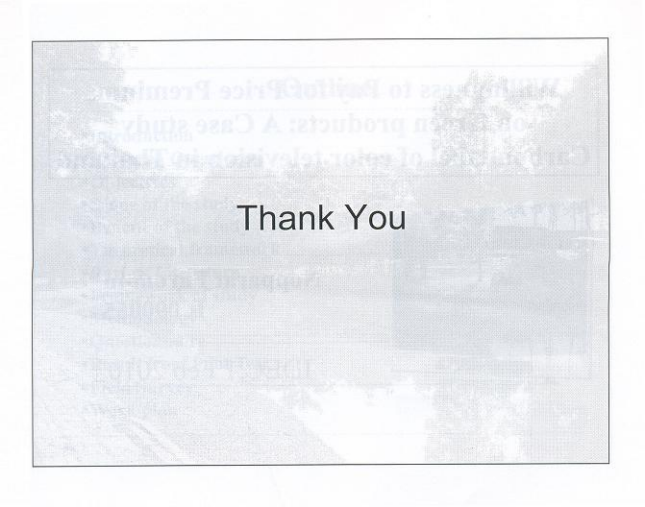


## CONCLUSION

- This experience would make suggestions in the thesis on how to improve the facilities or amenities at the urban forest sites in Johor Bahru.
- To the planners and local government based on my study trip to Tokyo.

## FUTURE PLAN

- After this program, I will continue research project in UTM and am expected to finish Msc. in May 2010.
- After my graduation, I plan to work in the private company, which is related to the master course's topic, in my hometown.



Thank You