



# Changes of Rural Village

Version 1.0

## Objectives

1. To identify the characteristics and distribution of agricultural land uses in rural village.
2. To analyse the changes of rural land uses under urban expansion.

## Equipment List

Items	Quantity	Checked	Returned
1. Base map (Individual)	x1	<input type="checkbox"/>	<input type="checkbox"/>
2. Clipboard (Individual)	x1	<input type="checkbox"/>	<input type="checkbox"/>
3. Compass (Individual)	x1	<input type="checkbox"/>	<input type="checkbox"/>
4. Colour pencils	x1	<input type="checkbox"/>	<input type="checkbox"/>
5. Sound meter	x1	<input type="checkbox"/>	<input type="checkbox"/>
6. Carbon dioxide meter	x1	<input type="checkbox"/>	<input type="checkbox"/>
7. Dust particulates meter	x1	<input type="checkbox"/>	<input type="checkbox"/>

## Field Work

1. With reference to the map 4.1, walk along the assigned route in Tai Kong Po.
2. Identify the land uses located at both sides of the route. Land use types are suggested as
  - a) Arable farming
  - b) Livestock rearing
  - c) Abandoned land
  - d) Residential land use
  - e) Industrial land use and storage
  - f) Other land uses
3. Record and color the land uses on the map 4.1.
4. Measure the highest values of noise level and air quality over one minute at checkpoints. Scale the water quality by observation. Record the results at Table 1.
5. Count the abandoned sites and record the results at Table 2.

## Data Sheet

Route: A / B / C
**Table 1 - Pollution Level in Tai Kong Po**

Checkpoints		X	1	2	3	4	5	6	7	Y
Measurements with Equipments										
Noise Pollution	1. Noise Level (dB)									
Air Pollution	2. Carbon Dioxide (ppm)									
	3. Dust Particulates ( $\mu\text{g}/\text{m}^3$ )									
Scale Values (Mark NA if no river found nearby)										
Water Pollution	4. Smell None <span style="float:right">Strong</span> 1 2 3 4 5									
	5. Turbidity Clear <span style="float:right">High</span> 1 2 3 4 5									

Route: A / B / C
**Table 2 - Abandonment in Tai Kong Po**

	Marks <i>/// ///</i>
1. Abandoned Farmland	
2. Abandoned Pigsties/ Chicken Sheds	
3. Abandoned Houses	
4. Others	

## Data Analysis

1. Draw transects of the assigned route in Tai Kong Po.
2. Draw a diagram to show the distance percentages of different land uses in Tai Kong Po.
3. List the distance percentages of various land uses in descending order.

Route: A / B / C

1. \_\_\_\_\_(    %)    2. \_\_\_\_\_(    %)    3. \_\_\_\_\_(    %)
4. \_\_\_\_\_(    %)    5. \_\_\_\_\_(    %)    6. \_\_\_\_\_(    %)

## Discussion

1. Refer to the collected data and map evidence, describe and explain the distribution of the farming activities.

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2. Refer to the collected data and aerial photos, describe and explain the changes of agricultural land use in Tai Kong Po.

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3. *More land is abandoned in the area with poor transport development.*

Do you agree with the statement? Quote evidence to support your answer, and explain the result.

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4. Name the type of urban expansion in Tai Kong Po. Explain how the local transport development affects the process.

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5. Discuss the impacts of urban expansion on Tai Kong Po.

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6. As a rural representative in Tai Kong Po, what would you suggest to improve the local environment to achieve sustainable development?

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