

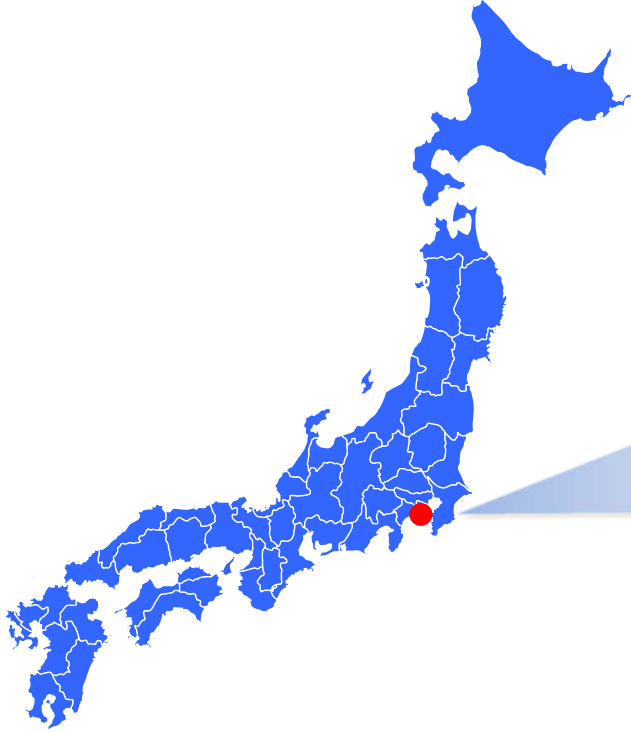
- JCM City-to-city collaboration -

Feasibility Study for Utilization of Renewable Energy and Energy Saving in Danyingone Vegetable Market, Yangon

Takahiro Fukahori

Economic and Labor Affairs Bureau
of Kawasaki city

About Kawasaki-city: Location



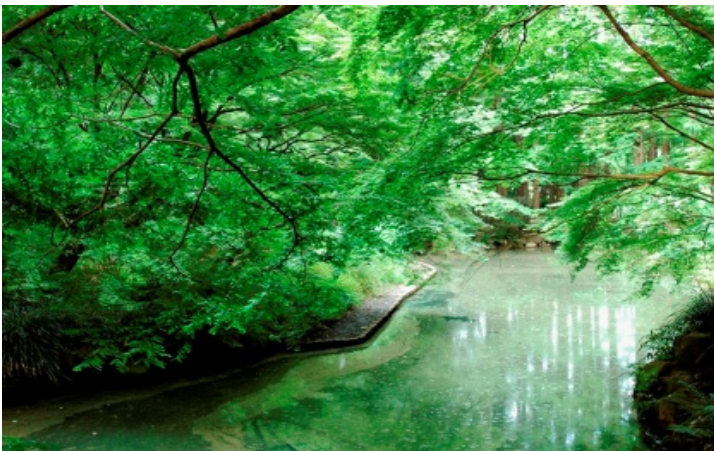
Population : 1,501,697 per.
(As of Jun. 1, 2017)

Area : 144.35 km²

Gross production: 5.3 trillion JPY
(50 billion USD)



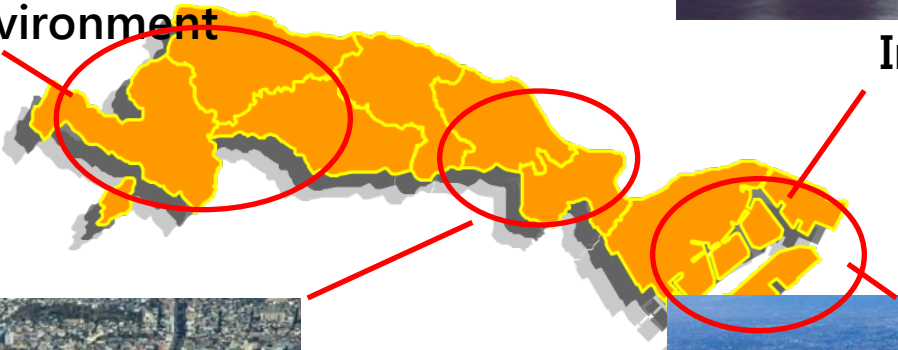
Various feature of the city



Rich natural environment



Industrial area

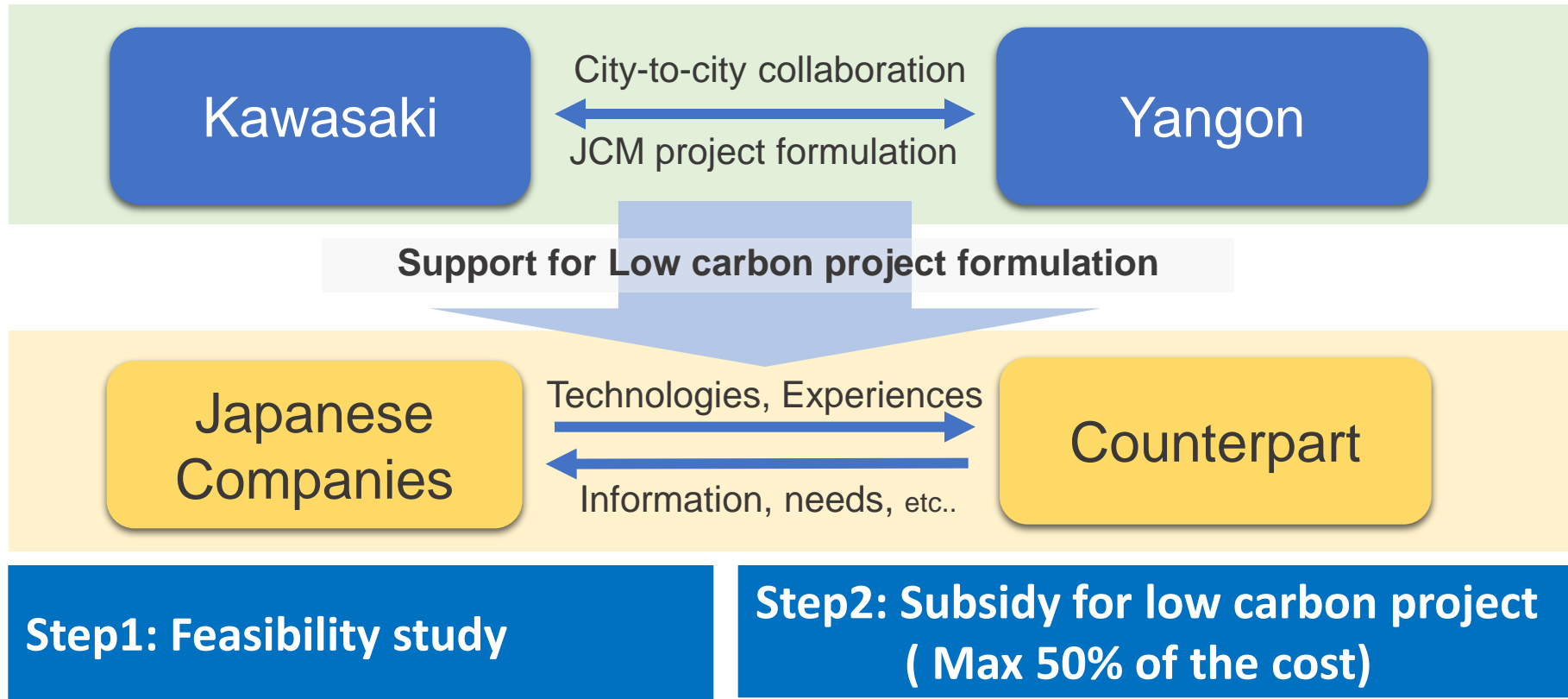


Commercial area



Kawasaki Port

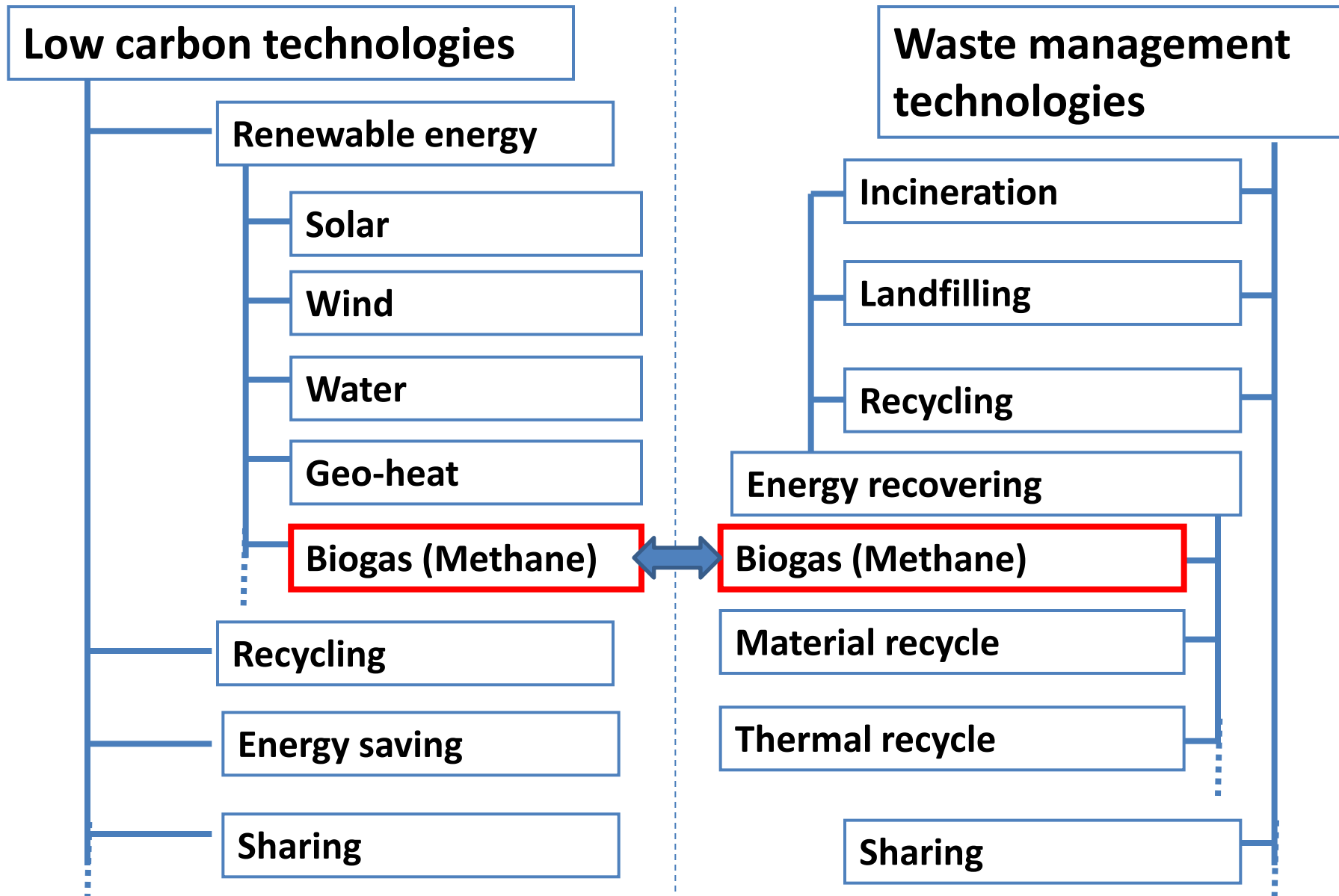
Basic concept of JCM city-to-city collaboration



Objectives:

- To contribute to “sustainable development” and realize “low carbon society” in Yangon.
- JCM project aims to formulate prospective low carbon projects collaborate with Kawasaki city and Japanese private entities which have high-efficient low carbon technologies.

Similarity of “ Low carbon technologies ” and “Waste management technologies ”



JCM City-to-city collaboration activities



Mingaradon Industrial park in Yangon



Pollution Control and Cleansing Department in YCDC



City Planning and Land Administration in YCDC



Meeting with CPLA&PCCD in YCDC regarding City-to-city collaboration workshop

JCM City-to-city collaboration activities



Kawasaki Chamber of Commerce and Industry



Economic and Labor Affairs Bureau of Kawasaki



2016/01/13

Zero-Emission Industrial park



2016/01/14

Ukishima Incineration Plant

JCM City-to-city collaboration activities



Building up **“Trust”** and **“Mutual Understanding”**



City-to-city collaboration workshop held in Yangon city hall

MOU between Kawasaki and Yangon (2016)

Memorandum of Understanding Between the City of Kawasaki, JAPAN and the City of Yangon, Myanmar on the City to City Collaboration

In order to promote city to city collaboration between Kawasaki and Yangon for achievement of low carbon city in Yangon and thus to contribute to the further prosperity of both, the City of Kawasaki and the City of Yangon hereby agree upon the following:

Win-win relationship & Equal partnership

economic exchange as well as develop cooperative framework based the idea of both cities are on win-win and equal relationship.


2. In order to achieve the aforementioned objectives, both parties shall cooperate on the following:


1. Promoting and supporting of low-carbon projects utilizing Joint Crediting Mechanism (JCM) scheme

2. Technical cooperation and information exchange for realizing low-carbon society

- 1) Excavating and supporting of low-carbon projects utilizing JCM scheme
- 2) Technical cooperation and information exchange for realizing low-carbon society of Yangon
- 3) Supporting creation of new business in a field of environment

March 15th, 2016


H.E U Hla Myint
Mayor of Yangon


Mr. Norihiko Fukuda
Mayor of Kawasaki

August 2015: Start of city-to-city collaboration

October 2015: 1st Visit to Yangon-city

December 2015: Discussion on Draft MOU at Yangon-city

January 2016: Workshop on City-to-city collaboration at Yangon-city

March 2016: Concluding MOU between Kawasaki city and YCDC



Workshop for city-to-city collaboration at Yangon

Outline of JCM project in Yangon (2018)

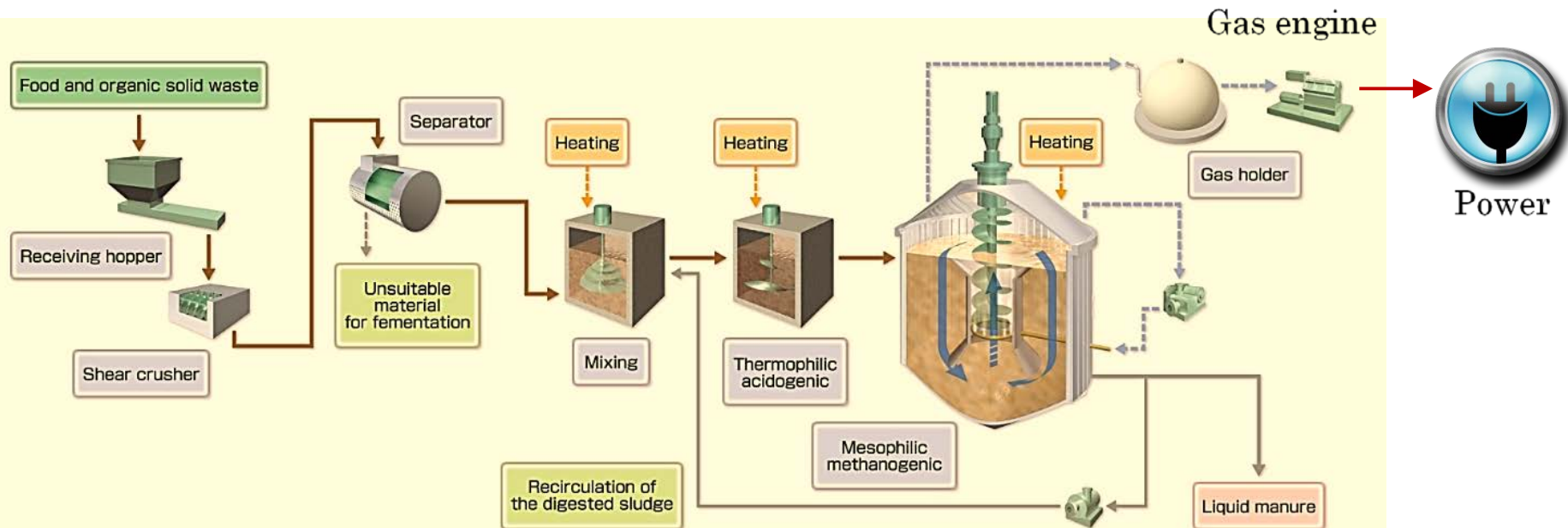
“ Utilization of renewable energy and energy saving in Danyingon vegetable market “

- The project aims at generating electricity using biogas produced from organic waste of Danyingone vegetable market constructed and managed by Dagon group.
- As using electricity generated by biogas at the market, expected to reduce CO₂ emission and CH₄ emission from open dumping sites.

Characteristics of introduced technology:

Methane fermentation system:

- By using Circulating methane fermentation process developed by Hitachi Zosen, a leading environmental engineering company in Japan, the high-speed methane fermentation can be carried out without adding water to organic waste.
- Hitachi Zosen's methane fermentation system has many advantages such as energy recovery efficiency and reduction of waste water treatment cost compared to conventional ones.



JCM project in Yangon (2018)



Discussion with PCCD of YCDC

JCM project in Yangon (2018)



Discussion with Dagon group

JCM project in Yangon (2018)



Danyingone vegetable market

JCM project in Yangon (2018)



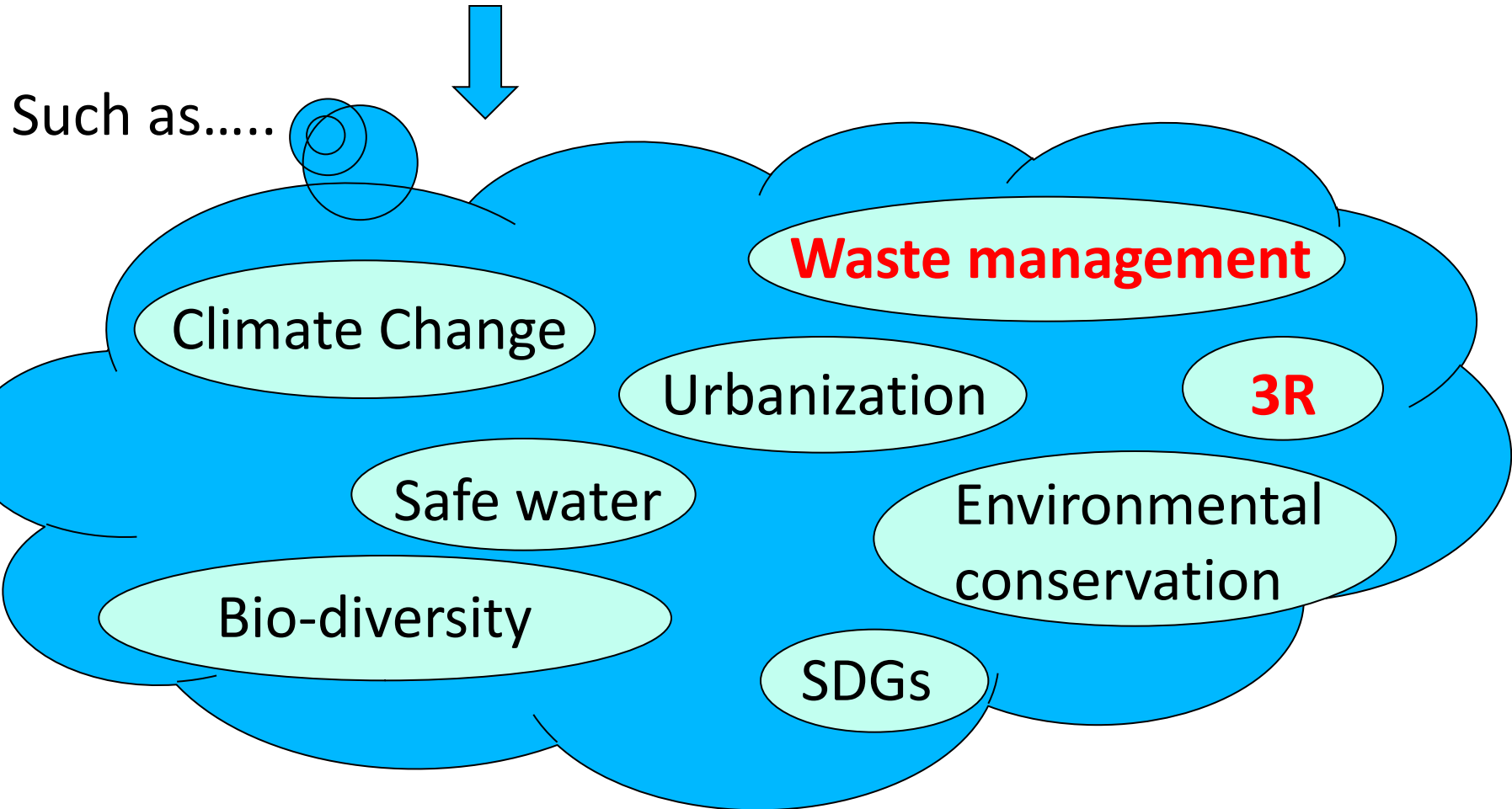
JCM project in Yangon (2018)



Taking samples of organic wastes at Danyingone vegetable market

Future of City-to-city collaboration

Effort to solve issues by city-to-city collaboration



“ Win-win relationship” & “Equal partnership”