

Capacity Building of SMEs for Sustainable Housing Development

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Case Study Kick-off & Brainstorming – 14 June 2012

BACKGROUND + INTRODUCTION from HKU CICID



**Centre for Infrastructure
& Construction Industry Development**



**Dept. of Civil Engineering
The University of Hong Kong**

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1. Project Background & Basis

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Capacity building

A conceptual approach to development emphasizing **the understanding of the obstacles** that preventing individual and organizations from realizing their developmental goals while **enhancing the abilities** that will allow them to achieve measurable and sustainable results.

The "process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in the fast-changing world." (Ann Philbin, Capacity Building in Social Justice Organizations Ford Foundation, 1996)

Background

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Capacity building

6-dimensions in capacity building:

human, scientific, technological, organizational, and institutional and resource
(United Nations Committee of Experts on Public Administration, 2006)

5-step process for systematic capacity building at the institutional level:

1. Engage stakeholders on capacity development
2. Assess capacity needs and assets
3. Formulate a capacity development response
4. Implement a capacity development response
5. Evaluate capacity development

(UNDP, 2001)

Background

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Sustainable development (SD)

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”
(United Nations, 1987)

Given its resource limitations , Hong Kong addresses the three internationally accepted dimensions of sustainability namely Economy, Environment, and Society, along with **a fourth dimension: Resource Utilization.**

(HKSAR Govt. in ‘SUSDEV21’ in 2004)

“(1) finding ways to increase prosperity and improve quality of life while reducing overall pollution and waste;
(2) meeting the community’s needs and aspirations without damaging the prospects of future generations; and
(3) reducing the environmental burden on Hong Kong’s neighbors and helping to preserve common resources”.

(Council for Sustainable Development, 2008)

Background

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Carbon footprint

“The total set of greenhouse gas (GHG) emissions caused by an organization, event, product or person.” (UK Carbon Trust)

"A measure of the total amount of carbon dioxide (CO₂) and methane (CH₄) emissions of a defined population, system or activity, considering all relevant sources, sinks and storage within the spatial and temporal boundary of the population, system or activity of interest." (Wright, Kemp, and Williams, 2011)

- Hong Kong's **per capita carbon footprint** is among the highest in the world.
- **Carbon footprint of buildings** – a key area among the various green initiatives pursuit by HA

Key issues

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Macro level research on burning issues on ***sustainable housing development*** result in formulation of an aim/vision statement along with objectives to achieve. Above are often accompanied by policy level initiatives, and roadmaps to achieve these objectives.

However, translating these initiatives into action often fails at micro level due to capacity constraints of the organisations which need to act.

Hence, the **focus** of this study is on:

Translating sustainability objectives and targets into viable plans that can be implemented by available supply chains.

Key issues

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Why does this project focus on SMEs?

- “Bigger” consultants & contractors are better positioned.
- SMEs * were found to
 - (a) constitute about 98% of the industry supply chain; but
 - (b) are disadvantaged, hence become “weakest links” in the supply chains, e.g. due to:
 - Low awareness of special relevant requirements
 - No incentives hence less commitment
 - Lack of knowledge dissemination mechanisms

* SMEs are defined in Hong Kong as either manufacturing enterprises with fewer than 100 employees or non-manufacturing enterprises with fewer than 50 employees.

Overall Project Aim and Objectives

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1. Documentation and assessment - a typical cross-section of SMEs (consultants, sub-contractors and suppliers) delivering housing vs. emerging “green” needs.

2. Compilation and comparison - a suite of best practices of international reach where incremental changes can achieve high impact towards a greener HK.

3. Identification - significant capacity shortfalls and bottlenecks in implementing high impact changes towards achieving ‘green’ SME practices.

4. Formulation - specific strategies with sample guidelines and protocols, for consideration by relevant Hong Kong client organisations, to assist SMEs to mitigate capacity shortfalls and reduce bottlenecks in pursuit of ‘green’ objectives.

5. Benchmarking - key benchmarks and KPIs together with roadmaps for SMEs to implement desired change agendas for improvements in relevant organisational practices.

Overall Project Research Program

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HA Case Study Program

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- **HA case project study**
~ **July 2012 – November 2012**
- **HA case study summary report**
~ **January 2013 ?**

Core Research Team

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Principal Investigator

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Co-Investigators

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Dr. G. Mahesh Assistant Professor, NICMAR, India; former PDF, HKU

Research Project Coordinator

Dr. Ying Deng Post Doctoral Fellow; former Senior Supervisor, Expo 2010; former PM, Shanghai Disney land Resort

Other key members

Dr. Wei Pan Joining HKU in early July, presently in UK

Dr. James Wong Research Officer & Deputy Chairman, HKU CICID Task Force on Sustainability

Ir. Sam Chan Associate Director, CICID

Mr. Kelwin Wong Research Postgraduate Student, HKU

..... Volunteers/ Nominees from HA

2. Expectations from HA – HKU Collaboration

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Contributions to HA and the whole Industry

Synergy Building

Specific Deliverables

Contributions to HA and the HK Industry

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Upgrading capacity levels of SMEs in delivering green objectives should:

- **Help reduce energy levels of new buildings**
- **Contribute to reduction of carbon emission and pollution levels**
- **Strengthen ‘backbone’ of the construction industry supply chain**
- **Improve environmental responsiveness of SMEs**
- **Enhance HK industry’s competitiveness in the global marketplace**
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Synergy Building

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To refine our research objectives and deliverables for better fulfilling HA's vision and mission **and** HK industry needs, **we invite HA feedback and advice on:**

- **Specific focus areas on sustainability and green initiatives**
based on or related to current broad initiatives on carbon and energy savings, etc.
also identifying specifics e.g. in CEE, micro-climate, greening
- **Outstanding (current) and expected concerns over capacities**
needed by the whole supply chain (with special focus on SMEs),
in the short, medium and long term – to deliver what is needed by HA
- **Selection of partners and participants from HA and its supply chains**
for: (i) coordinating specific focus area inputs from HA
(ii) general / exploratory interviews **and** from:
(iii) project case(s) identified by HA for specific study(ies) and
(iv) a string of SMEs for interview

Specific Deliverables

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- **A project summary report** to HA and to the industry, including SMEs (e.g. through SMILE-NET and other channels)
- **Conference Papers**
- **A suite of roadmaps** for SMEs and supply chains to upgrade their capacities, including key benchmarks and relevant KPIs



3. Feedback & Brainstorming Session

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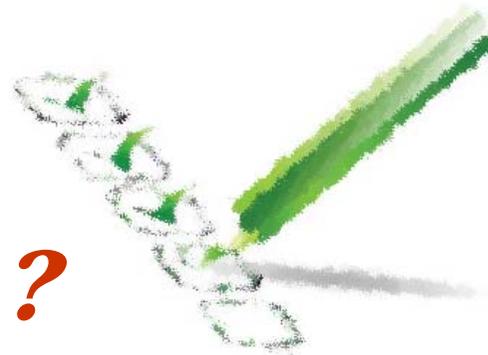
Your suggestions e.g. on:

1. HA's priorities on 'green' and sustainability targets
2. Current and expected capacity shortfalls in supply chains
3. Useful Focus areas within our agreed 'Objectives'
4. 'Right' Partner contacts at HA
5. Appropriate HA case project(s) and supply chains to study

Thank you!

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smeSH or?



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