

IGES Institute for Global
Environmental Strategies

Kitakyushu Urban Centre

Journey to Creating Sustainable Cities



**Zero
Carbon**



**Circular
Economy**



**Localising
the SDGs**

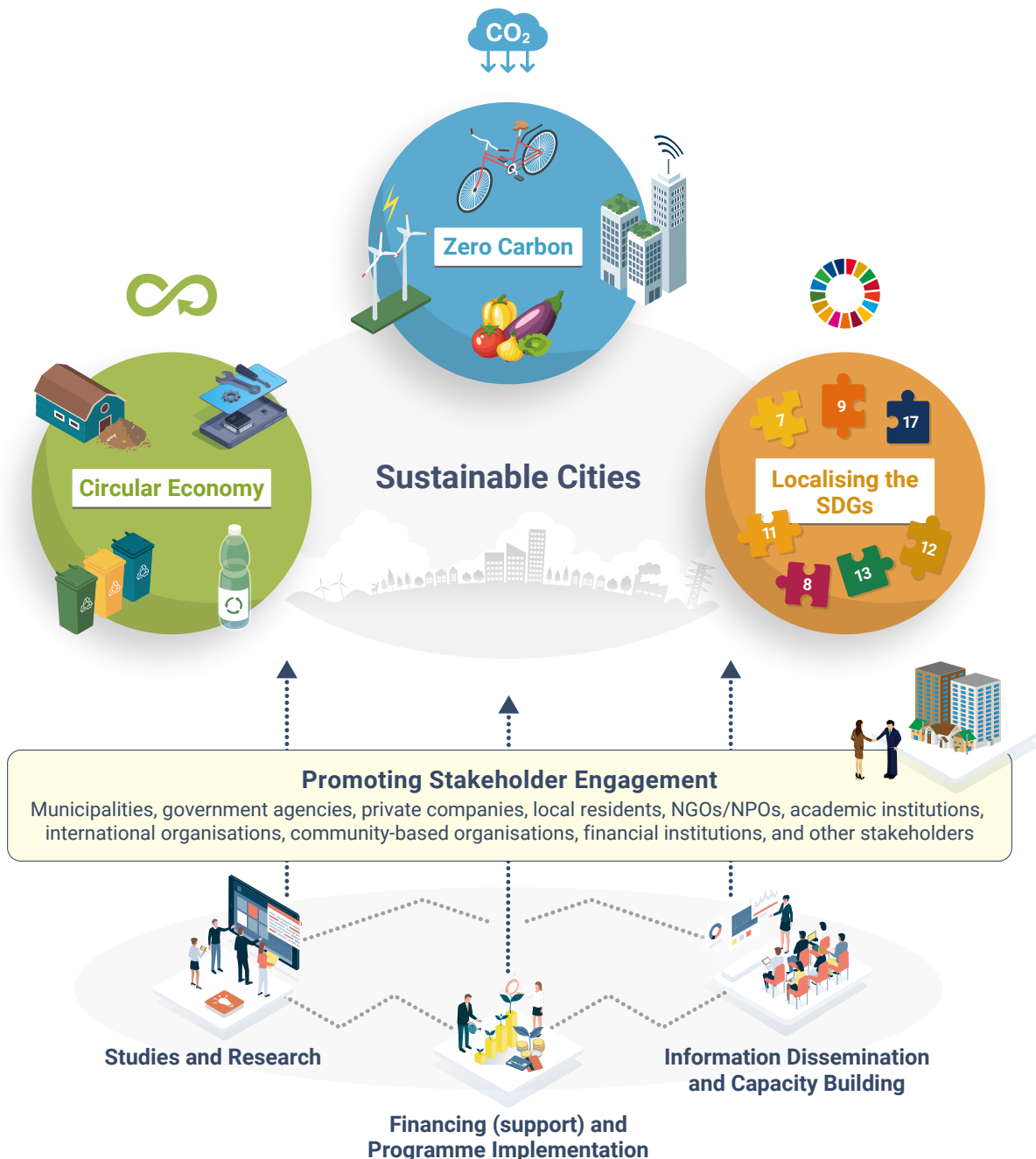
Published in August 2024

About the IGES Kitakyushu Urban Centre (KUC)



KUC is one of five satellite offices of the Institute for Global Environmental Strategies (IGES). We conduct research and promote programmes with a primary focus on zero carbon, circular economies, and the Sustainable Development Goals (SDGs) and aim to act as a regional hub for these three areas in close collaboration with local and national authorities, private companies, universities, civic groups, international organisations and other stakeholders.

We are also engaged in capacity building and supporting the transfer and implementation of Japan's exceptional environmental technologies and expertise overseas in collaboration with Kitakyushu and other municipalities in Japan and other countries. We also organise lectures and talks at schools and to community groups and collaborate with local companies and organisations to help build sustainable societies.

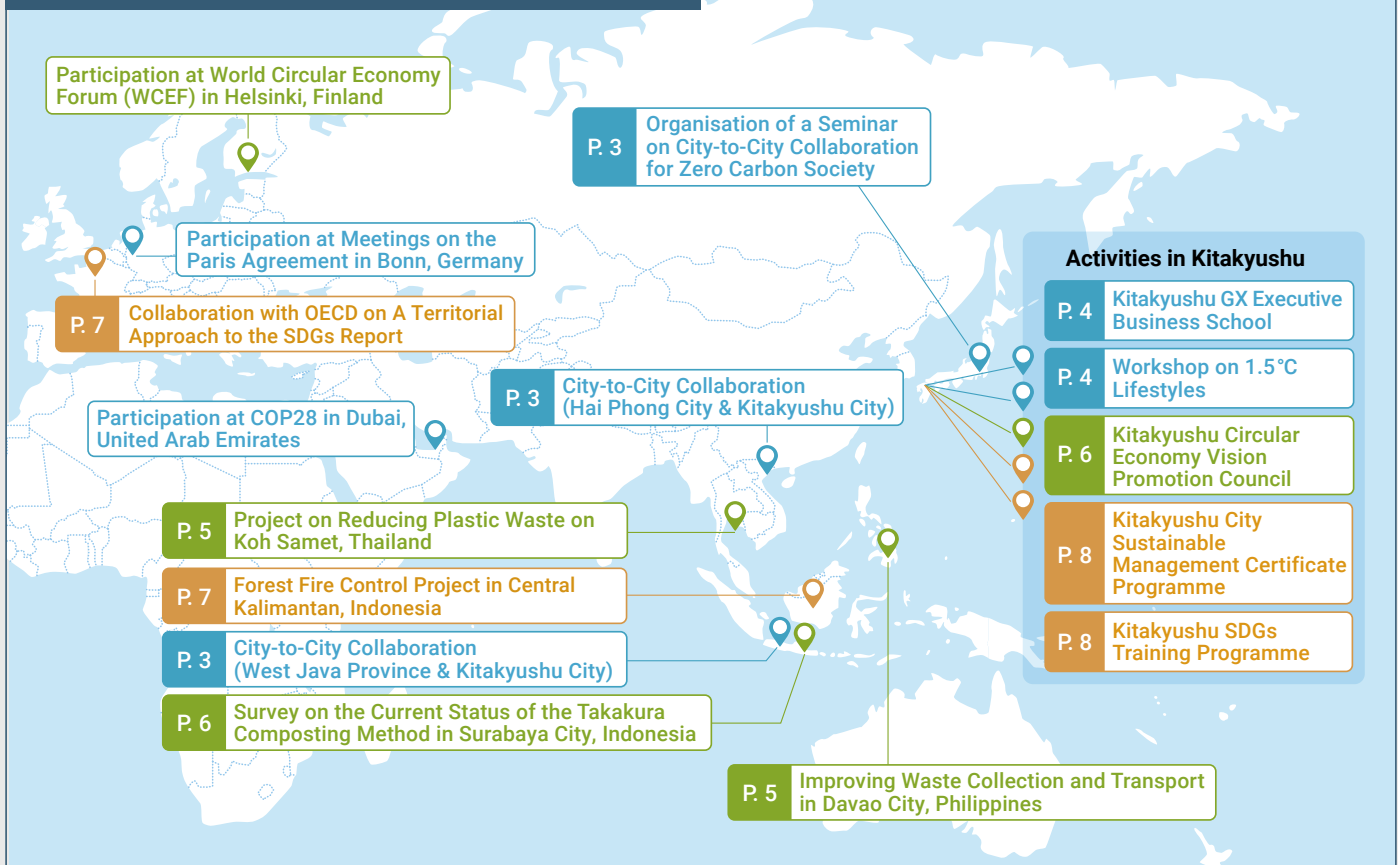


Our mission

Acting as a regional hub in Kyushu in three areas—**zero carbon**, **circular economy** and the **SDGs**—to build sustainable cities.

IGES Kitakyushu Urban Centre: Leading Fields of Activity in Recent Years

Zero Carbon Circular Economy Localising the SDGs



The Institute for Global Environmental Strategies (IGES) Organisational Profile

Background

April 1998	Establishment of the Institute for Global Environmental Strategies
October 1999	Establishment of the Kitakyushu Office
April 2010	The Kitakyushu Office is renamed the Kitakyushu Urban Centre
April 2012	IGES transitions to become a public interest incorporated foundation

	No. of employees	Non-Japanese Staff (Out of total staff)
Strategic Research	168	50
Projects for Public Interest other than Strategic Research	26	10
General Administration	26	0
Total	220	60

(As of 30 June 2024)

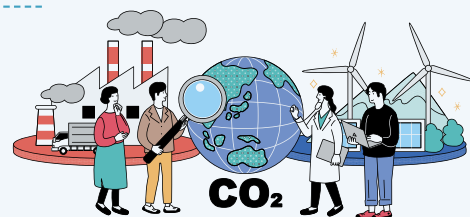


Strengthening the Initiatives of Zero Carbon Cities

Realising Decarbonised Societies through City-to-City Collaboration at the International Level

Efficient and effective solutions to different challenges can be identified by encouraging exchange between cities on decarbonisation. We promote decarbonisation in cities overseas by supporting opportunities for exchange between cities in Japan and other countries. We also help in developing human resources through inspection tours and training sessions, in addition to promoting the transfer of technology packages that contain the environmental management know-how of municipalities in Japan and business-focused solutions.

In FY2023, in addition to supporting the implementation of the Ministry of the Environment's 'City-to-City Collaboration for Zero Carbon Society'^{*1} programme, we also participated in research projects developed under the programme, thereby helping to build momentum for regional decarbonisation and supporting the transfer of exceptional decarbonisation technologies from Japanese local authorities and companies to cities overseas.



Promoting dissemination

Seminar on City-to-City Collaboration for Zero Carbon Society

For the first time in four years, a seminar was held in Tokyo bringing together local authorities and stakeholders from Japan and abroad participating in the 'City-to-City Collaboration for Zero Carbon Society' programme to share numerous insights.

Seminar on City-to-City Collaboration for Zero Carbon Society >



Research Project 1

Partnership for the Promotion of Eco-industrial Parks (Hai Phong & Kitakyushu)

Hai Phong, the largest port city in northern Viet Nam, and sister city Kitakyushu collaborated on research activities to support the transfer of Kitakyushu's expertise in eco-town development and decarbonisation technologies to support the promotion of eco-industrial parks in industrial estates in Hai Phong.



△ Inspection visits in Japan by local officials

Research Project 2

Supporting the Decarbonisation of the Cement Industry in West Java

Decarbonisation of the cement industry, characterised by significant energy consumption and substantial CO₂ emissions, is an important issue for Indonesia, which aims to become carbon neutral by 2060. In this project, a field survey was conducted with the aim of reducing CO₂ emissions throughout the cement industry supply chain in collaboration with Kitakyushu City, companies, and relevant institutions.



△ Field survey in Indonesia

^{*1} City-to-City Collaboration for Zero Carbon Society: This programme was launched in FY2013, with nearly 20 projects adopted each year. To date, 49 cities and regions from 13 countries and 20 municipalities in Japan have taken part in the programme (as of FY2023).

What is a 'zero carbon city'?

Zero carbon cities are local authorities that have announced their decision to reduce carbon dioxide emissions to net zero by 2050 (≡decarbonisation/carbon neutrality)^{*2}. As of June 2024, 1,112 municipalities across Japan have declared their commitment to become zero carbon cities as they work to create sustainable societies.



Extending the Circle of Decarbonisation from Kyushu to Other Parts of Japan and Beyond

Collaboration between local authorities and stakeholders in the community (residents, businesses, other) are an indispensable part of efforts to take tangible actions in decarbonising the region. We are promoting decarbonisation by raising awareness among a diverse set of local stakeholders and developing human resources.



For businesses
and executives

Kitakyushu GX Executive Business School

The drive to transform entire economic and social systems (GX: Green Transformation) is intensifying both within Japan and abroad in order to achieve carbon neutrality by 2050. Kitakyushu City views this trend as an opportunity for growth and has established the Kitakyushu GX Promotion Consortium to attract GX investment from the public and private sector. As members of this consortium, we supported the promotion of GX in Kitakyushu by organising the Kitakyushu GX Executive Business School for local company executives in FY2023 as secretariat.

For students

Workshop on 1.5°C Lifestyles

To achieve the Paris Agreement's 1.5°C target^{*3}, CO₂ emissions in our daily lives (Lifestyle Carbon Footprint^{*4}) must be reduced by 67% on average across Japan by 2030 and 91% by 2050. We design and organise public participation workshops in cooperation with municipalities and local organisations to promote and raise awareness of a lifestyle that reduces CO₂ emissions while also improving the quality of life (1.5°C lifestyle). In FY2023, workshops designed around food were held for students living in Fukuoka Prefecture to think about and experience the 1.5°C lifestyle.



Source: Website of the Kitakyushu GX Promotion Consortium
<https://ktq-gx.com/>



△ Cooking lessons on preparing recipes that take food loss reduction into account

^{*2} Decarbonisation and carbon neutrality: Refer to a state in which greenhouse gas emissions and sinks are in balance. Greenhouse gases here include carbon dioxide, methane, dinitrogen monoxide and chlorofluorocarbons. (Source: Act on Promotion of Global Warming Countermeasures).

^{*3} 1.5°C target: UN Paris Agreement target to limit the increase in the average global temperature to 1.5°C above pre-industrial levels.

^{*4} Lifestyle Carbon Footprint: Greenhouse gas emissions generated over the lifecycles of products and services used by household consumers (from resource extraction, material processing, product manufacturing, distribution and use, to disposal).

Creating Societies that Efficiently Recycle Limited Resources

The linear economic system of mass production, consumption and disposal has devastating impacts on the environment. It results in waste generation, pollution and biodiversity loss. We collaborate with international organisations, municipalities, universities, businesses and other stakeholders to support the formulation of policies at the local level and develop tangible projects to accelerate the transition to a circular economy (CE), an essential component in realising a decarbonised society.



Activities Overseas

Development of an Island-Wide Recycling Model for Plastic Waste on Koh Samet, Thailand

We are taking part in a project on Koh Samet, a tourist destination in Rayong Province, Thailand, to build a recycling model that will close the loop for the collection, treatment and re-use of plastic waste generated on the island. The project involves a proof-of-concept test to collect waste plastic on the island and convert it into recycled oil using a plastic-to-oil conversion system. The project is also focused on developing a mechanism to increase the proportion of waste plastic in unsorted waste by removing substances other than plastics to efficiently extract recycled oil and establishing an island-centric organisational structure for local stakeholders to create a system for the separate collection and recovery of waste and to build a sustainable business model that can be run by local stakeholders independently.



△ Waste plastic oil conversion system used in proof-of-concept tests

Improving Waste Collection and Transport in Davao City, Philippines

Through a grassroots project of the Japan International Cooperation Agency (JICA), we are developing activities to promote efficient waste collection and transport by setting up waste collection routes and resource waste collection facilities in Kitakyushu's environmental sister city of Davao in the Philippines. We also collaborate with local primary schools to support community clean-up activities.



△ Clean-up activities with local primary schools

What is the circular economy?

The circular economy (CE) is an economic system where products are reused, repaired, refurbished, remanufactured or recycled, and are shared far more efficiently. These practices maximise the value of material resources and products, and reduce the need to extract resources, consume energy and generate waste. Resources are sourced and circulated sustainably to minimise negative impacts on the environment.



Activities in Japan

Kitakyushu Circular Economy Vision Promotion Council

As a member of the Kitakyushu Circular Economy Vision Promotion Council, we are dedicated to advancing initiatives to achieve the 'Kitakyushu Circular Economy Vision'. In FY2023, we participated as a member of the 'Biomass Utilisation Subcommittee', one of five new subcommittees, and are exploring the potential for commercialising the use of biomass resources in Wakamatsu Ward. We have also successfully secured research funding related to the recycling of plastic resources in partnership with The University of Kitakyushu and Kitakyushu Institute of Technology.

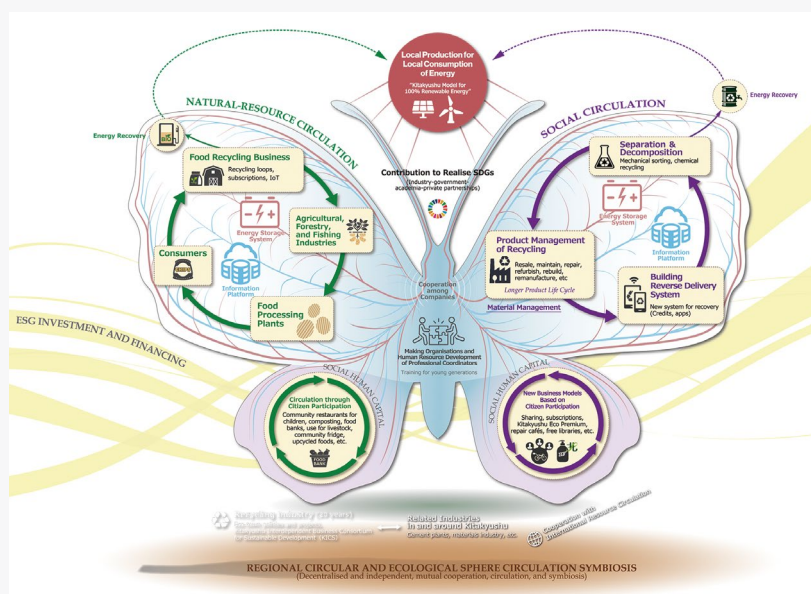
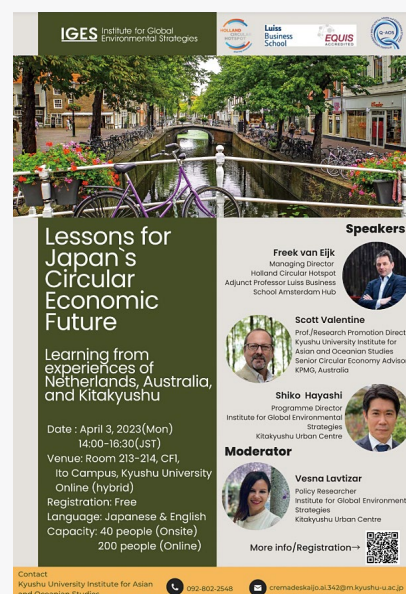


Illustration of the Kitakyushu Circular Economy Vision

Hybrid Seminar 'Lessons for Japan's Circular Economic Future'

We co-hosted a hybrid seminar, 'Lessons for Japan's Circular Economic Future', with Kyushu University's Institute of Asian and Oceanian Studies and Holland Circular Hotspot, showcasing a range of initiatives to promote the circular economy in Kitakyushu.



Seminar flyer

Survey on the Current Status of the Takakura Composting Method in Surabaya City, Indonesia

Kitakyushu and Surabaya, Indonesia have been working together on environmental issues for over 20 years as environmental sister cities. Developed through technical cooperation with Kitakyushu, the 'Takakura Composting Method' is well-established and widely recognised in Indonesia and abroad for its cost-effective and highly efficient approach to composting using locally available materials and fermented food products. To mark the 20th anniversary of the start of the Takakura Composting Method in 2024, we conducted a field survey with the method's inventor, Mr Koji Takakura, to evaluate its evolution, current status, achievements and challenges over the past two decades.



Field survey

Using the SDGs to Promote Integrated Solutions to Local Challenges

The Sustainable Development Goals (SDGs) aim for all countries to achieve 17 goals and 169 specific targets by 2030. Under the principle of 'leave no one behind', the SDGs call for all stakeholders—national governments, local authorities, companies, schools, organisations and individuals—to take action within the remaining timeframe. We are working on localising, or making the SDGs, now a universal language, more widely known in local communities in an easily understood and accessible way, and using the Goals as a holistic means of solving local problems.



Activities Overseas

Engaging Local Stakeholders in a Project to Control Forest Fires in Indonesia

During Indonesia's dry season, fires frequently break out in forests and peatlands, causing significant social problems such as deforestation and air pollution. The large amount of CO₂ released from fires, especially in carbon-rich peatlands, is of international concern as it contributes to global warming. We are collaborating with Kitakyushu-based Shabondama Soap Co., Ltd. and the Japan International Cooperation Agency (JICA) on an SDGs Business Survey, which is focused on a demonstration of Shabondama's environmentally friendly and highly permeable fire extinguishing agent in Central Kalimantan, a province with many peatlands, as part of efforts to facilitate its adoption in developing countries.

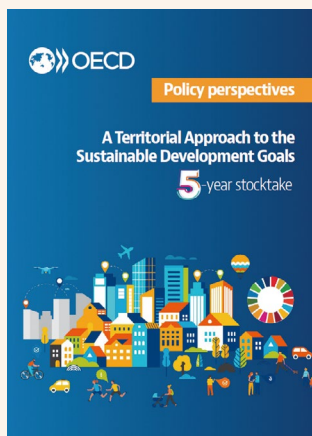


Discussions with local stakeholders



Poster on the project

<https://www.iges.or.jp/en/pub/indoneshia-shinrin-deitan-chi-kasai-no-shoka-gijutsu-fukyu-jishso/ja>



Publication marking the fifth anniversary of the programme

Contributing to the OECD's 'A Territorial Approach to the SDGs' Programme for Cities and Regions around the World

The Organisation for Economic Cooperation and Development (OECD), headquartered in Paris, France, is implementing a peer learning programme, 'A Territorial Approach to the SDGs'. This platform encourages active cities and regions around the world, including Kitakyushu, to share and learn from each other. As a member of the programme's steering committee, we are aiding in the creation of cross-regional outputs involving cities and areas worldwide.

Source: OECD, A Territorial Approach to the Sustainable Development Goals Policy perspectives 5-year stocktake.
<https://www.oecd.org/en/about/programmes/oecd-programme-on-a-territorial-approach-to-the-sdgs.html>

Annual English SDG Training Programme in the Field

We have organised the Kitakyushu SDGs Training Programme every year since 2019, where participants learn about the SDGs in English from a local context. The programme aims to develop human resources who can help build a sustainable society by inviting university students and individuals from the general public to learn from professionals engaged in notable SDGs projects in Japan that are creating a ripple effect from the environment to the economy and society. Visits extend beyond Kitakyushu to Goto City in Nagasaki Prefecture and explore themes such as global SDG trends, local action and the creation of new industries around renewable energy. The sixth annual training session in 2024 has been selected as a project to promote the development of SDGs leaders as part of the UNESCO Activity Grant from the Ministry of Education, Culture, Sports, Science and Technology, which focuses on strengthening education for sustainable development (ESD). This year, the programme will extend to new locations in Kanagawa Prefecture, Kamikatsu Town in Tokushima Prefecture, Kitakyushu City and Minamata City in Kumamoto Prefecture.



< Using facilitation tools in the training programme

Opportunities to Learn about the SDGs and Environmental Issues in Japan and Abroad

We organise lectures and workshops on the SDGs and environmental issues and host site visits in both Japanese and English. In FY2023, we organised field research activities for high school students in Kitakyushu, hosted visits by university students and postgraduates from overseas, and offered an accessible workshop on environmental issues as part of local events in Yahatahigashi Ward in Kitakyushu, where our office is located.



△ 2030 SDGs Card Game Workshop for Kokura High School's field research programme



△ Visits by Indonesian university students under the Sakura Science Exchange Programme

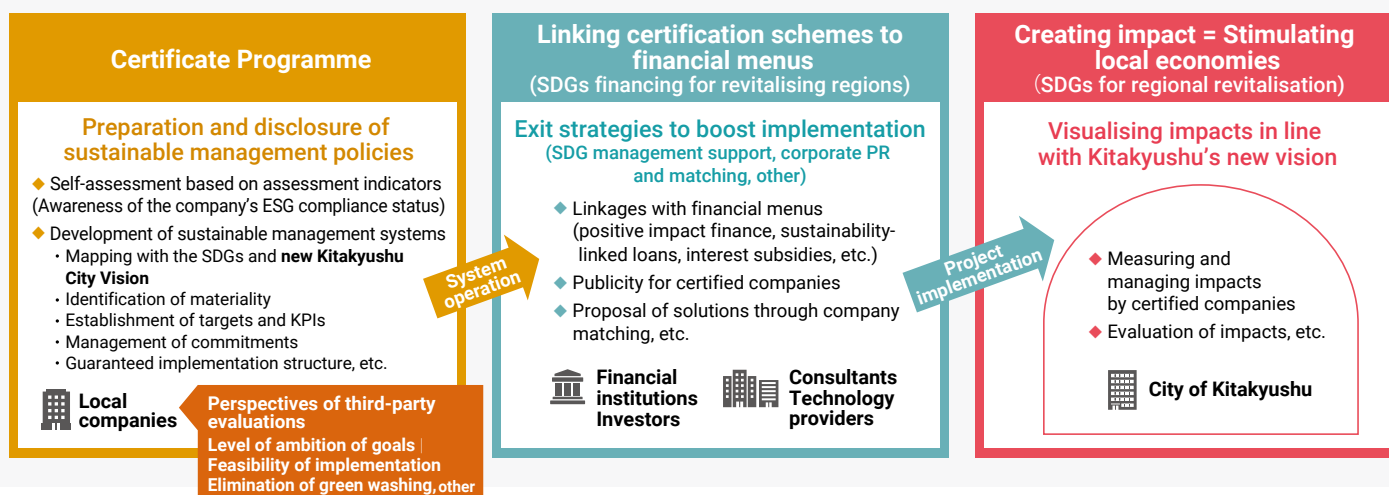


< Workshop on the theme of circular societies as part of the 'Yahata Art Forest' regional event

Design and Management of the 'Kitakyushu City Sustainable Management Certificate Programme'

A range of programmes have been designed and implemented in Kitakyushu City to support the SDGs initiatives of local companies. The 'Kitakyushu City Sustainable Management Certificate Programme' is being considered as a way to support companies that are striving to incorporate the SDGs into their management practices (developing and executing

management systems for the SDGs). We were commissioned to design this programme in FY2022 and created a draft certification system. In FY2023, we refined the design of the system by integrating feedback from financial institutions, local companies and experts, and are now providing support for the implementation of the system in FY2024 and beyond.



Kitakyushu Urban Centre Publications in Recent Years



Kitakyushu's contribution to the decarbonisation of Asia – What does the “150% reduction target” mean? (provisional translation)

August, 2023 | Japanese

Author: Junko AKAGI

Publisher: Institute for Global Environmental Strategies

This paper reviews the significance of Kitakyushu City's '150% reduction target' and its approach to achieving this target, and then examines the methodology for 'visualising' the policy effects. Given that the “150% reduction target” is a numerical target, the report identifies those initiatives of Kitakyushu City that are likely to result in GHG emission reductions, compares evaluation methods, and summarizes the economic and social benefits expected from the initiatives.

🔗 iges.or.jp/en/pub/kitakyushu-150-sakugen-mokuhyo/ja

DOI: 10.57405/iges-13089



Are Waste Banks a Key Contributor to Recycling in Indonesia? Case Study of Medan City

July, 2023 | English

Author: Kohei HIBINO, Tengku KEMALA INTAN, Fritz AKHMAD NUZIR, Darmawan SRIYANTO, Premakumara Jagath DICKELLA GAMARALALAGE

Publisher: AIP Conference Proceedings

Refuse banks are unique community-based waste management systems that promote waste segregation and recycling. This paper presents the results of a survey and analysis of all identified waste banks in the city of Medan.

🔗 iges.or.jp/en/pub/are-waste-banks-key-contributor-recycling-indonesia-case-study-medan-city/en

DOI: 10.1063/5.0129226



Kagoshima 1.5°C Lifestyle Workshop

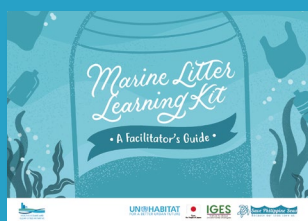
December, 2022 | Japanese

Author: Junko OTA, Junko AKAGI, Kagoshima City, hataori LLC

Publisher: Institute for Global Environmental Strategies

This is a report on the 'Kagoshima 1.5°C Lifestyle Workshop' held in Kagoshima City from August to October 2022. The workshop was held over a period of about three months for young people living in Kagoshima Prefecture in order to promote the 1.5°C Lifestyle, a way of life which reduces greenhouse gas emissions and improves the quality of life through shifts in individual lifestyles. This publication provides an overview of the event and a record of participants' ideas on the 1.5°C Lifestyle.

🔗 iges.or.jp/en/pub/kagoshima-15-lifestyle-workshop/ja DOI: 10.57405/iges-12891



Marine Litter Learning Kit: A Facilitator's Guide

September, 2022 | English

Author: Koji TAKAKURA, Kohei HIBINO, Vesna LAVTIZAR, Anna R. OPOSA, Virginia MARINEL F.SALAZAR

Publisher: UN Habitat Regional Office for Asia and the Pacific (ROAP)

The Marine Litter Learning Kit: A Facilitator's Guide is designed for educators and facilitators who organise environmental education programmes that focus on marine litter. It is applicable for various learner profiles and learning conditions and allows facilitators to choose appropriate activities for their target audience. The guide also uses the learning-by-doing approach with hands-on activities and games for learners.

🔗 iges.or.jp/en/pub/hocci-mlk-un-habitat/en



Performance of Takakura Composting Method in the Decentralised Composting Center and its Comparative Study on Environmental and Economic Impacts in Bandung City, Indonesia

July, 2022 | English

Author: Kohei HIBINO, Koji TAKAKURA, Sudarmanto Budi NUGROHO, Ryoko NAKANO, Ria ISMARIA, Tati HARYATI, Deti YULIANTI, Eric ZUSMAN, Junichi FUJINO, Junko AKAGI

In the International Journal of Recycling of Organic Waste in Agriculture, Volume (Issue): 12

The Takakura composting method has been widely introduced in Indonesia and other countries as a simple and inexpensive composting method using locally readily available materials. This study tracked the progress of scaling up the organic waste input to 1 tonne/day at a small-scale decentralised composting centre in Bandung, Indonesia, and a comparative study was conducted to assess the environmental and economic impacts.

🔗 iges.or.jp/en/pub/ijrowa2023-12/en DOI: 10.30486/IJROWA.2022.1945234.1379



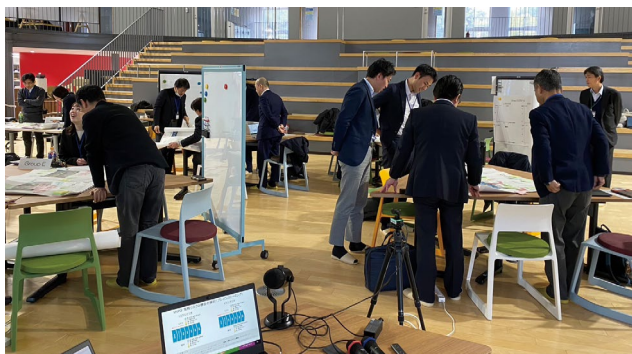
Spotlight on Select Programmes at the IGES Kitakyushu Urban Centre

Kitakyushu GX Executive Business School

In a first-of-its-kind initiative in Japan, we are running a business school programme dedicated to GX (Green Transformation) for company executives and the next generation of future leaders. In collaboration with the City of Kitakyushu, National Institute of Technology (Kitakyushu College) and Kitakyushu Foundation for the Advancement of Industry, Science and Technology, we invite experts from multiple disciplines to speak and also

serve as instructors for lectures and workshops. The aim of this six-session programme is to empower participants to talk about their own company's approach to decarbonisation management in their own words, and to learn about GX from a variety of perspectives.

The content of the 2023 programme can be found here.
x.gd/F268r



^ Workshop



^ Lecture

Facilitation Tools in Lectures and Workshops on the SDGs

We organise lectures and workshops in Japanese or English on the SDGs for schools, companies, organisations, civic centres and local authorities, according to the intended use. We can offer workshops using the following facilitation techniques and lectures tailored to various topics. Please feel free to contact us for more information.

2030 SDGs Card Game

This card game simulates a world in which the economy, environment and society interact and aims to transform human behaviour through awareness.

2030sdgsgame.com



^ Workshop on the 2030 SDGs Card Game

Sustainable World BOARDGAME

In this board game, players take on the roles of different actors in society and travel around Japan to achieve both the 17 Goals and their own personal goals, with a limited annual budget and time.

future-tech-association.org/sdgs-activity

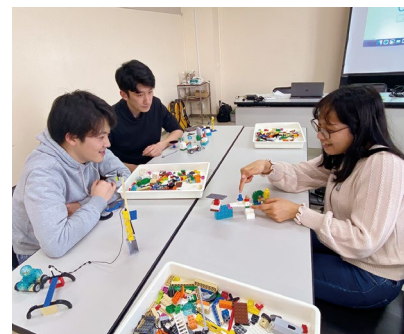


^ Sustainable World BOARDGAME

LEGO® SERIOUS PLAY®

This innovative play uses LEGO® bricks to visualise innate ideas, stimulate the imagination and encourage communication. It can be used for developing strategies and visions, team building and personal development.

seriousplay.jp



^ Workshop on LEGO® Serious Play®



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Kitakyushu Urban Centre (KUC) (IGES Official Website)



iges.or.jp/en/about/research-units/kitakyushu-urban-centre

KUC Facebook Page



facebook.com/iges.kuc

Kitakyushu SDGs Training Programme



sdgs-kitakyushu.iges.jp



JR Kyushu > 15-minute walk from Yahata Station on the JR Kagoshima Line

Nishitetsu Bus > 3-minute walk from Kokusaimura Koryu Center (International Village Center)

5-minute walk from Nishihonmachi 4-chome Minami

Cover photo: International Village Center (courtyard)

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