Sustainability Impact Assessment:

Framework and Report on HSBC Rural Sustainability

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RuralSustainability 永續鄉郊計劃

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ASSESSMENT FRAMEWORK AND METHODOLOGY

01 SUSTAINABILITY ASSESSMENT – DESIGN PRINCIPLES

1.1   APPROACHES AND PRINCIPLES

Objectives-led

• There is a need to encourage positive steps on all fronts towards sustainability (Gibson, 2006b)

This sustainability assessment framework focuses on the appraisal of the direction to objectives, i.e. whether there is positive, neutral or a negative move toward the objectives of sustainability (Colantonio, 2009).

"An objectives-led approach reflects a concept of sustainability as a goal, or series of goals, to which society is aspiring …this means that it is a proactive approach, and has a 'direction to target' characteristic, although as for EIA driven integrated assessment, the position of the sustainable state is unknown" (Pope et al., 2004: 604-605)

Defining the main objective: sustainability

• Beyond the three pillars of environment, economy and society
• Integrated perspective, emphasizing interconnections and the nature of sustainability issues which cross environmental, economic and social boundaries

Sustainability is a complex concept with different definitions that involves a wide range of indicator systems and supports the proliferation of indicators. Sustainability performance indicators are usually partitioned into 3 categories (environmental, social and economic) known as the three-pillars approach.
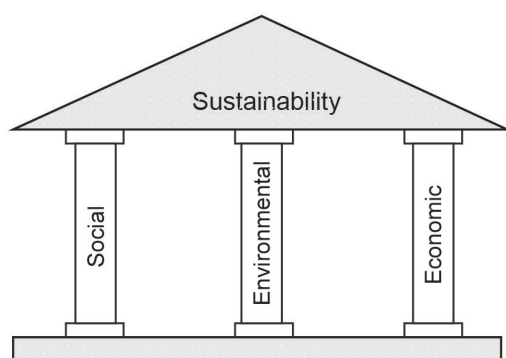
Figure 1 The three pillars of sustainability (Sulich and Zema, 2018:70).

However, interrelations between the three pillars are inadequately understood and described (Pope, et al. 2004), where interdependence is neglected (Gibson 2006a; Gibson 2006b).

There has been an increased use of indicators which integrate different dimensions of sustainability to measure progress towards or away from it as an ultimate goal (Warhurst, 2002).

The framework proposed here is based on an integrated perspective, emphasising interconnections and the nature of sustainability issues which cross environmental, economic and social boundaries. Sustainability is broken down into 5 core dimensions: Socio-ecological integrity, Livelihood equality, Participatory governance, Precaution and adaptation, and Cross-spatial integration. It will be discussed further in section 1.3.

1.2   FRAMEWORK DEVELOPMENT

Purpose and scope

• To assess site-based, community-based and collaborative programmes
• To assess sustainability attainment at different scales and levels to the environment, individuals, organisations and the wider society

This assessment framework is designed to assess site-based programmes with a focus on working with the local community and other stakeholder groups. It is designed to assess sustainability attainment through the programme, at different scales and levels, to the environment, individuals, organisations and the wider society. Attention is paid to those who participate directly in the programme, so actors/organisations which might be indirectly affected or influenced by the programme are not assessed.

Aim

- To develop a flexible framework that can be easily adopted by other experts and practitioners

Sharing similar principles to these collaborative programmes, it is important to develop an assessment framework that is accessible to experts and practitioners. This means accommodating to users with diverging organisational capacities and resources availability. Thus, ensuring that the framework offers users a substantial degree of flexibility would be essential.

For this purpose, the framework can be considered to consist of two parts, where the first part remains consistent across programmes and the second part affords substantial liberty to be adjusted/developed as the users see fit.

On the outset, it offers a broad framework that can be applied to any project which is made up of the (i) sustainability core dimensions and (ii) a set of indicators under each core dimension. Together, these constitute the first part of the framework which are designed to be broad and generic, so that they can be elaborated on in a variety of ways by future users. By offering a comprehensive framework based on sustainability, it helps programme managers/funders to prevent neglecting certain aspects in their programme design, implementation/making funding decisions. Based upon this set of indicators, the second part consist of (iii) a set of sub-indicators which was compiled and modified according to the content of this rural sustainability programme. Unlike the first part of the framework, this part should be treated as reference only for other programmes. The intention is for users to extract and apply the sub-indicators, if appropriate, or to make changes/find other sub-indicator that is more suitable for their programme.

The process

- Adapting Gibson's "Core Generic Criteria for Sustainability Assessment"
- Resonating the logic of the UNSDGs

Robert Gibson's "Core Generic Criteria for Sustainability Assessment" was a crucial reference for developing this assessment framework for sustainability. His core generic criteria were designed to be broad and without indicators, Gibson (2017) demonstrated their wide applicability where practitioners are offered a high degree of flexibility to match aspects of work or considerations from their case with each criterion.

Our framework aims to provide further guidance to assessors and programme managers by offering a set of indicators under each criterion, prompting them to consider a comprehensive range of sustainability issues. It echoes the logic of the UNSDGs, where each goal was articulated by a set of indicators. But rather than adopting the inter-disciplinary goals and indicators in the UNSDGs which are more suitable for country level (or at least city-level) measurement, this study adopts Gibson's criteria which accommodates the community-scale.

For two reasons, Gibson's 8 Core Generic Criteria are combined into 5 Core Dimensions of Sustainability for this framework. First, while developing indicators for each criteria, it appears there are considerable overlaps between a couple of core criteria. Second, as adding indicators and sub-indicators makes the framework more complex, it was deemed important to try to simplify the framework and the assessment process where possible, with the intention of making it more practicable to users.

During this process, the Delphi method was adopted to confirm and refine the approach of defining sustainability through our core dimensions. Advice was sought from experts in the areas of EIA, environmental economics and social policy, based on which the core dimensions were further refined.

1.3 DEVELOPING THE FIVE CORE DIMENSIONS OF SUSTAINABILITY

Sustainability criteria derived from sustainability principles helps to avoid inherent limitations of three-pillars, emphasising interconnections and interdependencies between pillars (Pope, et al. 2004). Therefore, we established an innovative framework that goes beyond the traditional triple bottom line assessment. This framework offers a model that evaluates the full spectrum of sustainability performance against 5 core dimensions (Figure 2 and Table 1).

Core Generic Criteria for Sustainability Assessment by Robert Gibson

1. Socio-ecological integrity
2. Livelihood sufficiency and opportunity
3. Intragenerational equity
4. Intergenerational equity
5. Resource maintenance and efficiency
6. Socio-ecological civility and democratic governance
7. Precaution and adaptation
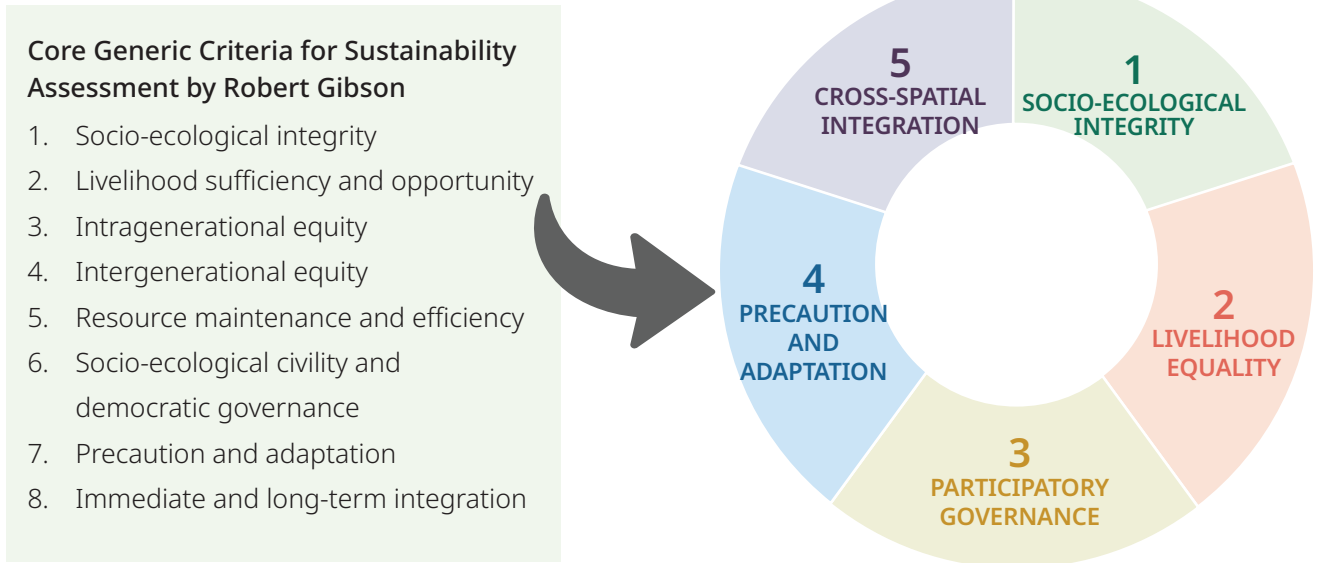8. Immediate and long-term integration

Figure 2 An adaptation of Robert Gibson's Core Generic Criteria for Sustainability Assessment to this framework's Five Core Dimensions of Sustainability.

Table 1 Definitions of the 5 core dimensions of sustainability.

Five core dimensions	Definitions
1 SOCIO-ECOLOGICAL INTEGRITY	Maintain the long-term integrity of socio-biophysical systems and protect irreplaceable life support functions upon which human and ecological well-being depends. Reduce direct/indirect and overall/specific human threats to system integrity and life support viability. Return resource exploitation and pressure on ecological system to levels within its perpetual capacity with the aim of enhancing opportunities and capabilities of future generations. This means reducing harm to the environment during production, avoiding waste and improving the efficiency of energy and material use.
2 LIVELIHOOD EQUALITY	Help to ensure that everyone and every community has enough for a decent life, and has opportunities to seek improvements. Broaden the provision of key prerequisites for a decent life without compromising those for future generations. Efforts made to build sustainable livelihoods, including the facilitation of practically available livelihood choices which the community has the power to choose from. Emphasize less materially, and energy intensive approaches to personal satisfactions.
3 PARTICIPATORY GOVERNANCE	Advocate processes in which local stakeholders are empowered as active participants in the development of their neighbourhood. Greater attention to foster wider engagement and commitment for an enhanced sense of community. Community members are motivated to preserve and promote tangible and intangible cultural heritage. Different types of actors are able to assume significant roles in processes of collective decision-making and action.
4 PRECAUTION AND ADAPTATION	Gain a better understanding of uncertainties and potential risks of serious or irreversible damage through comprehensive monitoring. Learn to adapt to uncertainties and changes. Incorporate precautionary approaches in the design and management of projects or other undertakings. Search for and experiment with innovative solutions to allow for flexibility in responses to future changes.
5 CROSS-SPATIAL INTEGRATION	Recognize the local, regional and global impact of a community's actions. Improve coordination between actors and communities at all spatial scales. Extend the positive influence of the project to the larger regional and international communities. Reduce negative impacts on regions beyond the project area.

In Part Two: Programme Evaluation on Sustainability Impact, Chapters three to seven will focus on one core dimension at a time. Each chapter investigates the ways in which selected components of the programme has contributed to the respective core dimension of sustainability.

02 SUSTAINABILITY ASSESSMENT – FRAMEWORK AND INDICATORS

2.1 ASSESSING CHANGES IN WHAT?

The direction towards the objective of sustainability

This sustainability assessment framework focuses on the appraisal of the direction, i.e. whether there is positive, neutral or a negative move, toward the overall objective of sustainability (Colantonio, 2009). As sustainability is operationalised through the Five Core Dimensions, and a set of indicators, then by collecting data on those indicators, the assessment exercise offers an impression of the contributions made by the programme in question towards sustainability.

'What are the intended results?'

A logic model offers a framework to systematically unravel the relationships between the planned work in a programme and the intended results, in other words, the expected changes. Step by step, the logic model guides the identification of outcomes and impact based on the programme activities and outputs, and anticipate ways to measure them, providing a clearer roadmap for programme evaluation (See Figure 3). Effective programme evaluation provides the basis for continued programme improvement and learning opportunities as knowledge can be shared on what works and why (Kellogg Foundation, 2004).
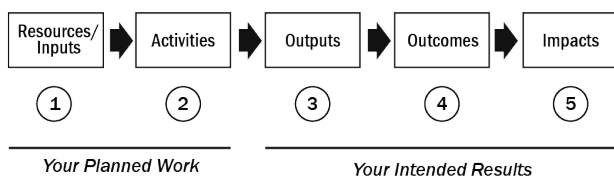
Figure 3 The Basic Logic Model (Kellogg Foundation, 2004: 1).

A simple logic model will be provided for each major programme components assessed in Chapters three to seven.

2.2 HOW TO ASSESS?

Firstly, the major programme components are identified (Table 2). Then, each programme component is matched with a Core dimension, as far as possible. For example, one of the key components of this Programme is eco-farming and it contributes most directly to Core dimension 1 Socio-ecological integrity. Table 3 below provides an outline of how the six major programme components in Table 2 are matched with the five Core dimensions. Collectively, this Programme contributes towards all five core dimensions of sustainability.

Table 2 Key programme components of the HSBC Rural Sustainability Programme.

Major programme components assessed	
A. Eco-farming	A.1 HKU farms + community farms (operation)
	A.2 Eco-farming experiments (e.g. agroforestry)
B. Village governance (engagement and empowerment)	B.1 Capacity for self-organisation and self-governance
	B.2 Village affairs coordination
C. Co-kitchen	C.1 Local food processing (Build agri-food chain by filling processing role)
	C.2 Incubate local food processor
D. Academy	D.1 Design and deliver courses
	D.2 Organise symposiums, seminars, workshops and forums
E. Rural Start-up	E.1 Hackathon
	E.2 Funding scheme/projects
	E.3 Incubation
F. Co-creation	F.1 Funding scheme/projects
	F.2 Festival

Table 3 Overview of each core dimension of sustainability and the corresponding major programme components.

Core dimension	Key programme	Key programme component
1 SOCIO-ECOLOGICAL INTEGRITY	A. Eco-farming	A.1 HKU farms + community farms (operation)
		A.2 Eco-farming experiments (e.g. agroforestry)
2 LIVELIHOOD EQUALITY	C. Co-kitchen	C.1 Local food processing (Build agri-food chain by filling processing role)
		C.2 Incubate local food processor
3 PARTICIPATORY GOVERNANCE	B. Village governance	B.1 Capacity for self-organisation and self-governance
		B.2 Village affairs coordination
4 PRECAUTION AND ADAPTATION	D. Academy	D.1 Design and deliver courses
	E. Rural Start-up	E.1 Hackathon
		E.2 Funding scheme/projects
		E.3 Incubation
5 CROSS-SPATIAL INTEGRATION	D. Academy	D.2 Symposiums, seminars, workshops and forums
	F. Co-creation	F.1 Funding scheme/projects
		F.2 Festival

At the same time, each programme component is attributed to a level of impact it most directly contributes to (i.e. local community, societal or regional/global shown below in Figure 4). It is at the selected level that measurement and reporting of impact will concentrate on.
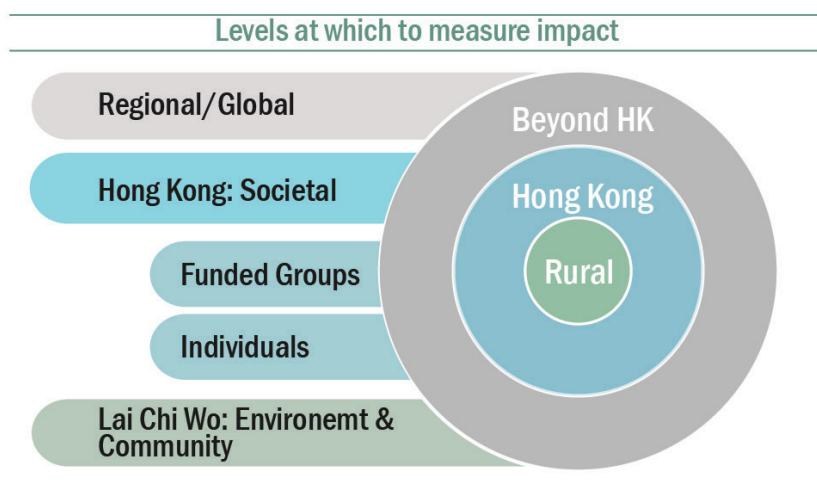
Figure 4 Three key levels at which impact is measured.

2.2.1 WHAT TO MEASURE?

Using Indicators and sub-indicators

Indicators determine exactly what you are measuring, collectively they create a picture of the project's output, outcome or impact. Each indicator provides a snapshot of the reality and can draw upon both quantitative and qualitative information.

The set of indicators and sub-indicators used in this framework were developed through a hybrid approach

- Top-down - Literature consulted, expert-developed indicators from literature
- Bottom-up – pre-programme engagement with stakeholders

A thorough review of the literature on available indicators from various studies was conducted to compile a long list of potential indicators. This list was evaluated within a team of sustainability researchers and community programme managers which led to multiple stages of consolidation and editing. Focus group discussions and interviews with target participants and relevant stakeholder representatives were held to gain deeper understanding of expected changes. See below (Table 4) for a full list of indicators and sub-indicators.

What is being 'measured' for each indicator

Depending on the nature and context of the assessed community-based project, sub-indicators are developed to be suited to collect the relevant data. Some sub-indicators might be more broadly applicable, e.g. knowledge and competence of stakeholders, while some might be more specific e.g. new trends and development in the industry of agriculture. Engagement is particularly useful where stakeholders' expectations of the

Table 4 List of indicators and sub-indicators.

Dimensions	Indicators	Sub-indicators
1 SOCIO-ECOLOGICAL INTEGRITY	1.1 Biodiversity conservation	Species diversity and abundance
	1.2 Soil conservation	Soil health
	1.3 Water conservation	Water resource management
	1.4 Pollution reduction	Water pollution
	1.5 Sustainable use of resources	Food waste recovery
		Renewable energy
	1.6 Sustainable production and consumption	Sustainable agricultural production
		Establish links between sustainable production and consumption
2 LIVELIHOOD EQUALITY	2.1 Economic vibrancy	Entrepreneurship
		Professional/livelihood skill development
	2.2 Health and wellbeing	Physical and mental health, well-being
	2.3 Gender equality	Empowerment through employment
	2.4 Access to basic resources and essential services	Transport, other infrastructure and services
3 PARTICIPATORY GOVERNANCE	3.1 Culture of collaboration	Sense of community and belonging
		Knowledge sharing and learning
		Common vision
		Conflict resolution strategies
	3.2 Transparent decision-making process	Identification and participation of stakeholders
		Information dissemination about rules and decision-making process with stakeholders
	3.3 Distribution of power and authority	Influencing power of each stakeholder
	3.4 Accountability	Mechanism for monitoring and evaluation
4 PRECAUTION AND ADAPTATION	4.1 Climate change adaptation and mitigation	Actions towards climate change mitigation/adaptation and related knowledge distributed
	4.2 Innovative solutions	Innovative solutions trialled/implemented
	4.3 Disposition and awareness	Appreciation of personal responsibilities towards rural sustainability, including culture and heritage
	4.4 Sustainability literacy	Knowledge of stakeholders
		Competence of stakeholders
5 CROSS-SPATIAL INTEGRATION	5.1 Development in specific industries	New trends and development in the industries of Art and Culture, Agriculture, Tourism
	5.2 Horizontal coordination	Coordination amongst parties of collaboration, across sectors or geographical dimension
	5.3 Vertical coordination among levels	Governments recognise, support and collaborate with local efforts and institutions
	5.4 Connectivity to regional and international developments	International documentation (including academic publications) and awards

The indicators and sub-indicators are designed to offer flexibility to users depending on what data they are able to collect. Where possible, assessing the outcomes and impacts should be done through comparing the state of X (such as participant attitudes, knowledge, skills, behaviour) before and after the programme (Kellog, 2004). Where this is not feasible, the indicators/sub-indicators could be used to make note of what actions have been taken to address that aspect of sustainability.

A limitation in this methodology is the issue of attribution or causality which has caused much debate in the field of impact assessment. There is a general consensus that interventions take place in a social/ culturally/politically dynamic context which limits the possibility of isolating it from other interventions or broader contextual factors (O'Leary, 2005).

Data collection

- Interviews
- Participant surveys
- Focus group discussions (e.g. Hackathon participants)
- Programme records (including annual reports, reports from Co-creation/Startup projects)
- Other records (e.g. Management Agreement Report)

The methods of data collection adopted in this study mainly included conducting focus group meetings, interviews, questionnaire surveys and programme records. Interviews were conducted with community members and a variety of programme participants. For community members and programme participants who were involved for over two years, two (or up to three interviews) were conducted with them to gain a deeper understanding of changes they have experienced or witnessed in the village/their respective sector over the course of the Programme. Where a significant number of participants were expected to undergo similar interventions, such as students of the Academy, a questionnaire survey was developed to collect quantitative data on the Programme's sustainability attainment. The survey findings were then supplemented with interview data.

2.3 HOW TO PRESENT AN OVERVIEW OF ASSESSED IMPACT?

This report makes reference to assessment reports produced by a number of organisations under the United Nations (e.g. IPBEC, 2018; Millennium Ecosystem Assessment, 2005; Sachs et al, 2021) which adopt arrows to illustrate (positive, stable or decrease in) trends across a list of indicators. For example, IPBEC uses the direction of the arrows to show the trends in nature's contribute to people in their study on biodiversity and ecosystem services. The Millennium Ecosystem Assessment uses the direction of arrows to indicate the trend of increasing, continuing or decreasing impact of different drivers (e.g. climate change, invasive species) on biodiversity categorised by different types of ecosystems. This method has been found to be effective in conveying an overview of positive, neutral or negative changes across a list of indicators or issues. For this objective-led assessment framework, a similar presentation method will be adopted (see Table 5 in Part II).

PROGRAMME EVALUATION ON SUSTAINABILITY IMPACT

Based on the analysis of data collected in relation to different project components, an assessment is conducted to suggest whether positive (+), no change (/) or negative (-) change against the overall objective of sustainability has been detected. In some cases, both positive and negative changes could be detected for the same sub-indicator, which means across the aspects which have been assessed for that indicator, while positive change is detected in one aspect, a negative change is detected for another. In those cases, there is more than one tick in the same row, and the reader may refer to the written explanation in the relevant chapter for further details.

Table 5 Summary of assessment results.

Dimensions	Indicators	Sub-indicators	-	/	+
1 SOCIO-ECOLOGICAL INTEGRITY A. Eco-farming A.1 HKU farms + community farms (operation) A.2 Eco-farming experiments (e.g.agroforestry)	1.1 Biodiversity conservation	Species diversity and abundance			+
	1.2 Soil conservation	Soil health			+
	1.3 Water conservation	Water resource management			+
	1.4 Pollution reduction	Water pollution			+
	1.5 Sustainable use of resources	Food waste recovery			+
		Renewable energy			+
	1.6 Sustainable production and consumption	Sustainable agricultural production			+
		Establish links between sustainable production and consumption			+
2 LIVELIHOOD EQUALITY C. Co-kitchen C.1 Local food processing (Build agri-food chain by filling processing role) C.2 Incubate local food processor	2.1 Economic vibrancy	Entrepreneurship			+
		Professional/livelihood skill development			+
	2.2 Health and wellbeing	Physical and mental health, well-being			+
	2.3 Gender equality	Empowerment through employment			+
	2.4 Access to basic resources and essential services	Transport Other infrastructure and services			+
3 PARTICIPATORY GOVERNANCE B. Village governance B.1 Capacity for self-organisation and self-governance B.2 Village affairs coordination	3.1 Culture of collaboration	Sense of community and belonging			+
		Knowledge sharing and learning			+
		Common vision	-		+
		Conflict resolution strategies	-		+
	3.2 Transparent decision-making process	Identification and participation of stakeholders	-		+
		Information dissemination about rules and decision-making process with stakeholders	-		+
	3.3 Distribution of power and authority	Influencing power of each stakeholder	-		+
	3.4 Accountability	Mechanism for monitoring and evaluation	-		+
4 PRECAUTION AND ADAPTATION D. Academy D.1 Design and deliver courses E. Startup incubation E.1 Rural Sustainability Hackathons E.2 Rural in Action Startup Scheme	4.1 Climate change adaptation and mitigation	Actions towards climate change mitigation/adaptation and related knowledge distributed			+
	4.2 Innovative solutions	Innovative solutions trialled/implemented			+
	4.3 Disposition and awareness	Appreciation of personal responsibilities towards rural sustainability, including culture and heritage	-		+
	4.4 Sustainability literacy	Knowledge of stakeholders			+
		Competence of stakeholders	-		+
5 CROSS-SPATIAL INTEGRATION D. Academy D.2 Symposiums, seminars, workshops and forums F. Co-creation F.1 Funding scheme/projects F.2 Festival; Art and Culture; Agriculture; Tourism	5.1 Development in specific industries	New trends and development in the industries of: Art and Culture, Agriculture, Tourism			+
	5.2 Horizontal coordination	Coordination amongst parties of collaboration, across sectors or geographical dimension			+
	5.3 Vertical coordination among levels	Connections with different levels of government			+
	5.4 Connectivity to regional and international developments	International documentation (including academic publications) and awards			+

03 CORE DIMENSION 1
SOCIO-ECOLOGICAL INTEGRITY

This chapter focuses on programme component [A] Eco-production, covering two main streams of work [A1] the operation and management of HKU farms and community farms and [A2] Eco-farming experiments.

Level Focus: **Local Community** / Wider Society / Regional or Global

Table 6 Assessment result of programme component [A] Eco-production's contribution to sustainability (Core Dimension 1).

Dimensions	Indicators	Sub-indicators	-	/	+
A. Eco-farming **A.1** HKU farms + community farms (operation) **A.2** Eco-farming experiments (e.g., agroforestry)	1.1 Biodiversity conservation	Species diversity and abundance			+
	1.2 Soil conservation	Soil health			+
	1.3 Water conservation	Water resource management			+
	1.4 Pollution reduction	Water pollution			+
	1.5 Sustainable use of resources	Food waste recovery			+
		Renewable energy			+
	1.6 Sustainable production and consumption	Sustainable agricultural production			+
		Establish links between sustainable production and consumption			+

Table 7 Logic model for Programme component [A] Eco-production.

Input	Activities	Output	Outcome	Impact
• Funding • Staff & volunteers • Infrastructure • Farmland • Expertise: ecology	**A.1** HKU farms + community farms (restoration of farmland, production operation and training activities) **A.2** Eco-farming experiments (e.g. agroforestry)	• Revitalised farmland • Local produce/ increase local food supply • Sustainable farming practices • Findings from eco-farming experiments • Volunteers/trainees	• New habitat • Market opportunities • Skilled labour/ stewardship • Resource circulation (food waste, yard waste) • Improved methods	• New agro-ecosystem at LCW • New eco-agriculture opportunities in HK

Agricultural revitalisation was an important pillar in reviving the village community. The Programme made significant effort to reduce harm to the environment from the restoration of abandoned farmland to the crop production process, soil management, and the management of the surrounding streams and waterways. The Programme implemented eco-farming practices and conducted experiments to diversify the production modes in LCW and to develop a better understanding of agroforest coffee and native forest species model to serve production and conservation purposes. The native forest trees provide shade and shelter for the coffee trees as well as to moderate the temperature.

INDICATOR 1.1 BIODIVERSITY CONSERVATION

The Programme Team's biodiversity monitoring found that the biodiversity at Lai Chi Wo is very high and there are a number of locally or globally concerned species. Eco-farming approach has been adopted to conserve the biodiversity in Lai Chi Wo. Big trees have been conserved within the farms and the use of chemical pesticides is prohibited. By resuming paddy farming, the biodiversity and wetland functions of the village have been enhanced. Agroforestry trials have been conducted at selected locations and native tree species have been planted.

Some parts of the revitalized farmlands were not covered by tall trees but shrubs. After the vegetation was removed, an agroforest system was built from ground level. Coffee was chosen as the main crop in the system. Pigeon Pea was planted as a companion with coffee in the early stages to provide shade and improve soil health at the same time. Native tree species, for example, Endospermum chinense, Lithocarpus glaber and Ormosia emarginata are introduced to enrich the system and eventually form the canopy layer. Mulching and cover crop are also used to control weed and retain soil moisture while the complexity of the whole system is also increased.

A baseline study of the benefits of eco-agriculture on biodiversity in Hong Kong, conducted by the University of Hong Kong, finds evidence from the Programme's agroforestry farmlands that they support a higher diversity and abundance of soil invertebrate

communities than open field farming. Therefore, it suggests that Agroforestry systems could potentially serve as a conservation land use system in Hong Kong.

Over a hundred crop species have been grown in the community farms, the production farming area and the eco-agriculture experimental farm. Since the restoration of the agricultural wetlands and open farmland, the number of Chinese Bullfrog, a Class II protected species in China, has increased. The Rice Fish, a wetland species typically found in paddy fields, has been successfully reintroduced.

Figure 5 Big trees have been conserved within the farms and the use of chemical pesticides prohibited.

Figure 6 Mulching and cover crop are used to control weed and retain soil moisture.

Findings from the habitat and vegetation survey and Wildlife Monitoring Programme, documented in the reports of Management Agreement Scheme at Lai Chi Wo Enclave 2017-2019, and Management Agreement Scheme at Lai Chi Wo Enclave 2019-2021 by the Hong Kong Countryside Foundation find that though the occurrence of target wildlife fluctuated largely with seasons, they remained rather stable on a yearly basis. The reports focused on four taxa and one species of wildlife – Amphibians, Butterflies, Odonates, Water Plants and Rice Fish. New species of butterflies and odonates were recorded in Lai Chi Wo during 2019-2021. The 2019-2021 report concluded that the conservation of various farmland habitats through eco-friendly farming and management has enhanced the biodiversity of Lai Chi Wo. For further information, please see Appendix 1.

Figure 7 Chinese Bullfrog found in Lai Chi Wo.

Figure 8 Rice Fish was sucessfully reintroduced in Lai Chi Wo.

INDICATOR 1.2 SOIL CONSERVATION

Various measures have been taken to maintain soil health. Crop rotation and nitrogen-fixing leguminous crops have been used to preserve soil nutrients. Mulching and green manuring have been applied in the farms to increase soil organic matter and reduce soil erosion and compaction. The multi-layered agroforestry system has been effective in improving soil structure, maintaining soil moisture, and controlling soil erosion and the growth of weed.

150kg of Biochar was produced in year 2 of the project during farmland restoration and subsequently applied back to the farmland. Biochar is a nutrient rich material that is used to enhance soil fertility and increase agricultural productivity.

INDICATOR 1.3 WATER CONSERVATION

The Programme Team has re-established the hydrological system in the village to ensure efficient drainage and irrigation for farming. For water conservation, old irrigation channels have been uncovered and new irrigation ponds and channels created. Blockage of inlet and outlet of irrigation channels has been regularly cleared, and sedimentation of reservoirs and irrigation ponds have been regularly removed. Sprinkler irrigation and drip irrigation have been applied in certain farming areas particularly during the dry season to increase water-use efficiency.

INDICATOR 1.4 POLLUTION REDUCTION

Water pollution and solid waste were considered as the main types of pollution that requires particular attention during the revitalisation of the village. This is determined by a combination of the scope of the Programme and also the concern of community members. Efforts have been made by the Programme to minimise water pollution and to support more effective and sustainable waste management in the village. Chemical fertilizers and pesticides have been prohibited in the farms to avoid polluting waterways.

Regarding waste management, the Programme has enhanced villagers' awareness of the need to prevent the creation of waste and better manage waste disposal as well as their collective capacity to monitor and be more proactive in contributing to waste management in the village. Motivated by their desire to improve the living and/or working condition, community members would get together to discuss how to monitor waste disposal in the village and debate on the burning of rubbish. Programme Team, Indigenous villagers, new settlers, and volunteers would also collaborate to remove rubbish in the village, including those in the drainage and irrigation channels, during the annual village cleaning day and after typhoons.

INDICATOR 1.5 SUSTAINABLE USE OF RESOURCES

Composting and Food Waste Reduction

While many community members, especially new settlers who were establishing farms in LCW, were interested in practicing food waste composting, they were originally deterred by a few key obstacles, such as concerns regarding GM contamination and wild boars being attracted to the farms. The role of the Programme team was then important in helping to tackle these obstacles, while farmers in the community were particularly motivated to implement food waste composting to not only reduce waste but also to minimise the need to purchase fertilisers for their farms. For example, the Programme team helped to facilitate discussions and the setting of rules amongst the farming groups, in addressing concerns such as hygiene.

Other community members, including Indigenous villagers, who are not engaged in farming activities also begin to become aware of the practice and benefits of food waste composting and develop the habit of collecting food waste during village events and at their home, offering them to community farmers for composting.

Five community farms have been making use of food waste for composting (See Table 8). Food waste has been collected not only from LCW, but also from shops and restaurants outside of the village including the Programme's LocoKitchen.

Table 8 Food waste collected for composting by community farms.

	From which year	Kilograms per week
Community Farm A	2016/17	20-30kg
Community Farm B	2016/17	10kg
Community Farm C	2020	6kg
Community Farm D	2021	10kg
Community Farm E	2020	1kg

Renewable energy

Solar-powered electric fences were set up for the rehabilitated farmland at the early stage of the Programme to protect the crops from being damaged by feral cattle, wild boars and porcupines. The area of farmland with solar-powered electric fence has expanded over the project period to about 35 000sq. m. Accumulatively, over 5 years 0.0274tC of carbon emission has been avoided as a result of this solar energy system. This will continue to be used after the end of the Programme. Pumped storage hydropower was experimented in LCW, although it was later removed due to severe weather events.

Figure 9   Solar powred electric fence at Lai Chi Wo.

INDICATOR 1.6 SUSTAINABLE PRODUCTION AND CONSUMPTION

Sustainable agricultural production

The entire rehabilitated farming area in LCW has been practising organic agriculture . The framework provided by the Hong Kong Organic Resource Centre has been used to set rules amongst community farms, where all farms at LCW adhere to certain principles such as not cutting big trees. The total crop yield data from 2017 to 2022 can be found in Table 9. The agroforestry experiments have also been successful, as the quality and quantity of the main crops harvested, i.e. ginger and coffee, are satisfactory. The initial result demonstrates that secondary forests could be used as

Table 9   Crop yield from the Programme farm

Crop	Weigh (kg)
Chilli	100
Ginger	2544.3
Corn	540
Mustard Plant	2,707
Papaya	780
Pak Choy	210
Pineapple	10
Pumpkin	190
Turnip	3,141
Shiso (dried weight)	31.8
Turmeric	2,333
Wax Gourd	6,749
Coffee	440

a productive landscape meeting the dual objectives of yield and biodiversity enhancement. The agroforestry model is well-received by various stakeholders including the landowners, farm owners, local community, professionals from the coffee industry and the general public.

Globally, agroforestry has been practised for decades and practitioners in the field have gathered ample knowledge for its application.   Nevertheless, the relevance of such knowledge to local context is limited as most of the knowledge was accumulated in regions outside of East Asia. Therefore, it was imperative for the project to build local experiences on how to setup the farm, selecting crop and tree species to be planted, as well as sharing our experiences with others. Coffee planting within agroforest was introduced to the local farming community via various channels, including regular farmers meeting. Coffee seedlings were shared with the local farmers. Technical support, especially for post-harvest processing, was provided to the community farmers. Experts along the coffee supply chain were introduced to the community farmers for knowledge transfer. At present, the total area of farmland adopting agroforestry is roughly 7000 sq. m.

Table 10 Area of farmland adopting agroforestry.

	From which year	Area in Sq. m
HKU Farms	2016	~3400
HKCF Farms	2014	~1000
Community Farm	2019	~2600

Figure 10 Coffee trees were planted under the papaya trees.

Incubating local talent in sustainable agriculture and rural development

With the support of the programme, six farm apprentices have completed their training at the HKU farm at Lai Chi Wo. All of them have subsequently taken up different roles in sustainable production and the promotion of sustainable consumption suggesting that the farm apprentice scheme has been effective in incubating potential change agents in this field. For example, two graduates started their own farm at Lai Chi Wo, another went on to work on a revitalisation project at Mui Tsz Lam, also initiated by our centre.

Establishing links between sustainable production and consumption

Sales channels for LCW produce and products have also been diversified through partnering with various actors in the local food system. They include a local agricultural advocacy organisation, Kong Yeah, and food wholesaler, supermarket chain Yata, as well as small shops. A regular farmers' market was established in 2017 to sell and promote LCW agricultural produce. The Programme has worked on the (re-)branding of the Lai Chi Wo Farmers' Market as well as the governance of the market. A coffee production and development chain has also been established, connecting coffee grown at LCW with brewers and the coffee industry across Hong Kong. These have helped to link farmers with customers, strengthening urban/rural cohesion.

Figure 11 Graduates of the farm apprentices schemes started their own farm in Lai Chi Wo "Farm In-situ".

Figure 13 A farmer was introducing his products at the Farmers' Market.

Figure 12 The Lai Chi Wo Farmers' Market has been held regularly since 2017.

Figure 14 A coffee sharing session was held with brewers in 2022.

04 CORE DIMENSION 2 LIVELIHOOD EQUALITY

This chapter focuses on Programme component [C] Co-Kitchen, looking at two main steams of work [C1] Local food processing and [C2] Incubating local food processor.

Level Focus: Local Community / **Wider Society** / Regional or Global

Table 11 Assessment result of programme component [C] Co-Kitchen's contribution to sustainability (Core Dimension 2).

Dimensions	Indicators	Sub-indicators	-	/	+
C. Co-kitchen **C.1** Local food processing (Build agri-food chain by filling processing role) **C.2** Incubate local food processor	2.1 Economic vibrancy	Entrepreneurship			+
		Professional/livelihood skill development			+
	2.2 Health and wellbeing	Physical and mental health, well-being			+
	2.3 Gender equality	Empowerment through employment (will be further discussed in Chapter 8)			+
	2.4 Access to basic resources and essential services	Transport Other infrastructure and services (to be discussed in Chapter 8)			+

Table 12 Logic model for Programme component [C] Co-kitchen.

Input	Activities	Output	Outcome	Impact
• Funding to set up incubator kitchen for incubation programme • Staff & volunteers • Infrastructure • Local expert/ advisor	• C.1 Local food processing (Build agri-food chain by filling processing role) • C.2 Incubate local food processor	• Increased diversity in income sources for local farms • Incubatees • New products using local produce	• Market opportunities • Skilled labour • Local agri-food products branding • Jobs created • Sales network for local produce products • Empowerment	• HK agri-food value chain/ecosystem development

The LoCoKitchen is the first social innovation platform in Hong Kong with Food and Agriculture as two core themes. The LoCoKitchen supports the community's production and sales by providing skills and knowledge training, setting up food factories, facilitating collaboration between farms, producers and retailers, etc. A local agro-food brand LoCoFarms is developed through the LoCoKitchen for its products. All of these products included local farm produce as far as possible. Where some recipes were internally developed, such as the golden ginger turmeric paste, some were adapted from our partners such as the golden fig and lemon marmalade. Traditional recipes were also reinvented, e.g. fermented Chinese mustard greens which is a key ingredient in a Hakka dish, helping to raise awareness towards the socio-cultural value of supporting a local agri-food system.

The LoCo-AgroFood Challenge Scheme is an incubation scheme that provides a three-month training programme to participants on the concepts of sustainable food production using local agricultural produce, business development, brand building and marketing, with the goal of nurturing local food producers/processors. The participants receive basic training and networking opportunities on localised food production, R & D support, tasting and sales evaluation. The LoCoKitchen supports them in the use of our social media and sales platforms (by our Programme as well as our partners' sales platform) for online promotion and sales.

Figure 15 Golden fig marmalade.

Figure 16 Golden ginger turmeric paste.

Figure 17 Fermented Chinese mustard greens.

Figure 18 A training session under the LoCo-AgroFood Challenge Scheme.

Developing Hong Kong's agri-food ecosystem can contribute tremendously towards local economic vibrancy as it helps to revive a long struggling agricultural industry as well as spurring the growth of local agri-food brands. Where local farms have faced challenges from a lack of stability of farmland leases, unjust prices in distribution and wholesale, unstable and limited consumer support, incubating a local agri-food ecosystem will breathe new life into the industry. For food processors, regulations surrounding the sale of pre-packed processed food specify that they must be produced in a food factory or restaurant meeting the required sewage, water supply and fire safety standards thereby maintaining a high investment threshold. LoCoKitchen helps those who are interested in developing an agri-food start-up but lack the necessary resources and initial support.

Meanwhile, building a supportive ecosystem requires connecting the various stakeholders - local farmers, producers, start-ups, chefs, advocates of local produce, distributors, retailers and consumers. Different actors converge to be trained or provide training in processing local produce, develop new recipes and products and the marketing of these products. Some are involved in inventing new recipes or rediscovering traditional family recipes using local produce, further promoting the value of maintaining sustainable rural communities to the wider community. In addition, engagement events LoCoKITCHEN organised for local agro-food organisations or producers (including Food For Soul, Sustainable Ecological Ethical Development Foundation, Weeds Gelato, and Brewing Man) have fostered knowledge exchange among such organisations and facilitated collaboration opportunities.

Collectively, these efforts result in the increase of opportunities for building sustainable livelihoods and available livelihood choices to rural communities and the wider society.

INDICATOR 2.1   ECONOMIC VIBRANCY

The LoCoKitchen has incubated several local food processors, part of the support provided through the programme was aimed at improving their production processes. As a result, the processors have reflected on the ways in which their production processes have become more professional and efficient. Other than offering advice, the LoCoKitchen also offers resources in terms of manpower and a fully licensed kitchen.

For example, Yew's artisan sauces' preliminary preparation stage has been significantly shortened from 7 days to 1 day with the LoCoKitchen's manpower assistance. The feels that she now has more time to focus on different stages of production, as other matters such as sales and marketing can also be tackled by other talents on the LoCoKitchen team. The founder of Yew's artisan sauces expresses that

" *...before joining the scheme, I had to take care of the sales by myself, e.g. going to markets alone, promoting, etc. which was very strenuous, as I had to take care of all stages, including preparation, production and sales. After joining the scheme, I felt like I found myself a suitable role. I know that my role is to enjoy the production process. For the sales matters, I can leave it to LoCoKitchen. I feel much more relieved. Much of my pressure is reduced.* "

Acquiring professional skills

Most brands participating in the LoCoKitchen scheme are small-scale businesses, and many of them gained professional skills and knowledge out of the scheme. The LoCoKitchen's production, unlike the brands' previous experience, is much more formal and precise. The range of skills and knowledge learnt is wide, covering regulations and quality control over the supply process. The founder of Farm In-situ expresses that

" *I learnt about farming knowledge, cooking skills, food storage methods, important points about shelf life, product packaging, food labelling, marketing strategies, etc.* "

The exposure provided by LoCoKitchen has also stimulated the participant's interests to engage in further learning, especially in areas which they tend to be less familiar with, such as marketing, sales, connection-building etc. For example, the founder of 'Saam Doi Yat Sam'[1] found professional knowledge in marketing promotion and connecting with other farmers or retailers very useful and would like to learn more on these topics.

Stable business growth and expansion

With the resource support and skills training provided by LoCoKitchen as mentioned, the brands have experienced stable business growth. For example, the growth of Farm In-situ has gone beyond its founder's expectation. Yew's artisan sauces and 'Saam Doi Yat Sam' have even transformed from scall-scale domestic businesses to more regular production. The founder of 'Saam Doi Yat Sam' expresses that

" *We changed from the previous small-scale family business to a stable production that is able to deliver products regularly every year.* "

Other than business growth, some brands even see a potential to further expand in the future. In particular, as the production of current products gains stability, 'Saam Doi Yat Sam' andew's artisan sauces, have come up with plans to expand their scope by developing new products.

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[1] This brand does not have an English name at the momnet, its Chinese name is 三代一心.

Figure 19 The Yew's artisan sauces.

More sustainability considerations

As ensuring sustainable use of resources is fundamental to protecting livelihood equality for future generations, the agri-food system is developed with sustainability principles embedded in the entire value chain, from the production process to packaging, transport and consumer education. Emphasis is placed on less materially, and energy intensive approaches to typical stages of food production and consumption.

While the brands have seen stable business growth, sustainability considerations remain their core concern in the decision-making process. The founder of Yew's artisan sauces expresses that

> *From farm to table" is the very reason why I started producing my products. I feel that making locally grown products into products that can be enjoyed when dining is very satisfying, especially as Hong Kong has many local farm produce of good quality that can be utilized for making sauce. I hope that the original flavor of the local produce can be brought into production.*

Saam Doi Yat Sam' also tried to recycle and reuse the packaging materials and insisted on using local agricultural produce. With the food processing and product development training provided by the Local Agro-food Challenge Scheme, the 'Saam Doi Yat Sam' group developed its first batch of product based on its members' family recipe. The recipe was scaled up at LoCoKitchen using homemade old tangerine peel, locally produced lemon and some other organically grown ingredients.

Employment opportunities and livelihood skills development

The LoCoKITCHEN has created job opportunities through employing kitchen assistants and sales working at local markets and bazaars. In addition to developing livelihood skills and knowledge in the food processing sector, the employees also build connections with various parties along the agro-food value chain including farmers, producers and vendors. Two full-time staff completed the hygiene supervisor training course and acquired the certificates.

Figure 20 A workshop of the AgroFood Challenge Scheme.

Figure 21 The LoCoKITCHEN has created job opportunities through employing sales working at local markets and bazaars.

INDICATOR 2.2 HEALTH AND WELLBEING

Life satisfaction

The LoCoKitchen scheme has contributed to the mental health of project proponents as they experienced the growth of their own businesses, which gave them a sense of satisfaction. An improvement in the project proponents' life satisfaction has been demonstrated by the brands. The proponents of Farm In-situ, 'Saam Doi Yat Sam' and Yew's artisan sauces have all expressed that they gained a sense of accomplishment from the project, especially when they see that their brands have reached a much larger scale than expected. The founder of Yew's artisan sauces expresses that

> *Personally, I have gained a great sense of accomplishment, as I have never imagined that my own product could be developed into the current scale, especially to be showcased in large markets. That sense of accomplishment makes me further devoted in the production.*

Also, having clear objectives and goals give them more motivation in working for the project, as the founder of Farm In-situ shared that

> *Working gives me a sense of satisfaction. The developing directions are clear, and it is a pleasure to work with my partners.*

Figure 22 Kitchen assistants were empowered with skills, training and working experience.

INDICATOR 2.3 GENDER EQUALITY

Empowerment through employment

LoCoKITCHEN employed local females, some of whom used to be housewives and/or have retired from previous employment. Accumulatively, fourteen ladies have contributed to the production chain over the years, while seven are currently still involved. They are around 40-65 years old and were mainly recruited from nearby areas, for example, the Sha Tau Kok community, Northern District, Lai Chi Wo farmers interested in developing their own agro-food products and incubatees who have completed the Local Agro-Food Challenge.

They have been offered training on work safety, hygiene, relevant skills and knowledge and employment opportunities at the kitchen. Through this process, they become empowered with the skills, training and work experience of food processing and working in an industrial kitchen, thus opening up future employment and/or entrepreneurship opportunities for them. In particular, six women from the Northern District and a farm apprentice have formed a processing team to support fresh produce processing in LCW and Sha Tau Kok.

The employees are given opportunities to not only build connections with farmers, producers and vendors, but also the Sha Tau Kok community as they have been engaged to participate in activities that align with the food education mission of the kitchen. On an individual level, the employees and other stakeholders are able to develop a wider understanding of the importance of contributing to the local agro-food ecosystem, and are able to build new connections with people playing different roles in the ecosystem. From the society's perspective, its overall sustainability is enhanced through empowering those who would otherwise lack the opportunity to continue to contribute to society, and creating opportunities for social capital to be enhanced by linking neighbouring (Northern District) and functional communities (Food value chain).

05 CORE DIMENSION 3 PARTICIPATORY GOVERNANCE

This chapter focuses on programme component [B] Village governance, where the programme has contributed to [B1] Capacity building for organisational development and self-governance and [B2] Village affairs coordination.

Level Focus: Local Community / Wider Society / Regional or Global

Table 13 Assessment result of programme component [B] Village governance's contribution to sustainability (in relation to Core Dimension 3).

Dimensions	Indicators	Sub-indicators	-	/	+
B. Village governance B.1 Capacity for self-organisation and self-governance B.2 Village affair coordination	3.1 Culture of collaboration	Sense of community and belonging			+
		Knowledge sharing and learning			+
		Common vision			+
		Conflict resolution strategies			+
	3.2 Transparent decision-making process	Identification and participation of stakeholders			+
		Information dissemination about rules and decision-making process with stakeholders			+
	3.3 Distribution of power and authority	Influencing power of each stakeholder			+
	3.4 Accountability	Mechanism for monitoring and evaluation			+

Table 14 Logic model for Programme component [B] Village governance.

Input	Activities	Output	Outcome	Impact
• Funding • Staff & volunteers • Infrastructure • Local expert/ advisor	• B.1 Capacity building for organisational development and self-governance • B.2 Village affairs coordination	• Collaborative organisation and regular meetings (such as Village fest, LCW farmers market, village cleaning day) • Information sharing platforms	• Shared identity • Set of rules developed • Capacity to govern village affairs (e.g. organise Spring reception)	• Building of 'new community' between Indigenous villagers and new settlers

INDICATOR 3.1 CULTURE OF COLLABORATION

Empowerment through employment

In this report, Lai Chi Wo's community members are defined as those who work and/or live in Lai Chi Wo on a regular basis[2]. They include Indigenous villagers, new settlers, individuals/groups who work at Lai Chi Wo, either employed or self-employed. All community members have expressed a sense of belonging to the village and identify themselves as a member of LCW.

> " *Even though I only live here two to three nights a week, I consider LCW to be my home. When asked where I live, I would tell people I live in LCW.* "
> *- a new settler*

Some project staff who have worked at LCW for many years have experienced a transition from identifying themselves simply as a project staff to a member of the community. The implication of this transition includes their changing mindset and sentiment towards the village

> " *previously my goal was just to complete the project, but now I have an additional goal or vision of transforming the community into a better place for people to live and work in.* "
> *– a project staff at LCW*

An Indigenous villager also expressed an increased sense of belonging to the village and developed relationships with other community members (non-Indigenous community members) over the years.

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[2] A total of 27 community members were interviewed throughout the project period. Some community members who have been active since 2017 have been interviewed up to three times, at the beginning (2017/8), mid-project (2020) and at the end of the project (2022), while others who joined during the project were usually interviewed twice or once. A questionnaire survey was also conducted with community members to supplement the interview data, where a total of 20 responses were valid and analysed. Valid responses refer to successfully matched 'before' and 'after' surveys through personal identifiers collected in the questionnaire. Further information on survey participants can be found in appendix II. Amongst the interviewees and the survey respondents of valid responses, there is an overlap of 10 respondents.

Generally, although non-Indigenous community members (consider themselves as outsiders and) are largely considered by Indigenous villagers as outsiders, there is mutual respect between them. Non-Indigenous community members feel that their status as outsiders is reinforced particularly when they hold different views to Indigenous villagers. Nonetheless, new settlers and artists have shared that once Indigenous villagers began to see their contributions to the village and develop a better understanding of why they want to come and live/work in the village, they are very welcoming and supportive. While new settlers contribute during village cleaning activities, new settlers also noted instances where Indigenous villagers helped them at their farms.

Figure 23 Community members engaged in cleaing activities near the farms.

Figure 24 Community members participating in other village activities.

The annual maintenance of the village reservoir has been highlighted by almost every interviewee as a demonstration of collaboration amongst the various types of community members.

The survey results demonstrate that although there is a slight decrease of 10% in the participants who recognize themselves as a member of Lai Chi Wo community (from 75 to 65%), the proportion of participants who feel they are very close or somewhat close to their community of Lai Chi Wo increased by 15% (from 40% to 55%).
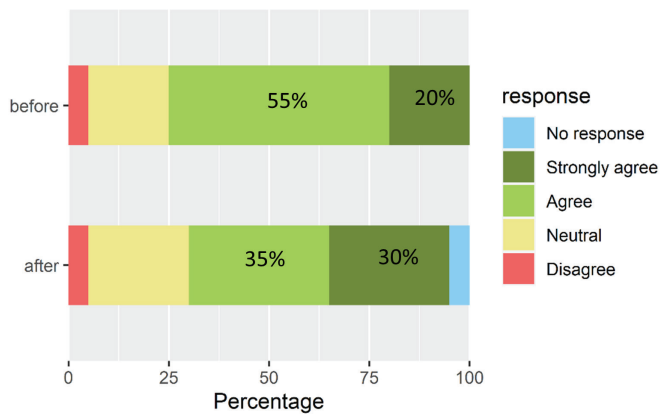

Figure 25 Do you consider yourself a member of the Lai Chi Wo community?
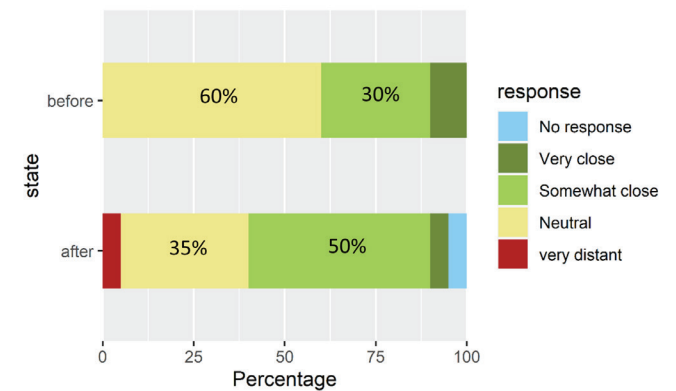
Figure 26 How strong is the feeling of togetherness or closeness in your community of Lai Chi Wo?

Figure 27 An increased sense of belonging to the village was established.

To some extent, the community's vision for LCW is broadly aligned. For example, in the perspectives of agricultural revitalisation which should take place in a sustainable manner and the importance of protecting the natural environment surrounding the village. However, community cohesion is somewhat lacking in the village as there is a tendency for different groups to work separately without substantial coordination. While those who agree that different groups at LCW work together for mutually rewarding development remain at 50%, see Figure 28 below, it appears that there is more divergence in community members' sentiment towards this issue with more selecting disagree in the post survey.

Efforts are made by the project team to bring everyone together regularly, usually for various purposes e.g. to discuss sales, marketing and branding. The support of the project is seen to be important before sufficient trust can be built between different groups, and before the community develops the capacity to coordinate themselves and where everyone contributes according to their strengths and expertise. As a potential indication that this might improve, the survey finds that community members are participating in group activities (formal or informal) more frequently than at the early phase of the programme (see Figure 30).

Knowledge sharing and learning is important for any community to maintain relationships and to develop shared understanding and common vision. This is even more important for LCW, where many different parties and types of stakeholders are involved in its revitalisation, and as the village continues to evolve. When more knowledge is being shared and disseminated in the village, its pool of resources and reach for expertise and information is expanded, enhancing the resilience of the community.
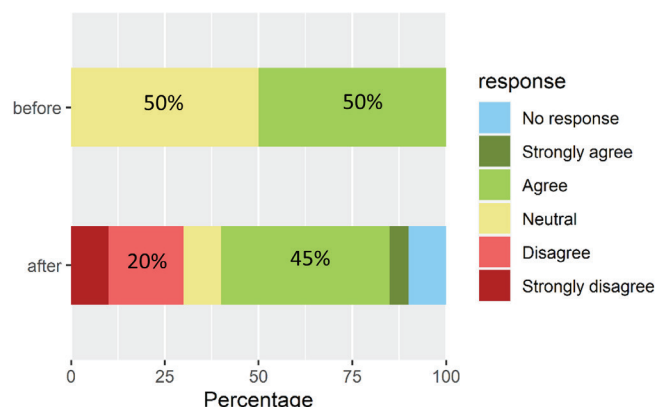

Figure 28 Do you agree that farmers, small businesses and organisations in Lai Chi Wo have worked together for mutually rewarding development?

Figure 29 The project team tries to bringseveryone together regularly to discuss sales, marketing and branding.
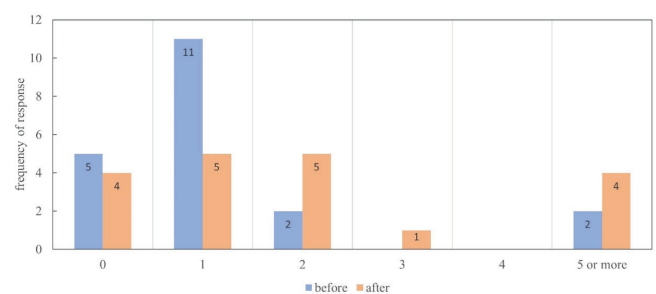

Figure 30 On average, how many times do you attend any form of group activity with the Lai Chi Wo community e.g. by attending meetings/participate in group activity/social gatherings in a month?

Figure 31 Learning and practicing the use of farm machinery.

Figure 32 Sharing of knowledge and ideas.

Figure 33 Farmland was flooded after a big storm.

There is considerable evidence pointing towards knowledge exchange across different stakeholders in the areas of farming practices, Hakka culture and art facilitated through the project. From the interviewees' sharing it is apparent that knowledge exchange takes place very naturally and commonly amongst the community members. In terms of knowledge acceptance, however, there is mixed views. Some non-Indigenous community members felt that Indigenous villagers were generally interested in new knowledge and practices. It was considered that, to an extent, they tend to be supportive of adopting practices such as new natural resource management practices, unless it relates to the village's Fung Shui.

Changes in the village's disaster preparedness and recovery (which falls under 4.1 Climate change adaptation and mitigation) could be considered as evidence of the village community's knowledge sharing and learning capacity. The survey suggests that this remains largely positive, though at closer scrutiny the after response is slightly less positive (see Figure 12 below). Nonetheless, many interviewees offered examples of improved community capacity to prepare for and recover from disasters, such as floods and typhoons over the course of the project. It was apparent that community members' awareness and experience have improved, where they would start to remind each other to clear the waterways to prevent flooding before a typhoon or heavy rain periods and to be mindful of not blocking irrigation channels during dry seasons. Other than reminding each other, villagers would watch out for each other to make sure no one is missing after bad weather events. While most farming groups would be busy with tending to their own farms after floods, where there are individuals or farming groups who need help, others would step forward.
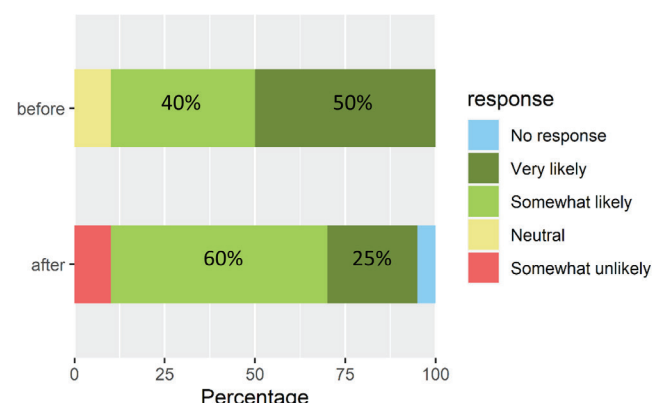

Figure 34 Suppose something unfortunate happened in the community, such as flooding, how likely is it that people in the community would get together to help and tackle the issue?

INDICATOR 3.2-3.4 GOVERNANCE: TRANSPARENCY, POWER AND ACCOUNTABILITY

Though, in general, the culture of collaboration can be considered to be positive amongst the community members, some fundamental issues persist. Interviewees were asked about existing communication platforms and conflict resolution mechanisms in the village. The governance of agricultural activities at LCW has been considered largely effective and inclusive. The meeting agenda is collectively decided upon through Whatsapp. The farming groups come together to formulate and refine community (farming) rules, plan collaborative marketing and promotional events, resolve disputes, share and exchange resources.

Village governance differs from the above, as non-Indigenous community members are excluded from most village institutions and therefore could not participate in those decision-making processes. Some non-Indigenous villagers see their roles as accommodating village/project activities or plans, where they are not actively participating in the design of the activities or related plans.

Information dissemination amongst community members regarding village affairs and development of different projects appear to be insufficient. In general, both Indigenous and non-Indigenous community members feel that there is limited accountability in village governance and a lack of mechanisms for monitoring and evaluating decisions made regarding village affairs.

Concerns regarding village governance increase as the Programme progresses and persist after the Programme ends. There remains a general assumption that HKU and/or Countryside Foundation(CF) have the most power, influence and resources, which lead community members to seek help from HKU/CF to mediate village affairs that are outside of the scope of their projects. Some community members (not limited to project staff) are concerned that there is a tendency for the community to be over-reliant on the major organisations to resolve conflicts, while the organisations do not have such authority to do so.

The programme has contributed to improving the culture of collaboration in the village, particularly in terms of knowledge exchange and sense of belonging. Community farmer meetings serve as a regular decision-making platform and form the backbone of

Figure 35 Community members engaged in meetings.

Figure 36 Village Fest 2019, Indigenous villagers teaching participants how to play the Hakka Lukfu (Six Tigers) Card Game.

the collaborative governance of agricultural activities at LCW. The decision-making process is transparent, and authority is distributed amongst farming groups. The farming community's rules are enforced or clarified through mutual monitoring, with conflicts addressed through the meetings.

The Programme has contributed to building the capacity of village organisations and enhancing their governance structures with a learning by doing approach. Village organisations were engaged to co-organise village events, such as the three Village Fests (Village Fest 2019, Village Fest 2020-2021, Village Fest 2021-2022) with the Programme team. The tasks of community coordination, venue management, and event licensing were delegated to the village organisations. The Programme team has guided the village in the preparation of application documents, hiring people with the appropriate skills and experience , as well as event planning and project administration. On a regular basis, the Programme team has also maintained frequent communication with the village committee, offering advice on ways to improve the village committee governance structure and community management measures. Though efforts are made to improve village governance at LCW, more time is needed to observe the effects of such efforts. For the time being, community members have pointed to a lack of authority, regulations and rules as some of the key reasons for persisting conflicts regarding the management of common resources, such as the use of common space in the village.

06 CORE DIMENSION 4 PRECAUTION AND ADAPTATION

This chapter focuses on programme component [D] Academy, [D1] Design and deliver courses [E] Startup incubation, [E1] Rural Sustainability Hackathons and [E2] Rural in Action Startup Scheme.

Level Focus: Local Community / **Wider Society** / Regional or Global

Table 15 Assessment result of programme components [D] Academy and [E] Startup incubation towards sustainability (Core dimension 4).

Dimensions	Indicators	Sub-indicators	-	/	+
E. Startup incubation E.2 Rural in Action Startup Scheme	4.1 Climate change adaptation and mitigation	Actions towards climate change mitigation/adaptation and related knowledge distributed			+
	4.2 Innovative solutions	Innovative solutions trialled/ implemented			+
D. Academy D.1 Design and delivery courses	4.3 Disposition and awareness	Appreciation of personal responsibilities towards rural sustainability, including culture and heritage	-		+
E. Startup incubation E.1 Rural Sustainability Hackathons E.2 Rural in Action Startup Scheme	4.4 Sustainability literacy	Knowledge of stakeholders			+
		Competence of stakeholders	-		+

Table 16 Logic model for Programme component D - Academy.

Input	Activities	Output	Outcome	Impact
• Funding • Staff & teachers • Local expert/ advisor	• D.1 Design and deliver courses • D.2 Organise Symposiums, seminars, workshops and forums[3]	• Courses • Students • Participants	• Knowledge and skills on building sustainable communities	• Corps of change agents for sustainable communities • Enhance regional knowledge and experience

The Academy for Sustainable Communities has been offering the Certificate in Sustainable Communities programme at the QF 3 level to introduce students to the concept and practice of sustainable communities. It consists of 4 modules, namely Understanding Cultural Landscape, Introduction to Local Ecology, Sustainable Agriculture, and Community Partnerships, which can be taken as individual short courses or collectively as a programme. The programme introduces cultural landscapes, especially in Hong Kong and Asia, as important sustainability assets and provides students with basic knowledge and skills in some of the core activities of cultural landscape, including ecology and sustainable agriculture. It also provides an introduction to the theories and practices in community partnership for sustainable development in both rural and urban areas.

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[3] This will be covered towards the end of Chapter 7 regarding Core dimension 5.

Table 17 Logic model for Programme component E – Startup incubation.

Input	Activities	Output	Outcome	Impact
• Funding • Staff & speakers • Local expert/ advisor	• E.1 Rural Sustainability Hackathons • E.2 Rural in Action Startup Scheme	• Proposals • Projects funded • Participants	• Knowledge and skills • New networks and collaboration • Knowledge exchange and learning	• Increased resilience through innovative solutions trialled

Two Rural Sustainability Hackathons were arranged to offer opportunities for interested individuals to understand the needs and opportunities related to the sustainable development of rural areas, and to participate in a design-thinking process to develop startup proposals addressing such needs and tapping into identified opportunities.

The Rural in Action Startup Scheme is a separate award scheme which provides a grant to either those wishing to implement their proposals from the Hackathon or other fellows of the Sustainable Communities Fellowship Scheme, e.g. students from the Academy. Along the process, the Project Team provided support to the startup teams in terms of information, knowledge, community network, management skills and tools, professional advice and consultancy, promotion and publicity as well as other supporting services.

Figure 37 Banners for the two Sustainability Hackathon in 2019 and 2020.

Figure 38 A participant was presenting at the Sustainability Hackathon.

INDICATOR 4.1 CLIMATE CHANGE MITIGATION AND ADAPTATION

Among the courses offered by the Academy, the Introduction to Local Ecology course and Sustainable Agriculture course are particularly related to climate change mitigation and adaptation. The Introduction to Local Ecology course includes a discussion on the threats that climate change and global warming poses to biodiversity and habitat sustainability in Hong Kong, and introduces the conservation and management roles we can play. The Sustainable Agriculture course covers a discussion on how global warming and extreme weather affect food security. It also talks about agriculture's contribution to climate change and introduces a variety of sustainable local agricultural practices which can reduce carbon footprint and adapt to climate change.

A total of 10 Startup projects were incubated through the Rural in Action Startup Scheme. A variety of innovative ideas contributing to climate change mitigation and adaptation were developed.

Figures 39 & 40. Advertisement materials for the Introduction to Local Ecology course and Sustainable Agriculture course.

Carbon footprint reduction through promoting local production and consumption

Each project incorporates elements of innovation in terms of its business model, production process and/or product which helps to reduce carbon emissions. For example, Bright Bird Biodynamic CSA adopts the biodynamic technique to experiment with an alternative food production process adopting a self-sustained model which focuses on building up soil health and vitality so that the import of fertilizers for example is not necessary.

Figure 41 Bright Bird Biodynamic CSA's farm, located in Pat Heung, Yuen Long.

Figure 42 This project focuses on building up soil health and vitality.

Many other projects have also disseminated knowledge related to carbon footprint reduction through workshops offered to the public, such as educating them on sustainable farming practices and/or enhancing their cognitive ability to practice sustainable consumption. For example, A Pearl Treasure educates the public to incorporate sustainability considerations in their consumption of seafood. It offers knowledge regarding the carbon emission of different seafood species, wild caught and farmed, local and imported seafood. Participants gain an understanding on why choosing local sustainably farmed seafood can help to reduce their carbon footprint. In addition, it promotes to the public a new model of sustainable seafood farming (adopting an indoor aquaculture system on fish rafts to keep crustaceans, which can reduce the impact from typhoons and pollution, and at the same time revitalise the fish rafts) and helps them understand fishery's ecological value.

Figure 43 A Peal Treasure offers fisherfolk culture experiential activities to the public.

Figure 44 The group revitalized old and idle mariculture raft to be powered by solar energy.

Waste reduction and reuse

Food waste is one of the least recovered types of waste in Hong Kong[4], Hong Kong Food Preservatory and Upcycled Scent Project offer solutions to reduce food waste by adopting solutions to reduce waste at source and end-of-pipe. The former utilizes idle local fruits to be processed for the production of Kombucha drinks. The latter utilizes food waste to create scent products.

In terms of adapting to climate change and resilience, Cook Book in Nam Chung engaged young families to explore new climate resilient living, introducing a significantly less resource intensive way of living. Bring Back Earth Plaster Wall prototyped eco-friendly mud plastering with natural materials. They also collaborated with designers and renovation companies to trial the use of the mud plastering and shared their knowledge with interested users in the industry and the general public.

Figure 45 Upcycled Scent Project utilizes food waste to create scent products.

Figure 46 Upcycled Scent Project offers some workshops on natural incense making.

Figure 47 Hong Kong Food Preservatory uses idle local fruits for producing Kombucha drinks. (Photo by Fruitable Hong Kong)

Figure 48 Cook.Book in Nam Chung offered Agro-food experiential workshops to families.

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[4] Hong Kong has a general municipal solid waste recovery rate of 28% in 2020, which means that 72% of waste generated were disposed of at landfills in 2020. Amongst which, 3255 tonnes per day of food waste is disposed at landfill. Source: Department of Environmental Protection, Hong Kong https://www.wastereduction.gov.hk/sites/default/files/msw2020.pdf

INDICATOR 4.2 INNOVATIVE SOLUTIONS

Innovative products, new purposes

Some projects developed innovative solutions in the means of promoting alternative or new purposes to different materials or plants, thereby helping to increase the potential of meeting ours and future generations' needs with existing resources. For example, Hong Kong Fruit Preservatory identified and converted inert resources – local fruit trees – into a key ingredient for making local fruit flavoured kombucha, and Pu Giong Zii made several novel products out of Pu Giong plants which have recently been considered as a weed. Others include Bring Back Earth Plaster Wall, Hong Kong Indigo Re-cultivation, and Upcycled Scent Project.

Figure 49 Pu Giong Zii made several novel products out of Pu Giong plants.

Innovative business models

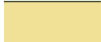Other projects have adopted innovative business models such as Au Law Organic Commons, by establishing an online sales platform for a network of farms and exploring different models of Community Supported Agriculture (e.g. recruiting community members to support delivery and logistics, group purchase). A Pearl Treasure promoted a new model of sustainable seafood farming, adopting an indoor aquaculture system on fish rafts to keep crustaceans, which can reduce the risk of impact from typhoons and pollution and at the same time revitalise the fish rafts. Through strategic collaboration and knowledge dissemination with specific stakeholder groups, the Startup groups' innovative business models have the potential to bring about systemic change to the industry. For example, Hong Kong Indigo Re-cultivation collaborated with local farmers, sharing the 6-levels production scheme to lead to new products production thus increasing income.
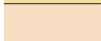

Figure 50 Au Law Organic Commons builds an online purchase and delivery platform on a website that features in selling local, fresh and organic products.

INDICATOR 4.3 DISPOSITION AND AWARENESS

Generally, a higher level of disposition can be identified from students of the Academy of Sustainable Communities ("the Academy"), though changes in attitudes, values, assumption of personal responsibility and self-efficacy varies. It appears that there is a slight decrease in the percentage of students who feel optimistic about environmental and cultural challenges in developing sustainable communities (from 56.8 to 54.3%) while those who believe that they have the power to make meaningful impact in sustainable urban and rural development has increased the most (from 66.7 to 76.5%). Table 12 below highlights the level of changes in each question for the matched survey responses[5] of all courses combined.

Table 18   A summary of changes in percentages of positive responses (% of agree + % of strongly agreement) for 'Disposition' section.

Survey questions under the category of 'Disposition'	All courses
I am optimistic about environmental and cultural challenges associated with sustainable development and developing sustainable communities	56.8 - 54.3% **-2.5%**
I believe I have the power to make meaningful impact in sustainable urban and rural development	66.7 - 76.5% **9.8%**
Sustainable urban and rural development in Hong Kong is personally relevant to me	90.2 - 96.3% **5.1%**
I am willing to consider the environmental, cultural and social impacts of my personal decisions, choices and every-day actions	93.8 – 98.7% **4.9%**

Table notation.

	Positive change >20%
	10% < Positive change ≤20%
	0 < Positive change ≤10%
	0
	-10% ≤ Positive change <0
	20% ≤Positive change < -10%
	Positive change < -20%

Interviews conducted with graduates of the Academy helps to shed some light on potential reasons behind the different changes found across the 4 aspects making up disposition. In particular, students least agree with feeling optimistic about environment and cultural challenges in developing sustainable communities both before and after studying at the Academy. In general, interviews point to a few key factors such as insufficient policy support and hardship (such as low economic return and physical labour) that deter younger people to develop socio-economic models in rural areas. While 54.3% (out of the original 56.8% - during the 'before' survey) of all students continue to feel optimistic about environment and cultural challenges in developing sustainable communities, there is a 2.5% decrease. A few interviewees expressed that a deepened understanding of the topic area and having paid more attention to contextual factors lead them to be more aware of the challenges encountered in building sustainable rural communities. For example, a student who completed the Lai Chi Wo Field Leaders Training course express that

> *For cultural heritage conservation in villages, in the shorter term, I see that there are organisations like yourself [HKU] and Conservancy Association to help. But in the longer term, it depends on the Indigenous population, having the awareness and recognition of their Hakka identity and recognising the importance of preserving their culture and traditions. However, from talking to the Indigenous villagers, many of them migrated abroad many years ago and cannot even speak Cantonese very well, let along the Hakka dialect...Especially with COVID, fewer of them have returned for the festivals, if this continues, the local culture will be lost.*

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[5] Matched responses refer to cases where the same respondent can be identified in both before and after surveys for the same course. The identifier chosen was their email addresses.

Nonetheless, for the Understanding Cultural Landscape course and the Community Partnership course, an increase was reported. Interviewees expressed that they have discovered, through the courses, many positive case studies and developed a more innovative mindset on the possibilities to contribute to rural sustainability.

A 9.8% increase in those believing that they have the power to make meaningful impact in sustainable urban and rural development is likely as students feel a greater sense of efficacy after seeing that there are more opportunities for them to contribute to the cause. Interviewees have expressed a sense of surprise to learn about the sustainability efforts that has been made locally and abroad especially in rebuilding/sustaining rural communities.

> " *I did not know about the revitalisation project at LCW before, nor was I aware of other recent efforts made to revitalise rural areas in Hong Kong. I was very shocked* to learn that there are so many urban dwellers working on rural revitalisation. This inspired me to see that there are so many possibilities in Hong Kong, we don't all have to work in an office. Seeing as how rural Hong Kong has evolved over the years, I believe we can continue to evolve.* "
> – *Graduate of Certificate in Sustainable Communities (* exact word used by interviewee, not translated)*

This helps them to come to the realisation that there is a collective effort that they can contribute to, and therefore increasing their sense of believe that they too could also have a meaningful impact. A similar feeling was shared by participants of Sustainability Hackathon 2020, where many expressed appreciation of the opportunity to not only understand the difficulties faced by local brands represented by the invited speakers, but also the successes they have had in contributing to circular economy and extended collaborations across industries to foster innovation. One of them shared that "I found out there can be different points of intervention in the same problem which challenged my previous assumption that many problems are impossible to solve".

It is noted that before undertaking respective courses at the Academy, most students already hold the views that "sustainable and rural development in Hong Kong is personally relevant to" them (90.2%) and that they are "willing to consider the environmental, cultural and social impacts of [their] personal decisions, choices and every-day actions" (93.8%). Most of the remaining ones (those who did not agree to the statements before) changed their perceptions after completing the courses (personal relevance from 90.2 to 96.3%) (consider impact of personal actions 93.8 - 98.7%). Possible reasons could be identified through interviewees who shared that completing the courses led to an increased sense of belonging to Hong Kong as a whole or to local rural communities and higher awareness of rural-related issues in their daily lives.

Figure 51 Hackathon participants learning through the design-thinking process.

Figure 52 Mr Kenny Tso, owner of New Age Organic Farm speaking at Sustainability Hackathon 2020.

Startup projects contributing towards rural revitalisation and sustainable practices in relevant industries

A sense of responsibility to contribute towards urban-rural interaction and rural revitalisation can be demonstrated by a number of startup projects. Project proponents of Au Law Organic Commons, Bring Back Earth Plaster Wall and Fruitable Hong Kong have all explained that part of the objectives of their project includes rural revitalisation and raising awareness of values of resources embedded in rural villages.

In their own ways, different projects also aimed to transform existing industry norms through adopting some form of innovation in their projects. For example, Hong Kong Indigo-Re-cultivation project hopes to set a precedent for the agricultural industry of combining tertiary production in the process of cultivating indigo plants. Meanwhile, Au Law Organic Commons had the ambition that the new business model of a shared platform with nearby farms could help to bring about revitalisation/enhancement to agricultural development by inspiring other villages/farm cluster to try something similar.

Startup projects based on and enhancing rural/Hakka culture, heritage, tradition and history

Elements of local culture, traditional knowledge and practices were incorporated into a number of the projected funded, such as Cook Book in Nam Chung. Through sharing traditional practices in Nam Chung, their activities were designed to explain to participants how traditional farming practices adapted to the environment to ensure sustainable use of resources, paying attention to the climate and feng shui (in the context of agriculture, often refers to biodynamics and landscape ecology principles). Fruitable Hong Kong is built upon their appreciation of the local fruit culture where part of its aim is to study, document and conserve local species and varieties of local fruits. Pu Giong Zii was founded upon the project proponents' observation and in-depth communication with villagers on the traditional Hakka people way of life. From Indigenous villagers, they learnt that Pu Giong not only represented the perseverance of Hakka, their culture and treasured wisdom but was also considered as a valuable herbal medicine in the past. This inspired them to turn this plant, which has recently been considered as a weed, into new skincare products. Their aims also include reinforcing villagers' sense of identity and promoting cultural and environmental consciousness and rural sustainability to the public.
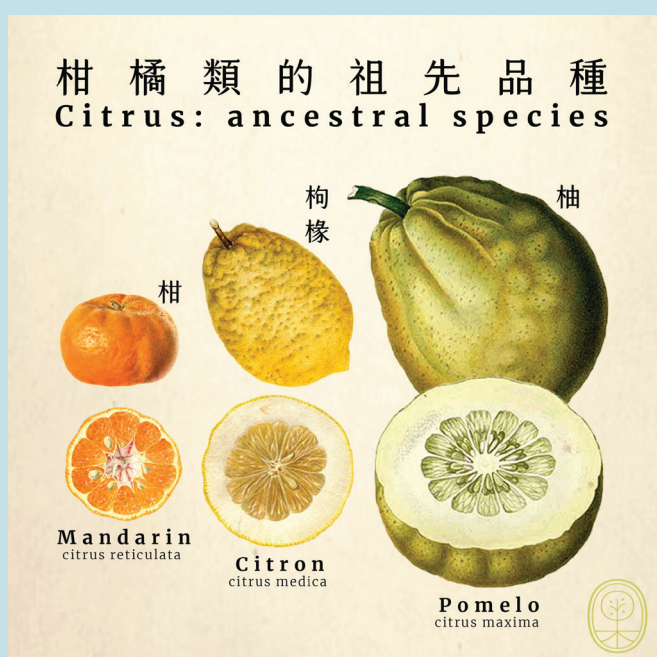

Figure 53 Documentation of varieties of local fruits. (Photo by Fruitable Hong Kong)

Figure 54 Skincare products made with Pu Giong. (Photo by Pu Giong Zii)

INDICATOR 4.4 SUSTAINABILITY LITERACY

Knowledge of stakeholders

Positive changes can be identified amongst students after completing the courses across the knowledge perspective. Most students enrolling in the courses, as expected, are already conscious of environmental issues and challenges faced by urban and rural communities. Nonetheless, there was still a 6.2% increase after the courses, bringing the total percentage up to 97.6% amongst all graduates. The most significant changes between the before and after surveys across all aspects could be seen in awareness of local and international real-life solutions and best practice cases in developing a sustainable community and being equipped with theoretical foundations and up-to-date practical skills in the field of sustainable urban and rural development. This provides evidence for effective delivery of the course especially regarding the theory, case studies and skills.

Table 19 A summary of changes in percentages of positive responses (% of agree + % of strongly agreement) for 'Knowledge' section.

Survey questions under the category of 'knowledge'	All courses n = 81
I am conscious of the environmental issues and challenges faced by urban and rural communities	91.4 - 97.6% **6.2%**
I am aware of local and international real-life solutions and best practice cases in developing a sustainable community	44.4 - 83.9% **39.5%**
I am equipped with theoretical foundations and up-to-date practical skills in the field of sustainable urban and rural development	29.6 - 72.8% **43.2%**

Startup project groups have learnt from local experiences, or traditional/cultural practices, or industry practices as well as overseas experiences and adopted selected elements into their projects. For example, Au Law Organic Commons, Bring Back Earth Plaster Wall, Bright Bird Biodynamic CSA have learnt from overseas knowledge. While incorporating different sources of knowledge and experience, they simultaneously developed new knowledge that is locally relevant. For example, Hong Kong Indigo-Re-cultivation project is derived from the history of

Hong Kong's manufacturing industry and personal observations that combine manufacturing with tertiary industry elements to support the revival of the industry. They developed theoretical knowledge and practical skills on local planting and production by communication with local farmers during the project. Proponents of A Pearl Treasure have experience in modernised fishery cultivation and found that such modernization could be applied to the local fishery cultivation sites.

Competence of stakeholders

The changes observed across the competence aspects was varied. There was a significant increase in the percentage of students feeling that they have an ability to use evidence to critically discuss and review local and international environmental, cultural and social issues faced by urban and rural communities after completing the courses. This again suggests teaching and learning effectiveness as it is aligned with most courses' learning outcomes. Students feeling confident with their ability to critically discuss and review issues in the future is an important basis for enabling them to take actions to contribute to sustainable urban and rural communities. Their ability to critically assess related issues can be considered as a prerequisite for other aspects of competencies, e.g. planning and carrying out core activities to develop a sustainable community.

Generally, there is an increase in those who intend to demonstrate positive environmental and social behavior and alert others on issues associated with sustainable community management. Several graduates shared in their interviews that the courses offered them a lot of new perspectives and concepts to understand issues from different angles which enable them to think of potential influences of a range of behaviours.

The percentage of graduates stating that they will plan and carry out core activities involved in developing a sustainable community has decreased slightly by 1.2%. It is noted that 82.7% of the students already agree with this statement in the before survey, and most of their responses remain unchanged afterwards. Interviewees expressed that they would apply concepts and knowledge learnt from the Academy to their own work and continue to participate in occasional volunteer work organised by different organisations (rather than organising such activities themselves). Some felt that they lack the experience and practice to carry out core activities in rural areas. The percentage of graduates stating that they will plan and carry out core activities involved in developing a sustainable community has decreased slightly by 1.2%. It is noted that 82.7% of the students already agree with this statement in the before survey, and most of their responses remain unchanged afterwards. Interviewees expressed that they would apply concepts and knowledge learnt from the Academy to their own work and continue to participate in occasional volunteer work organised by different organisations (rather than organising such activities themselves). Some felt that they lack the experience and practice to carry out core activities in rural areas.

Table 20 A summary of changes in percentages of positive responses (% of agree + % of strongly agreement) for 'Competencies' section.

Survey questions under the category of 'competencies'	All courses n = 81
I am able to use evidence to critically discuss and review local and international environmental, cultural and social issues faced by urban and rural communities	48.1 - 81.4% **33.3%**
I intend to demonstrate positive environmental and social behavior and alert others on issues associated with sustainable community management	90.1 - 93.9% **3.8%**
I will plan and carry out core activities involved in developing a sustainable community	82.7 - 81.5% **- 1.2%**

Figure 55 A field trip to local farms.

Figure 56 A field trip to Mai Po Nature Reserve.

Participants of the two Hackathons have expressed that through the process they have gained the ability to evaluate problems faced and propose various solutions by design thinking logic, and that they can see opportunities to apply newly acquired skills and knowledge from the hackathons to their own work or other commitments related to rural sustainability and urban-rural interaction.

Two students of the Sustainable Agriculture course first developed a project funded by the project's Co-creation scheme – the Common Map, then enrolled in the Sustainability Hackathon 2020 and developed their idea into Fruitable Hong Kong. When interviewed, they shared that although the course they took in the Academy did not give them the 'hard knowledge' (e.g. in beekeeping, as one of them was developing a beekeeping farm as a part of their work), they felt that the courses provided "awareness, framework and basic concepts, and got us motivated in self-learning" and "the basic concepts which enhanced the ability to verify my ideas".

Startup project teams demonstrated their competencies in different the ways in which they further developed their proposal ideas and evolved as challenges and opportunities are encountered. For example, Pu Giong Zii learnt the importance of the growing cycle of Pu Giong and establish their production cycles to match it. They also became aware of needing to respect that the plant is a part of the rural village's intangible property, and they would not only communicate openly with the village head and villagers, but also volunteer in village activities and give credit to the village in their products. All of the Startup project teams have also demonstrated different capacities in educating the public on specific aspects of sustainable living practices and rural village-related knowledge and values through workshops, tours and other educational and promotional activities.
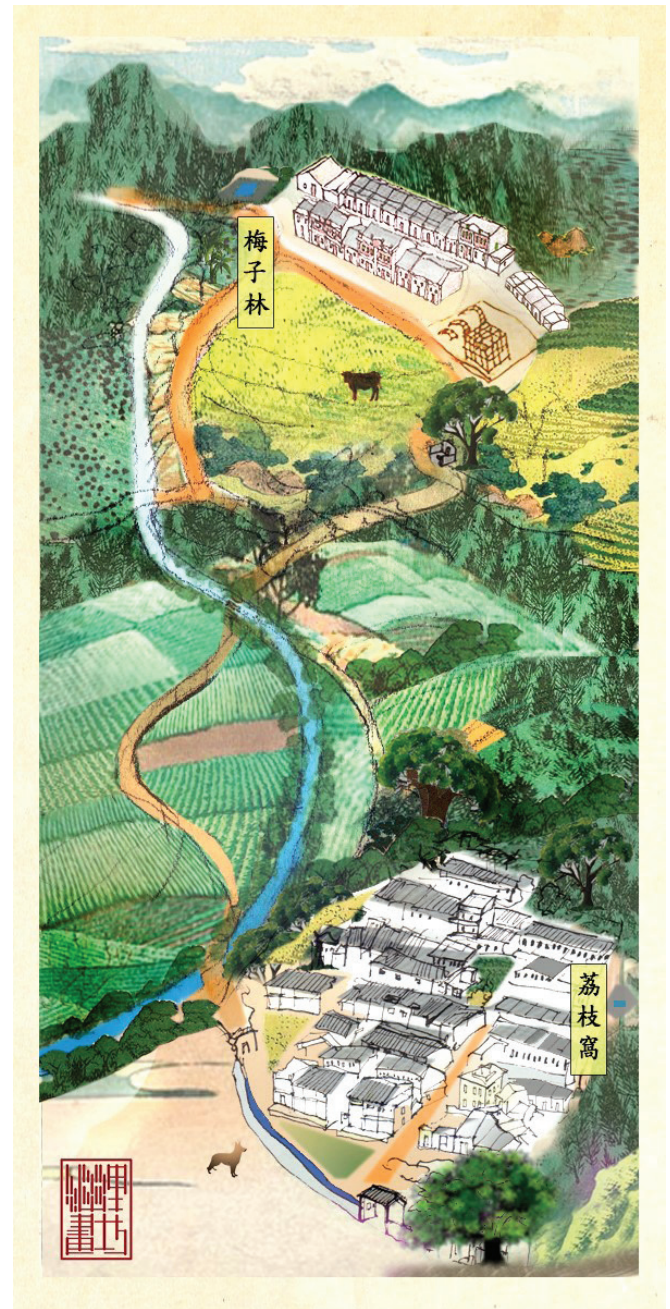

Figure 57 A painting of Lai Chi Wo and Mui Tsz Lam created by The Common Map. (Photo by The Common Map)

07 CORE DIMENSION 5 CROSS-SPATIAL INTEGRATION

This chapter focuses on programme component [F] Co-creation, [F1] Funding scheme and [F2] Festivals, as well as programme component [D2] Symposiums, seminars, workshops and forums under [D] Academy.

Level Focus: Local Community / **Wider Society** / **Regional or Global**

Table 21 Assessment result of programme components [F] Co-creation and [D2] Symposiums, seminars, workshops and forums' contribution to sustainability (core dimension 5).

Prorgamme	Indicators Indicators	Sub-indicators	-	/	+
D. Academy D.2 Symposiums, seminars, workshops and forums F. Co-creation F.1 Funding scheme/ projects F.2 Festival	5.1 Development in specific industries	New trends and development in the industries of Art and Culture, Agriculture, Tourism			+
	5.2 Horizontal coordination	Coordination amongst parties of collaboration, across sectors or geographical dimension			+
	5.3 Vertical coordination among levels	Connections with different levels of government (to be discussed in Chapter 8)			+
	5.4 Connectivity to regional and international developments	International documentation (including academic publications) and awards (will be further discussed in Chapter 8)			+

Table 22 Logic model for programme component F – Co-creation.

Input	Activities	Output	Outcome	Impact
• Funding • Staff & teachers • Local expert/ advisor	• F.1 Funding scheme/projects • F.2 Festival	• Funded projects • Participants	• Skills and knowledge	• Incubate communities of interest • Rural capitals and assets enhanced/ reinvented • Foster urban-rural interaction

INDICATOR 5.1 DEVELOPMENT IN SPECIFIC INDUSTRIES

The Co-creation scheme supported projects have introduced new ideas into the industries of art and culture, agriculture, local tourism and well-being. They have received a high level of acceptance from local communities and helped to attract new visitors to the villages they are based at. The projects have stimulated cross-sector collaboration and inter-villages and rural-urban exchanges. In particular, On Earth, the Common Map and the Homey Mui Tsz Lam Project have successfully sought additional funding from various sources to scale up their projects. The project proponent of Nature, Human and Earth later collaborated with the project team to apply for funding from the Countryside Conservation Office.

The projects supported by the Co-creation funding scheme have demonstrated new ways of incorporating art and culture elements from rural villages into their respective industries and integrated elements of art into rural villages. Homey Mui Tsz Lam project combined traditional Hakka elements and art features with practical needs of the village (e.g. using bamboo from Mui Tsz Lam to make seating mats). Nature, Human and Earth collaborated with artists to create murals on abandoned walls in Mui Tsz Lam, which is a practice that becomes more popular in other rural villages later on. On Earth gains reputation and recognition in the industry receiving invitations to participate in exhibitions to demonstrate their work. Star Countryside Singing Tour experimented with offering music therapy to people with autism in the natural environment.

Figure 58 The co-creation project's exhibition in the On Earth Festival 2019. (Photo by On Earth Ceramics Festival – JCCAC Festival 2019)

Figure 59 An art piece featuring traditional Hakka elements. (Photo by On Earth Ceramics Festival – JCCAC Festival 2019)

Figure 60 Susan Wong, a LCW Indigenous villager was visiting the exhibition. (Photo by On Earth Ceramics Festival – JCCAC Festival 2019)

UABB2022   10.09 → 26.11.2022

A LOCAL BAMBOO EXPERIMENT   EXHIBIT
本地竹實驗   參展作品

集 籽 種 城   SEEDS OF RESILIENCE   RE(DIS)COVERING THE CITY

Figure 61   The 17th Venice Biennale International Architecture Exhibition (VB2020) Hong Kong Exhibition. (Photo by Hong Kong Biennale of Urbanism / Architecture 2022)

Figure 62   An installation of "A Local Bamboo Experiment". (Photo by The Common Map)

New perspectives towards local produce are promoted as the projects help to raise awareness of Hakka wisdom associated with the use of specific produce into special products or recipes. Murmur of the Brick implicitly incorporates the idea of food therapy and promoted the habit of consuming local produce. The Common Map has raised awareness of local produce's product history and increased transparency towards secondary manufacturing processes for the consumers, they have also helped to make use of villagers' stories towards the branding of Lai Chi Wo produce and products. In the second phase of their project, Homey Mui Tsz Lam, the Common Map promoted a new model for growing bamboo and promoted the use of bamboo which was continued as an exhibit "A Local Bamboo Experiment" for the 2022 HK SZ Bi-City Biennale of Urbanism\ Architecture (Hong Kong) (UABB2022).

Figure 63   The Common Map promoted a new model for growing bamboo and promoted the use of bamboo. (Photo by The Common Map)

Two projects in particular, Nature, Human and Earth and Xiu Jing Experience@Lai Chi Wo, have developed a niche in local models of tourism adapted to the features of rural villages. The former has offered experiential travel and ecocultural activities, for example, in the form of night tours near villages to observe different species while ensuring minimal disturbance to wildlife. The latter combines mindfulness workshops with traditional Hakka elements and the countryside environment as a unique experience for urban dwellers.

INDICATOR 5.2 HORIZONTAL COORDINATION

Coordination amongst parties of collaboration can be found across many projects where mutual exchanges between villagers and project team on knowledge and skills was often a prerequisite for the design and operation of the projects. Through the theme of each project, for example, Star Countryside Singing Tour connected villagers, project team, families with people with autism and therapists through the provision of musical therapy for people with special needs.

Village Festivals have been organised annually to connect different parties, especially the urban and rural communities. The Village Festivals are made up of interactive workshops created by the Co-creation and Start-up projects offering urban dwellers diversified experience of a variety of resources embedded in rural areas, such as Hakka traditions, historical and modern agricultural practices, biodiversity and other tangible and intangible cultural heritage. Through these workshops and activities, participants develop an appreciation of the role and significance of rural villages and rural communities to the wider society. (Appendix 3)

Figure 64 Kop Tong. (Photo by Association for Sha Tau Kok Culture and Ecology)

Figure 65 Nature, Human and Earth focused on Mui Tsz Lam. (Photo by Association for Sha Tau Kok Culture and Ecology)

Figure 66 Night tours offered by Nature, Human and Earth. (Photo by Association for Sha Tau Kok Culture and Ecology)
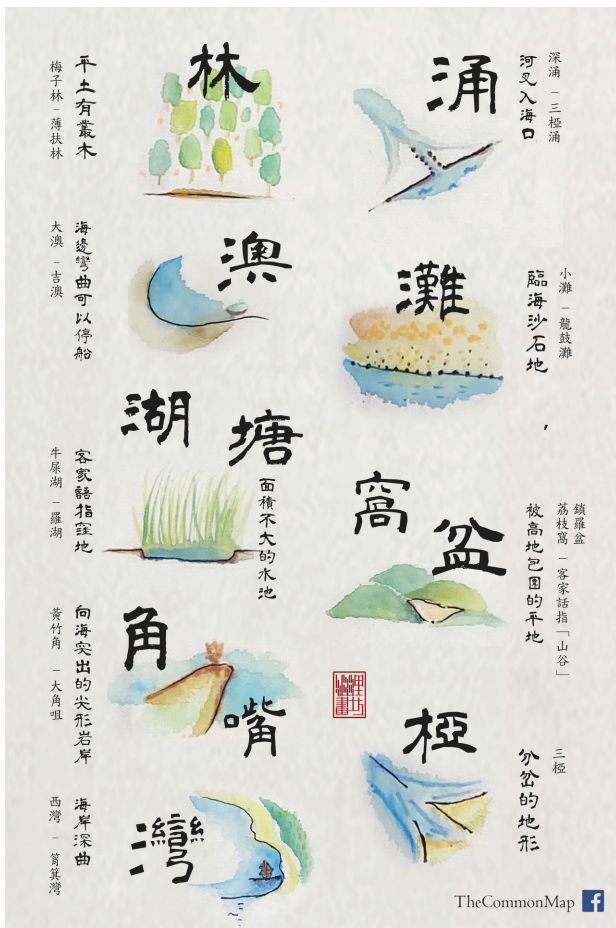
Figure 67 Introduction of different geographic terms in Chinese by The Common Map. (Photo by The Common Map)

Figure 68 Traditional usage of native plants documented by The Common Map. (Photo by The Common Map)

Figure 69 Village Festival 2019.

Figure 70 Murmur of the Brick offered workshops on Hakka hand-woven ribbon belts.

Figure 71 Some Hakka hand-woven ribbon belts displayed during Village Festival 2019.

Figure 72 The group also offered workshops on adobe brick making. (Photo by Art for All- Murmur of the Brick – Rurally Engaged Art)

Other than collaboration across different sectors and stakeholder groups, some of the projects have also brought about further collaboration with nearby or other rural villages in Hong Kong. The Common Map extended the story collection process to nearby villages, where people from different rural villages may be able to learn about each other's stories on ecology, species and even culture, hence fostering knowledge/ cultural exchange and providing basis for potential further collaboration. Murmur of the Brick fostered cultural exchange between different Hakka villages in a Lai Chi Wo village festival by inviting villagers from other Hakka villages to share their own traditions.

A discussion forum was organised by inviting representatives of the co-creation and start-up projects to share their experience in urban-rural integration. The themes that were discussed include utilising the rural environment, working with the rural communities, regenerating the rural economy, and story-telling for rural sustainability.

Figure 73 A discussion forum about urban-rural integration.

INDICATOR 5.4 CONNECTIVITY TO REGIONAL AND INTERNATIONAL DEVELOPMENTS

Two of the Co-creation projects have also gained recognition on international platforms, where On Earth was invited to showcase their work at the Venice Biennale 2020, and The Common Map initiated an idea which received the Gear Up Prize at the UNESCO TechCul competition. The prize includes support to further develop and implement their idea.

Amongst the many discussion forums and seminars organised by the project targeting practitioners and academics, some were created as venues for cross-jurisdictional exchanges and learning. For example, the "Urban-Rural Dialogue on Community Revitalization" held in 2018 featured 4 speakers from Hong Kong and Taiwan to share their insights concerning community revitalisation, urban-rural connection, and sustainable development of urban and rural communities. In 2021, a discussion forum titled "Different Paths to Sustainability: A Roundtable of UNESCO Award-winning Heritage Projects from Hong Kong" invited local projects awarded with the UNESCO Asia-Pacific Awards for Cultural Heritage Conservation to share their contributions towards building a sustainable community since receiving the award. The UNESCO Chair on Architectural Heritage Conservation and Management in Asia was also invited to give the opening speech.

In the "International Association for the Study of the Commons 2021 Urban Commons Virtual Conference" that brought together urban commons scholars and practitioners from different parts of the world, our Centre convened the session on the theme of "Commoning in the Rural-urban Interface". This project was presented as one of the cases during the session, contributing to discussions on the ways in which the commoning approach can help manage and revitalise rural resources as well as the opportunities and challenges for practicing commoning in the rural-urban interface.

Strengthening urban-rural linkages is now on the international and regional agenda. Our project experience in this aspect has also been shared with relevant rural conservation practitioners in the Asia Pacific region through online talks delivered for the Asia Pacific Geoparks Network, Hong Kong Institute of Architectural Conservationists, International Information and Networking Centre for Intangible Cultural Heritage in the Asia-Pacific Region under the auspices of UNESCO, etc.

Figure 74 A discussion forum titled "Urban-Rural Dialogue on Community Revitalization" was held in 2018.

Figure 75 A discussion forum titled "Different Paths to Sustainability: A Roundtable of UNESCO Award-winning Heritage Projects from Hong Kong" was held in 2021.

08 INTEGRATED ACROSS PROGRAMME

As explained in section 2.2, each programme component is matched with a Core dimension and are discussed in chapters 3 to 7. However, the matching could only be done as far as possible. The Programme's impact in relation to a few indicators is best attributed to the Programme as a whole or the report would not do justice by the Programme. For this reason, the below indicators have not been (fully) addressed in the corresponding chapter of the core dimension they belong to and are addressed separately in this chapter.

INDICATOR 2.3 GENDER EQUALITY

In the latest Village Representative election held in 2023, an active Programme participant has been made the new village representative, and the first female one, of Lai Chi Wo. She is an indigenous villager and returned to the village initially on a short-term basis to look after her parents in Hong Kong. She was engaged in the various initiatives of the Programme and has subsequently decided to stay in the village for good. Through our community farms programme, she connected with some new settlers and jointly established a rural farm start-up and has become a rural entrepreneur. Although the Programme did not tailor for her an empowerment programme, the long-term, continuous communication and engagement under the Programme has no doubt mobilised and facilitated her with new knowledge and skills, as well as networks and exposure which has enabled her to take on a leadership role for the village development.

Figure 76 A cooking workshop with the Consul General of Finland in HK.

Figure 77 Indigenous villager conducting exchanges with the Consul General of Finland in HK.

INDICATOR 2.4 ACCESS TO BASIC RESOURCES AND ESSENTIAL SERVICES & INDICATOR 5.3 VERTICAL COORDINATION

Building upon earlier efforts since the "Sustainable Lai Chi Wo: Living Water & Community Revitalization - An Agricultural-led Action, Engagement and Incubation Programme at Lai Chi Wo", the HSBC Rural Revitalisation Programme continues to enhance not only the vitality of Lai Chi Wo by attracting more interests to the village, but also wider interests in rural revitalisation. As such, there has been increased government attention to the provision of rural infrastructure and public services, in addition to increased recognition and support for different stakeholders working to contribute to rural sustainabiilty.

The Lai Chi Wo-Ma Liu Shui kaito (ferry) service which commenced in 2016 increased its service to include Saturdays. The Sha Tau Kok Public Pier has been opened to local tours during weekends and public holidays since 2022, enabling tourists to take ferries from the pier to Lai Chi Wo and some other remote villages nearby. Trial kaito (ferry) service connecting Sam Mun Tasi and Lai Chi Wo also commenced in 2022. The improved accessibility has facilitated the development of economic vibrancy in the Sha Tau Kok area. Apart from providing more ferry services, the government has decided to improve the old public piers in remote rural areas in phases to facilitate rural-urban interactions. The Lai Chi Wo pier is prioritised as one of the piers under the first phase and improvement works will commence in 2023. With more and more people visiting and working in Lai Chi Wo, mobile public toilets have been added and the government is now preparing to introduce high-tech eco-smart public toilet to the village.

The Programme's efforts have been recognised in a number of policy and strategic documents of the government. In the 2017 policy address, the Chief Executive recognised the Lai Chi Wo experience as an exemplary rural revitalisation model and announced that a Countryside Conservation Office (CCO) would be established with HKD 1 billion budget for co-ordinating cross-departmental efforts in rural conservation and revitalisation. Until now, CCO's Countryside Conservation Funding Scheme (CCFS) has approved 33 rural projects initiated by various organisations, benefiting Lai Chi Wo, its neighbouring villages in the Sha Tau Kok area, as well as other rural areas in Hong Kong.

The Lai Chi Wo revitalisation model has also been cited in Hong Long's long-term planning strategy HK2030+ and its Biodiversity Strategy and Action Plan as an effective approach to sustainability attainment. Recently, the Northern Metropolis Development Strategy Report 2021 cited Lai Chi Wo's revitalisation and stated that studies should be conducted on further opening up Sha Tau Kok Town and providing legislative and policy support to pave the way for creating the Mirs Bay/Yan Chau Tong Eco-recreation/tourism Circle.

As the Programme team has been working on revitalising LCW since 2013 and advocating a collaborative approach to rural revitalisation in the wider society, they are often approached by different actors including governmental actors to share their experience and views. For example, they were invited to give knowledge sharing sessions and technical tours to the Sustainable Lantau Office and the Countryside Conservation Office (CCO). A good rapport has been established with CCO, maintaining frequent informal/semi-formal knowledge exchange and sharing of our experience. While different non-profit organisations were developing their project proposals for the Countryside Conservation Funding Scheme, especially those involving work on the LCW, Mui Tsz Lam and Kop Tong villages, they would reach out to the Programme team to discuss possible synergies.

INDICATOR 5.4 CONNECTIVITY TO REGIONAL AND INTERNATIONAL DEVELOPMENTS

Beyond the local context, the Programme has also received much recognition at the international level. It has built an innovative rural sustainability model that sets a benchmark for the Asia-Pacific region and beyond. CCSG was admitted as a member of the International Partnership for the Satoyama Initiative (IPSI). The Lai Chi Wo story has also been showcased on the IPSI newsletter and case study webpage. Based on the Project's experience, CCSG submitted its vision for HK's food system in 2050 to The Rockefeller Foundation's Food System Vision Prize and was selected as a semi-finalist. The revitalised Indigenous Hakka community of Lai Chi Wo was selected as a finalist of the UNDP Equator Prize 2019. The Equator Initiative has featured the Project's nature-based solutions on its website, recognising that it has addressed nine UNSDGs. The Project won the inaugural Special Recognition for Sustainable Development in the 2020 UNESCO Asia-Pacific Awards for Cultural Heritage Conservation and the UN-Habitat's 2021 Asian Townscape Award.

Stories of the Programme and the LCW community have also been reported by national and international media. For example, in 2020, the Programme has been introduced in BBC's travel article "The Tiny Forests Designed by Feng Shui". In 2022, BBC Chinese News published an article on the story of how the Lai Chi Wo villagers who emigrated to the UK have returned to conserve the traditional Hong Kong culture in cooperation with new settlers in the village.

The revitalization process of Lai Chi Wo, supported by the Programme, has provided a critical case for academic research. The Centre has analysed this case study for the purpose of making contributions to conceptual development in the areas of rural resilience, Advocacy Coalition Framework and the policy broker, robustness and collaborative dynamics, and commoning. The research findings have been compiled into a number of publications and manuscripts (listed below) and have been shared at multiple conferences, including the 2018 Conference on 'Rethinking Cross-sector Social Innovation' at the Social Innovation and Change Initiative at Harvard Kennedy School, the 2018 ARNOVA-Asia Conference on 'Evolving Government-Third Sector Relations in Asia' at the University of Hong Kong, the 'International Association for the Study of the Commons 2021 Urban Commons Virtual Conference', and the Rural Sustainability Programme – APAC Initiative for Regional Impact's 'Regional Roundtable on Rural Sustainability – Critical Issues in Asia' in 2022.

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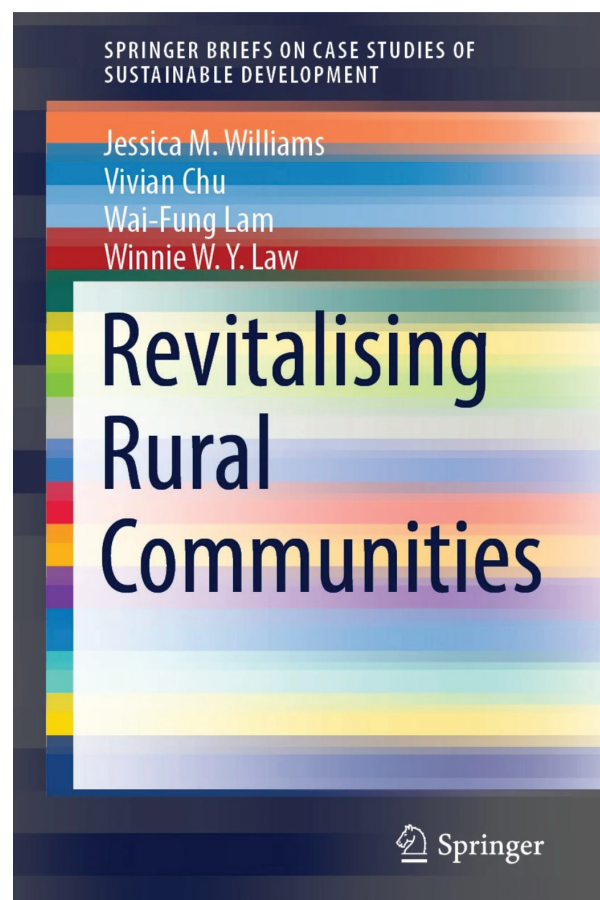

Figure 78 "Revitalising Rural Communities, SpringerBriefs on Case Studies of Sustainable Development".
https://link.springer.com/book/10.1007/978-981-16-5824-2

09 CONCLUSION/ LOOKING AHEAD

Scaling up the efforts made by "Sustainable Lai Chi Wo: Living Water & Community Revitalization - An Agricultural-led Action, Engagement and Incubation Programme at Lai Chi Wo" (the previous phase of this Programme which took place in 2013-2017), the HSBC Rural Sustainability Programme extends the scale of its impact by designing revitalisation actions beyond Lai Chi Wo. The subsequent phase paves the way for systemic socio-economic changes in rural community development and urban-rural relationships. It has built a diverse and extended network of stakeholders with a shared interest towards maintaining and enhancing different resources embedded in the rural villages.

Over almost a decade, much knowledge, experience and lessons have been accumulated and shared with the society, inspiring further waves of stakeholders (such as those from other villages, Universities, art and culture communities) to replicate, modify and build upon earlier achievements. As this Programme concludes, the Centre continues to be driven by the goal of long-lasting rural sustainability in Hong Kong and the Asia-Pacific. Actions are taken, such as those listed below, to sustain and augment the momentum that has been created for rural revitalisation and sustainability in the region.

Building the local talent pool for sustainable communities

The Academy for Sustainable Communities will continue to develop its curriculum, identifying gaps in knowledge amongst courses available in the market to facilitate more diverse solutions and contributions to be made to the building of sustainable communities.

A recent development in the Academy's Curriculum took place in 2021, when it began offering the Certificate in Sustainable Coffee Value Chain, which covers an introduction to coffee, coffee cultivation, harvesting and processing, as well as the coffee value chain. Integrating the concepts of sustainable value chains and hands-on practice at local coffee farms, the programme advocated the building of a sustainable coffee production, consumption and recycling network in Hong Kong.

Figure 79 Students were learning about coffee cultivation.

Figure 80 Students were learning to sort the coffee fruits after harvesting.

Scaling up rural revitalisation efforts through recreating a village cluster

Throughout the implementation of the Rural Sustainability Programme, our team has been building connections and collaborations with other villages, especially those in close proximity to Lai Chi Wo. This inspired the idea of (re)creating a village cluster. The purpose is to expand and draw upon shared tangible and intangible infrastructure and resources, thereby supporting a wider range of rural-based sustainable livelihoods and functions to the wider society.

With this goal in mind, the Centre launched a 3-year project titled "Sustainable Villages for All - Community-based Conservation Management of Forest Village Ecosystem in Mui Tsz Lam and Kop Tong" programme ("Forest Village" Programme) in 2021 to promote sustainable development of forest villages through nature conservation, cultural conservation, and community engagement. Revitalisation efforts which began in Lai Chi Wo could then be further extended to Mui Tsz Lam (some start-up and co-creation projects funding by the HSBC Rural Revitalisation Programme had also been situated in/featured Mui Tsz Lam) and Kop Tong which are within 30 minutes of walking distance from Lai Chi Wo.

The Forest Village Programme and the HSBC Rural Revitalisation Programme are similar in the aspects where CCSG acts as an initiator of the Programmes and work closely with villagers of Mui Tsz Lam and Kop Tong in planning the conservation management of the lands to foster a sense of community stewardship of the village environment. However, the new programme takes a slightly different approach to the HSBC Rural Revitalisation Programme where our team now acts more as a coordinator, working much more closely with NGOs in designing and delivering education and engagement programmes. The Association for Sha Tau Kok Culture and Ecology (ASTKCE) is the main co-organiser for capacity building activities for local communities and managing daily on-site operations. It also helps implement volunteering and education programmes for interested individuals. To promote public education and community engagement, a local environmental education charity, a painter and writer, as well as a tree lover society are also engaged as education and event partners.

Through the implementation of activities in the areas of habitat and biodiversity management, place-making and identity building, and tourism and education innovation, the Forest Village Programme designs, prototype, test and implement various conservation, education strategies and socio-economic models. The overall vision is that each neighbouring village will develop the strategies and models that are most suitable to their assets and needs, highlighting each of their unique characteristics. As such, they would be able to, one day, complement and support each other, forming a vibrant hub of socio-economic activity, environmental and cultural assets for future generations.

Figure 81 Volunteers recruited under the Forest Village Programme were learning to repair the hiking trails. (Photo by Association for Sha Tau Kok Culture and Ecology)

Figure 82 A mural at Kop Tong, presenting the story and rural characteristics of the village.

Developing an Asia Pacific knowledge base on rural sustainability

While the LCW experience allows us to share substantial experiences and lessons learnt, the purpose is not to facilitate any attempt to precisely replicate this revitalisation model, or any such model, regardless of how many awards it has received. The local context and unique cultural and societal characteristics must always be considered as key ingredients for developing and determining, likely through experimentation, the appropriate scale and approach of a revitalisation programme for any community. Nonetheless, by accumulating knowledge and experience from a multitude of case studies, collaborative research, collective actions at the regional scale can be facilitated to foster more innovative and effective solutions to rural/urban sustainability challenges.

With the support of the Hongkong Bank Foundation, Rural Sustainability Programme APAC Initiative for Regional Impact ("AIRI") has founded a regional consortium of action-research institutions in rural-urban sustainability with Tsinghua University, National Chengchi University, and Asian Institute of Technology for intellectual exchange through regional roundtable and forums. We are conducting collaborative research on the rural sustainability efforts in Hong Kong, Mainland China, Taiwan, and Thailand. Findings of the studies will contribute to a better understanding of the diverse pathways to rural sustainability in Asia-Pacific and coalesce into an Asia-Pacific model of rural sustainability.

This Programme has also launched the AIRI Urban-Rural Sustainability Fellowship 2022-23 to incubate a regional talent pool. The Fellowship offers a series of online and experiential training sessions to empower and connect over 90 Fellows and Associate Fellows recruited from Hong Kong, Mainland China, Taiwan, and Thailand. Training contents are jointly designed and delivered by the four universities to offer a wider perspective and deeper understanding on rural sustainability and community development. After the learning phase, the Fellows will have the opportunity to join a regional competition where winners will receive a seed grant of up to US$25,000 to implement their innovative rural sustainability proposals.

Through working with action-research institutions in the consortium and empowering outstanding practitioners in the region, AIRI contributes not only towards rural sustainability but also strengthening global partnerships for sustainable development (UNSDG 17).

Figure 83 The Poster of the AIRI Urban-Rural Sustainability Fellowship 2022-23.

Figure 84 The AIRI Urban-Rural Sustainability Fellowship 2022-23 offered multiple field trips to the participants.

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The vegetation survey recorded by planting nature and habitat type between the two reports could not be compared as there was an additional surveying plot added to the second survey (the section along the path from Pier to village plaza). However, it can be noted that the majority of the vegetation are naturally grown in both phases (Figure 1), and the highest plant diversity was found in farmlands (Figure 2) due to the diverse crops planted, and the various micro-habitats created, allowing wild plants to flourish (Management Agreement Scheme at Lai Chi Wo Enclave 2019-2021).
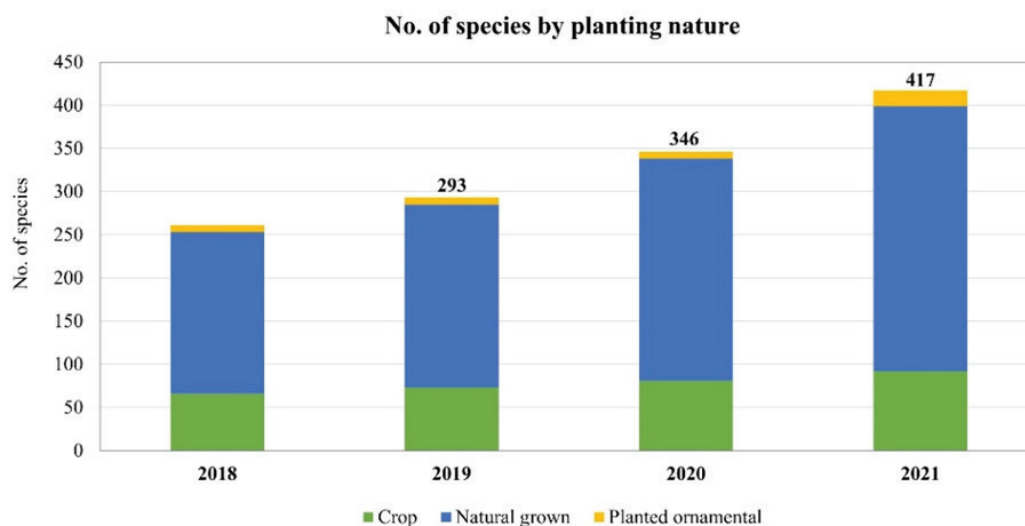
Figure 1 The No. of vegetation species recorded by planting nature
Source of data: Hong Kong Countryside Foundation, Management Agreement Scheme at Lai Chi Wo Enclave 2017-2019 report and Management Agreement Scheme at Lai Chi Wo Enclave 2019 - 2021
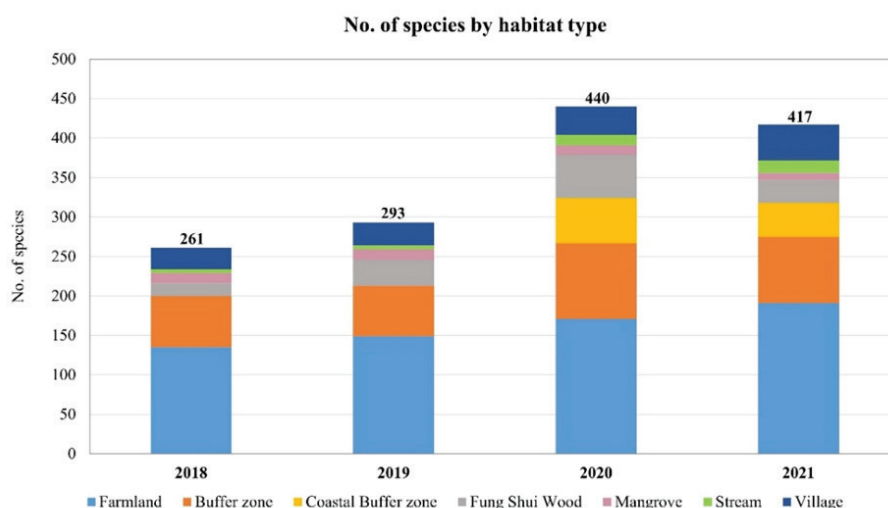
Figure 2. The No. of vegetation species recorded by habitat type.
Source of data: Hong Kong Countryside Foundation, Management Agreement Scheme at Lai Chi Wo Enclave 2017-2019 report and Management Agreement Scheme at Lai Chi Wo Enclave 2019 – 2021

The Wildlife Monitoring Programme from Management Agreement Scheme at Lai Chi Wo Enclave 2019-2021 also found that, compared with the previous phase, there were 10 new species of butterflies and 4 new species of odonates recorded at LCW.
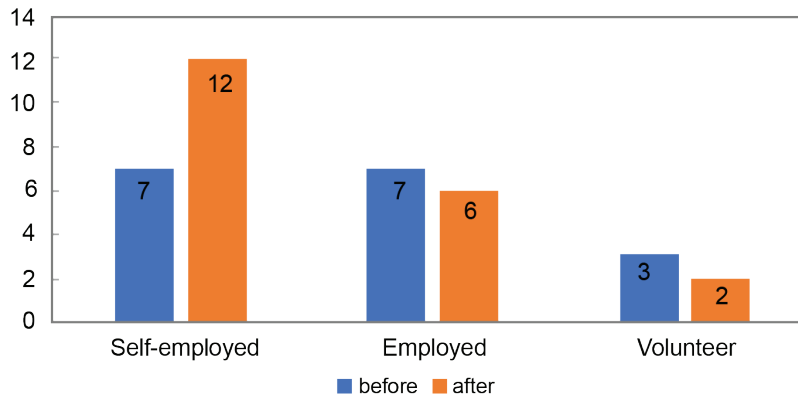
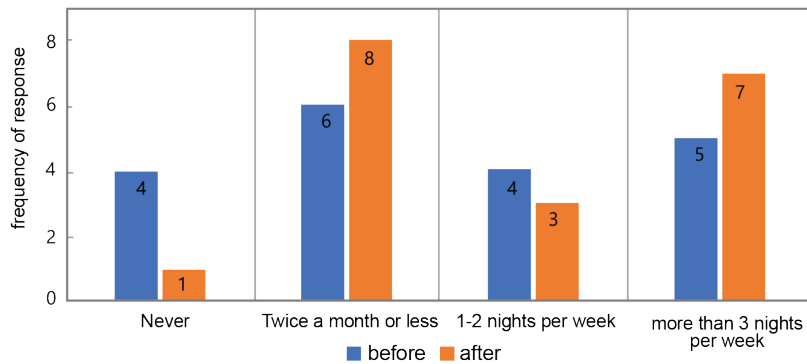The below charts provide further information collected from the community member survey.

Question: Your capacity in Lai Chi Wo is...
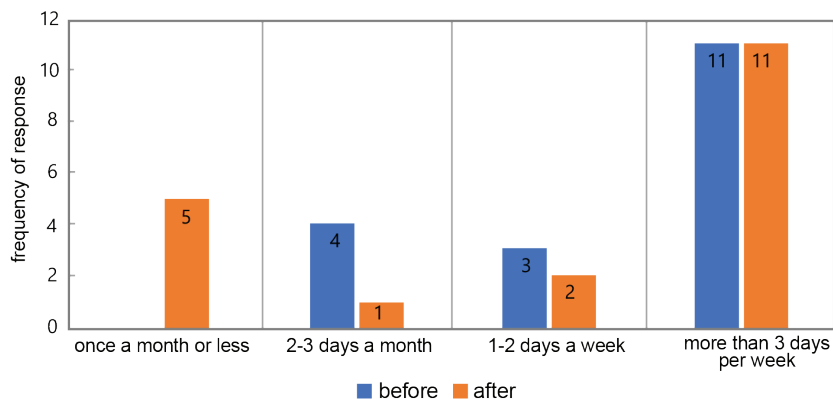
Q17 你在荔枝窩的身份是 Your capacity in Lai Chi Wo is

Question: How frequently do you stay overnight in Lai Chi Wo?

Q25 你有多常留在荔枝窩中居住？ How frequently do you stay in the Lai Chi Wo village?

Question: How frequently do you work in Lai Chi Wo?

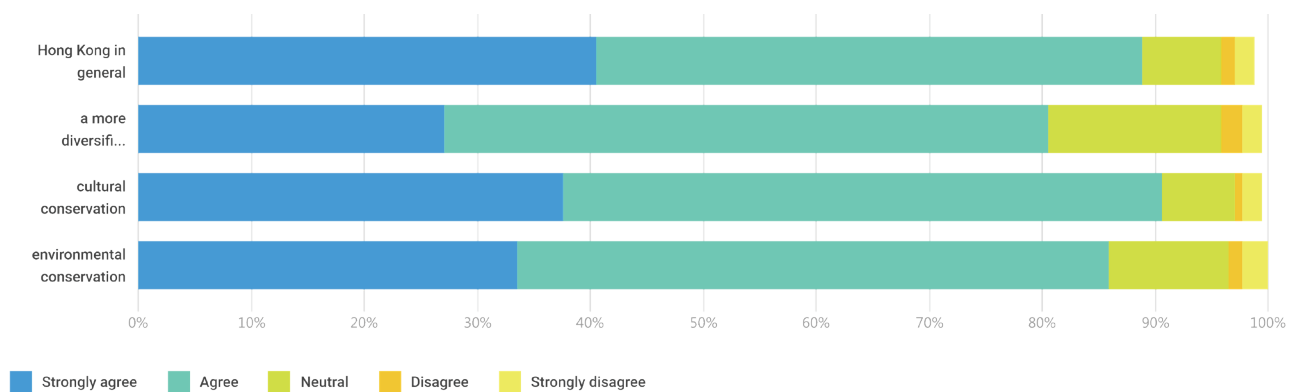Q26 你有多常在荔枝窩中工作？ How frequently do you work n the Lai Chi Wo ?

A short survey completed by 172 participants of Village Festivals reveals that the workshops and activities have inspired a positive change in individuals' awareness in the overall importance of building and sustaining rural communities in Hong Kong.

Question: Participation in this event has increased your awareness in the importance of sustainable rural communities to
i)   Hong Kong, in general
ii)   A more diversified economy
iii)   Cultural conservation
iv)   Environmental conservation