

# Debates, Definitions and Dilemmas of Sustainable Development 可持續發展的討論、定義與矛盾

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- 1. Your personal understandings/interpretations**  
個人理解
- 2. Historical review and some milestones**  
歷史回顧和定義
- 3. Assumptions, concepts, principles and models**  
可持續發展的假設、概念、原則和模型
- 4. Questions for thoughts/debates**  
思考 / 辯論問題

## Define SD 為可持續發展下定義

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Your personal interpretation of SD?  
你如何理解可持續發展？

# Environment – combating air pollution

## 環境 – 空氣污染

SCMP (14 Jan 2013)



Victoria Harbour (Feb 2009)

### Green groups urge CY to tackle smog levels

Chief executive should phase out polluting old vehicles in his policy address, activists say

Phila Silu and Stuart Lau

Air-pollution levels at all three of Hong Kong's roadside stations hit "very high" readings yesterday, prompting calls for Chief Executive Leung Chun-ying to deliver bold initiatives to reduce smog in his policy address on Wednesday.

At 4pm yesterday, the Environmental Protection Department's roadside station in Causeway Bay recorded an air pollution

index of 153. The reading was 119 in Central and 111 in Mong Kok.

A reading of between 101 and 200 means the pollution level is very high and that people with respiratory illnesses may notice a mild aggravation of their condition, according to the department's air pollution index.

The 11 general stations also recorded "high" pollution levels at 4pm, ranging from 67 in Tap Mun to 91 in Kwun Tong.

"We are now affected by a dry continental air stream with high

regional background pollution. The wind is light," a department spokesman said yesterday.

"The very high roadside air pollution index is caused by the trapping of air pollutants emitted by motor vehicles, coupled with high regional pollution."

The president of the environmental group Green Sense, Roy Tam Hoi-ping, called for bold initiatives in the policy address. He said the main reason vehicles emitted so many pollutants was that they were not properly maintained.

"The government requires vehicles to be examined once a year at present. I think vehicles

**80%**  
The amount of the city's smog caused by old vehicles, according to a green activist

government, as winds often blow pollutants generated by factories across the border.

Melanie Chau Yuet-cheung of Friends of the Earth said the government must deal with the phasing-out of diesel-fuelled cars in the policy address.

She said that "90 per cent of all roadside pollutants were caused by these old vehicles" still running on the city's roads.

But she said recent warmer temperatures were a factor in the raised figures.

Chau also said wider co-operation would be needed between the local and Guangdong authorities in the long run.



## MORE SUITS LIKELY ON AIR POLLUTION

**Lawyers** expect employees with work-related cancer to use WHO declaration of health hazard to build case on effects of being outdoors

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More workers are likely to sue their employers for work-related cancer, lawyers say, after the World Health Organisation officially classified outdoor air pollution to be cancer-causing.

Lawyers Albert Luk Wai-hung and Vitus Leung Wing-hang both said the number of claims would surge as outdoor workers suffering from cancer related to air quality had a better chance of

winning lawsuits and bigger payouts.

The WHO International Agency for Research on Cancer on Thursday classified outdoor air pollution as a leading cause of cancer. It is more dangerous even than second-hand tobacco smoke, according to the WHO.

Air pollution had previously been found to boost the chances of heart and respiratory diseases.

"The official declaration of the WHO will definitely raise the public awareness on air pollution and cancer," Luk said. "I am quite

sure more people will consider taking such action now there is a strong foundation to prove that working in polluted air has very serious consequences."

Leung said it was difficult now for employees to hold their employer responsible for lung cancer related to poor air quality due to a lack of medical proof.

But the WHO declaration would be sound evidence to back the claim, Leung said.

In the long run, Leung believed the health risks of poor air quality would be made an official

occupational disease, with sufferers eligible for work-injury compensation, under labour laws. Then an employee would be entitled to make claims without needing to submit the WHO findings as evidence.

The amount of compensation would be subject to assessment and would vary with age, working ability, and the severity of the health damage, Leung said.

Doctors and advocates expressed concern at the poor air quality in the city and urged the government to take more steps to safeguard public health.

Respiratory doctor Leung Chi-chiu said the lungs were frequently in contact with the air as

**3,600**

Deaths Greenpeace tied to pollution in 2011 from 96 coal-fired power plants in southern China

an average person inhaled six litres of air every minute. Pollutants, especially small particles, could accumulate in the lungs.

While outdoor air pollution was a factor, he said, the major

cause of lung cancer in Hong Kong remained tobacco or second-hand smoke.

Greenpeace climate campaigner Prentice Koo Wai-muk said air pollution took a heavy toll in Hong Kong and urged more action from the government.

A spokeswoman for the Environmental Protection Department said the government recognised the adverse health impact of air pollution and had a series of policies to tackle it, including phasing out highly polluting diesel commercial vehicles, reducing marine vessel emissions and tightening regional emission control with the Guangdong government.

SCMP (19 Oct 2013)



## Environment - nature conservation

### 環境－自然保育

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Long Valley wetland 塋原濕地 (2005)



Tai Po Kau forest 大埔滘樹林 (2006)



# (Built) Environment – improving quality of living (建築) 環境 – 改善生活質素

**DEVELOPMENT**

## URA SET TO THINK BIG AFTER RARE DEFICIT

Authority lost HK\$2.3b for the last financial year – and sources say a focus on large-scale redevelopments may help it fight back

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The Urban Renewal Authority is set to switch its focus to bigger, more profitable redevelopments after recording a HK\$2.3 billion deficit – its first loss in five years – for the last financial year.

The URA said the deficit was mainly due to the delay in tendering for four projects and resistance from property owners, and provisions for losses on five projects for which compensation offers were made.

But such schemes would need support from the government and the Town Planning Board, the source said, as they might involve government land or require roads to be realigned.

So said smaller projects could be handled under the authority's facilitator scheme, in which the URA does not compensate owners directly but collects ownership for auction. The scheme could also be expanded to industrial buildings, he added.

The steering committee is expected to put its proposals to the board by the end of the year.

Despite the gloomy short-term picture, So said the URA still had net assets of HK\$23.9 billion and could afford the HK\$33 billion it would cost to implement its business plan for the next five years. If money was short, it could issue bonds, he added.

But greater opposition to re-development schemes was only one factor putting the URA under a financial strait, chairman Victor So Hing-woh said after a board meeting yesterday. A declining property market and rising construction costs could also threaten the URA's long-term financial stability.

**It is not necessary ... to adopt a 'slash and burn' approach**

URA CHAIRMAN VICTOR SO

SCMP (18 June 2014)

North Point, HK 香港北角(2006)



Kwun Tong, HK 香港觀塘 (2007)

SCMP (7 June 2014)

**CONSERVATION**

## 'GET CREATIVE WITH DEALS TO SAVE CITY'S HERITAGE'

Green group tackles land-swap deals as top antiquities adviser advises against relying on public donations to maintain historic buildings

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A leading green campaign group has urged the government to consider alternative ways to persuade owners to hand over their heritage buildings.

The Conservancy Association put forward its view on the third day of the Antiquities Advisory Board's public consultation on how to preserve private historic buildings.

It came as the government's top adviser on antiquities said that any plan to preserve the city's historic buildings through public donations was probably a non-starter as heritage has not traditionally inspired Hongkongers' charitable side.

The Conservancy Association was responding to a question in the consultation document that asked: "Do you think that we should provide more incentives to private owners in order to encourage them to preserve their historic buildings?"

Referring to two cases in which historic mansions were saved when the owners took up a government offer to swap them for neighbouring green-belt plots, the campaign group argued that it might be better to compensate owners with sites in other areas with equivalent market value.

"Land swap proposals within green belt sites may not be very attractive to owners and will sacrifice vegetation," it said.

"The government can think of alternatives, such as compensating owners with transferable development rights so that they can buy or sell gross floor area in the market. Or, for example, can a historic house in a rural village be exchanged for a unit in an urban area?"

In the first case of its kind, the heritage mansion King Yin Lei (pictured) in Wan Chai was rescued from demolition in 2008 after its owner and the government reached a deal in which the owner was offered an adjacent man-made hillside.

More recently, a grade one historic mansion at 23 Coombe Road was saved from redevelopment after the owner, a subsidiary of Hutchison Whampoa, was offered a green belt site opposite, pending the Town Planning Board's approval to rezone for development.

"The exchange site for King Yin Lei was a bit better because it was an artificial slope with new vegetation. But the proposed exchange site for the Coombe Road house is controversial and sets a bad precedent for giving land in green belts," the association's senior campaign manager Peter Li Siu-man, said.

The consultation paper put forward other questions including whether public money should be spent on buying historic buildings from private owners and whether the scope of preservation should be extended from individual buildings to streets or even whole areas.

Li said he felt disappointed that the board was raising largely the same questions as those in a 2004 consultation that ended with no conclusion.

"It has been 10 years since the government asked the public these questions and it should have got some ideas by now. We are worried they are just playing delaying tactics by repeating the same questions," Li added.

Peak constituency district councillor Joseph Chan Ho-lim, who has been lobbying the government to scrap the Coombe Road deal, said he had had suggested industrial sites in Wan Chai or Chai Wan as options.

"But the Development Bureau does not want to swap land across districts as it found the impact too big," Chan added.

The consultation document also includes a question on whether a heritage trust should be set up and whether public money should be its source of finance.

Questioned on this issue on RTHK yesterday, Andrew Lam Shu-ko, chairman of the Antiquities Advisory Board, said: "Hongkongers have a culture of giving, but mainly when natural and human disasters occur. We are less prone to making donations for heritage conservation."

"If we introduce a fund which relies on donations as in Western countries, will it work in Hong Kong?"

He added: "People have become more enthusiastic about heritage conservation in the past eight or 10 years. But would I be so optimistic as to think such a trust can count on donations? No ... I hope I am wrong."

The idea of a heritage trust was explored in a study commissioned by the previous government back in 2011. The subsequent report, finished last year, recommended seed money of HK\$900 million be given by the government, with the trust then being self-financing mainly from investments and rental income.

While the board says in the consultation document that it believes a trust would help "promote public participation in heritage conservation" and "find new sources of funding", it also says that the continuity of such a trust could not be assured.

Even if the government was to fund just part of the maintenance costs of all graded historic buildings, the sum would be huge. Lam went on to warn. There were 1,444 buildings on a list of properties to be assessed compiled in 2008, with other buildings since proposed for grading.

"The current subsidy cap on the maintenance of each heritage building is HK\$1 million. Just multiply the figures ... it is a very large sum of money," he said.

**1,274**  
The number of graded historic buildings in Hong Kong; 231 are owned by the government



# Social – welfare and culture 社會－福利和文化

## MORE YOUNG SEEKING PUBLIC FLATS

**Housing Department** survey finds rapidly increasing number of young people applying for rental housing in order to live on their own

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Steadily growing numbers of young people are applying for public rental housing, with most citing a desire to live on their own. This was shown by the Housing Department's latest findings in its annual survey of applicants on the public housing waiting list.

It comes as government housing advisers continue to favour giving public housing priority to elderly people and families.

Of 228,400 applicants on the waiting list at the end of March last year, 60,400 were aged below 30. The number had grown from 16,500 in 2009 to 45,700 in 2012.

In the survey, conducted every year since 2000, the department interviewed 3,000 applicants by telephone from late February to early April last year.



**60,400**

applicants on the waiting list at the end of March last year were aged below 30

apply for such housing when they were still young with low income. Seventeen per cent believed public housing was a benefit they should enjoy if eligible.

In a consultative document issued in September, the government's Long Term Housing Strategy Steering Committee said it supported the Housing Authority's policy of continuing to give priority to families and elderly applicants for public rental flats.

While the committee appreciated the needs of "non-elderly one-person applicants", it recommended offering higher priority only to those aged over 35.

The committee proposed a target of 470,000 flats in the next decade, of which about 60 per cent should be public housing. It also said the average waiting time of three years for public housing should be maintained.

"The crux of the problem is a shortage of public housing supply," unionist lawmaker Wong Kwok-hing said.

Under limited supply, it is understandable that the government should give priority to those with more urgent housing needs.

Wong agreed that young people's housing needs were not as urgent as those of older people.

According to the Housing Department survey, the 228,400 applicants on the waiting list last year compared to 114,400 in 2009, and 152,500 in 2011. In 2012, there were 189,500.

The overall median monthly household income of the applicants was HK\$8,600, slightly up from HK\$8,500 in 2012. In 2009, their median household income was HK\$7,200 a month.

Further analysis showed that 67 per cent of the applicants indicated they would split from their existing household upon allocation of a public unit.

This proportion has steadily increased from 50 per cent in 2009.



In Mong Kok, "coffin rooms" like this 149 cubic metre home cost HK\$3,400 a month, but could also pose a big fire risk. Photo: Dickson Lee

## Even the once-rich are reduced to living in squalor

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Huddled in a caged cubicle just big enough to squeeze in a bed and a television set, Frankie

"In a city as wealthy as this, situations like the cage people can be prevented."

Pong said it was hard to live in such a small space, but he had no choice. "At least I have a home and my freedom here," he said of

**\$30m**

Denton was also struck by the fire risk when he stepped into the "coffin rooms", where as many as three levels of bunk beds were stacked together. The floor was divided into several rooms with no windows. When the door of



Crowds gather to hear live music on the last weekday before the Mong Kok pedestrian area goes off limits. Photo: Felix Wong

## The day the music died in Mong Kok

New rule brings an end to weekday festivities in busy city pedestrian area

Lo Wei and Ernest Kao

Street performers in Mong Kok gave their final weekday show last night.

With the opening hours of the pedestrian zone where they performed now shortened to weekends and holidays, regular performers are looking for a new place to play.

"Mong Kok is the main place for street performance in Hong Kong," said Tony Lui Yuet-tin, who has played there for more than two years. "This is a tragedy. The culture was just budding."

The change in hours for the zone at Sai Yeung Choi Street South came after residents and shop owners complained of noise and crowds and the district council voted to support opening the street to traffic on weekdays.

SMS, Lui's three-member band, has played to more than 100 people every night except Fri-

days from 6pm to 10pm. Lui and other performers sought help from lawmakers, they protested, and met the district council in the hope of keeping the zone's original opening hours. But all was in vain.

They also proposed a licensing system to regulate performers, but it was not adopted.

Lui said that while he was worried about the loss of income from audience donations, they were not playing for the money. "It's for our attitude in music. We sing every day and we feel uncomfortable when we don't sing," he said.

Lui and his fellow band members have been looking for an alternative venue, but are committed to Mong Kok, having signed a two-year contract on a flat there to store their equipment. They are planning to try playing on a pedestrian bridge in the area on Monday.

Lam Fat, a member of another

band, 3L, said he was disappointed that the government did not consider their views. "We have several dozen fans who always come by to dance or chat, and passers-by who stop and listen to us," he said.

Lam's band usually played on Thursday to Saturday nights, but now they will have to switch to Saturday and Sunday nights.

But Sai Yeung Choi Street is not all about fun and music. The politics of street performing is a rough-and-tumble game.

Street performer and self-proclaimed karaoke queen Sally Wong, 60, is happy about the new restriction as she says it will reduce the number of performers in the area and will provide a "cleaner" environment.

"This place has become a hot spot for quarrels between performers trying to outperform or play louder than others," she said. "There is also a lot of bullying by bigger groups. They don't

let us small performers use the space and they sometimes call triads to scare us away."

Local business owners are also happy about the new rules.

"A road is to facilitate movement for cars or people from one place to another, not to set up stalls," said Ricky Chan Chau-ming, chief operations officer of Brighter Optical Centre in Sai Yeung Choi Street.

He said he was not worried about reduced pedestrian traffic.

"Doing business isn't about putting yourself where traffic flows in. That reasoning is used only by property agents to charge higher rents," he said.

But student Ash Wong, 19, was disappointed by the restrictions. "When people think of Mong Kok, they think of street performers," he said. "It's ... part of the cultural fabric of the area."

Indonesian tourist Dian Lubis agreed. "I've been to Hong Kong 15 times and I love its vibrancy. It's sad to see this area close [on weekdays] as I like listening to live English music very much."

SCMP (2 Jan 2014)

SCMP (18 Jan 2014)



## Social – stability 社會－穩定

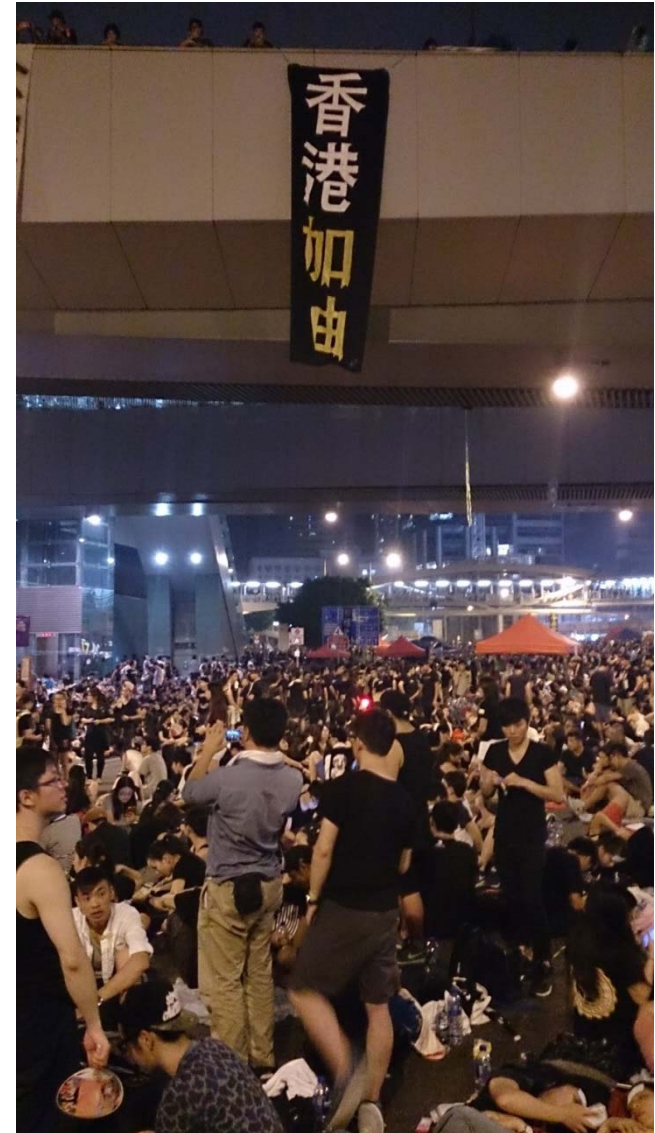


Lightning strikes as protesters gather outside the central government offices. Many began singing in the rain. Photo: Bloomberg

## UMBRELLA PROTESTERS WEATHER THE STORM

SCMP (1 Oct 2014)

30 Sept 2014





Protesters in Hong Kong (left), Taipei (above) and Tokyo (right) demonstrate against the financial services industry. The placard above declares: "I want a job." Photos: AFP, Reuters



# ANTI-WALL STREET PROTEST REACHES ASIA'S CAPITALS

SCMP (17 Oct 2011)

SCMP (16 Oct 2011)

## World unites in protest ...

From Tahrir Square in Cairo to Exchange Square in Hong Kong, a shared anger at society's most powerful institutions is creating a global language of dissent

Peter Apps in London

After the "Arab Spring" and unrest in Europe, New York's "Occupy Wall Street" movement is the latest sign of a global, popular backlash against the powerful financial or political elites. United by rhetoric and tactics, this year's explosion in both peaceful and sometimes violent protests has hit almost every continent. Protesters in places including Israel, India, Chile, Britain, Spain and now the United States all link their actions explicitly to the revolutions that have shaken up the Middle East. The slogans on the streets of Manhattan and other US cities also show other interesting influences, from the British student protests last year

**The Occupy Wall Street movement might be the final straw under which America collapses**

THE GLOBAL TIMES

"The future of America stands at a crossroads. Presuming that effective measures to relieve the social mood and reconstruct justice cannot be found, it is not impossible that the Occupy Wall Street movement might be the final straw under which America collapses," said a commentary in the *Global Times*, which is owned by the Communist Party mouthpiece the *People's Daily*.

"This movement has uncovered a scar on American society, an iceberg of accumulated social conflicts has risen to the surface."

When hundreds of protesters blocked London's Westminster Bridge a week ago in anger at changes to Britain's National Health Service, they borrowed slogans from the US protesters who described themselves as the "99 per cent" – the majority paying the price for mistakes by a tiny minority.

With the economic outlook darkening, the narrative of anger may just be beginning.

"This is most definitely going to be a multi-year trend, perhaps even a decade," says Tina Fordham, chief political analyst for US bank Cit. "What's interesting is the way you're increasingly seeing these ... strands come together. So far the policy impact has been minimal, but that could change. An extended period of



A man in New York wears a gag made out of a dollar bill as demonstrators vent their anger over financial greed, a sentiment shared by fellow protesters around the world. Photo: AFP



## Define SD 為可持續發展下定義

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Issues got more complicated as they overlap and/or  
in **conflict between aspects...**

當議題橫跨多方面，及／或**不同方面互為衝突**時，就更加  
複雜了.....

### “Wavier for Waste Charging”



30 Sept 2014

AM730 (26 Sep 2013)



## Social + Environment 社會 + 環境

## Environment VS Economic Development 環境 VS 經濟發展



Protesters present bags of rubbish to the environment chief Wong Kam-sing. Photos: David Wong

### Councillors refuse to listen to minister's landfill plan

Mass walkout at Tuen Mun council office amid protests over controversial scheme to expand tip



Tanna Chong and Shirley Zhao

A district council meeting was left without a quorum yesterday after 18 councillors walked out as the environment minister was about to explain a controversial landfill extension plan.

Eighteen of the 35 district councillors left the special meeting of the Tuen Mun council that was to have heard Secretary for Environment Wong Kam-sing give details of an application for funds to extend the local tip.

The meeting continued as a seminar without the power to make binding decisions.

Councillors said the government was trying to push through the plan – one of three extensions it says are crucial to avoid a waste crisis – without listening to any opinions.

"It's unfair to cram all polluting facilities here in Tuen Mun," said So Shiu-shing, one of those who walked out. "The whole city should shoulder the responsibility of reducing waste. If the gov-

has undergone a 10-year discussion. It is necessary and urgent to build these infrastructures."

The government is facing strong opposition to its proposal to expand the Tuen Mun, Tseung Kwan O and Ta Kwu Ling tips until a planned incinerator off outlying island Shek Kiu Chau – also a contentious project – is ready.

Wong has said his priority is to get lawmakers' approval for the Tseung Kwan O tip extension and the incinerator, proposals for which will be tabled at the Legislative Council's public works subcommittee next month.

Lau said the government "owed" the New Territories district.

**It's unfair to cram all polluting facilities here in Tuen Mun**

SO SHIU-SHING, COUNCILLOR

### RUNWAY ADVISERS HOLD BACK ON GIVING THE NOD

Airport officials' measures to protect dolphins during building of third airstrip 'unconvincing', says subcommittee studying impact report

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Prospects for a proposed third runway at Hong Kong International Airport seemed uncertain yesterday as environment advisers delayed their decision on whether to approve its environmental impact assessment study.

The advisers – from a subcommittee under the Advisory Council on the Environment – were concerned about how adequate and effective measures to mitigate the project's impact on the threatened Chinese white dolphin habitat would be.

If the study is approved and the HK\$130 billion project is given the go-ahead, some 650 hectares of prime habitat for the shrinking dolphin population would be lost to land reclamation for the third runway. Construction would last from 2016 to 2023.

The Airport Authority will respond in writing to further queries from the subcommittee, before another meeting on Monday for

the advisers to deliberate their decision.

The subcommittee, which has spent 15 hours in three days grilling the authority's officials on the environmental impact assessment study, met yesterday afternoon to discuss whether to recommend the advisory council to endorse the report.

But by the end of the meeting, it had still not drawn a conclusion on the city's single most costly infrastructure project. The council has to submit its views by late next month to the environmental protection director, who will then decide whether to issue a work permit for the project.

A subcommittee member, who wanted to remain anonymous, said members at the meeting "freely expressed their opinions" about the report and what outstanding issues had to be further addressed by the authority.

"We haven't come to the time to indicate our preference," he said. "This takes time as ... environmental impact assessment is a very complex issue."

Another member said the subcommittee had a number of doubts on the mitigation measures to protect the dolphins during construction and what could be done to draw them back after the work is done. The authority's replies had been unconvincing, he said.

The authority has so far agreed to set up a 2,400 hectare marine park to compensate for the habitat loss, but will build the park only after the runway is completed in 2023.

It also promised to re-route its Skyliner high-speed ferry services and lower the ferries' speeds during construction, but rejected suggestions to relocate the pier from the east to the west side of the airport.

The authority's other mitigating measures include adopting a non-dredging reclamation method to reduce underwater noise that would affect the dolphins, and to set up an eco-enhancement fund to support dolphin research.

The subcommittee member said the group was also concerned about the authority's role as a proponent of the large-scale project that would involve various government departments.

"The authority can't speak for the government, and this leads to the question: to what extent does it have the power to do what it has pledged to do," he said.

Samuel Hung Ka-yiu, a dolphin expert who has been opposing the runway project, said he was pessimistic that the subcommittee would reject the controversial project.

"The government's hands are everywhere and officials will make sure that the project is passed," he said.



SCMP (6 June 2014)

SCMP (20 Aug 2014)

# Environment VS (smaller) Economic Development

## 環境 VS (較小規模的) 經濟發展



Cheng Kai-keung, 59, the owner of Cheng Cheung Hing Shrimp Paste Factory, says the traditional mixing and moulding process is dying. Photos: Nora Tam

## VILLAGE LOSING ITS TASTE FOR CENTURY-OLD FLAVOUR

**Tai O is known worldwide** for the quality of its shrimp paste, but the processing of the salt-rich additive is slowly becoming a part of history

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If a smell can represent a culture, the salty fragrance of shrimp paste is undoubtedly the signature aroma of old Tai O.

It has permeated the Lantau fishing village for a century but today, like the traditional identity of the inhabitants and their community, it is fading.

"In the 1960s, there were about 10 shrimp paste factories in Tai O. Now, only two remain," said Cheng Kai-keung, 59, who started working in his family's factory as a child.

Even as the craft disappears from fishing communities across the city, steps are being taken to preserve at least its memory.

Shrimp paste making was officially recognised as a cultural asset in June when the government announced its first intangible cultural heritage list of 480 items.

But locally made shrimp paste has become a part of history. Scenes of residents making shrimp paste began to disappear from Peng Chau, Aberdeen, Cheung Chau, Lamma and Ma Wan from the 1970s.

Tai O joined the list when the outlawing of trawling last year cut

off the supply of shrimp from Hong Kong waters.

"Between June and October, we would buy enough silver shrimp from local fishermen to provide stock for the whole year," recalled Cheng, who runs the Cheng Cheung Hing Shrimp Paste Factory founded by his great-grandfather in 1920.

To survive under the new law, Cheng moved his production line to the Guangdong cities of Yangjiang (陽江) and Taishan (台山), leaving only the final processing steps for himself and his wife at the family's Tai O factory.

Shrimp paste is used in east and southeast Asian cooking to add flavour, colour and smell to dishes. Cheng said Tai O shrimp paste gained its reputation among overseas Chinese because of Hong Kong's privileged position in trade compared with China in the 1950s to 1970s.

In response to demand, Tai O shrimp paste makers started to export their product to London and San Francisco in the 1950s.

Shrimp meat and salt are the only two ingredients of shrimp paste, and the process of making the mixture fine and smooth and drying it under the sun is crucial to the quality, he said.

"You need to use your eyes,



### LIVING HERITAGE

hands and nose to interact with shrimp paste. If anything goes wrong it will make the taste a bit different, and an experienced shrimp paste maker can immediately tell from the smell. It takes many years to completely master the skills."

Humidity and the amount of sunlight are key to the drying process. Producers adjust the salt level according to the weather.

"The wrong amount of salt will ruin the quality of the paste," Cheng says. In fine weather, 100 catties (about 60.4kg) of shrimp can make 60 catties of paste. In bad weather, it can make only 30 to 55 catties. If the weather forecast is for rain, makers add two to three catties of salt to prevent the meat deteriorating.

"Then this lot of saltier mixture will be blended with another lot made in good weather so that the taste will be balanced," he said.

Although the industry is a traditional one, Cheng said his family business had relied on contin-

uous improvement to suit changing market needs. For example, today's paste is less salty than the products of his grandfather's generation because of modern health concerns.

"In the mid- to late 1990s, people were alarmed by medical reports that consuming too much salt could cause health problems. So we adjusted our recipe."

Before the 1960s there was no electricity in Tai O so the family had to grind shrimp meat manually. "But once the power supply reached us, my father bought machines for that process. This halved the grinding time and made the mixture smoother."

Traditional skills and constant adaptation to changes in society have sustained the business until now. But Cheng is pessimistic about its future.

"I can't see the next generation carrying on with this production process. Our industry has all along been run on an apprenticeship basis. If no one in the family is willing to take up the trade, then it will just stop there," he said.

Cheng said he would not ask his three daughters, aged 13, 10 and four, to take over the business. He said he did not mind passing on the skills to outsiders, but it was hard to find anyone who wanted to learn.

"No one is willing to join the trade ... It's a tough job."



SCMP (17 Sep 2014)



# Social VS Environment

## 社會 VS 環境

### C.Y. FACES REVOLT OVER GREEN-BELT HOUSING

**Proposed use** of vegetated sites for more homes contradicts pledge to use deserted or rundown land to meet flat-building target, critics say

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Housing plans targeting the city's green belts are raising the ire of residents and, according to environmentalists, run contrary to Chief Executive Leung Chun-ying's policy address early this year.

Development blueprints released by the government this year include vegetated sites near existing homes, despite Leung's pledge in January that his administration would try to rezone more green belts that were "deserted" (or "deserted") in order to boost housing. The plans angered local communities.

In the latest twist to the controversy, the government offered to scale down the development of a green belt in Sham Shui Po by cutting 300 flats, after residents of two upscale estates, Dynasty Heights and Beacon Heights, voiced fears that greenery in the area would be destroyed.

The proposal now is to build 900 private flats on 2.04 hectares of land to the north of Yin Ping Road on Beacon Hill, down from 1,360 flats on 2.84 hectares.

Dr Maria Francesch-Huidobro, a City University environmental policy academic who lives in Dynasty Heights, said the plan was just one of the cases indicating a policy shift on the use of green belts.

The government is contradicting its own guidelines on rezoning, which says green belts

should not be developed unless there is an overriding social need," she said.

"Building 1,000 units on a mountain is not really solving the housing shortage."

The administration says the revised site is home to at least 300 trees – though Green Sense put the figure at 2,000. Both sides said their estimates were preliminary.

Residents of both estates formed a concern group and collected 30,000 signatures from people living in and outside the area to oppose the government's proposal to sell the green belt for private housing.

About 200 residents met the Planning Department on April 15, after which officers announced cutting out the south-eastern portion of the original site "so that the housing project keeps a distance from the artificial slope to the north of Dynasty

Heights". The new plan will be tabled to the Sham Shui Po district council on Tuesday.

"Since the development involves a vegetated slope, it is inevitable that trees and plants will be affected," the department said in a paper to the district councillors. "The authorities will require the developer to conserve and move existing trees with conservation value or to plant new trees."

Residents and green activists are unimpressed by the government's compromise.

"What they are doing is moving the development boundary a bit further from our estate," Alex Wong Jean-wah, of the concern group, said.

"However, the development will still be close to the [Lion Rock] country park and it still uses green-belt land... It's a matter of principle. Green belts should be breathing space for urban residents."

In fact, the Yin Ping Road land is just one of seven vegetated green belts that the government will put up for sale in the current fiscal year for private housing development, according to a city-wide study by Green Sense.

Economist and government adviser Dr Andy Kwan Cheuk-chiu said certain sacrifices were unavoidable in order to meet the administration's target of providing 470,000 new flats in 10 years.

"There has to be a balance," Kwan, of the long-term housing strategy steering committee, said. "Green groups oppose development on green belts and oppose reclamation, too."

"If whenever is green can't be used for housing, Hong Kong will have to bear the cost of social unrest brought by high property prices."

It is inevitable that trees and plants will be affected

PLANNING DEPARTMENT



### COUNTRY PARK DECISION 'IN THE PUBLIC INTEREST'

**Villagers' land rights** do not outweigh policy to protect integrity of parks, judge says as he rules out review of Sai Wan enclave's incorporation

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The rights of individual landowners did not outweigh the interests of the public, a judge ruled yesterday as he dismissed a Sai Kung villager's challenge to the policy of incorporating private land into country parks.

Court of First Instance Judge Mr Justice Godfrey Lam Wan-ho refused to grant leave to Thomas Lai to seek a judicial review of the chief executive's decision to designate his home village of 60 years, Sai Wan Tsuen, as part of the Sai Kung East Country Park.

Lai had argued that the incorporation of Sai Wan, a coastal enclave, into the country park deprived villagers of their right to build houses on their land.

But Lam said the government drafted its land-use plans for country park enclaves in 2010 out of a commitment to protect the beauty and integrity of the parks.

"Time is here concerned with



The decision to incorporate the Sai Wan enclave ... was not an abuse of power

MR JUSTICE GODFREY LAM

out the delay. Lai did not have a case to argue in his claim that the incorporation thwarted the "legitimate expectation" of villagers.

The judge wrote that villagers could still apply to build homes, and the authorities had always had the right to block applications for small houses in the enclave if the development had an adverse impact on the park.

"In other words, the building of small houses in an enclave has never been entirely free from the control of the authorities," Lam wrote. "Even if the applicant had a legitimate expectation, the decision to incorporate the Sai Wan enclave into the country park was justifiable and not an abuse of power."

Villagers have run a high-profile campaign against the incorporation, preventing participants in last year's Odum Trail-walks charity hike from entering the village and blocking the main path in on weekends.

Village representative Lai Yan said villagers would now consider extending their blockade of the path to weekends.

"We have heard nothing from the government so far on how to improve our livelihood, and we therefore will not rule out extend-

SCMP (1 March 2014)

SCMP (28 April 2014)



# Social VS Environment VS Economic

## 社會 VS 環境 VS 經濟

- Village displacement  
村落迫遷
- Relocation/elimination of existing farming activities  
重置／剷除現有的農業活動
- Housing provision  
房屋供應
- New town planning for better facilities and infrastructure  
為改善設施和基建而進行新市鎮規劃



SCMP (18 Nov 2013)

# Local Economy VS Economic Development

## 本土經濟 VS 經濟發展



Cobbler Fok Koi-sing, 74, was not among those offered the option to bid for a market stall as his business is located just outside Yau Shun Lane. Photo by Tony

### Ousted shopkeepers stand their ground against URA

Kwun Tong alley business owners won't make way for project despite offers of compensation

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Three months before a deadline to move out, 28 small businesses in Kwun Tong alley stand in the way of the Urban Renewal Authority's biggest project ever.

The businesses, in their makeshift shops in Yau Shun Lane, are among the last hold-outs in the Kwun Tong town centre redevelopment area.

Their negotiations with the authority are in a stalemate after they rejected an offer of help to rent space in several East Kowloon markets.

They have also rejected being labelled "illegal occupants of government land", saying they built and bought the shops with their own hands and money. Most tenants and shop owners in the area have accepted compensation and moved out.

The authority says it opposes that the lane businesses deserve special treatment, but wants them out by June. "We are working hard to figure out a solution and to avoid a mass eviction," a spokesman said.

The businesses, ranging from hairdressing to air-conditioner maintenance, have operated in the secluded alley for decades.

After two years of negotiation, the authority last month offered the group a bid to make heads to

bid for vacant units in markets managed by the Food and Environmental Hygiene Department.

But some of the Yau Shun Lane shop owners made a bid.

An air-conditioner repairman Ngai Kwan-sing said the offer was of no use to him because his type of business was not allowed in public markets. "The department must ask me to become a renovation worker instead while moonlighting in my old job," he said. "How can this be?"

The authority has also offered the shop owners subsidies of about HK\$60,000 if they bid for the market units.

But Ngai said the risk of money raised the point. "All I need is a small space to store the equipment and do welding. Just let me go on working," he said.

He would have difficulty affording the rent in a public market, the repairman said. He was not aware that his shop stood on government land where he bought it for HK\$40,000 in 1992.

The offer of a unit in a market block is also of no help to Lai Chiu-mui as his type of business - hairdressing - is also not allowed in public markets.

"Even if they let me, the market unit is so tiny only 40 sq ft. I can put in only the barber chair," said Lai, who is in his 80s, adding that he had to work to support himself and his sick wife.

Others in Yau Shun Lane are also unhappy with the offer, including a man who sells rice porridge and a woman who runs a beauty parlour, according to social worker Marco Lee Wing-ka, of Christian Family Service Centre.

Other businesses in their area would have been happy with the offer but did not get the option.



Hairdresser Lai Chiu-mui, in his 80s, says he rejected URA's offer to help as his type of business is not allowed in public markets.

**The department asked me to become a renovation worker instead... How can this be?**

HAIRDRESSER LAI CHIU-MUI

"Those people didn't bid for the market space, but I want it," said cobbler Fok Koi-sing, 74, who works in the street just outside Yau Shun Lane.

Now he continues to operate in the open air and fret over what to do with the ex-gratia compensation of HK\$28,000.

Lai said such businesses were part of the unique history of Kwun Tong, which was famed with hawkers in the 1970s. During a crackdown, some moved into fixed hawkers markets and obtained a licence while others set up stalls in Yau Shun Lane.

### Dying Kwun Tong town centre awaits revival

The Man Square, which once was the beating heart of Kwun Tong, lies half empty after the original businesses moved out and the Urban Renewal Authority was unable to re-let their units temporarily - because of legal structures.

Only a few fast-food shops remain in the rundown square, where residents once could buy almost everything from fresh

meats in restaurants to a bowl of noodles, tea dessert and sugar cane juice from the smaller vendors. Visitors could easily pick up watches, CDs and DVDs, clothing and cosmetics.

"We thought of leasing the shops but it is impossible because illegal structures exist in most of the units, such as balconies stacked up at different levels," a spokesman for the au-

thority said. "Removing them would bring structural problems," he said.

Although most residents and businesses have moved out, the square, near the Kwun Tong MTR station, continues to be the traffic hub for people living nearby.

The authority has split the redevelopment site into five areas and Yau Man Square was the last

to be cleared for the project, involving 1,653 property interests and 5,000 people.

Acquisitions started in 2006 and the first operation will be launched in June to remove the last holdouts - number 68 - in one of the areas.

The entire redevelopment is scheduled for completion in eight years.

Joyce Ng

SCMP (26 March 2013)

## Define SD 為可持續發展下定義

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Issues got more complicated as they overlap and interwoven  
**between local, regional and international...**

當議題橫跨**本地、區域和國際層面**，並且各層面互有牽連  
時，就更加複雜了.....



# Regional issues

## 區域議題

### SHENZHEN RISKING BIRDS IN REACHING FOR SKY

Grand plans to transform Deep Bay wetlands into a cluster of corporate headquarters spells woe for migratory species, green groups say

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Shenzhen's plan to convert wetlands on the shores of Deep Bay, off northwestern Hong Kong, into a commercial zone with soaring skyscrapers will pose a major threat to bird migration patterns, environmental experts and groups say.

The city government's project on what mainlanders call Shenzhen Bay was launched in September. A planning design contest to build a "super city" in the area began in June, drawing 124 entries from around the world.

A jury will select eight designs, with the winner getting two million yuan (HK\$2.5 million) and the runner-up 800,000 yuan.

The plan calls for a cluster of business headquarters to be built in the Qiaocheng wetlands in Nanshan district, upstream from the Mai Po marshes in Hong Kong. A 35.2-hectare area will be converted into a dense urban centre, according to a blueprint posted on the website of the city's Urban Planning Land and Resources Commission.

Officials hope to develop a bay area economy that may eventually be on par with the San Francisco Bay Area.

Several skyscrapers of 150 to 680 metres tall will line the shore of the bay. Underground transport links and overhead pathways will connect the towers, which are expected to cater for 180,000 to 220,000 workers.

Four environmental groups based in Hong Kong – WWF, Green Sense, the Hong Kong Bird Watching Society and the Cross-border Environment Concern Association – said they knew little of the development plan, but were very concerned that a Deep Bay would threaten the many migratory birds visiting the Mai Po Nature Reserve each autumn, winter and spring.



Wetlands near Mai Po.

**You would [see] flocks circling in confusion around skyscrapers**

YU YAT-TUNG, BIRD WATCHING SOCIETY

Hong Kong's Environmental Protection Department and Agriculture, Fisheries and Conservation Department did not return calls seeking comment, nor did Shenzhen's urban planning commission.

Dr. Wen Xianji – a mangrove specialist for WWF, which manages the nature reserve – said the organisation did not know if the Hong Kong government had been informed about the plan.

But any change on the Shenzhen side would affect the environment in Deep Bay, he said.



"Deep Bay is one of the most important stopover sites for migratory bird species that traverse the East Asian-Australasian Flyway," Wen said. "Mai Po and Shenzhen's wetlands in Nanshan and Futian districts have a critical influence on bird migration patterns in East Asia."

He said the planned skyscrapers on the migratory route would definitely affect shorebirds and the Mai Po reserve.

"The buildings will become a physical barrier to the shorebirds, and stop them from flying freely between Hong Kong and Shenzhen," he said. The ecological value of the reserve and Shenzhen's wetlands would also be badly damaged, he added.

Yu Yat-tung, research manager of the Bird Watching Society, said: "The wetlands area at Deep Bay is one of the most important in the world, but because of cross-border jurisdictions, it has been treated in two separate ways... Hong Kong authorities cannot plan or manage wetlands on the Shenzhen side, and vice versa. We have heard nothing about the giant commercial project in Shenzhen."

"Such a cluster of skyscrapers would definitely be a deathtrap for the birds. You would [see] flocks circling in confusion around skyscrapers and repeatedly colliding with windows and building signage."

Johnny Wei, founder of the

Cross-border Environment Concern Association, urged the Shenzhen government to conduct and release the results of an environmental impact assessment before construction began.

Wei and Yu agreed that environmentalists on both sides of the border should try to get the Shenzhen government to launch a public consultation, and to maintain transparency as the project moved from planning to implementation.

"But I don't think the Hong Kong government will do much about it," Yu said.

And if the past was any indication, he said, attempts might be futile because "Guangdong always focuses on the economy and population flow rather than environmental protection".

Shenzhen had more than 530 hectares of mangrove forest in the early 1980s, one of the mainland's most important wetland conservation zones. Today, less than a quarter of that space – just 130 hectares – remains because of urbanisation, local media say.

The *Shenzhen Economic Daily* quoted the China Coastal Waterbird Census 2014 report as saying the number of shorebirds living in Shenzhen's mangrove wetlands had fallen 17 per cent since last year.

Xiong Yang, of the Green River NGO, has long studied Shenzhen's mangrove forests and thinks the situation is bleak.

"The new enterprise-headquarters project will be right next to the wetland park – another commercial reclamation project in the Qiaocheng wetlands – and will become a new threat to the nearby Mai Po reserve, even though the developers and authorities have hailed the park's new villas, artificial lake and yacht docks as a haven for birds," Xiong said.

"To make the wetland park attractive to property buyers and tourists, the developers are trying to clean up the area and also bring in seawater. It will make the park look beautiful and clean, but it will be a disaster for the fragile ecosystem."



### Calls for broader effort to tackle smog

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The worsening air quality of inland cities should be a warning to policymakers that tough anti-smog measures need to be expanded beyond the traditional industrial centres, environmentalists said.

"The smog problem is expanding fast into inland cities, and their residents simply cannot wait another five years," said Huang Wei (黃緯), a climate and energy campaigner with Greenpeace.

The five-year clean-air plan released by the State Council in September requires only cities within three built-up areas – the Yangtze and Pearl river deltas and the metropolitan cluster including Beijing, Tianjin (天津) and Hebei (河北) – to cut levels of

PM2.5, potentially hazardous particles smaller than the width of a human hair. Plans to relocate some of its coal-

The rest of the country only to reduce quant larger and less danger before the plan ends in

Central authorities that air pollution over three main industrial still tolerable and re immediate action, an Keeping the air pollutants lax in other areas them more freedom their local economies.

But the policy gave the regions could create hole allowing pollutants to relocate to : looser rules as the problem persists, Hua

Beijing, for instance imports electricity from surrounding regions, Mongolia. Guangdong

### Smog leaves Shanghai looking like 'Grey-jing'

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Thick smog enveloped Shanghai yesterday, with the air staying "heavily polluted" all day, according to the official index – a first since autumn began.

Photos shared by residents on social media showed a murky sky – an image usually associated with the city's long-time competitor, Beijing, or "Grey-jing" as some have taken to calling it.

The air quality index exceeded 200 at 4am and stood at 255 at 9pm, according to the Shanghai Environmental Monitoring Centre. Any index reading of 300 or above is classified as severely polluted.

The average concentration of PM2.5, tiny particulates that pose the biggest threat to health, stood at about 200 micrograms per cubic metre over a 24-hour period – a reading that is eight times what the World Health Organisation deems safe.

People remarked online they were shocked Shanghai was "catching up" with Beijing, which has suffered from heavy air pollution for years.

"First it was our much pricier

again beating Beijing," one resident wrote on Sina's Weibo, referring to the financial hub's policy vehicle registrations.

Shanghai's education authorities sent out an alert to schools in the morning, suggesting pupils avoid outdoor activities.

The US consulate rated the air quality as "unhealthy" on a Twitter account it maintains. At 5pm, it said the concentration of PM2.5 was 139.

In Beijing, the US mission rated the air quality there as "unhealthy for sensitive groups", with the concentration of PM2.5 hitting 31 in the late afternoon.

Last month, the capital announced it would enforce emergency measures, such as shutting factories and limiting traffic, when PM2.5 levels exceeded 300. In an attempt at a long-term solution, central government authorities have allocated five billion yuan (HK\$6.31 billion) for Beijing and surrounding regions to tackle air pollution. The mainland is also in the process of forming a national carbon-trading market to help bring down carbon emissions.

Studies have shown that northern mainlanders lose at least five years of their lives due to

SCMP (17 Aug 2014)

SCMP (21 Dec 2013)

SCMP (8 November 2013)



# World concerns 全球的憂慮

## “0.8 Billion People without Clean Water”



▲非洲有不少女童負起打水責任，每天往重疊的水桶走幾小時路程回家，也因此影響學業。

2012年3月，聯合國宣布令人鼓舞的消息，就是於2010年實現了把無法獲得清潔食水的人口比例減半的千年發展目標，較預期的2015年提早完成。然而按全球人口比例計算，這中有11%，即約7.8億人，仍無法獲得清潔食水。清潔食水，可以改變孩子的一切，包括健康、營養、教育機會，甚至他們的未來；相反，不潔食水，可奪去孩子的所有，包括健康與夢想。聯合國訂定每年3月22日為「世界水日」，讓我們一同關心缺乏清潔食水對婦女和孩子的影響，並珍惜日益緊縮的水資源。

圖、文：香港世界宣明會

### 8億人缺清水 70萬孩亡

飲用不潔食水，加上缺乏衛生服務，是促成孩子死亡的重要原因「元兇」。全球因瀉瀉死亡的個案中，接近90%與飲用不潔食水、缺乏衛生設施或衛生意識所致，瀉瀉是五歲以下孩子的主要殺手之一，於2011年，奪去了約70萬名孩子的生命。

**年的70萬童死於瀉瀉**

在缺水的社區，受威脅最深的是婦女和兒童。根據聯合國資料顯示，15歲以下的兒童當中，女童需負起打水責任的機會是男童的兩倍！在一些鄉郊地區，不少婦女和女童要走上五、六公里路，花上數小時才能到遠水潭，而水潭是非常污濁的。她們的水桶裝滿水時，可以超過40磅！萬一打水的水受到污染，家人因而生病，她們的生活會雪上加霜，因為要照顧患病的家人，而女孩也因忙於打水而沒有機會上學，追尋夢想。

貧窮人為何無法取得清潔食水？許多居住在貧困國家鄉郊地區的婦女和兒童，只可到

毫無保護或受污染的水源取水，如露天水井、泥濘溝渠的河流等。此外，一些居住於城市貧民窟的居民，須在黑夜付出不合理價錢，才能買到清潔食水。在孟加拉首都達卡，幾乎三分之一人口生活在貧民窟地區，而房東提供的共用水井一般已受到污染，令他們飽受疾病或瀉瀉之苦。在別無選擇的情況下，居民惟有向地主高價購買裝滿「清潔」的水，或購買的瓶裝水，價錢有時甚至較城市水費高出15倍！

**「清潔」食水售價貴**

全球人口愈來愈多，變相有更多人共用地球上有限的水資源。與此同時，糧食需求亦相應增加，間接導致生產過程用水更多。一些國家的富庶人口急增，加劇了對水的需求，這個人們已養成大量耗水的習慣。發展中國家的工業加速發展，亦對可用水的供應構成壓力。

在發展中國家的鄉郊地區，許多村民並不意識到保護清潔水源的重要性，或者根本

無從入手。好像人畜共用水源的習慣，就令水源受動物排泄物污染。而在一些急速發展的經濟體系，工業和工廠愈劇增加，如無實行節約用水和污染管理等適當措施，可令環境污染惡化。

因著全球暖化的影響，令全球發生更多極端水災和旱災。清潔水源於災後中更見可貴；而一旦發生水災，到處的水全都不適合飲用。

**珍惜食水 由今天做起**

面對有限的水資源，但人口不斷增長，如果不加以珍惜，這寶貴資源就更加減少。聯合國糧食及農業組織預測，到2025年，全球將有18億人居住在「絕對」缺水——人均每年少於500立方公尺的地區，而全球三分之二的人口，都處於「緊縮」狀態。面對貧困人口缺水的苦況，我們也可以盡一點力量，集腋成裘，幫助他們獲得生活必需的清水與健康。

13歲的贊比亞女孩祖比和出生以來，喝的都是黃泥水。

每天由媽媽希比時花數小時挑回來，現在的地也負責跟媽媽一同挑水。「我每天上學前和放學後都挑水，水喝非常重，令我胸口疼痛。女孩子見到家裏沒有水，不能袖手旁觀，一定要設法去挑水回來。」

每天天未亮，希比時就去挑水，來來回回四五次，頂著塵埃20公升的水，還要排長龍候候，更難的是水與動物共用，非常污染。天天喝著黃泥水，代價就是家人和孩子常被瀉瀉困擾。

可幸，宣明會協助鑽掘一個水井。「我現在只要花六分鐘，走到屋外不遠處就有一個水龍頭，能夠輕易挑水，最難的是那些清潔食水！」媽媽希比時一臉興奮地說。而面更加歡躍：「我不再忙著挑水，可以專心上學和溫習啊！」

▲全球水資源緊縮，人人都有責任珍惜和節約用水

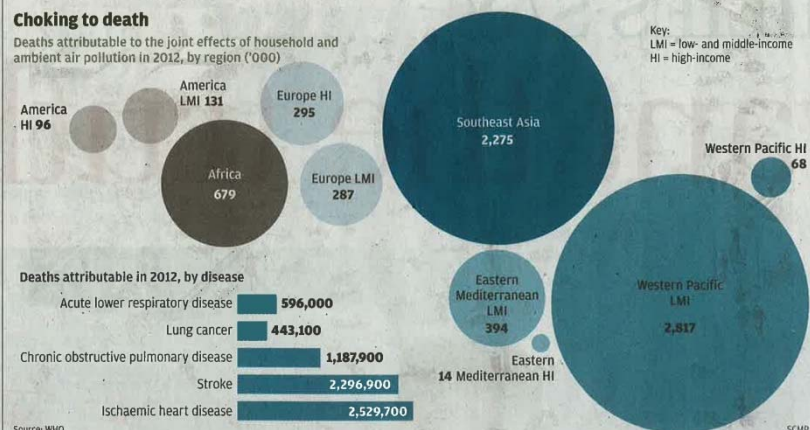
▲在非洲也有水井，但比和喝到飲水也會影響健康。

Metro (18 March 2013)

## HEALTH

### Choking to death

Deaths attributable to the joint effects of household and ambient air pollution in 2012, by region ('000)



Key:  
LMI = low- and middle-income  
HI = high-income

Deaths attributable in 2012, by disease

Acute lower respiratory disease	596,000
Lung cancer	443,100
Chronic obstructive pulmonary disease	1,187,900
Stroke	2,296,900
Ischaemic heart disease	2,529,700

Source: WHO

## AIR POLLUTION KILLS 7m A YEAR AROUND GLOBE

**Toll has doubled in just eight years, with World Health Organisation saying poor air quality, indoors and out, has multiple health impacts**

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Around seven million people died in 2012 as a result of exposure to air pollution, accounting for one in eight deaths around the globe, the World Health Organisation said yesterday.

The figure has doubled over eight years. WHO officials explained that the latest estimate was more comprehensive than those in the past.

New methods were developed to measure outdoor air pollution in rural areas and more diseases like stroke and heart disease were found to be caused by air pollution, said Dr Carlos Dora, co-ordinator for interventions for healthy environments with the WHO's Department of Public Health and Environment.

He said the figures might not

both deaths caused by indoor and outdoor pollution. The rest of the causes were mainly lung diseases.

Rural outdoor air pollution was measured for the first time by new methods such as taking satellite pictures and using ground level monitors.

Deaths from indoor air pollution were mainly linked to the practice of 2.9 billion people living in homes cooking over coal, wood and biomass stoves.

The WHO did not produce figures for China. In January a former health minister, Chen Zhu, wrote an article claiming that air pollution caused 350,000 to 500,000 premature deaths a year in mainland China.

Professor Wong Tze-wai, of the Chinese University of Hong Kong's school of public health, said although the city's air pollution was mainly outdoor, indoor pollution such as from smoking, poor kitchen ventilation and harmful fumes released from furniture should not be overlooked.

In Hong Kong last year, 3,100 deaths were estimated to be related to air pollution, according to the Hedley Environmental Index developed by the University of Hong Kong.

A Department of Health spokesman said it had all along worked with the Environment Bureau and Environmental Protection Department by providing professional input from a public health perspective.

In January Chinese University was asked to conduct a 15-month study to develop a suitable way to quantify the health and economic impacts of air pollution.

SCMP (26 March 2014)



## Define SD 為可持續發展下定義

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Issues got more complicated as they overlap and interwoven  
**between natural phenomenon and human's  
acceleration/initiation...**

當議題橫跨**自然現象和人為因素**，並且兩方面互有牽連，  
就變得更加複雜了.....

# Climate change 氣候變化

Apple Daily (03 Feb 2007)



"No more Winter for Hong Kong, Central under Sea"

## Ban urges leaders to act on global warming



Ban Ki-moon appeals to leaders from 120 countries. Photo: AFP

**UN chief opens one-day climate change summit, demanding the world sets a 'new course'**

Agence France-Presse in New York

The largest gathering of world leaders on climate change opened at the United Nations yesterday, facing calls for action to put the planet on course towards reversing global warming.

"Today, we must set the world on a new course," UN Secretary General Ban Ki-moon told leaders from 120 countries. "I am asking you to lead."

The one-day meeting is the first high-level gathering since the Copenhagen conference on climate change ended in disarray in 2009.

Diplomats and climate activists see the event as crucial to building momentum ahead of the Paris conference in late 2015 that is to yield a deal on reducing greenhouse gas emissions after 2020. But no-shows from the leaders of China, the world's biggest polluter, and India, the No 3 carbon emitter, cast a cloud over the event.

Ban was joined at the opening by former US vice-president and climate crusader Al Gore, Hollywood star Leonardo DiCaprio, Chinese actress Li Bingbing and Rajendra Pachauri, head of the UN climate panel, which won the Nobel peace prize in 2007.

France pledged up to US\$1

billion to the UN Green Climate Fund, which helps finance climate change reform in poorer countries, and the US was also expected to make pledges.

French President Francois Hollande said the Paris conference should deliver a "global and ambitious" deal and warned that climate change posed a "threat to world peace and security."

In her address, Brazil's President Dilma Rousseff said tackling climate change and development were not contradictory goals, saying: "We've reduced poverty and we've protected the environment."

DiCaprio brought star power to the UN summit, urging leaders to stop treating global warming as if it were a fiction.

"As an actor, I pretend for a living. I play fictitious characters of

ten solving fictitious problems," the actor told the summit.

"I believe mankind has looked at climate change in that same way – as if it were fiction."

DiCaprio said: "Now it is your turn, the time to answer mankind's greatest challenge is now. We beg of you to face it with courage and honesty."

China sent Vice-Premier Zhang Gao (張高麗), while India was represented by Environment Minister Prakash Javadekar.

Despite much enthusiasm from activists, some saw the event as falling short of what is needed to get serious about the issue. "Few governments will be in a position to make any real commitments," wrote the aid agency Oxfam.

> WALL ST MESSAGE A12

Wall Street Journal (26 March 2013)

## Climate Change as the Greatest Risk We Face

Larry Brilliant is president and CEO of Skoll Global Threats Fund, an organization devoted to building alliances and finding solutions to some of the world's most pressing problems.

◆ **ON CLIMATE CHANGE:** Climate change is the greatest risk we face. It's the great exacerbator. It exacerbates the risk of pandemics. It exacerbates the risk of conflict. Take a look at South Asia, where China owns the ice, India owns the water

and has 21 dams, and Pakistan and Bangladesh are out of luck. Pakistan's entire food production is dependent on two other nuclear-armed countries.

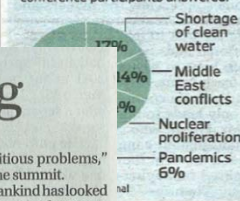
◆ **ON CEO PRIORITIES:** I was the CEO of two public companies. When I'm looking at quarterly profits, I start working on the next 90 days before this 90 days is over. How can I look up, in all honesty, and say, "There's an odorless, colorless, tasteless, invisible gas that's going to destroy the world 20 years from now?"

Our structure is wrong. Our incentive system is misaligned. Having these powerful smart CEOs focus on ahead.

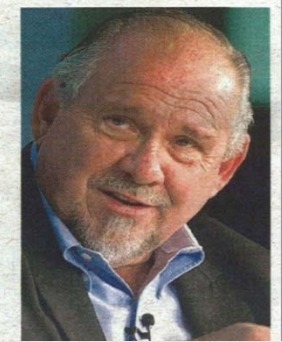
Climate change has a high probability if you're a 20-year time frame. But, it has a low probability

### Where Danger Lurks

Which of the following is the biggest threat? Here's how conference participants answered.



◆ **ON WHAT'S HOLDING BACK ENERGY INVESTMENT:** The Jobs got his genome sequenced for \$100,000. Within five years, it will be \$100 or \$200. If I was a person, I would say, "The tremendous amount of money made in the combination of data, epidemiological and



CLIMATE CHANGE

## KEEP COAL IN THE GROUND, SAYS U.N. CLIMATE CHIEF

Industry warned it must 'rapidly' transform itself, and diversify into renewable energy, to avoid catastrophic climate change

The Guardian in Warsaw

Most of the world's coal reserves should be left in the ground to avoid catastrophic global warming, the United Nations' climate chief has told the UN's global industry.

In a speech to industry executives, Christiana Figueres challenged the industry to urgently transform itself, diversify into renewable energy and "radically change... rapidly and dramatically for everyone's sake."

By now it should be abundantly clear that further capital expenditures on coal can go ahead only if they are compatible with the 2 degrees Celsius limit," she said at the international coal and climate summit in Warsaw, being held at the same time as UN climate talks.

The goal of the UN talks is to keep mean temperature rises this century below 2 degrees. Figueres said the industry had "the opportunity to be part of the worldwide climate solution" by switching off old coal power plants, capturing and storing carbon from new plants and leaving most of the world's coal reserves in the ground. She also said power could help poorer countries' economic development and poverty reduction, but that the industry "must change."

I urge every coal company to honestly assess the financial risks of business as usual, anticipate increasing regulation, growing finance restrictions and diminishing public acceptance."

groups by surprise. The industry had invited her to talk in expectation that she would legitimise their continuing growth if they adopted new technologies. The activists had been critical of her talking to the industry at all.

It is thought Figueres was stung by persistent youth groups at the UN conference who reportedly admonished her for being prepared to talk to the coal industry but not to them.

The industry declined to respond directly but argued that significant emissions reductions could be achieved by improving the efficiency of coal-fired plants using "high efficiency" coal.

This was rebuffed by a group of 27 international scientists meeting in Warsaw who agreed with Figueres, saying that nearly 75 per cent of the world's coal reserves had to be left in the ground if global warming was to be limited to a rise of 2 degrees.

In a joint statement, the scientists – from the US, Germany, Japan, China, India, Brazil and South Africa – rejected claims that high-efficiency coal can be a low-emission technology.

### Gas is the way to ensure we burn less coal over the next two decades

But Barker backed gas over renewables. "Gas is the way to ensure we burn less coal over the next two decades," he said.

At a later press conference, Figueres said the industry needed a "deep, deep transformation" and should reinvent itself as a developer of renewable energy.

"They really need to do a major, major rethink and a major shift in the deployment of their capital towards renewable energy – there is no doubt they are the energies of the future," she said.

Her remarks took both the coal industry and environment

SCMP (24 September 2014)

SCMP (20 November 2013)



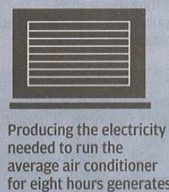
# Micro-climate: heat island effect

## 微氣候：熱島效應

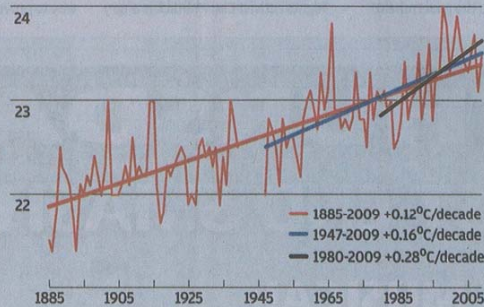
### A heat island hooked on air cons

#### Burning up

Hong Kong's annual electricity consumption



Temperature trend in Hong Kong



Now and then. A child (top) plays yesterday outside a block on the Wah Fu Estate in Aberdeen, where almost every flat has been fitted with an air-con unit (highlighted in blue). The situation is a stark contrast to that four decades ago (above), when air conditioning was scarce and few households in the block relied on them to keep cool. Photos: SMP Pictures, K.Y. Cheng

### Indoors no escape from bad air

Every breath you take indoors might not be as clean as you think.

As part of a research project mapping 25 networks of interconnected, climate-controlled shopping malls, offices and MTR stations, architects Adam Frampton, Clara Wong and Jonathan Solomon discovered that air quality varies almost as much indoors as it does out on the street.

"The higher the rents in a mall, the cleaner the air," Solomon said. "MTR platforms are cool and dry but they have almost as much airborne particulate as on the street. And indoor bus terminuses, as you would expect, are just filthy." Solomon and his

colleagues exhibited their findings in an installation at the Venice Biennale and will release them next year in a book, *Cities Without Ground*.

"It's a really fascinating and unique form of urbanism," Solomon said. "While other cities have similar indoor networks, they are usually much more limited in scope."

Several factors have encouraged the growth in urban networks. One was a government policy to segregate road and pedestrian traffic by linking buildings with footbridges. Another was the MTR Corporation's role in property development, which resulted in malls and housing estates connected directly to train stations.

Running parallel to all of this has been the growth in air conditioning.

"To start with, it was a status thing," urban development critic Angela Tam said. "It used to be that if you had air conditioning, you had risen up from the working class, and it was very prestigious to shop in an air-conditioned mall."

"Now it has become part of the culture and people are used to air conditioning."

Solomon said: "People become de-natured to the outside, distrustful of the air and of moving around at ground level."

Christopher DeWolf

It still most of go with-

out 50,000 air air-con No Air Con by the eco-ise aware- l impact of

2,285,000 business as

ut the A/C o keep the om heated k resident

Hong Kong on-depen- spending

their days in housing estates, shopping malls and office towers that become furnaces without the cooling systems.

The dependence continues at night as temperatures soar in our high-rise, heat island homes. So much so that air conditioning accounts for 60 per cent of the city's power consumption in summer.

When it comes to air conditioning, we seem to have built ourselves into a corner. Now, some are looking for a way out.

"Even in the 1990s, schools were not air-conditioned, many buses had no air con and there were not as many shopping malls," Green Sense project manager Gabrielle Ho said.

"Now the first thing people do when they get home is switch on the air con. Everywhere is so air-conditioned, people have got used to it."

Editorial 10

Given that Hong Kong's average temperature is rising by as much as 0.6 degrees Celsius per decade – more than three times the world average – it's not hard to see why air-conditioning has become ubiquitous.

One of the most noticeable effects of the rise in temperatures is the higher frequency of hot nights, when the mercury does not dip below 28 degrees.



Air conditioners are a ubiquitous part of our urban landscape.

greens. In the early 1950s, there were no such nights, according to the Hong Kong Observatory. Now there are more than 20 per year.

Much of this is due to the urban heat island effect, a phenomenon in which materials such as concrete and asphalt absorb heat during the day and release it at night. Hong Kong's densely packed high-rises aggravate the problem, creating a "wall effect" that reduces air circulation in many neighbourhoods. But excessive air-conditioning is also a big reason for the climbing temperatures.

Many Hong Kong residential buildings are designed so that air-conditioning units are as little as 10 centimetres from the living rooms of adjacent flats.

More than half the city's residents switch on their air conditioners

• CONTINUED ON PAGE 3

SCMP (03 Oct 2010)

## Define SD 為可持續發展下定義

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Most (if not all) of these issues are challenging our basic  
survival ...

這些議題多數（若非全部）都對我們的基本生存構成威脅.....



### 馬鈴薯與大米：

## 追蹤糧食引發人類災難的源頭

專題探討

撰文：盧芷嫻

「薯菜或白飯？」餐廳的午餐可隨意選配這些飽肚主食，甚至不要也不覺會餓肚子；然而，在經濟和歷史上，馬鈴薯和大米卻曾有過舉足輕重的地位，它們的種植、保存、農業和經濟的管理，主宰人類生存命脈。

不要看扁馬鈴薯，歷史上就發生了由它引發最慘烈的饑荒和最大規模的移民潮。現在到未來四十年，是關鍵時期。而大米可能是人類生存緊扣鏈極重要的一環。到2050年，全球人口將達九十億，糧食需求將增加七成；發展中國家的農業生產亦將趕過發展國家，由現在全球產量的三分之一，增長到超過百分之五十。所以若糧食系統稍有差池，歷史隨時重演，帶我們走回一百六十多年前愛爾蘭大饑荒的黑暗年代。

#### 馬鈴薯失收是饑荒罪魁？

愛爾蘭大饑荒是人類歷史上的一大悲劇。1845至1850年間，約有一百五十萬愛爾蘭人因饑荒或相關的疾病致死。到1855年，超過二百萬愛爾蘭人逃出國土，到新世界找出路。

1845年的9至10月間，馬鈴薯的葉上發現染有馬鈴薯晚疫病菌（*phytophthora infestans*），這種致病疫菌隨風傳播，迅即令大量正在種植的馬鈴薯以驚人的速度



■大米及馬鈴薯在人類歷史及經濟上，佔有舉足輕重的地位。



■越南受到氣候變化影響，令大米的生產量大幅下降。

布一系列限制出口的政策。這些出口禁令在全球大米供應量已日漸減少的情況下，進一步推高米價的升幅。出口商一方面囤積現有的大米儲備，另一邊廂的進口商則在市場上購買更多大米以迎合市場需要和建立儲備，而某些國家商人的炒賣活動亦令情況火上加油。最近的數據顯示，每公噸的大米價格已升至2001年的五倍。缺乏大米供應和米價暴漲，已令情況到達臨界點。

2011年9月10日，越南，農民在田裡收割水稻。

## 東江水擬明年起按量收費

### 港府或可減開支

特稿

東江水供港協議今年底屆滿，本報獲悉，港府最快於未來兩星期與廣東省簽訂新協議。據悉，發展局與內地多番磋商後，初步爭取到按供水量多寡收費，即實報實銷，每立方米水價會因應內地處理東江水的營運成本上漲，以及人民幣升值等因素而調整，解決過去3年一筆過付款的問題。未來幾年若港人有有效節水，可望節省購買水公帑。

明報記者 馬耀森

水務署發言人回應，粵港雙方現正就新的供水協議協商，協商進度良好，又強調調整水費是民生重要課題，社會需要充分討論，政府現未有計劃調整水費。

粵港過去3年簽訂的供水協議，容許最高輸水量11億立方米，但實際輸水量按需求而定，以免在雨季「水塘滿溢」，要「倒水落海」，浪費資源。不過，無論取水多少，也要支付定

港府最快於未來兩星期與廣東省簽訂新協議。但消息指雖然每單位水價會增加，但港府初步成功爭取，由以往不計供水量一筆過付款，改為按供水量多寡收費，即實報實銷。因此未來幾年若港人有有效節約用水，或因雨量增加水塘存水，便有節省購買水公帑的公帑。

近年漸變「南旱北澇」



東江水佔全港供水七至八成，每年供水視乎降雨量彈性處理，但因近年廣東旱情嚴重，令人關注供水予港安排。（資料圖片）

#### 近年東江水供水量

資料來源：水務署

年份	2005	2006	2007	2008	2009
供水量（億立方米）	7.71	6.17	7.15	6.53	7.25
買水費用（億元）	25.30	24.95	24.95	24.95	29.59

Mingpao (22 Sep 2011)

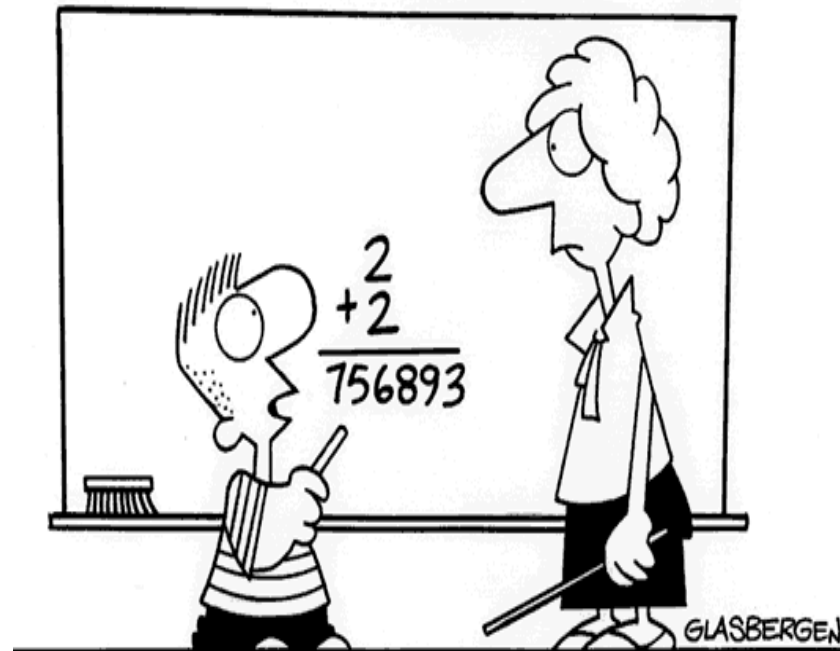


## Questions for thoughts

### 思考問題:

Is SD an ideology or is it a practical approach?  
可持續發展是一個意識形態還是一個實際的方法？

Copyright 1996 Randy Glasbergen. [www.glasbergen.com](http://www.glasbergen.com)



**"In an increasingly complex world,  
sometimes old questions require new answers."**

## SD is... (Basiago, 1995) 可持續發展是.....

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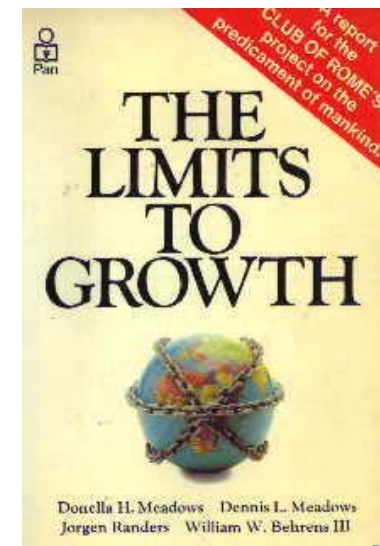
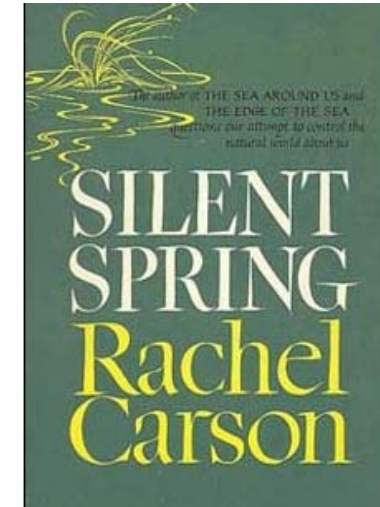
- **Biologists 生物學家** – interaction between human and natural systems. The need to save natural capital on behalf of future generations; consequences of the human interaction 人類與大自然的互動。需要為子孫後代保留自然資本；人類互動的後果
- **Economists 經濟學家** – whether the modern production system will collapse because it will exhaust the natural capital on which it depends; public intervention in private markets 現代生產系統會否因耗盡其賴以運作的自然資本而崩潰；政府干預私人市場
- **Sociologists 社會學家** – causal relationship between individuals, families, neighbourhoods and races; power to make decisions over the use of natural resources 個人、家庭、鄰舍和種族之間的因果關係；就自然資源的運用進行決策的權力
- **Urban planners 城市規劃師** – the pursuit of a design science that will integrate urbanization and nature preservation 追求一種能融合城市化和自然保護的設計科學
- **Environmentalists 環保人士** – whether nature has ‘rights’ and whether the current rate of species extinction caused by humanity is ethical 大自然是否有「權利」，現時人類造成的物種滅絕的速度是否合乎道德
- **My Mum 我的母親** – that using credit cards to buy things in advance is an unsustainable act (socially, physically and economically)! 用信用卡購物，先洗未來錢，屬非可持續發展的行為（對於社會、環境和經濟）！



**Historical Review: Some Important Milestones**  
**歷史回顧：一些重要的里程碑**

## Problems became visible... 問題浮現.....

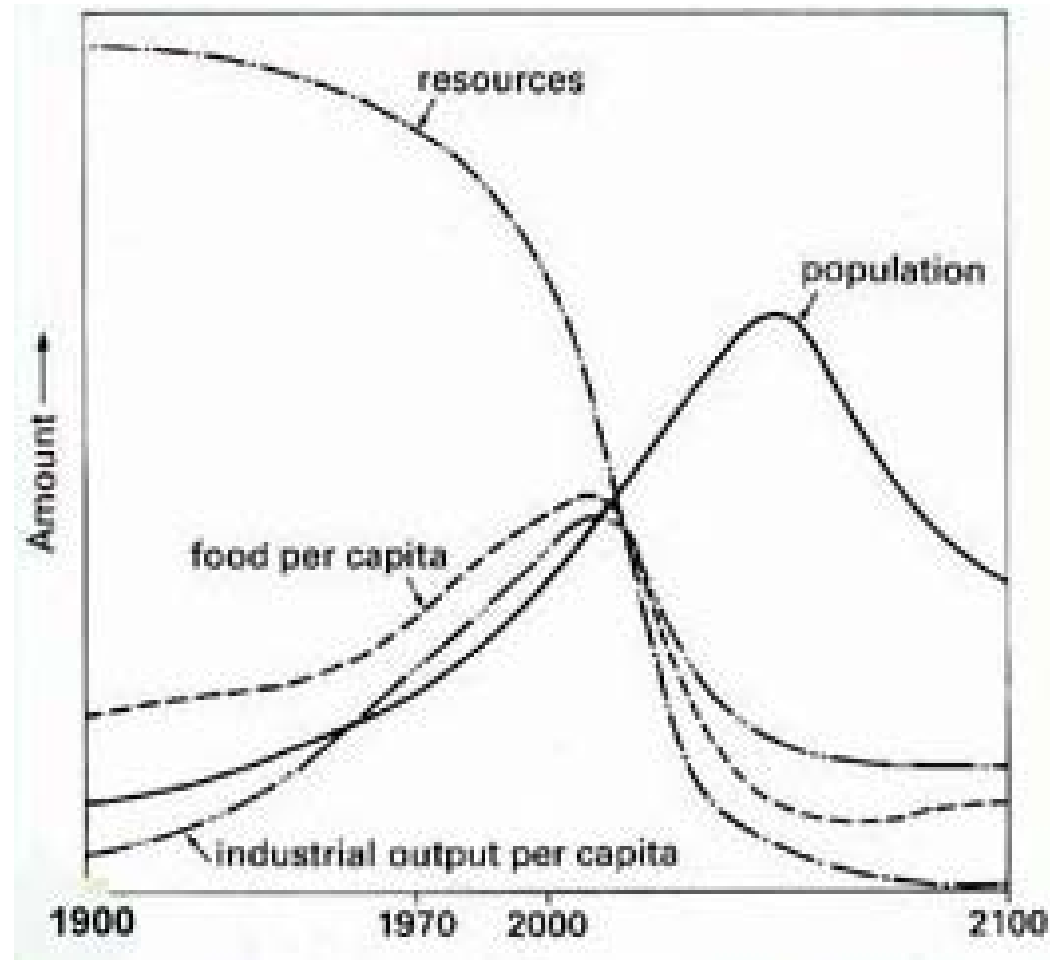
- **1962 – Silent Spring by Rachel Carson 瑞秋·卡森的《寂靜的春天》**
  - Agricultural pesticides DDT & chemical industry had brought disastrous damage to the ecological environment  
農業殺蟲劑滴滴涕和化學工業已對生態環境帶來災難性影響
- **1972 – Limits to Growth by the Club of Rome 羅馬俱樂部的《增長的極限》**
  - 5 global concerns  
5個全球的憂慮
    - Industrialisation 工業化
    - rapid population growth 急速的人口增長
    - widespread malnutrition 廣泛出現營養不良
    - depletion of non-renewable energy 不可再生的能源短缺
    - deteriorating environment 環境劣化





## Scenario from Limits to Growth...

《增長的極限》提出的情況.....



- Resources of the Earth are finite and thus subject to natural limits  
地球的資源有限，受自然的極限約束

## Concerns addressed at international level... 在國際層面處理的憂慮.....

- **1972 – UN Conference on Human Environment (the Stockholm Conference)**  
聯合國人類環境會議（斯德哥爾摩會議）

- First UN major conference on environmental issues  
聯合國就環境議題舉行的首個重要會議
- Declaration on Human Environment – 26 principles  
人類環境宣言 – 26個原則
- “Development is needed to improve the environment”; “Environmental policy must not hamper development”; “Integrated development planning is needed”....etc  
「為了改善環境，發展是必須的」；「環境政策不應阻礙發展」；  
「綜合發展計劃是必須的」等
- UNEP resulted from the conference  
會議促使了聯合國環境規劃署 (UNEP) 的成立



- **1980 – World Conservation Strategy 世界自然保護策略**

- Living Resource Conservation for SD  
為可持續發展保護生物資源
- International Union for Conservation of Nature and Natural Resources (IUCN); UNEP and WWF  
世界自然保育聯盟(IUCN)、聯合國環境規劃署、世界自然基金會
- “humanity, which exists as a part of nature, has no future unless nature and natural resources are conserved”  
「人類作為大自然的一部份，必須保護大自然和自然資源，否則人類便沒有將來」

### WORLD CONSERVATION STRATEGY

Living Resource Conservation  
for Sustainable Development



Prepared by the International Union for  
Conservation of Nature and Natural Resources (IUCN)  
with the advice, cooperation and financial assistance of  
the United Nations Environment Programme (UNEP)  
and the World Wildlife Fund (WWF)

and in collaboration with  
the Food and Agriculture Organization of the  
United Nations (FAO)  
and the United Nations Educational, Scientific  
and Cultural Organization (UNESCO)

1980





## Concerns addressed at international level...

在國際層面處理的憂慮.....

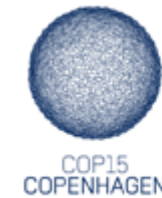
- **1983 – World Commission on Environment and Development (WCED) 世界環境與發展委員會**
  - Also called the Brundtland Commission  
又稱布倫特蘭委員會
  - United Nations' initiative but independent to UNEP  
是聯合國的計劃，但獨立於聯合國環境規劃署
  - Established to raise awareness and propose long-term strategies to achieve SD  
為提升可持續發展的意識和提議實現可持續發展的長遠策略而成立
- **1987 – Our Common Future (the Brundtland Report) 我們的共同未來（布倫特蘭報告）**
  - “...development that meets the needs of the present without compromising the ability of the future generations to meet their own needs” (WCED, 1987: 43)  
「.....既能滿足我們現今的需求，又不損害子孫後代能滿足他們的需求的發展模式。」(世界環境與發展委員會 WCED, 1987: 43)



# SD and Climate Change – Global Actions

## 可持續發展和氣候變化－全球行動

- **1992 – Earth Summit, Rio – Brazil** 巴西里約熱內盧地球峰會
  - (1) Rio Declaration 里約宣言; (2) The Statement of Forest Principles 關於森林問題的原則聲明; (3) The Framework Convention on Climate Change 氣候變化框架公約; (4) The Convention on Biological Diversity 生物多樣性公約; (5) Agenda 21 二十一世紀議程
- **2002 – World Summit, Johannesburg, South Africa** 南非約翰內斯堡世界高峰會
- **2009 – UN Climate Change Conference, Copenhagen** 哥本哈根聯合國氣候變化會議
- **2012 – Rio+20 UN Conference on SD, Rio – Brazil** 巴西里約熱內盧里約+20 聯合國可持續發展大會
  - “This is an outcome that makes nobody happy. My job was to make everyone equally unhappy” (Sha Zukang, Secretary-General of the Rio+20 Conference, in his closing remarks)  
「這個結果令大家都不高興。我的職責就是要令人人都同等地不高興」（里約+20秘書長沙祖康於閉幕式中的發言）
- **2014 – UN Climate Summit, New York** 紐約聯合國氣候高峰會
  - 8 action areas (agriculture, forests, financing, resilience...) 8個行動範疇（農業、森林、金融、抗災能力.....）
  - Climate March and protests 氣候遊行和抗議





# Assumptions, Concepts, Principles and Models

## 可持續發展的假設、概念、原則和模型

## Assumptions... 假設.....

- Nature **cannot** indefinitely sustain accelerating human demands  
大自然**不能**無限期地應付人類不斷增加的需要
- There are **unequal distributions** of wealth and resources on our planet earth  
地球上的財富和資源**分佈不均**
- The present generation should provide **options & flexibility** for the future generations  
我們這一代應為子孫提供**選擇和彈性**
- Every developmental change and activity of mankind **imposes impacts** on existing socio-economic and ecological environments  
人類的一切活動和因發展帶來的改變都會對現有的社會經濟環境和生態環境**構成影響**
- There are **inter-connected linkages** between the social, economic, political and environmental aspects of our community  
我們的社區在社會、經濟、政治和環境方面是**互相聯繫**的



## Two important concepts 兩個重要的概念

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### 1. The concept of **NEEDS** 需要的概念

- “In particular the essential needs of the world’s poor, to which overriding priority should be given to combating poverty” (WCED, 1987)

「尤其是世界上貧困人民的基本需要，應特別優先考慮，以消除貧窮」(世界環境與發展委員會 WCED, 1987)

- Food, shelter, water, health, security  
糧食、住房、食水、健康、安全
- Specially in combating world poverty  
尤其是應對全球貧窮問題

### 2. The concept of **LIMITATIONS** 限制的概念

- “Limitations imposed by the state of technology and social organisation on the environment’s ability to meet present and the future needs” (WCED, 1987)

「技術狀況和社會組織對環境於滿足眼前和將來需要的能力所施加的限制」(世界環境與發展委員會 WCED, 1987)

- Limitations in technological advancement and socio-political set up  
技術進步和社會政治組織總有限制

## Some important principles (UNCED, 1992)

### 重要原則

- Equity issues 公平性:
  - Ethical utilisation of natural resources  
合乎道德地利用自然資源
  - Achieve inter- and intra- generation equity  
實現世代之間和同一世代的公平性
- Precautionary principle 預防原則
- Subsidiarity principle 補充性原則
- A sustainable process 可持續的過程
- Partnership 合夥

GDP Ranking 國內生產 總值排名	Country 國家	GDP per capita (USD) 人均國內生產總 值（美元）
1	<a href="#">Qatar 卡塔爾</a>	\$ 102,100
14	<a href="#">United States 美國</a>	\$ 52,800
15	<a href="#">Hong Kong 香港</a>	\$ 52,700
121	<a href="#">China 中國</a>	\$ 9,800
145	<a href="#">Sri Lanka 斯里蘭卡</a>	\$ 6,500
168	<a href="#">Vietnam 越南</a>	\$ 4,400
228	<a href="#">Congo 剛果</a>	\$ 400

Source: Central Intelligence Agency (2014, based on 2013 estimations)





## The 3-ring model 三環模型

- Conceptual simplicity  
概念簡單
- Aiming to bring the three together in a **balanced** way, **reconciling conflicts**  
目標是平衡三個方面並調解衝突
- Assumes the **separation** and **autonomy** of the economy, society and environment (i.e. Reductionist)  
假設經濟、社會和環境三方面是分開和獨立的（簡化）
- None of the 3 aspects is given **priority**  
沒有任何一方面優先

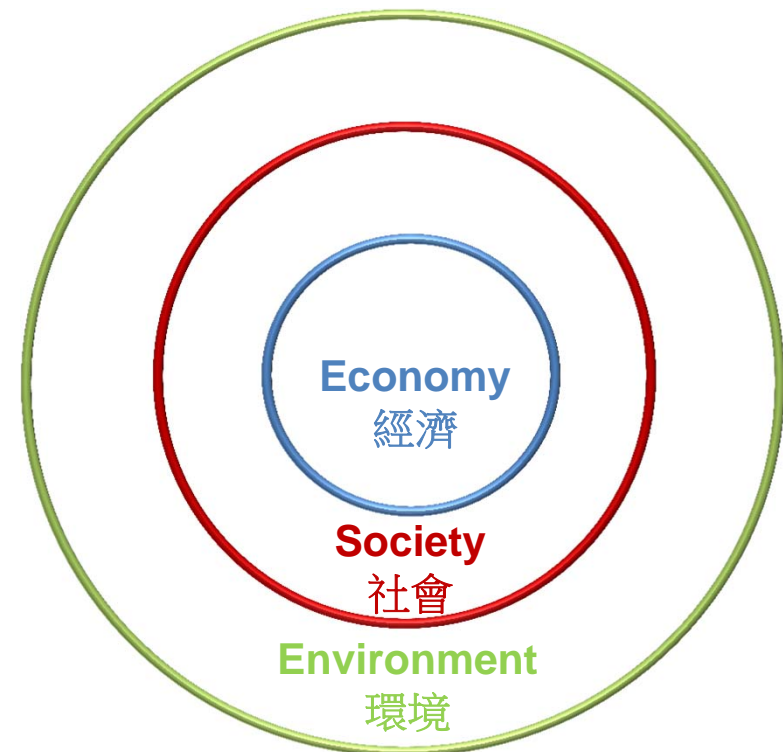


**Contradiction or integration?**  
矛盾還是融合？

# The Nested SD Model

## 從屬模型

- **Nesting** Economy in Society and Environment  
經濟**從屬**於社會和環境
- **Material reality**: that the economy is dependent on society and the environment  
物質**現實**：經濟要依賴社會和環境才能運作
- All our material needs (e.g. heat, light, food medicines, clothing) are made with materials and energy **from nature**  
我們的一切物質需要（例如熱、光、糧食、藥物和衣服）均**來自大自然**的物質和能量
- Products (either waste or goods) eventually end up **returning to the environment**  
產物（廢料和貨物）最終會**回歸大自然**



## SD as means/process 可持續發展是方法／過程

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- **“A process of change”** that improves people’s quality of life and at the same time protecting the natural and human resources for the future generations (WCED, 1987)  
改善人們生活質素又同時為子孫後代保護自然和人力資源的「**改變過程**」 (WCED, 1987)
- **“It’s not a fixed state”, but rather a process of changing perceptions of** how we should develop: in which how the use of resources, technological development, and institutional change are managed so as to meet present and future needs (WCED, 1987)  
「**它不是一個固定的狀態**」，而是一個**觀念改變的過程**，關於我們應如何發展：如何管理當中的資源運用、技術發展和制度改變才能滿足當前和未來的需要 (WCED, 1987)



## SD as ends/outcomes 可持續發展是目的／結果

- **Sustainable Communities 可持續社區** (Local Government Management Board, UK, 1995)
  - Resources are used **efficiently**  
有效地運用資源
  - Pollution is limited  
限制污染
  - **Diversity of nature** is valued and protected  
大自然的多樣性得到重視和保護
  - Where possible, **local needs are met locally**  
可能的話，以本地的供應滿足本地的需要
  - Everyone has access to adequate food, water, shelter and fuel at a **reasonable cost**  
人人只要付出合理的代價，就能有足夠的糧食、食水、住屋和燃料
  - Everyone has the opportunity to work in a **diverse economy**  
人人都有機會在多元經濟下工作
  - **Health** is protected  
健康得到保障
  - Access to facilities, services, goods is **fair**  
公平享用設施、服務和貨物
  - People live **without fear** of crime, or persecution on account of their race, gender, sexuality or beliefs  
人們過著無須害怕因自己的種族、性別、性徵或信念的緣故而被定罪或起訴的生活
  - Everyone has access to **skills, knowledge and information**  
人人有途徑取得技能、知識和資訊
  - Everyone are **empowered to participate** in decision-making  
人人獲授權參與決策
  - **Equal opportunities** to participate in culture, leisure and recreation  
參與文化、閒暇和康樂活動的機會平等
  - **Built environment** is in human scale and form, and diversity and distinctive features are valued and protected  
建築環境的尺度和形式以人為本，多樣化和特徵得到重視和保護

# What is Quality of Life?

## 甚麼是生活質素？

<b>Quality of Life (UN Universal Declaration of Human Rights, 1948)</b> <b>生活質素（世界人權宣言，1948）</b>	<b>Standard of Living (for measurement of material comfort)</b> <b>生活水平（用以量度物質上的舒適度）</b>
<ul style="list-style-type: none"> <li>• Freedom from slavery and torture 免於受奴役和酷刑的自由</li> <li>• Equal protection of the law 受法律的平等保護</li> <li>• Freedom from discrimination 免於歧視的自由</li> <li>• Freedom of movement 遷徙自由</li> <li>• Freedom of residence within one's home country 居住於其本國的自由</li> <li>• Presumption of innocence unless proved guilty 被證實有罪以前，被視為無罪</li> <li>• Right to marry 婚姻的權利</li> <li>• Right to have a family 擁有家庭的權利</li> <li>• Right to be treated equally without regard to gender, race, language, religion, political beliefs, nationality, socioeconomic status, etc 不分性別、種族、語言、宗教、政治見解、國籍和社會經濟地位等，一律有權獲得同等待遇</li> <li>• Right to privacy 私生活的權利</li> <li>• Freedom of thought 思想自由</li> <li>• Freedom of religion 宗教自由</li> <li>• etc 等等</li> </ul>	<ul style="list-style-type: none"> <li>• Income 收入</li> <li>• Quality and availability of employment 就業質素和機會</li> <li>• Class disparity 階級差異</li> <li>• Poverty rate 貧困率</li> <li>• Quality and affordability of housing 房屋的質素和負擔能力</li> <li>• Hours of work required to purchase necessities 購買必需品所需的工時</li> <li>• GDP 國內生產總值</li> <li>• Inflation rate 通脹率</li> <li>• Number of paid vacation days per year 每年的有薪假期</li> <li>• Affordable access to quality health care 可負擔的有質素醫護服務</li> <li>• Quality and availability of education 教育質素和機會</li> <li>• Life expectancy 預期壽命</li> <li>• Incidence of disease 疾病的發生率</li> <li>• Cost of goods and services 商品和服務的成本</li> <li>• Infrastructure 基礎設施</li> <li>• Environmental quality 環境質素</li> <li>• etc 等等</li> </ul>

# Questions for thoughts

## 思考問題

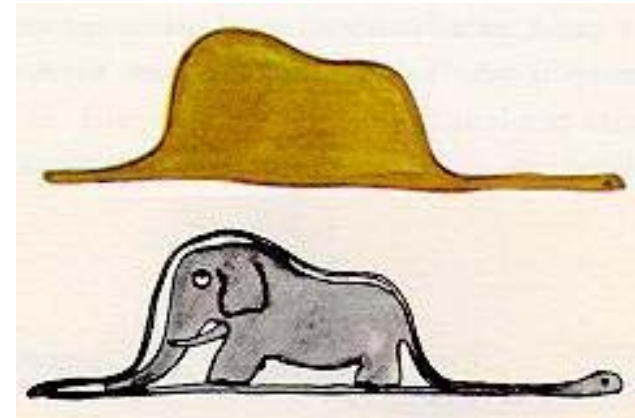
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- What is SD?  
可持續發展是甚麼？
  - An alarm call - A paradigm shift on how we think and live?  
一個警號 – 思考和生活模式的典範轉移？
    - Is globalisation of goods and services a sustainable trend?  
貨物和服務的全球化是否一個可持續的趨勢？
    - Hinterland for our consumption = **Globe (p+p+f)** (credits: Lam Chiu Ying)  
我們消費的腹地 = **全球（過去 + 現在 + 未來）**（資料來源：林超英）
  - Vision? Decision-making/analytical framework? Guidelines for actions?  
願景？決策／分析的框架？行動指引？
- Is Sustainable Community an unachievable goal?  
可持續發展是否一個不可能實現的目標？
  - YES – why?  
是 – 為甚麼？
  - NO – how?  
不是 – 如何？
- Does defining SD matter?  
是否有需要為可持續發展下定義？



## SD is about re-defining "development"? 可持續發展是要重新定義「發展」？

- SD is **NOT** about “balancing” economic, social and environmental well-being  
可持續發展**並非**「平衡」經濟、社會和環境的健康
- Probably **NOT** in materialistic terms  
大概**不是**流於物質層面
- Is it about change in values?  
是不是要改變某些價值？
- For our own survival!  
是為了我們自身的存活！
- Re-think on our relationship with nature – be part of the natural cycle  
再思我們與大自然的關係－我們是大自然循環的一部份



The Little Prince 小王子, 1943

***“getting more, from less, for longer and for all”***

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# Building Sustainable Communities 建設可持續發展的社區: Hong Kong Cases 香港案例

17<sup>th</sup> December 2014  
2014年12月17日

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The Kadoorie Institute 嘉道理研究所

- 1. Central and Wanchai Bypass – Sustainable Process**  
中環灣仔繞道－可持續的過程
- 2. Blue House in Wanchai – Community-based Initiative**  
灣仔藍屋－社區為本的計劃
- 3. Lai Chi Wo – Sustainable Rural Community Revitalisation**  
荔枝窩－可持續的鄉村社區活化



## C1: Central Wanchai Bypass 中環灣仔繞道 (2005-2007)

### Some Background Facts 背景資料:

- CEDD project - the need to complete the **long-planned strategic road link**  
土木工程拓展署項目－需要完成計劃已久的策略性道路連結
- Public Engagement was initiated **before the EIA Study Brief** got issued  
在環境影響評估研究概要發佈之前便開始邀請公眾參與
- Initiated by **Harbour-front Enhancement Committee (HEC)** and funded and implemented by CEDD  
由**共建維港委員會**開展，土木工程拓展署提供資金和落實



Source: HEC (2009)

資料來源：共建維港委員會 (2009)





## Existing Harbour-front : Weaknesses 海旁現狀：缺點





## Existing Harbour-front : Strengths 海旁現狀：優點



# HEC's Public Engagement Process

## 共建維港委員會的公眾參與過程

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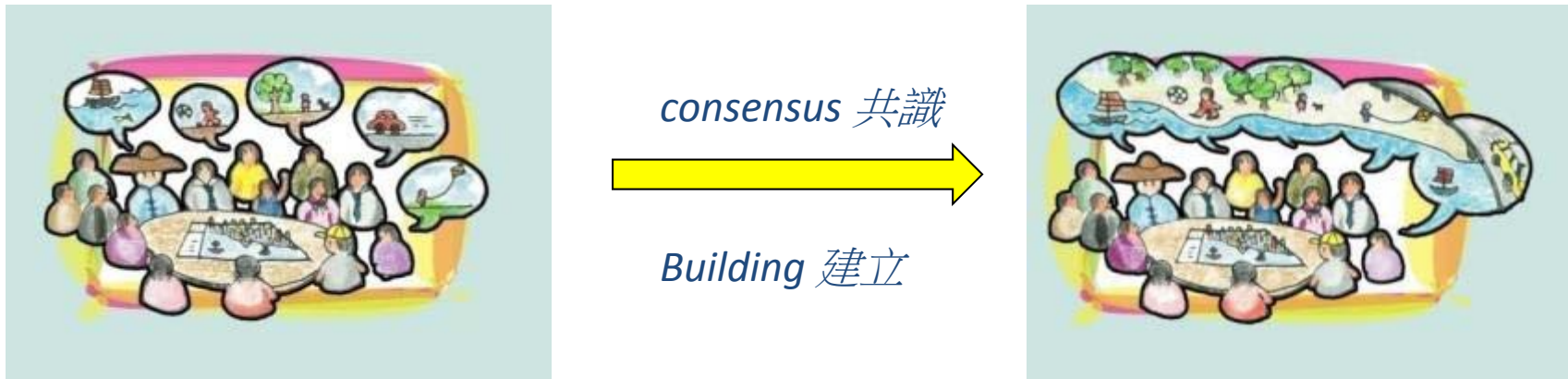
### Conflicting issues 矛盾議題

- Harbour protection VS Reclamation for Bypass  
海港保護 VS 填海建繞道
- Resolving traffic congestion VS Provision for other social, environmental & economic well-being  
紓緩交通擠塞 VS 照顧社會、經濟和環境上的其他需要
- The need for **structured, rational and informative** public engagement process  
需要**有系統、合理和具資訊性**的公眾參與過程

### Sustainability approach 達致可持續發展的方法

- Public Engagement AND **Community-based Sustainability Assessment** (in addition to EIA)  
公眾參與和**社區為本的可持續性評估**（在環境評估以外）

# HEC's Public Engagement Process 共建維港委員會的公眾參與過程



## 3 Stages 階段

- **Envisioning 展望** - for public to give visions, wishes and concepts 讓公眾表達願景、訴求和概念
- **Realisation 認識** - for public to evaluate concept plans 讓公眾評價概念圖則
- **Consolidation 整合** - to ensure draft Outline Zoning Plan reflects public consensus 確保草擬的分區計劃大綱圖反映社會共識



# Institutional Arrangements

## 制度安排

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- *HEC members* 共建維港委員會委員
  - Initiate the need for the engagement, monitoring  
發起公眾參與、監察
- *Government department (CEDD)* 政府部門（土木工程拓展署）
  - Secretariat to the engagement activities, execution  
公眾參與活動的秘書處，執行
- *Consultants* 顧問
  - Engineering details, design and facilitation of engagement process  
(separate specialist consultants)  
工程細節，設計和促進參與過程（不同的專家顧問）
- *Expert Panel* 專家小組
  - Provide expert opinions on sustainable transportation measures  
就可持續發展運輸措施提供專家意見
- *Collaborators* 工程伙伴
  - 26 invited organisations: social organisations, green groups, district councils, professional bodies, etc to give first round of comments  
26個組織：社區組織、環保團體、區議會和專業團體等提供首輪意見

## Engagement Methods 參與方法

- 5 public forums  
5場公眾論壇
- 4 community workshops  
4場社區設計坊
- Questionnaire surveys 問卷調查
- Written submissions 書面意見
- Expert panel inputs 專家小組意見
- Revolving street exhibitions  
街頭巡迴展覽
- Guided harbour walk 沿岸導覽
- Town hall meeting 社區諮詢會
- Website 網頁





# Setting Community-based SD Principles

## 制訂社區為本的可持續發展原則

- 9 sustainability principles were first suggested by the study collaborators (i.e. interested organisations from all walks of life: DC members, HKIP, HKIE, HKIA, related university professors, Caritas – social worker, etc)
- 9個可持續發展原則先是由研究的合作伙伴提出（即來自不同界別的有興趣的組織，包括：區議會成員、香港規劃師學會、香港工程師學會、香港建築師學會、相關的大學教授、香港明愛－社工等）
- Study consultants (HKU + planning consultants) proposed related social, economic and environmental indicators for each of the 9 principles
- 研究顧問（香港大學＋規劃顧問）也就該9個原則逐一擬備了相關的社會、經濟和環境指標

<b>1</b> Vibrant and attractive harbour-front 創設有朝氣和吸引力的海濱	<b>2</b> Maximize opportunities for public enjoyment 充份提高公眾享用的機會	<b>3</b> Accessible harbour-front for all ages, social groups and disabilities 方便所有年齡、社群和傷健人士到達
<b>SOCIAL INDICATORS 社會指標</b>		
• Pedestrian mobility 便捷的行人接駁 • Accessible to all, regardless of age, social group and disability 適合不同年齡、社群及傷健人士的通道 • Free access for all 免費使用的海濱 • Diversity in activities for different times and age groups 多元化的活動，配合不同時間及不同年紀人士的需要	• Free entry for all 免費使用的海濱 • Diversity in activities for different times 多元化的活動，配合不同時間及不同年紀人士的需要 • Free to allow accessibility for all 所有人士可以免費使用海濱	• Accessible to all, regardless of age, social group and disability 適合不同年齡、社群及傷健人士的通道 • Free to allow accessibility for all 所有人士可以免費使用海濱
<b>ECONOMIC INDICATORS 經濟指標</b>		
• Provision of business opportunities (for both day and night time) 提供多元化的商機（日間及夜間） • Facilitate wide range of economic activity* 有利不同類型的經濟活動*	• Provision of business opportunities (for day and night time)* 提供多元化的商機（日間及夜間）*	
<b>ENVIRONMENTAL INDICATORS 環境指標</b>		
• Safe and convenient access 安全及易達的海濱 • Sensitive building height profile 易達的建築高度 • Provision of open space and other community facilities 提供充足的戶外空間及社區設施 • Create activity nodes/landmarks – identity icon 創設活動節點/地標 – 形象標誌 • Infrastructure that will facilitate both water and land activities* 提供可促進水陸活動的基礎設施* • Support commercial marine traffic requirements* 支援商業性海上交通需要* • Enhance air circulation 改善空氣流通 • Enhance water quality* 改善水質 • Minimize noise pollution* 減低噪音污染* • Minimize vehicular emission 減低車輛排放物	• Enhance openness 開闊景觀 • Provision of landscaped area with trees 提供有樹林的綠化地方 • Minimize land for infrastructure and utilities* 減少基礎及公用設施佔用的土地* • Remove incompatible uses* 消除不相宜及不協調的用途* • Enhance air circulation 改善空氣流通 • Enhance water quality 改善水質	• Linkage to public transport facilities 與公共交通設施連接 • Linkage to old inner districts 與舊區連接 • Extent of a continuous promenade 海濱的貫通性 • Provision of cycle tracks and walking trails 提供單車徑及步行徑 • Visual access to waterfront* 保護望向海濱的視野無阻* • Visual access to waterfront* 保護望向海濱的視野無阻*

<b>4</b> Preserve natural and cultural heritage and identity 保存自然及文化遺產和本土特色	<b>5</b> Enhance visual amenity, landscape and quality of space 優化景觀和綠化提高用地的質素	<b>6</b> Enhance social interaction 促進社群交往
<b>SOCIAL INDICATORS 社會指標</b>		
• Provision for cultural and social activities along waterfront 沿海濱提供文化及康樂活動 • Provision of local activities to enhance social attachment to the harbour 為加強社會對海濱的歸屬感提供地籍活動 • Enhancing the heritage value of the harbour* 提高海濱的人文價值*	• Open space suitable for all ages, social groups, and disability conditions 為不同年齡、社群及傷健人士提供休憩空間 • Provision of a secure and safe environment 提供安全的環境	• Open to the public 開放予公眾 • Free for the enjoyment of all, regardless of age, social group, and disability 不同年齡、社群及傷健人士可以免費及自由地使用海濱
<b>ECONOMIC INDICATORS 經濟指標</b>		
• Provision of the economic activities with cultural value* 提供具有文化價值的經濟活動*	• Provision of opportunities for small business 提供小商戶的商機	• Extension of the economic activities from the hinterland including the old inner districts to the promenade 將經濟活動（包括舊區）的經濟活動延伸至海濱
<b>ENVIRONMENTAL INDICATORS 環境指標</b>		
• Visibility 視野無礙 • Preservation of the ridge line 保存山脊線 • Design elements that enhance harbour image 利用設計元素提高海濱形象 • Minimize reclamation 最少填海範圍 • Minimize risk of future reclamation by not allowing large scale developments with significant traffic impact* 禁止產生大量交通的大型發展以減低未來填海風險 • Compatible land-use with the natural environment* 土地用途與自然環境配合* • Enhance water quality 改善水質	• Flexible use of space 靈活運用空間 • Provision of facilities to cater for a diversity of user groups 為不同類型使用者提供設施 • Enhance openness 開闊景觀 • Provision of landscape areas with trees 提供有樹林的綠化地方 • Segregation of pedestrian and vehicular traffic for good air quality 人車分隔以提高空氣質素	• Provision of facilities to cater for a diversity of user groups 為不同類型使用者提供設施 • Provision of facilities for year-round activities 提供適合全年活動的設施 • Provision of community facilities 提供社區設施 • Provision of open-air venues 提供戶外活動場地 • Provision of themed promenade 提供設有主題的濱道

<b>7</b> Ensure land/marine use and design compatibility between the waterfront and the adjoining areas 確保海濱用地和水上活動的性質和設計均能與相連地帶配合	<b>8</b> Minimize energy consumption and optimize the use of existing infrastructure 盡量減少能源消耗並最恰當使用現有基礎	<b>9</b> Improve traffic conditions and pedestrian connectivity 改善交通情況及行人連接通道
<b>SOCIAL INDICATORS 社會指標</b>		
• Provision of facilities to attract movement between existing and new areas 為促進新舊區往來提供各種設施		• Shorter travelling time within and between districts 縮短行程時間 • Provision of activity nodes along the link 沿行人通道提供活動點 • Ease of access by pedestrians including the disabled 行人包括傷健人士到達海濱的方便程度 • Provision for different modes of access 提供不同的到達海濱的方式
<b>ECONOMIC INDICATORS 經濟指標</b>		
• Promotion and revitalization of local business 有利社區及本土經濟更生	• Higher energy efficiency 提高能源效率 • Cost of energy consumption* 能源消耗的成本* • Cost effectiveness in infrastructure investment* 大型基礎設施投資的成本效益*	• Reduction in cost due to shorter travelling time 因行程縮短而節省成本 • Provision of business opportunities along the link 沿行人通道提供多元化的商機 • Lower construction and operation cost 減低建築及運作成本
<b>ENVIRONMENTAL INDICATORS 環境指標</b>		
• Land use and design compatibility 相連及相連的土地用途及設計 • Provision of strong linkages and physical connections 提供強勁的連繫及實體連接 • Creative use of 3-dimensional space* 使用有創意的三維空間* • Control development within constraints of land and infrastructure* 在土地及基礎設施的限制下對發展進行控制* • Visual connectivity between the existing and new areas and the harbour 確保新舊區域及海濱之間的視野無阻	• Extent of reuse of building materials 建築物材料重用的程度 • Better utilization of existing infrastructure 善用現有基礎設施 • Lower air emission 減低空氣排放 • Lower noise emission 減低噪音排放 • Lower energy consumption* 減低能源消耗 • Extent of reuse of natural resources* 自然資源重用的程度*	• Provision of parking facilities for car/bicycle/moped at the fringe of the new development area 在新發展區的外圍提供車位、巴士、單車及踏車泊車設施 • Provision of landscaped network to enhance pedestrian experience* 為豐富行人興趣而提供的景觀美化網絡* • Provision of environmentally friendly transport within the promenade area* 在海濱範圍內提供環保的交通工具* • Access for loading/unloading* 上下貨物及乘客的通道* • Minimize vehicular traffic on surface road* 減少地面道路交通* • Visual connectivity between existing and new areas and the harbour 新舊區域及海濱之間的視野無阻

Figure source: Harbourfront Enhancement Committee website (2009)

圖片來源：共建維港委員會網頁（2009）



# Setting Community-based SD Principles 制訂社區為本的可持續發展原則

- Principles further refined by the public at public forums held in 5 districts  
這些原則進一步於5區的公眾論壇由公眾修改
- Consolidated into 7 sustainability principles and 81 indicators  
整合出7個可持續發展原則和81項指標



# Public input on shallow tunnel 公眾對淺層隧道的意見

## Legend



### Cultural

- Art and cultural fair
- Performance venues
- Exhibition
- Expo promenade as leisure zone
- Golden Bauhinia Square for tourism
- Helipad for recreational use
- Handover museum with underground shopping malls and car parks
- Bruce Lee museum



### Sports / Water Activities / Entertainment 1

- Sailing
- Junk boats pick-up place



### Sports / Water Activities / Entertainment 2

- Dai Pai Dong
- Fishermen's wharf
- Floating restaurant
- Fishing on breakwater
- Lan Kwai Fong on water
- Dragon boat racing



### Heritage

- Fishermen museum
- Floating Tin Hau Temple
- Marine museum



### Green Leisure Zone

- Landscaped areas
- Boardwalk / Floating bridge
- Landscape dolphins of Island Eastern Corridor



### Underground Car Park & Shopping Mall



### Landscape Promenade

- Café
- Kiosk
- Alfresco dining
- Pavilion / sitting-out areas
- Walking trails



### Landscape Deck

- Victoria Park extending to the harbour-front



### Slip Road

- To Wan Chai and Causeway Bay



### Pedestrian Linkage



### Tunnel



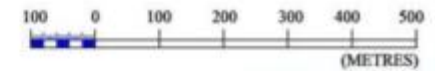
### Flyover



### Ground-Level Road

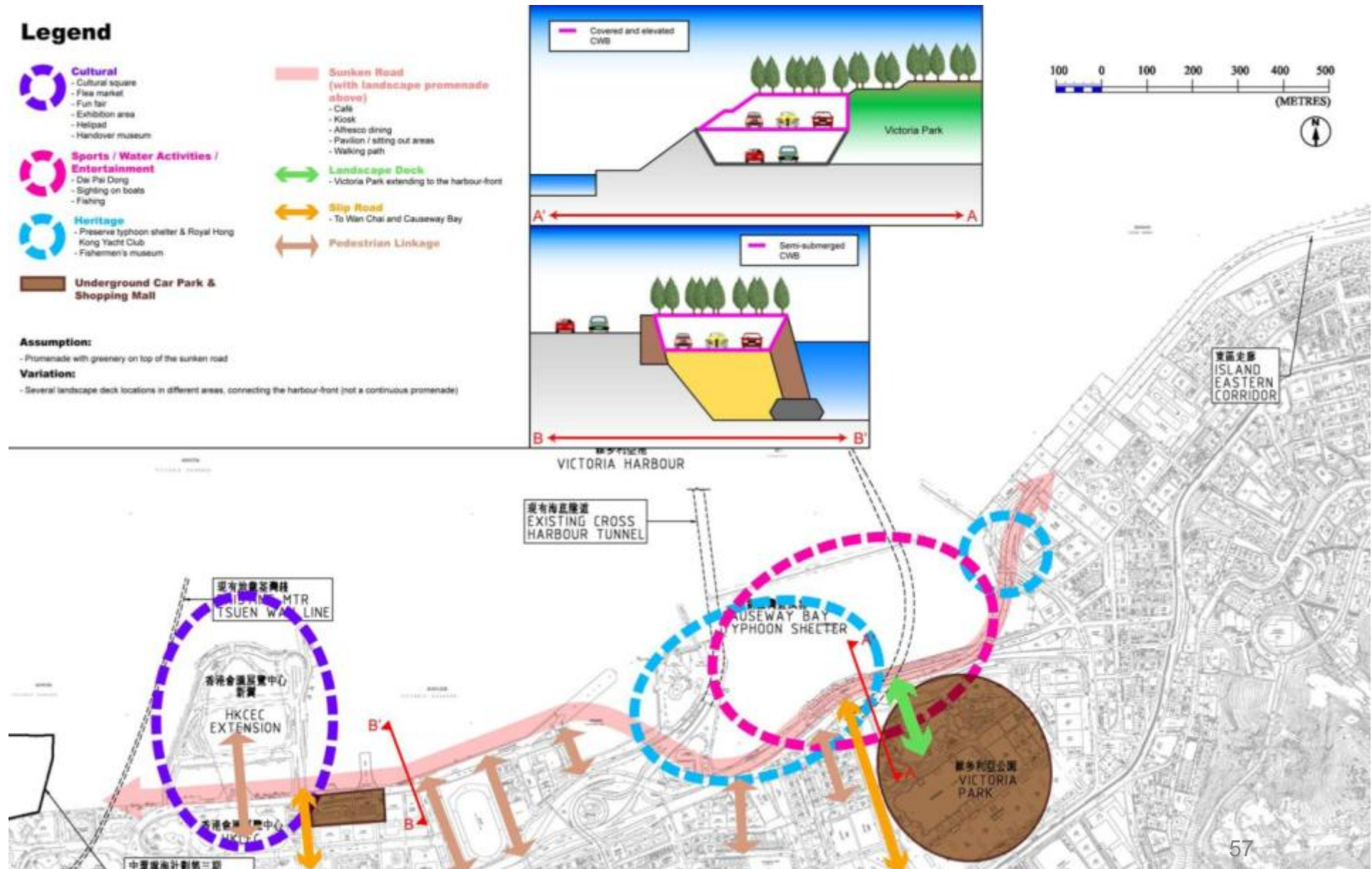


### Reclamation Line (Indicative Only)





## Public input on semi-at-grade road 公眾對半地面道路的意見





## Draft Concept Plan 概念草圖



5 Precincts:

5個區域：

- (1) Arts & Culture 藝術及文化區;
- (2) Water Park 以「水」為主題的公園區;
- (3) Water Recreation 水上康樂區;
- (4) Heritage 文化歷史區;
- (5) Leisure & Recreation 休閒及活動區

# Evaluating the Sustainability of Draft Plan

## 評估草圖的可持續性

- Collaborators evaluated the level of satisfaction (5-1): how the road option and concept plan is achieving the sustainability principles and indicators 合作伙伴評估滿意度（5-1）：道路方案和規劃概念圖是否合乎可持續發展的原則和指標



SPECIFIC SUSTAINABILITY PRINCIPLES AND INDICATORS FOR HARBOUR-FRONT ENHANCEMENT REVIEW - WAN CHAI, CAUSEWAY BAY & ADJOINING AREAS (DERIVED FROM FORUMS):

### 1 Create a Vibrant and Attractive Waterfront that is Continuous and Accessible for All



INDICATORS	LEVEL OF SATISFACTION	REMARKS
<b>Social</b> <ul style="list-style-type: none"> <li>• Accessible for all ages, social groups and disability conditions</li> <li>• Access for all at no charge</li> <li>• Diversity in activities for different times and age groups</li> </ul>		
<b>Economic</b> <ul style="list-style-type: none"> <li>• Provision of business opportunities (for both day and night time)</li> <li>• Facilitate wide range of economic activity</li> </ul>		
<b>Environmental</b> <ul style="list-style-type: none"> <li>• Safe and convenient access for all</li> <li>• Sensitive building height profile to preserve ridgeline</li> <li>• Visual access to waterfront</li> <li>• Provision of open space and community facilities</li> <li>• Create activity nodes/landmarks – identity icon</li> <li>• Provision of infrastructure that will facilitate both water and land activities</li> <li>• Support commercial marine traffic requirements</li> <li>• Minimize land for infrastructure and utilities</li> <li>• Extent of a continuous promenade</li> <li>• Provision of landscaped area with trees</li> </ul>		
<b>OVERALL CONSIDERATION</b>		

5 4 3 2 1  
 VERY HIGH ——— LEVEL OF SATISFACTION ———> VERY LOW



## C2: Blue House in Wanchai 灣仔藍屋

### Some Background Facts 背景資料:

- Grade I Historical Building 一級歷史建築物
- Planned for rehabilitation by **Housing Society** and **URA** 計劃由**房協**和**市建局**進行修復
- Revitalisation Scheme (Batch II) – St James Settlement, Community Cultural Concern and Heritage HK Foundation LTD 活化計劃（第二期）  
— 聖雅各福群會和社區文化關注及香港文化遺產基金會有限公司
- Both the building and residents get to **stay**  
建築物 and 居民均得以**留下**
  - HK House of Stories 藍屋故事館
  - Existing resident housing and engagement unit 原居民參與單位
  - Good Neighbour Scheme for new tenants 好鄰居計劃
  - Social Enterprise Unit (dessert house and vegetarian restaurant) 社會企業單位 (甜品店及素食店)
  - C.O.M.E. Hall 社區經濟互助公所





# Hong Kong House of Stories 香港故事館

- Previously **Wan Chai Livelihood Place** 前身為灣仔民間生活館
- Local culture exhibitions, community classrooms...  
展出本土文化、民間學堂.....



Source: HK House of Stories (2014)  
資料來源：香港故事館（2014）



《藍屋街頭親子運動》將於十一月於灣仔區進行。我們將會透過一連6節的工作坊，與家長及小朋友一同策劃街頭運動會。工作坊將會帶親子走入灣仔的不同公共空間，並會探索社區剩餘物料的運用及讓親子認識街頭玩樂的基本認知。在發掘公共空間的使用的過程，需要親子透過與社區不同使用者的溝通並從中計劃可行的遊樂/運動項目。



- *Community takes lead 由民間主導*
  - Ah Wah – teaching fruit wine making/brewing while the HKHS provided support 阿華－在香港故事館提供的支持下教授果酒釀製
- *Integrated sustainable process 綜合且可持續的過程*
  - Waste reduction 減廢
  - Upcycling 升級再造
  - Green living 綠色生活
  - Community building and development 社區建設和發展
  - Local economy 本土經濟
- *Deliverables 成果*
  - Publications, training workshop, products 刊物、培訓工作坊、產品



# Community building, development and partnership....building Social Capital 社區建設、發展和合作.....建構社會資本



Food waste 廚餘



Wine-making Workshop  
釀酒工作坊



Wine酒



灣仔街坊酒莊 Wan Chai Kai Fong Chateau  
12月28日新書發佈及展覽開幕  
星期日下午12時正  
地址：灣仔景星街街角  
ME Plus Pegasus Cafe

一本完全由民間自發、自釀、自畫、自種、自己淋水。  
總之係一眾街坊、朋友瀝心瀝血嘅自己釀生果酒繪本酒譜。  
由頭到尾都係我地一手包辦有興趣過嚟睇吓啦！！





# Social Capital

## 社會資本



These social capitals **facilitate sustainable development** by overcoming 這些社會資本透過克服以下阻力以**促進可持續發展**:

- Lack of will, lack of incentive, lack of participation, lack of capacity, lack of cooperation, etc. 缺乏意志力，缺乏誘因，缺乏參與，缺乏能力，缺乏合作等

## C3: Community Revitalisation at Lai Chi Wo 荔枝窩社區活化 (2013 -)

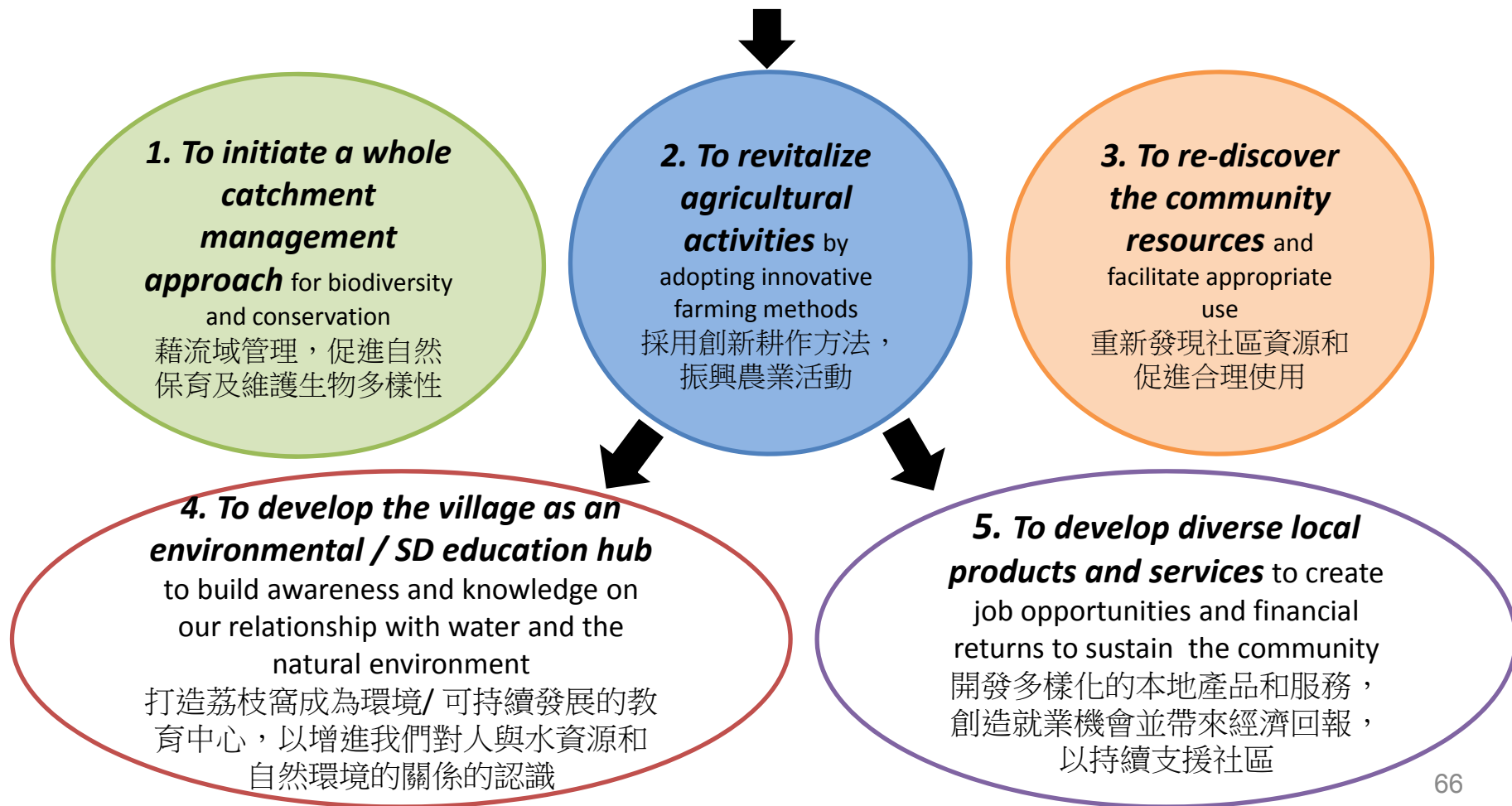
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## C3: Community Revitalisation at Lai Chi Wo

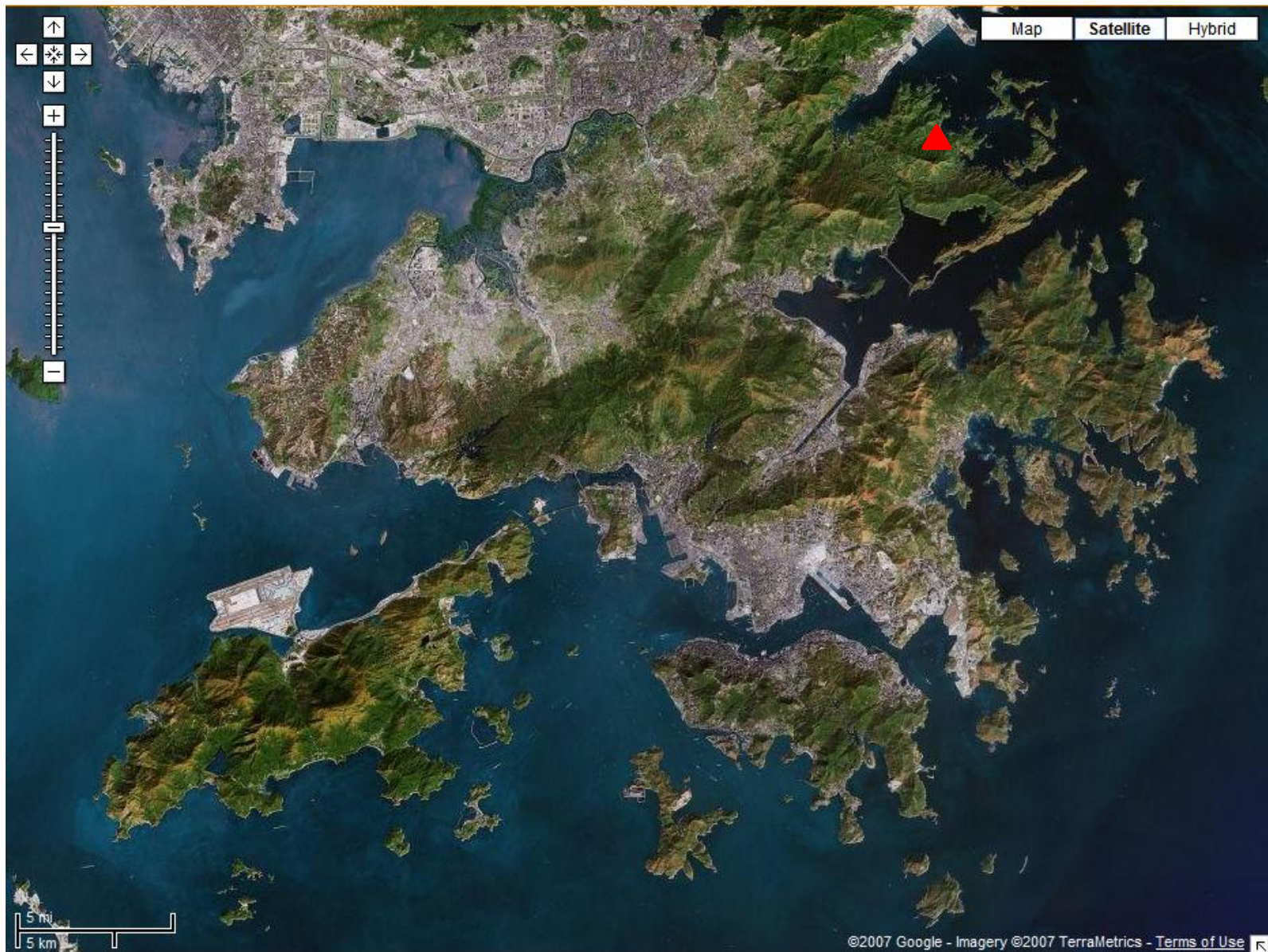
### 荔枝窩社區活化

Achieving sustainability through **revitalization of an active and viable community/network in LCW**  
透過活化社區及強化社區網絡以實現荔枝窩的可持續發展





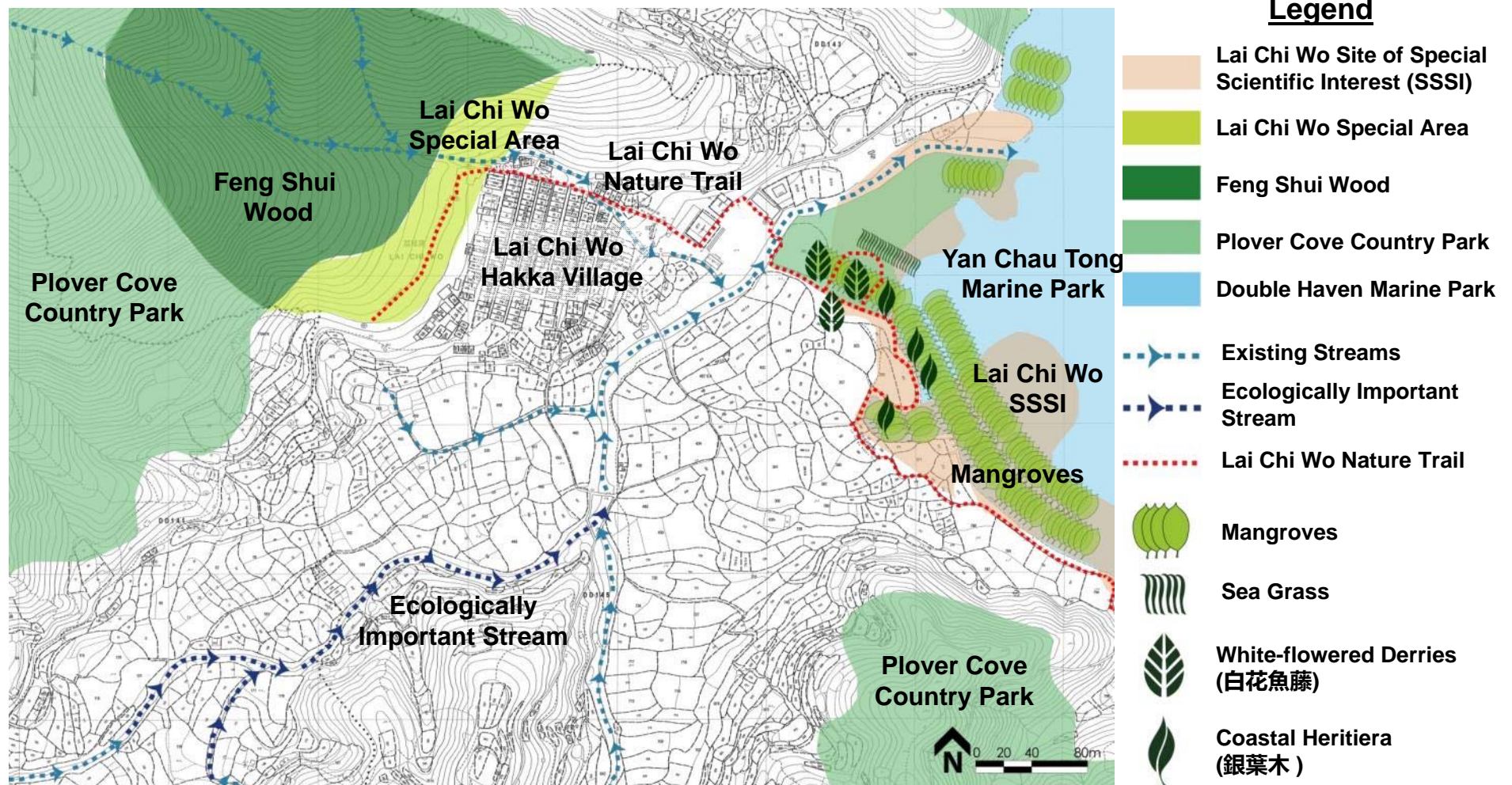
## Where is Lai Chi Wo 荔枝窩?





# Uniqueness of Lai Chi Wo

## 荔枝窩有何獨特之處？







**Once the most well-established Hakka walled village in the Northeast N.T. and currently it is still intact** 荔枝窩位於新界東北，是現時保存得最完整的客家圍村之一





**Grade III Historical Building – Hip Tin Temple**  
協天宮- 三級歷史建築

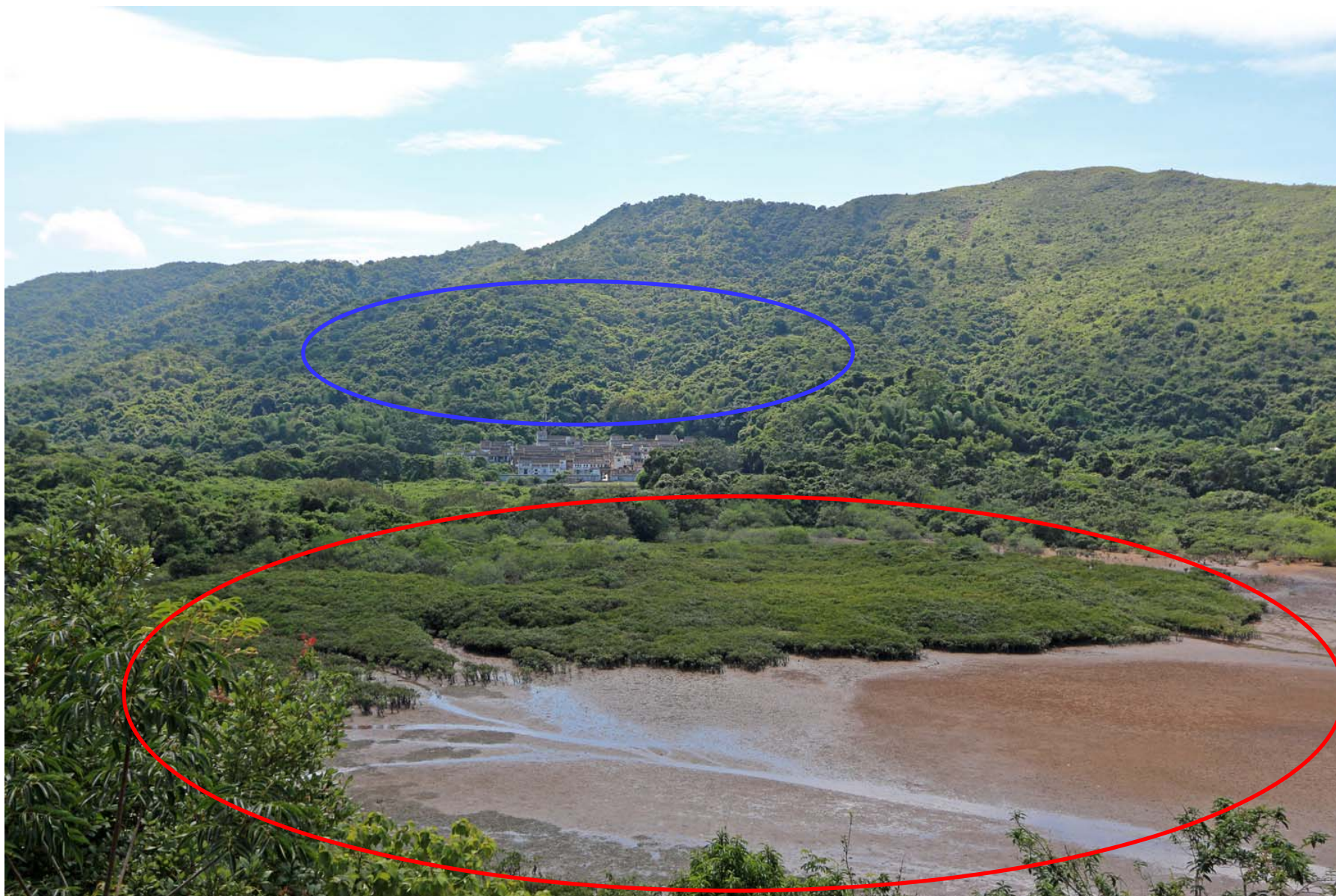


**Village houses 村屋**



**The old primary school & one of the Old and Valuable Trees in the village**  
小學舊址及古樹名木





The Lai Chi Wo Beach was designated as a **Site of Special Scientific Interest (SSSI)** in 1979  
The Fung Shui Wood behind Lai Chi Wo village was designated as a Country Park **Special Area** in 2005  
荔枝窩灘於1979年被指定為具特殊科學價值地點（SSSI），而村後的風水林亦於2005年被劃為特別地區。





**The well-known White-flowered Derris (白花魚藤) inside  
the Coastal Heritiera (銀葉樹) forest**





Lai Chi Wo area was designated as part of the Hong Kong Geopark in 2009. In 2011, the park's status was upgraded to the National Geopark of Hong Kong, China recognised by UNSECO  
荔枝窩於2009年被指定為香港地質公園，2011年更升格為中國國家地質公園由(UNSECO認可)



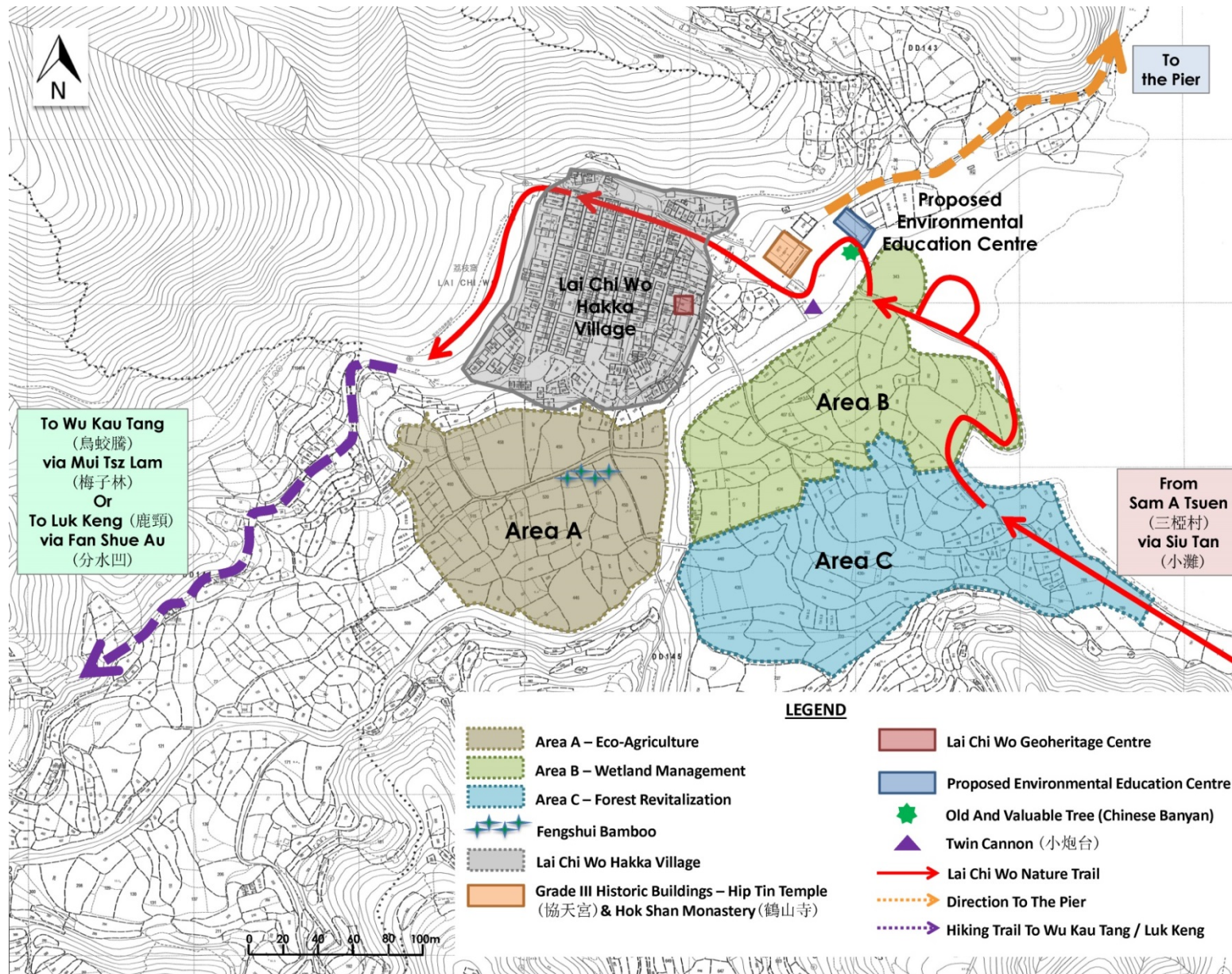


**The main stream in Lai Chi Wo was listed as one of the 33 Ecologically Important Streams (具有重要生態價值的河溪) in HK**



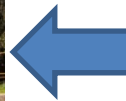
# Project's conceptual map

## 項目概念圖





# Agriculture Revitalisation 農業活化





## Farming facilities 農業設施



1. Seedling incubation house  
育苗屋
2. Farm shelter  
農田遮蔽物
3. Solar powered electric fence  
太陽能電圍欄

## Farming Activities 農業活動

April 2014  
First rice transplanting  
(插秧)



July 2014  
First harvesting (收割)



Aug 2014  
Weeding (除草)  
Family volunteers (村民  
義工)



Sep 2014  
Preparation of bird net  
製作防鳥網





## Harvest 收割



Lai Chi Wo Rice



## Capacity Building 能力建設

Dec 2013  
Earth Blessing Ritual  
拜地主



March 2014  
Volunteering activities -  
Remove the rubbish  
義工活動 - 清理垃圾



June 2014  
Kwan Ti Festival  
關帝誕



Oct 2014  
Chung Yeung Festival –  
meeting with villagers  
重陽節 - 與村民會面





# Biodiversity Monitoring

## 生物多樣性監測

- A comprehensive ecological database is being set up
- 現正建立一個全面的生態數據庫
- A schedule has been formulated for regular survey, recording and reporting
- 制定時間表進行定期生態調查、記錄和報告

### Survey taxa group

- Tree 樹
- Bird 鳥
- Butterfly 蝴蝶
- Dragonfly 蜻蜓
- Amphibian 兩棲動物
- Reptile 爬行動物
- Mammal 哺乳動物
- Freshwater invertebrate 淡水無脊椎動物
- Freshwater fish 淡水魚



## Training and Education 培訓及教育

*Leadership training programme “Sustainable Lai Chi Wo – Rural Community Development Programme”* 領袖培訓項目 “可持續荔枝窩 - 農村社區發展計劃”：

- To establish a pool of determined leaders (around 50-60 persons) and equip them with the necessary skills, knowledge and attitudes for sustainable revitalisation of rural community in Hong Kong
- 培訓 約50-60位領袖生，為他們提供必要技能、言行態度及知識的學習與實踐機會，以協助他們推動農村社區的可持續發展
- First batch : July – November 2014, 29 participants
- 第一批領袖生：2014年7至11月，共29名學員
- Themes: 1) Organic paddy rice cultivation and eco-friendly agriculture methods 有機水稻栽培和生態友好型農業方法, 2) Lai Chi Wo Hakka culture and rural community development 荔枝窩客家文化和農村社區發展, 3) Environment and Ecology of Lai Chi Wo 荔枝窩的環境自然與生態, 4) Practice of sustainable living 可持續生活的實踐





# University Internship Programme

## 大學生實習計劃

- Target: students from Tertiary Institution 目標：大專學生
- To help in the Programme's activities relating to farming, community research, ecology and village infrastructure management 支援以下活動：耕種、社區研究、生態和鄉村基礎設施管理
- Requirement: to fulfil a minimum of **96 service hours** during the internship period (1 Dec 2014 to 31 Dec 2015) 在實習期間滿足不少於96小時的服務)
- A briefing session has been organised on 1 Nov 2014, a total of 123 students from 7 Institutions joined the programme
- 於2014年11月1日舉辦了簡介會，合共來自7所機構的123名學生參加了本計劃

1. Compulsory Group Work				
Tasks	Village cleaning and farm maintenance works			
2. Elective Theme – Students are required to select ONE theme from the below				
Theme for Selection 主題	Theme A – Farming and Production 農業和生產	Theme B – Community Resources Research 社區資源研究	Theme C – Ecological Survey and Biodiversity Management 生態調查和生物多樣性管理	Theme D – Village Infrastructure and Built Environment Management 鄉村基礎設施和環境管理
Tasks 工作	Assist paddy rice revitalization and other farming related works 協助水稻田修復及其他耕種活動	Provide support to oral history, community assets and cultural mapping research 支援口述歷史、社會資產研究和繪製文化地圖等	Assist ecological surveys and biodiversity management works 協助生態調查和生物多樣性管理工作	Provide support to maintenance and setting up village infrastructure and buildings 協助修葺鄉村基礎設施
Required Training 培訓	Attend a one-day training workshop scheduled in December 2014	Attend THREE two-hour skill development workshop sessions scheduled on December 13, 14 and 20, 2014 (9:30am-11:30am)	Attend a one-day training workshop scheduled in December 2014	Attend a one-day training workshop scheduled in December 2014
Quota 名額	50	20	28	28
Priority 優先	All	Students from social science and related subject background	Students from environmental science, biology and related subject background	Students from engineering, architecture and related subject background

## Volunteering Activities 義工活動

Aug 2014

Paddy field weeding and  
story telling event for  
families

水稻田除草和故事分享



Sep 2014

Village cleaning and  
weeding

清理雜草及其他垃圾



Apr – Aug 2014

Voluntary project  
photography team  
formed and  
photography activities  
成為攝影義工團隊和  
進行和攝影活動





# Training Themes and Topics

## 培訓主題

Theme 主題	Ecology 生態	Farming 農耕	Cultural heritage 文化資產	Community building & sustainability 社區建設與可持續發展
Concept building 概念構建	Basic ecology & conservation 基本生態與保育	Sustainable Agriculture and food production 可持續農業和糧食生產	Traditional farming landscape and culture 傳統農業文化景觀和文化	Sustainability 可持續性
	Ecosystem of Lai Chi Wo 荔枝窩的生態系統	Permaculture 永續農業	Heritage and cultural conservation 文化遺產和保育	Community building 社區營造
	Freshwater resources and management of Lai Chi Wo 荔枝窩的淡水資源及管理	Agro-ecosystem 農業生態系統	Plant & folklore 植物和民俗	Ecotourism 生態旅遊
		Eco-forestry 生態林業		Climate change and low carbon design 氣候變化與低碳設計
Skill development & Local Capacity Building 技能培訓和地方能力建設	Basic survey and identification techniques 基線的調查和鑑定技術	Paddy rice and other wetland crops cultivation 水稻及其他類型的濕地耕種	Oral History & Cultural mapping 口述歷史及文化地圖繪製	Guided tour skills 導賞技能訓練
		Machinery maintenance 機械維修	Traditional craftsmanship 傳統工藝	Photography 攝影
		Forestry technique 林業技術	Traditional food making 傳統食品製作	Environmental education methods 環境教育內容和方法
		Sustainable farm design 農場的可持續設計		Project evaluation 項目評估
				Low carbon living space design and technology 低碳生活空間的設計和技術

# Training Themes and Topics

## 培訓主題

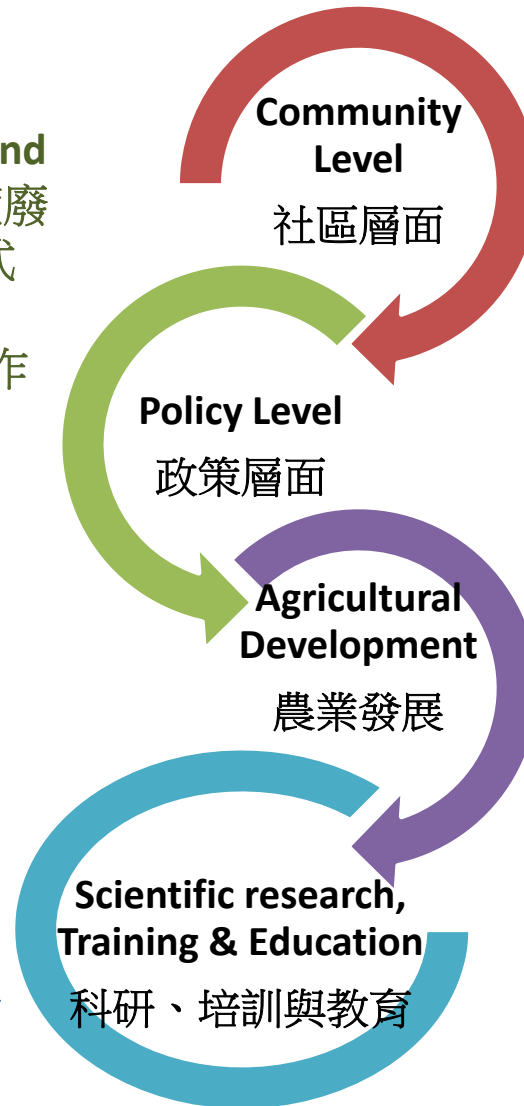
Theme 主題	Ecology 生態	Farming 農耕	Cultural heritage 文化資產	Community building & sustainability 社區建設與可持續發展
Field practice & service 野外實踐訓練與服務	Ecological surveys 生態調查	Paddy rice terrace revitalization 水稻梯田復育	Documentary 文獻記錄	Photographic recording of the sites and events 相片記錄
	Educational panels 教育展板	Local crop products development 本地農作物開發	Exhibition / workshops 展覽 / 工作坊	Eco or heritage tours 生態或文化遊
	Hydrology design works 水文設計	Farming tools making 農具製作	Infrastructure renovation 基礎設施改造	Education services 教育服務
		Eco-forestry nursery development 生態林業苗圃發展	Village / Nature art programmes 鄉村/自然藝術活動	Rountables 圓桌會談
			Traditional food making workshop or products 傳統食品製作(工作坊)	Low carbon village development 低碳鄉村發展



## Expected Impacts 預期成果

- **Development option for abandoned agricultural land in Hong Kong** 為香港的荒廢農地提供另一個發展模式
- **Partnership with land owners** 與土地業權人合作

- **Inter-disciplinary research** 跨學科研究
- **Building a leaders' network** 建立領袖網絡
- **School outreach (formal curriculum)** 學校外展（正規課程）
- **Underprivileged families' inclusion** 低收入家庭的參與
- **Public education** 公眾教育
- **Regional knowledge exchange** 知識交流



- **Provide an alternative living lifestyle** 提供另一種生活方式
- **Promote local food production** 提倡本土糧食生產
- **A sustainable village community model** 可持續農村社區建設模式
- **Resolving tensions between farming and nature conservation** 解決農業和自然保育之間的矛盾
- **Piloting of innovative farming methods and concepts** 試驗創新的農耕方法和概念
- **Showcasing farmland revitalization in Hong Kong** 農田復耕/復修示範

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# Building Sustainable Communities 建設可持續發展的社區: Overseas cases 海外案例

17<sup>th</sup> December 2014  
2014年12月17日

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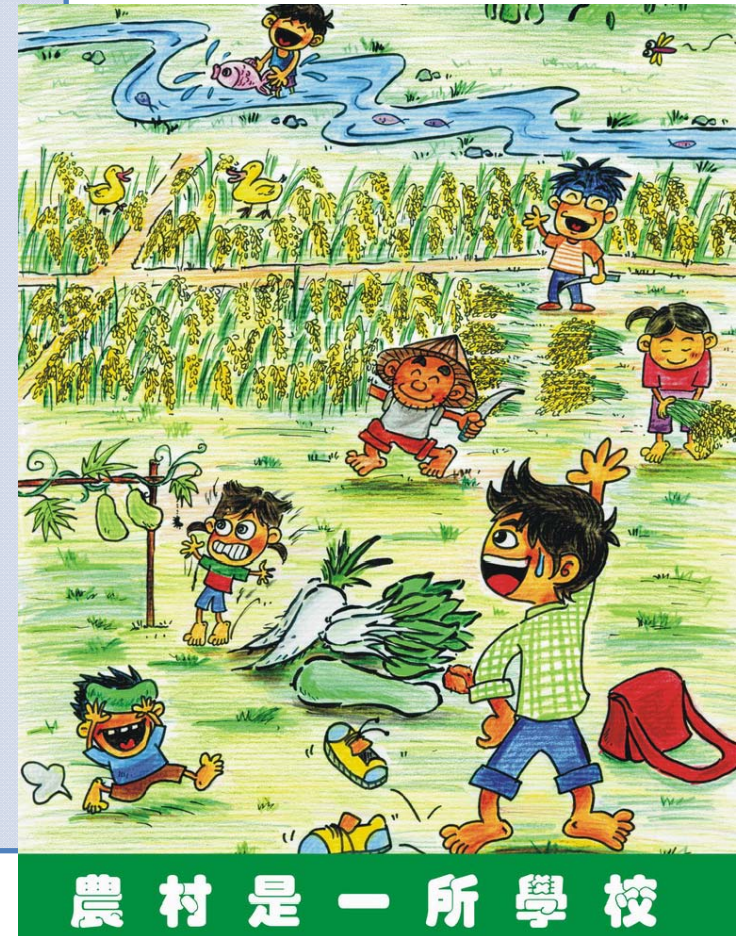


1. **Chi-Mei Community University, Kaohsiung (高雄市旗美社區大學)**
2. **Toyooka City, Hyogo, Japan 日本兵庫縣豐岡市**

## Overseas Experience 外地經驗 – Chi-Mei Community University, Kaohsiung (高雄市旗美社區大學)

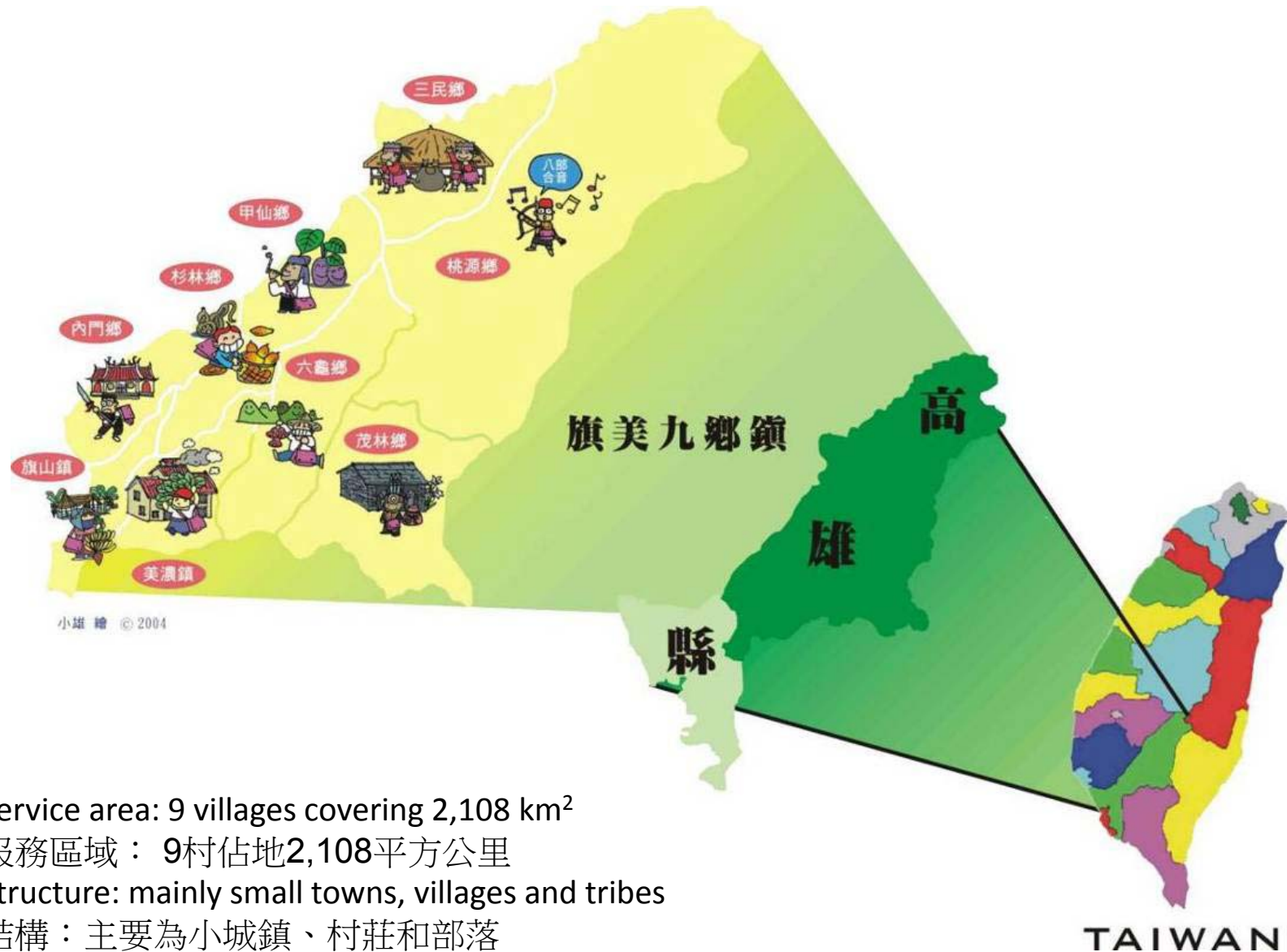
### Background 背景

- Corporate Chung Li-Ho Culture and Education Foundation initiated (in 2001), sponsored and run the University 鍾理和文教基金會於2001年發起、資助及營運大學
- The first “agriculture-focused, village-type community university” in Taiwan 台灣第一所「農村型社區大學」
- Motto: To re-embed agriculture and village livelihood in the environment or society  
「向農村學習，讓農村學習」，讓「農村意識」在社會紮根
- Partnership with 9 villages and towns in Chi-Mei 與旗美九鄉鎮合作





## Chi-Mei Community University, Kaohsiung (高雄市旗美社區大學)



## Chi-Mei Community University, Kaohsiung (高雄市旗美社區大學)

### Urban-rural interaction 城鄉交流

- Agricultural training workshop since 2002 (自2002年以來舉辦農村工作坊)
- Themes 主題：“社區協力農業”，“農與志的生活實踐”，“看見，在地知識”

### Networking 建立城鄉有機網絡

- Farmers came into direct contact with the customers/community (鼓勵消費者親自到產地走一趟，認識生產者並進行農業體驗)
- Farmers' market (農夫市集)
- Village life experience (農村體驗)
- Edible Schoolyard (可食用校園項目)



Learning rice farming and human-nature relationship  
學習水稻種植和人與自然的關係



Regular training workshops  
定期培訓研討會



## Community building/Public forums 社區經營/公共論壇

- Villagers' meetings (local) - discuss agriculture and community issues  
村民會議 - 討論農業和社區發展
- Visionary meetings on Agricultural Life - further research and collaboration  
《農村遠景會議》 - 進一步研究與協作行動

[illegible]

**甲山米**

# 嘉山米

Jia Shan  
Rice

品嚐陽光的幸福滋味

有機耕種，選育長壽健康耐力的地方稻，八萬畝安全。經過嚴格認證工作，農民生長的農村環境的積極保護。居住平地的我們，您充滿陽光的一本友善土地的有機耕作恆心毅力精神，您選擇豐富向農村的文化的學習，生產健康安全的食糧，也感謝土地給我們的豐饒滋養。

<http://www.wretch.cc/blog/GaShanRice>

甲山米

中華民國政府農業部特許註冊商標

台灣省台南市麻豆區新港鄉新港村新港路80號

電話：(07)576-9299 蘇梅蘭姊、溫淑君 甲山莊總經銷處 蘇梅蘭姊、溫淑君 甲山莊區域經銷處：高雄都會公園管理中心·綠導廣場 鳳山科技大學

甲山DOC

Rice products from agricultural revitalization project 農村復耕工作而生產的甲仙米，與當地的小學合作進行農事體驗活動



**萬壽酒**  
「千辛萬苦，近江酒樽到地樽開」  
120年，在廣田和道堂經營的  
酒莊裏，完成萬壽酒之萬壽的  
萬壽之一。



# 1

一月  
**萬壽酒**

**STYL**：金銀器、漆器、  
工具、麵粉、有殼、陶器、玻璃、  
布品。

1. 萬壽酒與日本料理、罐頭400、24小時  
罐頭日本料理、罐頭400、24小時  
罐頭日本料理。

2. 萬壽酒、日本料理之萬壽酒、  
日本料理之萬壽酒、日本料理之萬壽酒。

3. 日本料理之萬壽酒、日本料理之萬壽酒、  
日本料理之萬壽酒、日本料理之萬壽酒。

SUN	MON	TUE	WED	THU	FRI	SAT
						1 甲
2 乙	3 丙	4 丁	5 戊	6 己	7 庚	8 辛
9 壬	10 癸	11 甲	12 乙	13 丙	14 丁	15 戊
16 己	17 庚	18 辛	19 壬	20 癸	21 甲	22 乙
23 丙	24 丁	25 戊	26 己	27 庚	28 辛	29 壬
30 癸	31 甲					



國立高雄師範大學

Special-designed Calendar to promote agriculture: 2011年以「醃漬」為設計主題的日曆

# Chi-Mei Community University, Kaohsiung (高雄市旗美社區大學)

## Curriculum 課程

Stress on practice and self-participation  
強調實踐和自主參與

Fully reflect the local features, community problems, etc.  
充分體現地方特色、社會問題等

2 hrs every week (for each course), held in aboriginal villages  
每個課程每星期上課2小時（在原住民村落上課）

心靈悠客－烏克麗麗美濃班	社區與成長學程	徐清風	美濃分班
用國中英語遊美濃－產業與環境篇1	社區與成長學程	Malcolm(馬太乙)	美濃分班
創意木工綠傢俱	社區與成長學程	王文明	美濃分班
竹仔鼓文化技藝傳承－杉林班	社區與成長學程	陳惠蓮	杉林分班
心靈悠客－烏克麗麗杉林班	社區與成長學程	鍾添富	杉林分班
民謠吉他入門	社區與成長學程	才豐榮	杉林分班
甲仙埔油畫	社區與成長學程	馬若珊	甲仙分班
仙埔說說唱唱閩南語	社區與成長學程	徐淑容	甲仙分班
生活英文會話	社區與成長學程	Josh Heald	甲仙分班
說說唱唱閩南語－內門班	社區與成長學程	徐淑容	內門分班
心靈悠客－烏克麗麗內門班	社區與成長學程	王華	內門分班
弦外之音－殼仔弦	社區與成長學程	李靖墨	六龜分班
在地食材料理與點心	社區與成長學程	林英元	六龜分班
走入荒野的木工	社區與成長學程	王文明	桃源分班
健康促進－音律活化運動	自主性社團	宋怡賢	內門分班
美濃樂團	自主性社團	林丕瀚	美濃分班
夜貓，子夜電影院	自主性社團	全體社員(電影社)	校本部
玩布·我們的拼布花園	自主性社團	全體社員(拼布)	美濃分班
咖啡生活學	自主性社團	楊松鵬	旗山分班
法律服務社	自主性社團	郭憲彰	旗山分班
喜悅山水社	自主性社團	全體社員(喜悅)	校本部
日本文化同好社	自主性社團	金汶周	校本部
小型農業機械保養與改良	農村與農業學程	陳光輝	旗山分班
食物的上下游	農村與農業學程	黃森蘭	旗山分班
瓠藝天地	農村與農業學程	龔一舫	美濃分班
地方特色料理	農村與農業學程	余沛荳	美濃分班
農產品加工－釀造與蒸餾	農村與農業學程	劉慶進	杉林分班



## Overseas Experience 外地經驗 – Taomi Eco-Village, Taiwan 桃米生態村 (台灣)

### Background 背景

- Taomi Village is located at Puli, Nantou County 桃米里位於南投縣埔里鎮
- Taomi residents used to plant and sell bamboo (yet prices declined) 桃米里居民一直以種植竹為生（但價格持續下降）
- Following the 921 Earthquake in 1999, 70% of the village was destroyed 繼921大地震，全村有70 %被摧毀

### Revitalising Taomi village 桃米里振興計劃

- New Homeland foundation (NHF) adopted a bottom-up, community-oriented approach 新故鄉文教基金會採取自下而上，以社區為導向的方法
- Ecological surveys (6 creeks, wetlands, ecology ponds, frogs, etc.) 生態調查（6小溪、濕地、生態池、青蛙等）
- 10 years of rebuild – community consensus towards the idea of “Eco-village” 10年重建 - 以桃米生態村為共同目標
- New way of thinking: “humankind blends in with nature” 新思維：“人類與自然融合”的發展觀念



Location of Taomi Village 桃米里的位置



Frogs as a major attraction  
青蛙為村內一大亮點



## Taomi Eco-Village, Taiwan 桃米生態村 (台灣)

### NFH - community-based planning and reconstruction

新故鄉文教基金會 - 以社區為基礎的規劃和重建

Under a government programme run by NFH, residents could earn 600 NT\$ helping to clean up and rebuild the village 由NFH運行一項政府計劃，居民參與清理和重建村落可賺取600 新台幣

Taomi residents received training from NHF and became eco-tour guides 桃米里居民接受NHF培訓，成為生態導賞員

Women learnt to use local ingredients (or organic gardens) to make meals for restaurants 婦女學習使用當地或有機食材，為餐館提供飯菜

Older residents responsible for the construction of wetland parks, educational and recreation areas 較年長的居民負責濕地公園、教育和休閒娛樂設施的建設

People started to use stones for buildings instead of cement 居民以石頭取代水泥作為建築材料

Some former rice fields were transformed into wetlands; trees were replanted, etc. 將一些稻田(前身)改造成濕地（如草蓴濕地）、進行植樹等

Residents established over 30 B&B to serve the tourists 居民成立了30間B & B旅館接待遊客



Source: Paper Dome Blogspot; Neighbor Power Blog; Wandering Taiwan blogspot



## Taomi Eco-Village, Taiwan 桃米生態村 (台灣)

### Examples of previous projects 以往的項目案例



Taomi community teaches local students to grow eco-farmed rice 桃米里社區教導當地學生種植生態米



Bamboo sculptures of local wildlife  
當地野生動物的雕塑竹



Eco-life photo exhibition 生態圖片展



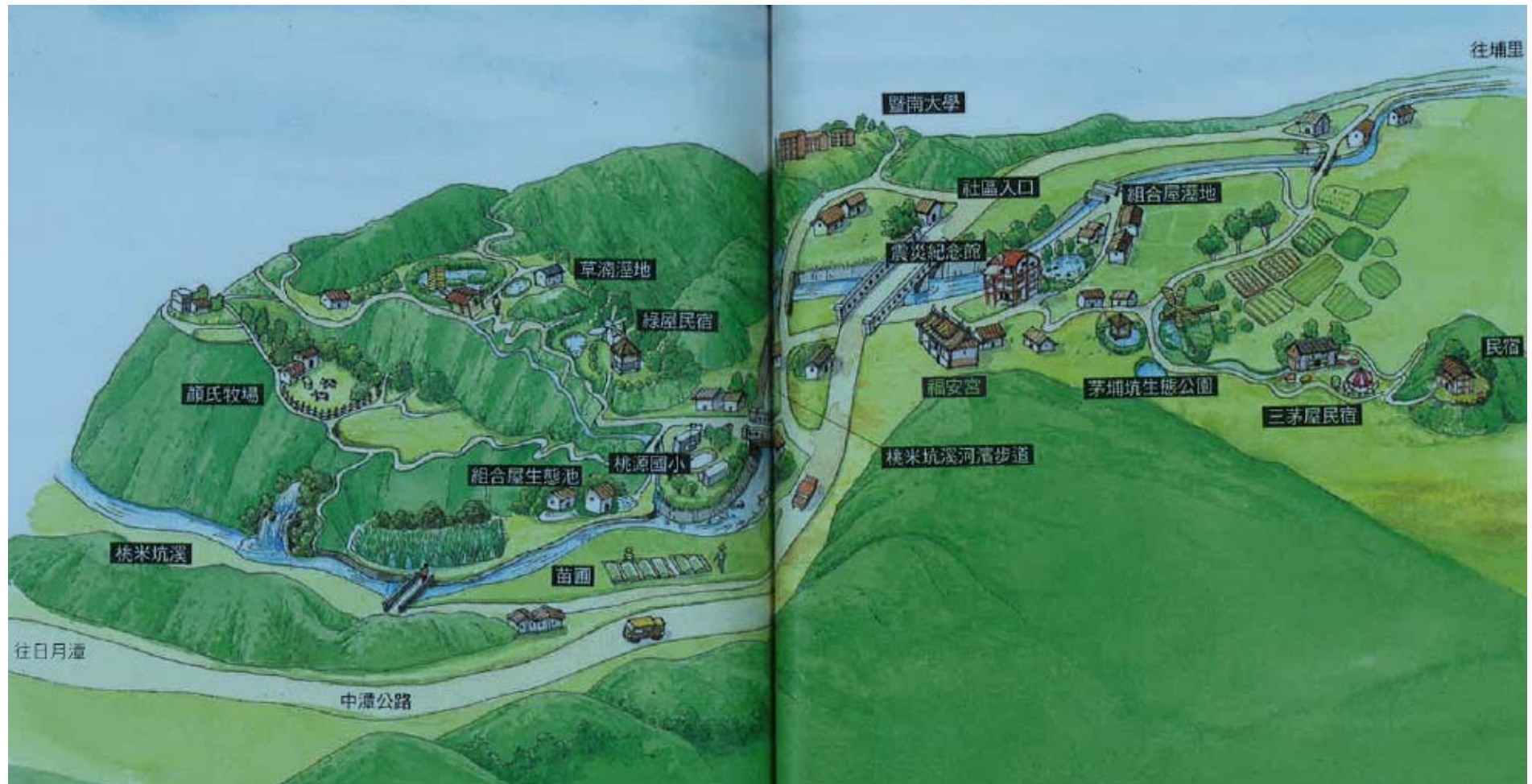
Products made from local ingredients 由當地食材製成的產品如“筍方酥”



Use of low-carbon transport in visiting Taomi eco-village 利用低碳交通 參觀桃米生態村



## Taomi Eco-Village, Taiwan 桃米生態村 (台灣)



Map of Taomi Eco-village 桃米生態村地圖

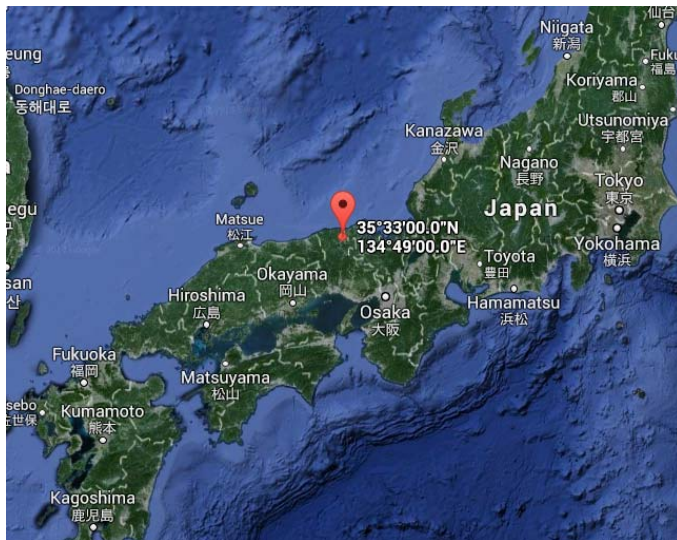
Source: 曾旭正 (2013)



## Overseas Experience 外地經驗 – Toyooka City, Hyogo, Japan 日本兵庫縣豐岡市

**Theme: Community to Live in Harmony with Oriental White Stork in Toyooka** 主題：豐岡地區與東方白鸛共生的社區營造

- **“Nature and community revitalization”** based on *Satoyama* 基於里山環境管理模式，實現自然與社區的和諧共生
- Restoring rice paddies and stork habitats (i.e. wild Oriental White Stork 恢復稻田及野生東方白鸛棲息地)
- Led by city government, with participation of local villagers, farmers organization, NGO, etc. 由市政府牽頭，並有村民、農民組織及非政府組織參與



Location of Toyooka City (豐岡市),  
Hyogo Prefecture (兵庫縣)



Toyooka City 豐岡市



Oriental white storks  
returned to the field  
東方白鸛回歸稻田

## Toyooka City, Hyogo, Japan 日本兵庫縣豐岡市

### “Nature and community revitalization” approach “自然與社區的和諧共生” .....

#### Promotion of environmentally-friendly agricultural method

##### 促進環境友好型農業法

- Japan Agricultural Cooperative in Hyogo Prefecture and local farmers designed methods that increase biodiversity and produce safe & tasty rice 兵庫縣農協與當地農民共同研發生產方法，以維護生物多樣性和生產安全和品質較好的稻米
- Participation rate and farmers' income (from rice sales) increased over time 參與率和農民收入（大米銷售）持續增加
- “Dance of White Storks” brand trademarked by Toyooka City, a line of low-chemical products 豐岡市制定“東方白鸛之舞”的品牌認證(低化學成份含量)

#### “White Stork Friendly Farming Method” 白鸛友好型耕作法 (2003)

75% reduction to Nil pesticides

減少75 %農藥至全無農藥

No chemical fertilizers during growing season

生長季節期間不施化肥

Sterilize seeds in boiling water

在沸水消毒種子

Circulatory waterways in rice paddies

稻田循環水道

Rice paddy water depth control

稻田水深控制



Rice paddies during winter



“White stork-friendly” rice  
(東方白鸛 共生米)

Source: IPSI; Ministry of Environment, Japan



## 日本友善土地白鶴烏啓示錄

### 政府

兵庫縣、  
豐岡市

- 確定施政方向  
讓白鶴重回到豐岡
- 成立白鶴部門  
從農業、經濟教育  
著手，設計白鶴農  
法
- 留住生物棲地  
耗資2億買下溼地  
，保留白鶴棲地
- 設計補助誘因\*
- 穩定經費來源

### 農民

- 改變耕種方式  
方法1、無農藥  
方法2、減農藥  
(減少75%農藥，另  
25%僅使用單一藥性  
，不使用複合式藥物)
- 保持水位
- 生物調查(蚯蚓、蜘蛛、青蛙等)、維護水田環境
- 紀錄生產流程

### 農會

- 審查農法資格、  
農民契作
- 東方白鶴豐岡寄付金  
1公斤白鶴米，1元進到基  
金，支持消費者割草體驗
- 抽驗、把關品質  
一農民自主性互相監督
- 行銷、推廣、包裝
- 農食教育  
割稻、種稻體驗；故事行  
銷；營養午餐



## 轉換農法 時薪增加14倍

農戶 204戶  
面積 約300公頃  
農法 白鶴復育農法  
營收 14到17倍  
營收 網路、  
增加 直賣所米店、  
銷售 生活組合  
日本500家超市  
復育 163隻白鶴

	慣行栽培	無農藥	減農藥
產量	514kg	418kg	490kg
單價	73元	122元	93元
每分地 販售收益	37,693元	50,088元	45,733元
成本 (生產經費)	36,956元	31,302元	31,493元
所得	737元	19,786元	14,239元
工作時數	22小時	34小時	30小時
換算時薪	30元	583元	473元

註／統計至2013年底

註／豐岡每年僅1期稻作

製表／侯俐安

聯合報

Source: 聯合報

### Wetland conservation and management

#### 濕地保育及管理

- **Water control** was undertaken in the Maruyama River that runs through the city 實施丸山河河道控制
- Creation of **artificial wetland** – to preserve the feeding area for wild storks 建立人工濕地 讓野生白鶴棲息覓食
- City government **subsidized land owners to create biotopes** in order to revitalize their abandoned lands 市政府補貼土地擁有者，以恢復荒地並創建群落生境
- **Restoration of abandoned fields** and rice paddies in “**Tai**” **village** 恢復“Tai” village 的荒地和稻田
- Tai region’s becoming a **biodiversity hotspot** – for storks (quantity increased to 44, as of 2010) and different aquatic creatures and rare species “Tai region”漸漸成為一個生物多樣性熱點地區 - 直至2010年，白鶴數量增加至44 隻，並孕育出不同的水生生物和珍稀物種
- Local people organized **training courses** for guiding outside visitors to the “Tai” region 當地居民組織導賞培訓課程
- In 2012, the 560ha “Lower Maruyama River and the surrounding rice paddies” were registered as **Ramsar Convention Wetlands** 在2012年，佔地560公頃的“下丸山河和周圍的稻田”被納入拉姆薩爾濕地



Hachigoro's Toshima Wetland at Maruyama River mouth 丸山河口濕地



Source: IPSI

Abandoned fields converted back to cultivated wetland in “Tai” region (northeastern part of Toyooka City) 濕地面貌回復 (豐岡市的東北地區)



## Toyooka City, Hyogo, Japan 日本兵庫縣豐岡市

### Training for younger generation

#### 培育年輕一代

- Training organized by **schools** and **local communities** in cooperation with the local **government** and **NGO** 由學校與當地政府和非政府組織舉辦的培訓 課程



#### Rice farming using “White Storks Friendly Farming Method”

使用“白鸛友好農業法”的水稻種植

#### On-site biodiversity lectures

生物多樣性實地教學活動

#### Workshops on **local tourism**

生態旅遊工作坊

#### “White stork club for children” to learn about Toyooka’s environment and storks

“白鸛兒童俱樂部”，以了解豐岡市的自然環境和白鸛生態



Children searching for “life in the rice paddy”(Rice Paddy Organism Survey)  
稻田生物調查

# Living in harmony with **Stork** and Nature



**Lower Maruyama River and the surrounding rice paddies**



- **Who should/can take the lead? 由誰牽頭?**
  - Not necessary be the government
  - 不一定由 政府牽頭
- **Policy support 政策支持**
  - Agriculture policy, land and zoning regulations, B&B policy, Buildings Regulations/Policy, Food and Hygiene...
  - 農業政策、土地使用和區劃法規、B&B（住宿加早餐）政策、建築物條例/政策、食品安全等
- **Governance and institutional set up 管治架構**
  - Who decides the development path?
  - 誰決定發展路向？
  - Is the governance structure and institutional set up facilitating the best and most sustainable approach?
  - 現時的管治架構和制度能否促進可持續發展？

## References 參考資料

- Ayers, J. & Dodman, D. (2010), "Climate change adaptation and development I: the state of the debate," *Progress in Development Studies*, Vol. 10(2), pp. 161-68.
- Basiago, A. D. (1995), "Methods of Defining 'Sustainability'," *Sustainable Development*, Vol. 3, pp. 109-119.
- Bourdieu, P. (1986), "The Forms of Capital," pp. 241-58 in Richardson, J. G. (eds) *Handbook of Theory and Research for the Sociology of Education*, New York: Greenwood Press.
- Carson, R. (1962), *Silent Spring*, Boston: Houghton Mifflin.
- Central Intelligence Agency, (2013), *The World fact Book: GDP in (PPP)*, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2004rank.html>
- Coleman, J. S. (1988), "Social Capital in the Creation of Human Capital," *American Journal of Sociology*, Vol. 94 (Supplement), pp. 95-120.
- Community College of Chi-Mei in Kaohsiung County. (n.d.). Introduction of CMCU. Retrieved from <http://cmcu.tacocity.com.tw/a-about%20cmcu/a-5.htm>
- Davidson, M. (2009), "Social sustainability: a potential for politics?", *Local Environment*, Vol. 14(7), pp. 607-619.
- Epochtimes. 留種保育生態米 桃米社區插秧. Retrieved from <http://www.epochtimes.com/b5/12/2/25/n3523009.htm>
- Giddings, B., Hopwood, B. & O'Brien, G. (2002), "Environment, Economy and Society: Fitting them together into Sustainable Development," *Sustainable Development*, Vol. 10, pp. 187-196.
- Grootaert, C. (1998), Social Capital: The missing link? Social Capital Initiative Working Paper, No. 3, The World Bank, Social Development Family, Environmentally and Socially Sustainable Development Network.
- IPSI. (2012). Community Development to Live in Harmony with the Oriental White Stork in Toyooka City, Hyogo, Japan. Retrieved from <http://satoyama-initiative.org/en/toyooka-city/>
- JFS. (2006). Creating a Homeland for Storks: Species Protection Activities in Hyogo. Retrieved from [http://www.japanfs.org/en/news/archives/news\\_id027810.html](http://www.japanfs.org/en/news/archives/news_id027810.html)
- LGMB (1995), Thirteen major themes incorporating sustainability indicators, quoted in Reed, M, (1995), "Process Modelling and Sustainability Assessment in the Development of the Sustainable Community, *European Environment*, Vol. 5(6), pp. 178-182.
- Littig, B. & Griebl, E. (2005), "Social sustainability: a catchword between political pragmatism and social theory," *International Journal of Sustainable Development*, Vol. 8(1/2), pp. 65-79.
- Meadows, D. et al. (1972), *The Limits to Growth: a report for the Club of Rome's Project on the Predicament of Mankind*, New York : Universe Books.
- Mebratu, D. (1998), "Sustainability and Sustainable Development: Historical and Conceptual Review," *Environmental Impact Assessment Review*, Vol. 18, pp. 493-520.



## References 參考資料

- Matthew, R. A. & Hammill, A. (2009), "Sustainable development and climate change," *International Affairs*, Vol. 85 (6), pp. 1117-1128.
- Ministry of the Environment., Japanese Government. (2010), Restoring rice paddy habitats to reintroduce oriental white stork in Toyooka city. Retrieved from <http://www.nuovo.co.jp/file/kawakami/pes/en/satotisatoyama/satotisatoyama02.html>
- Newland Community Education Centre. (n.d.). Tao-mi Eco-Village. Retrieved from <http://paperdome.homeland.org.tw/taomi/>
- Putnam, R. D. (1993), "The Prosperous Community: Social Capital and Public Life," *The American Prospect*, No. 13 (Spring), pp. 35-42.
- Rydin, Y. & Holman, N. (2004), "Re-evaluating the Contribution of Social Capital in Achieving Sustainable Development," *Local Environment*, Vol. 9(2), pp. 117-133.
- Taomi Eco-village. (n.d.), Retrieved from <http://www.taomi.org.tw/main.php>
- TEEBcase by K. Hayashi and H. Nishimiya. (2010), PES for habitat restoration to reintroduce Oriental White Stork, Japan, available at: TEEBweb.org
- UNCED. (1992), *Agenda 21 and the UNCED Proceedings*, New York: Oceana.
- UNCED. (2003), *Johannesburg Declaration on SD and Plan of Implementation of the World Summit on SD: the final text of agreements negotiated by governments at the World Summit on SD, 26 Aug – 4 Sept 2002, Johannesburg, South Africa*, New York: United Nations Dept. of Public Information.
- UN Department of Economic and Social Affairs. (2009), *Climate Change and Sustainable Development*, [http://www.un.org/esa/dsd/dsd\\_aofw\\_cc/cc\\_index.shtml](http://www.un.org/esa/dsd/dsd_aofw_cc/cc_index.shtml) , accessed on 18 Oct 2011.
- UNEP. (1972), *Report of the United Nations of Human Environment*, <http://www.unep.org/Documents/Multilingual/Default.asp?documentid=97> , accessed on 22 Oct 2012.
- Wandering Taiwan. (2010), Wetland Park, Puli, Taomi Community. Retrieved from <http://wandering-taiwan.blogspot.hk/2010/11/wetland-park-puli-taomi-community.html>
- WCED. (1987), *Our Common Future*, Oxford: Oxford University Press.
- 社區伙伴. (2011-2013), 高雄市旗美社區大學 (台灣) - 農村是一所學校——旗美社大的農村工作. Retrieved from <http://pcd.org.hk/csa/big5/experience02-theme02.html#a>
- 台灣濕地保護聯盟. (n.d.), 桃米里. Retrieved from <http://www.wetland.org.tw/news/old/020715d.doc>
- 曾旭正. (2013), 台灣的社區營造. 遠足文化事業有限公司