



**JC-WISE**  
Water Initiative on  
Sustainability and Engagement

賽馬會惜水・識河計劃

*“My River, My Community” Scheme*

# International Symposium on Water Sustainability

12 July 2019

# Education for Water Sustainability by Hong Kong Geographical Association

**Anthony K. C. Yeung**

**Hong Kong Geographical Association**

**12 July 2019**

# Hong Kong Geographical Association (HKGA)



## About HKGA

- founded in 1969
- a member of the **International Geographical Union**
- an Advisory Management Committee Member of **Hong Kong Teachers' Centre**
- aims of promoting interest in, stimulating teaching of, and cultivating research about Geography

# Hong Kong Geographical Association (HKGA)



**HKGA provides a**  
**platform**

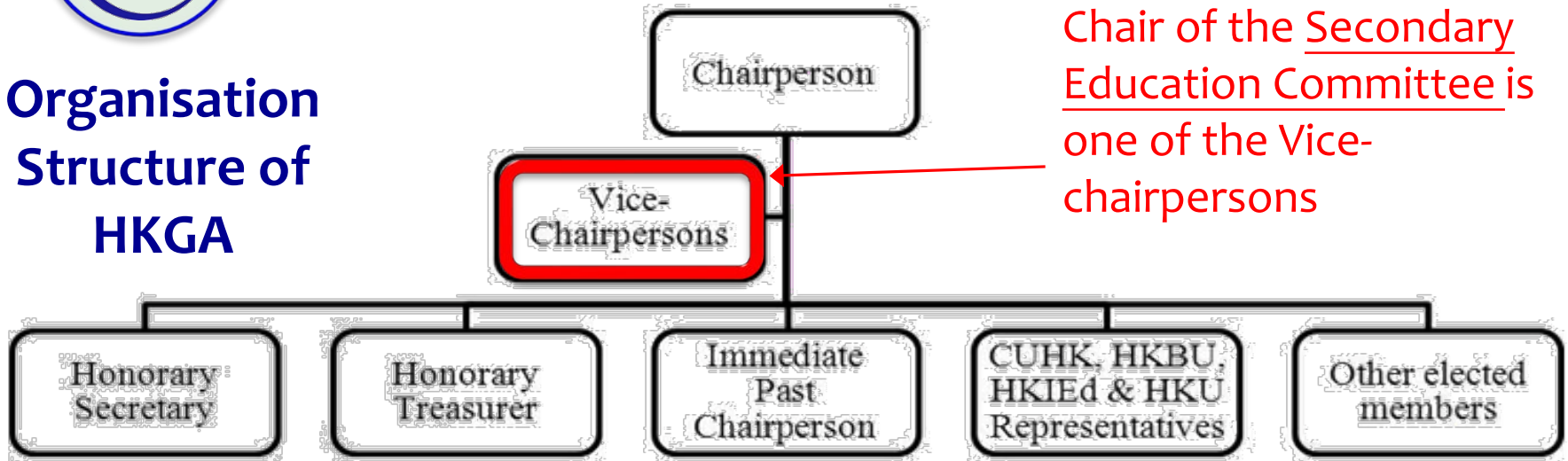
**bridging secondary and tertiary**  
**geography education.**

# Hong Kong Geographical Association (HKGA)

HKGA provides a platform bridging secondary and tertiary geography education.



## Organisation Structure of HKGA

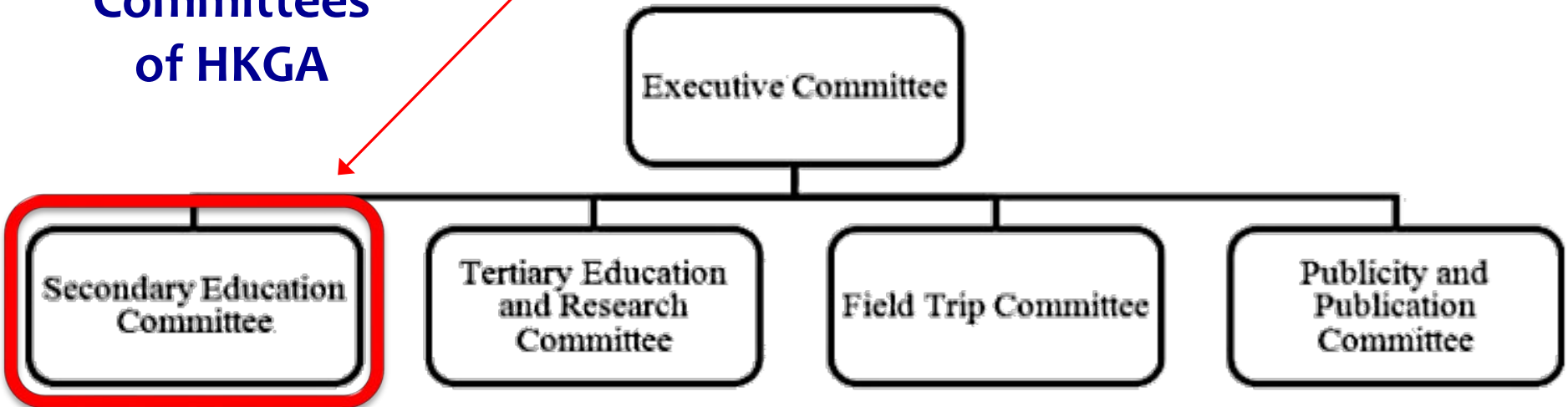


# Hong Kong Geographical Association (HKGA)

HKGA provides a platform bridging secondary and tertiary geography education.



## Committees of HKGA



# Hong Kong Geographical Association (HKGA)



HKGA provides a **platform** bridging secondary and tertiary geography education – an **example** event:

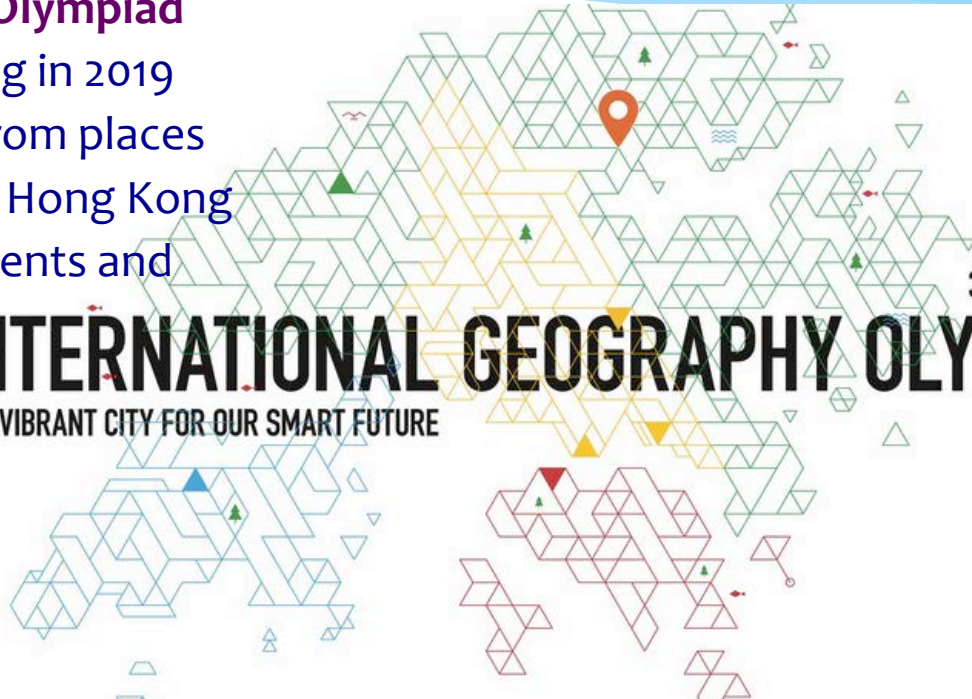
The **International Geography Olympiad** will be conducted in Hong Kong in 2019 when students and teachers from places all over the world will come to Hong Kong for interchanges with our students and teachers.

**6<sup>TH</sup> INTERNATIONAL GEOGRAPHY OLYMPIAD**  
DISCOVERING A VIBRANT CITY FOR OUR SMART FUTURE

30 JUL – 5 AUG 2019

The event is co-organized by:

- **Ed U HK** and
- **HKGA**





# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

## Tertiary Geog. Education

HKU • CUHK  
HKBU • EdUHK

**HKGA**

## Secondary Geog. Education

Secondary Schools •  
Senior Secondary  
Curriculum • DSE



# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

**Tertiary Geog.  
Education**  
HKU – JC-WISE  
Water  
Sustainability

**HKGA**

**Secondary Geog.  
Education**  
DSE Curriculum  
**Managing River  
Environment:** A  
continuing challenge

# Education for Water Sustainability by HKGA

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**Tertiary Geog.  
Education  
HKU –  
JCWISE  
Water  
Sustainability**



**JC-WISE**  
*Water Initiative on  
Sustainability and Engagement*  
賽馬會惜水・識河計劃

HKGA is a  
**collaborating  
partner**

## My River, My Community (7 rivers):

- |                       |                       |
|-----------------------|-----------------------|
| (1) Shan Pui River;   | (5) Tung Chung River; |
| (2) Kam Tin River;    | (6) Lai Chi Wo River; |
| (3) Lam Tsuen River;  | (7) Ng Tung River     |
| (4) Sheung Yue River; |                       |

# Education for Water Sustainability by HKGA

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Tertiary Geog.  
Education

HKU –  
JCWISE  
Water  
Sustainability



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## My River, My Community:

1. Professional guided field-trips to rivers
2. GIS-based Database
3. River Stories

# Education for Water Sustainability by HKGA

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## DSE GEOGRAPHY curriculum

Managing River Environment – A continuing challenge (compulsory module)

- Interaction of physical & human factors in shaping the surface of our Earth
- Management issues arising from human interference in fluvial environment
- **Field study** on river (enquiry field study)

## Secondary Geog. Education

DSE Curriculum

**Managing River**

**Environment: A**

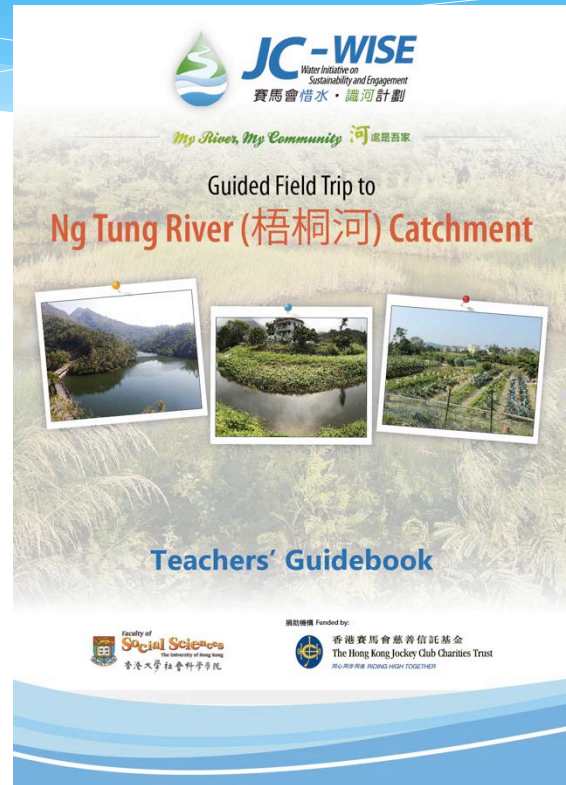
continuing  
challenge

# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

## (1) Professional guided field study for teachers to the 7 rivers:

- **Train-the-trainers:** Training for geography teachers
- Train geography teachers on: *How to conduct field study for senior secondary students*





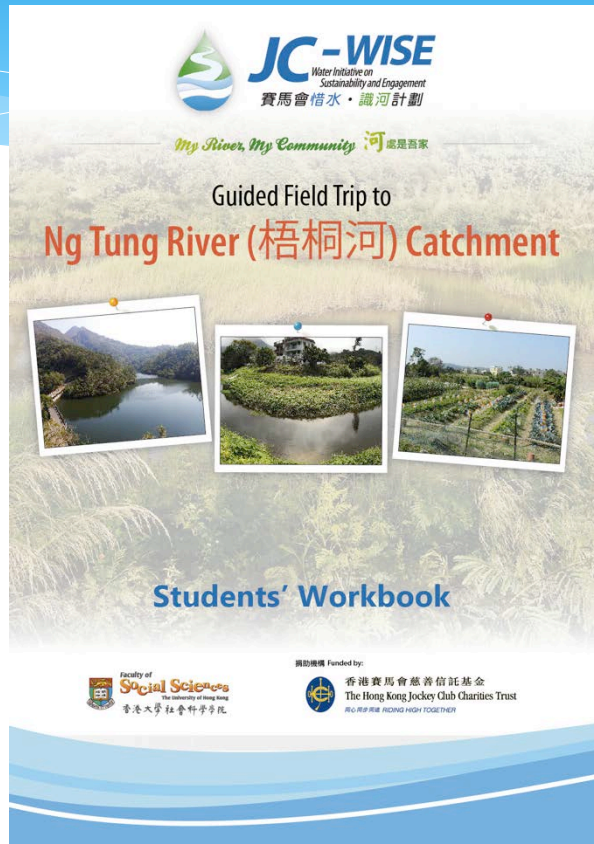
# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

## (1) Professional guided field study for teachers to the 7 rivers:

For each river, we conduct:

- Training workshops; and
- Field trips, **with**
- **Teachers' Guidebook** (bilingual version)
- **Students' Workbook** (bilingual version)



# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

## (1) Professional guided field study for teachers to the 7 rivers:

### Ng Tung River: An example

### Relevance to the DSE GEOGRAPHY curriculum

This field study is related to:

- \* Managing River Environment – A continuing challenge; and
- \* Agriculture: Combating Famine — Is technology a panacea for food shortage?



# Education for Water Sustainability by HKGA

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## (1) Professional guided field study for teachers to the 7 rivers:

### Ng Tung River: An example

#### Learning objectives

- \* To examine how **fluvial processes** vary along the **three courses** of the river;
- \* To study alteration of the natural environment by **river management** strategy; and
- \* To investigate how Ng Tung River **irrigate and help the farmland** of Hok Tau area.

# Education for Water Sustainability by HKGA

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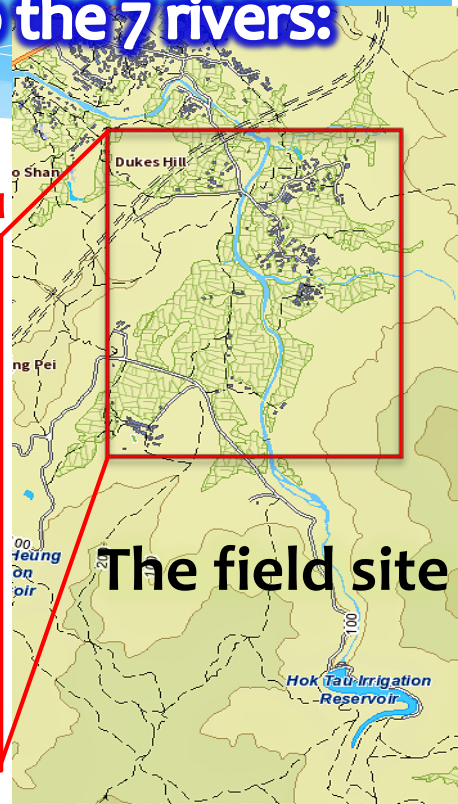
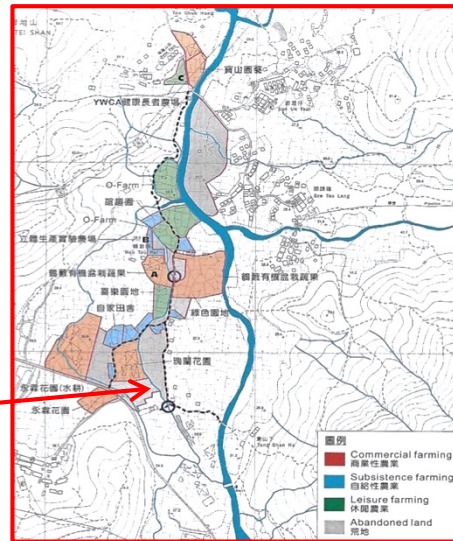
## (1) Professional guided field study for teachers to the 7 rivers:

### Ng Tung River: An example

- How does Ng Tung River help the cultivation of Hok Tau area?

Enquiry  
field  
study

Water  
sampling  
point



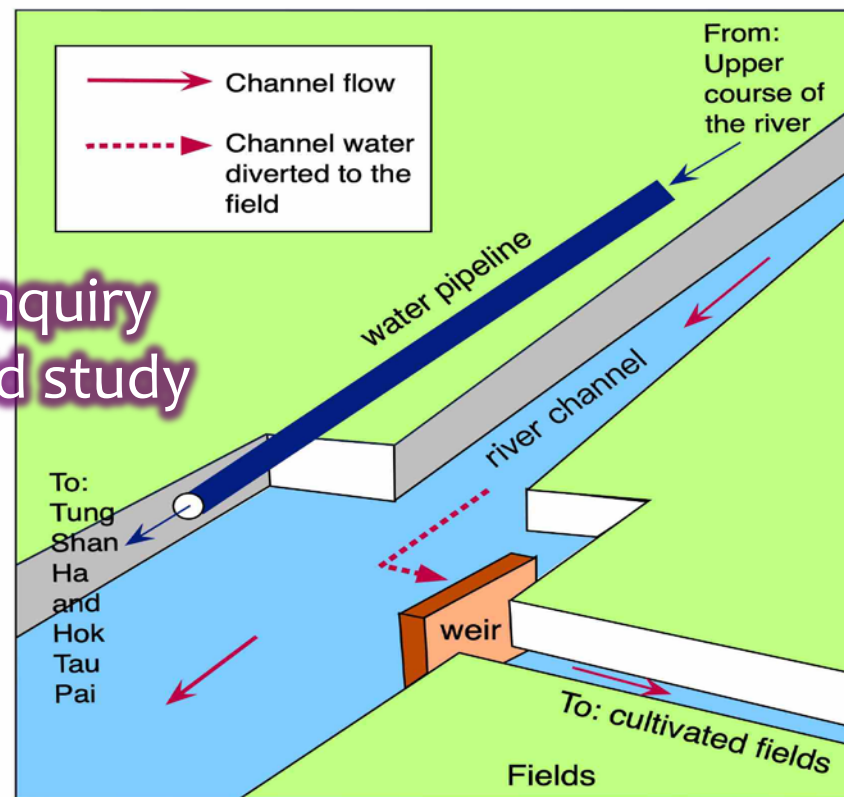
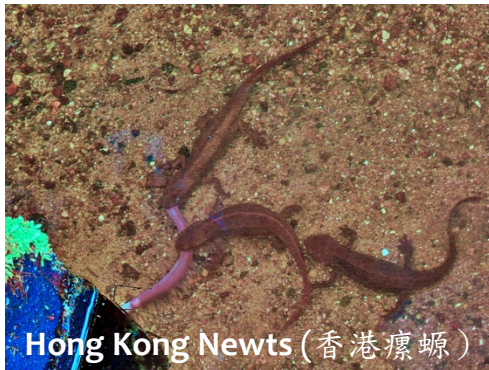
# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

## (1) Professional guided field study for teachers to the 7 rivers:

### Ng Tung River: An example

- How does Ng Tung River help the **Enquiry field study** cultivation of Hok Tau area?





# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

## (1) Professional guided field study for teachers to the 7 rivers:

- Training workshops
- Field trips

Useful & helpful for teachers

Highly praised by teachers



# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

## (2) Seminars and workshops:

e.g. HK Geography Day 2018

Secondary School Talk

Highlight the field-based question for HK DSE Geography Examination

- Useful & helpful for teachers
- Highly praised by teachers



The poster for Hong Kong Geography Day 2018 features a green and white color scheme. At the top, it displays the logos of The Education University of Hong Kong and the event title in Chinese. The main title 'Geography and Wellbeing' is in a large, bold font. Below it, the date and time are listed, followed by the venue and medium of instruction. A section for 'Keynote Speakers' lists Mr. Jimmy Leung and Prof. C.Y. Jim. A red-bordered box highlights the 'Secondary School Talk' by Prof. C.C. Lam. Other sections include 'Guided Tours and Field Trip' and 'University Research Seminars and Exhibitions'. At the bottom, there is a QR code for registration and contact information. A vertical banner on the right side reads 'HONG KONG GEOGRAPHY DAY'.

香港教育大學  
The Education University of Hong Kong

香港地理日 2018

**Geography and Wellbeing**  
24 Nov 2018 (SAT) 8:30 – 17:30  
Room DI-LP-02, Lower Podium (LP), Block DI  
The Education University of Hong Kong  
Medium of instruction: English

**Keynote Speakers**

- **Mr. Jimmy Leung**  
Former Director of Planning, The Government of HKSAR
- **Prof. C.Y. Jim**  
Research Chair Professor of Geography and Environmental Science,  
Department of Social Sciences, EdUHK

**Secondary School Talk**

- **Prof. C.C. Lam**,  
Adjunct Professor, Department of  
Curriculum and Instruction, CUHK  
Highlight the Field-based Question  
for HKDSE Geography Examination

**Guided Tours and Field Trip**

- New Virtual Reality (VR) Laboratory
- Geography Laboratory
- Half-day coastal field trip @ Wu Kai Sha

**University Research Seminars and Exhibitions**

- Paper and Poster Presentations by university research students
- Board exhibitions by Geography Departments of universities,  
relevant government departments, NGOs, and other organizations

**Registration**

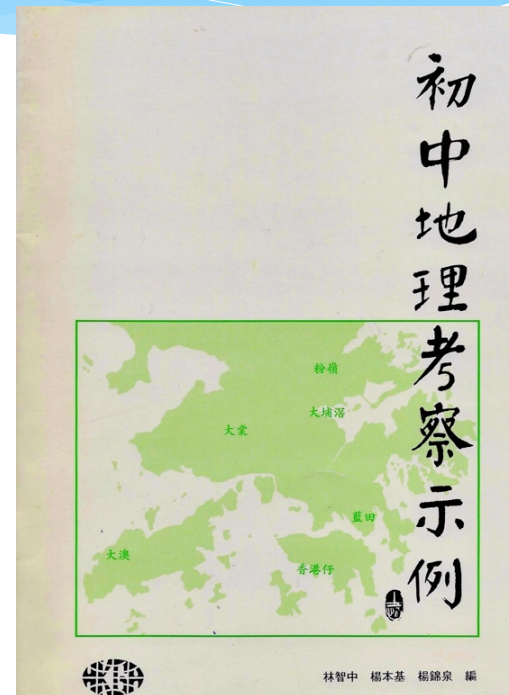
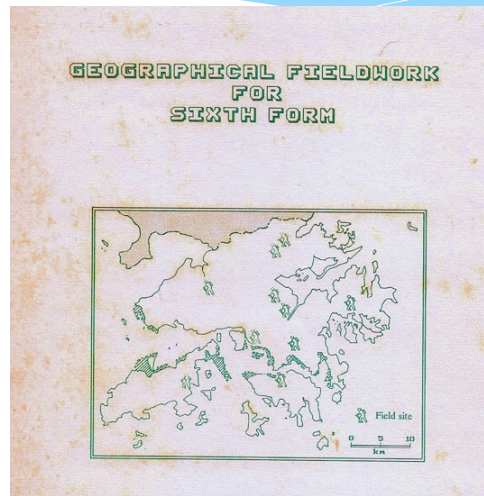
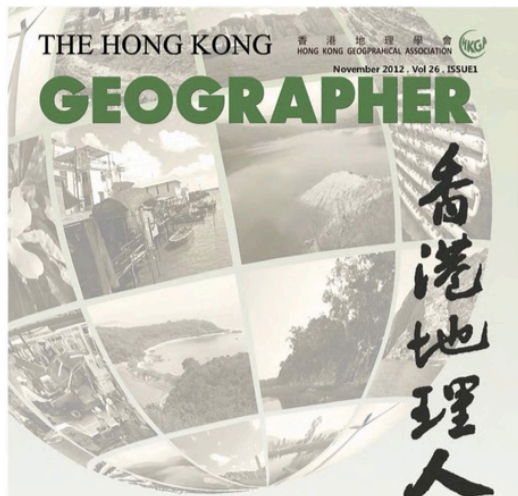
Enquiry: 2948 8115 s1112862@s.edu.hk



# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

## (3) Publication of learning-&-teaching materials:



- Useful & helpful for teachers
- Highly praised by teachers

# Education for Water Sustainability by HKGA

HKGA provides a platform bridging secondary and tertiary geography education.

## (4) Interactive GIS-based learning-&teaching resources:

### GIS-based Database



- Features & functions
- Fluvial processes and landforms
- Rivers in HK

#### Rivers@HK Database

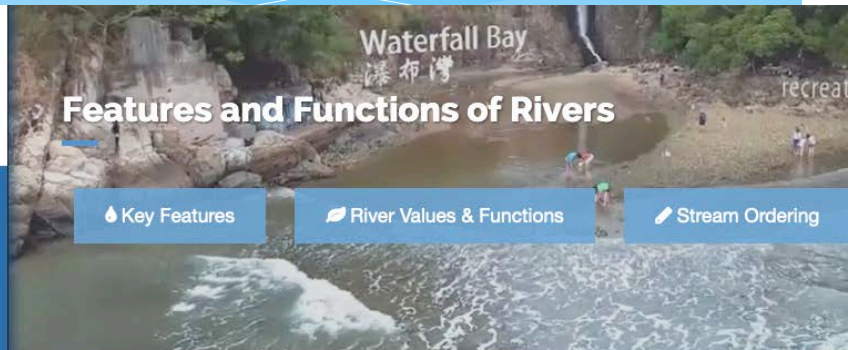
Through the establishment of an interactive, open-access, GIS-based database on Hong Kong's major rivers and associate river basins, JC-WISE project aims at enhancing the public's knowledge and appreciation of the multiple values of water. The database covers the multiple dimensions of the major rivers and river basins including the historical, geo-physical, hydrological and socio-economic data.

捐助機構 Funded by:



香港賽馬會慈善信託基金  
The Hong Kong Jockey Club Charities Trust  
HONG KONG RIDING HIGH TOGETHER

<https://www.socsc.hku.hk/jcwise/gis-based-database/>





# Education for Water Sustainability by HKGA

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## (4) Interactive GIS-based learning-&-teaching resources:

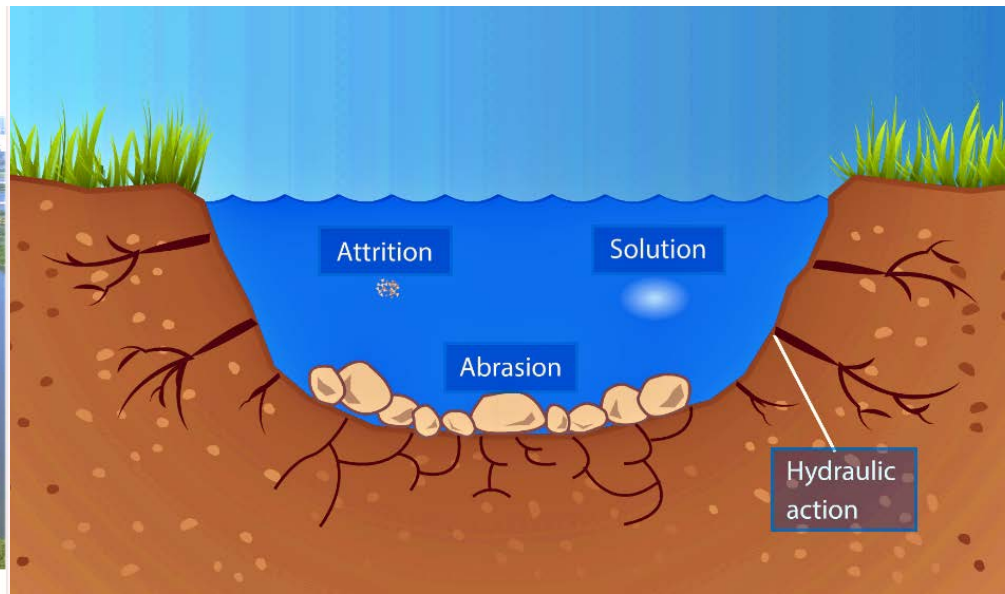
### GIS-based Database – some examples

#### Fluvial Deposition

The process in which sediments carried by a river drop when the river loses energy.  
Deposition usually takes place at the estuary where the river loses energy as it meets with the sea, lakes or reservoirs.



Deposition at the mouth of Shan Pui River



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## (4) Interactive GIS-based learning-&teaching resources:

Kam Tin River

Kam Tin River Location and Catchment Landscape Ecology Cultural Heritage Drone Video Recommended Route

**Kam Tin River Location and Catchment**

1. About Kam Tin River
2. Satellite Map
3. River Long Profile
4. Cross-section of the River Catchment
5. Geology
6. River Water Quality
7. River Management

### GIS-based Database

- Learning & teaching resources
- Useful for classroom teaching & students' self-study



Kam Tin River near Ko Po 於高埔附近的錦田河



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collaborating  
partner

# Education for Water Sustainability by HKGA

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## (4) Interactive GIS-based learning-&-teaching resources:

### Kam Tin River --- an example

Kam Tin River Location and Catchment

Landscape

Ecology

Cultural Heritage

Drone Video

Recommended Route

### Kam Tin River Location and Catchment



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### GIS-based Database

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## Looking forward

**Tertiary Geog.  
Education**  
**HKU – JC-WISE**  
**Water**  
**Sustainability**  
**Phase 2**

**HKGA**

**Secondary Geog.  
Education**  
DSE Curriculum  
**Managing River**  
**Environments: A**  
continuing challenge  
**Compulsory Fieldwork-**  
**based question on**  
**RIVER**

# Education for Water Sustainability by HKGA

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## Looking forward

Tertiary Geog.  
Education  
HKU – JC-  
WISE  
Water  
Sustain-  
ability  
Phase 2

### My River, My Community --- 3 more rivers:

- (1) Shing Mun River;
- (2) Tuen Mun River; and
- (3) A river in urban area

### Adopting a river --- by secondary schools

Adopting a river nearby the school

### Collaboration with other institutions:

e.g. Field Studies Centres

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# **Education for Water Sustainability by HKGA**

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**Thank you**