

Energy Transition by Localizing Climate Actions and Sustainable Development Goals

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**Energy transition Towards a Sustainable Future in Asia
Systems Analysis in Asia
22 October 2021**



Localizing Climate Actions

-> Zero Carbon Cities
= Race to Zero (RtZ) Campaign
@COP26



**UN CLIMATE
CHANGE
CONFERENCE
UK 2021**

IN PARTNERSHIP WITH ITALY

Localizing SDGs

-> Voluntary Local Reviews (VLRs)
@HLPF (High Level Political Forum)



**HIGH-LEVEL POLITICAL FORUM
ON SUSTAINABLE DEVELOPMENT**

Zero Carbon Cities and UNFCCC Race to Zero (RtZ) Campaign



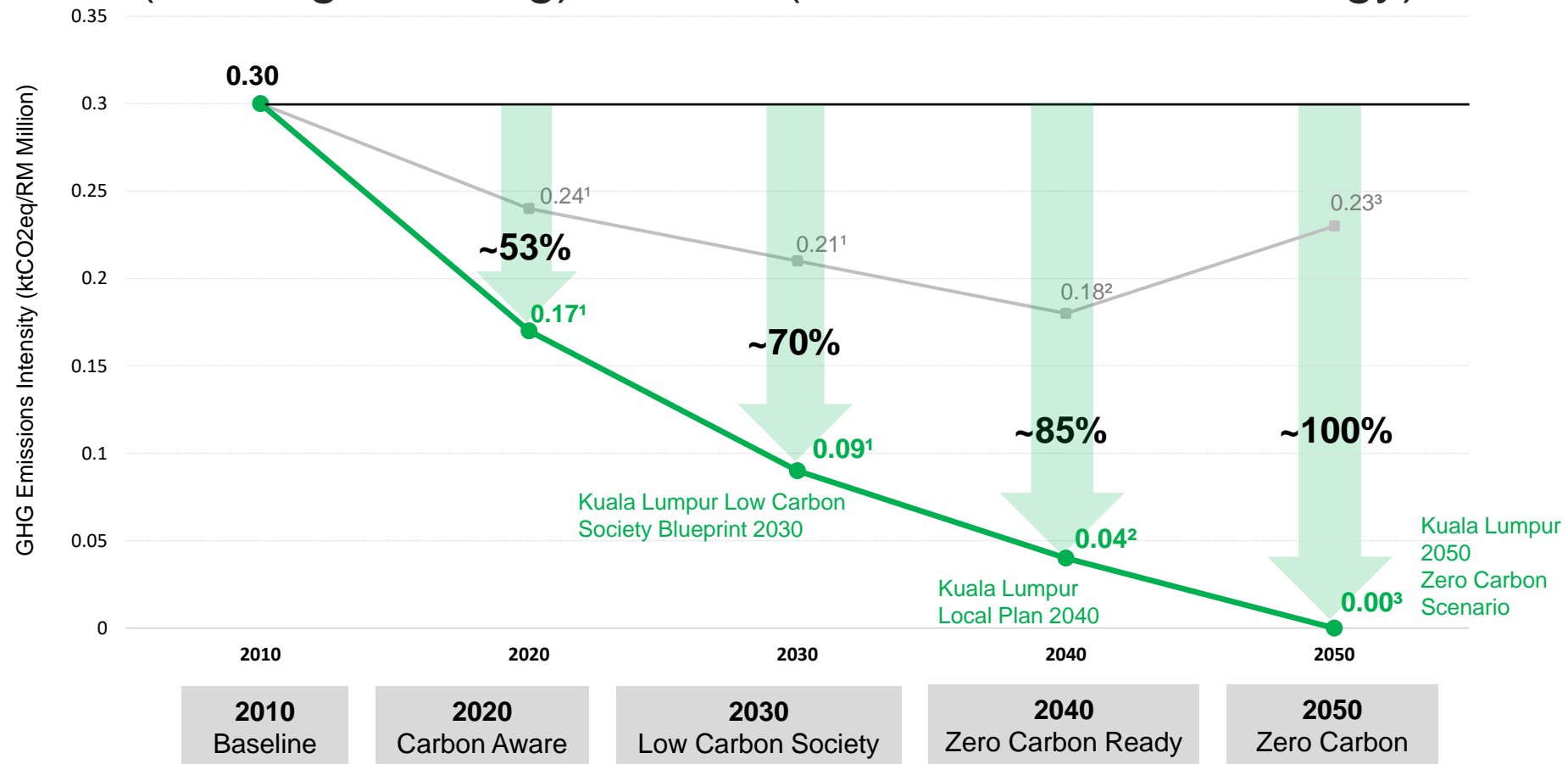
- ◆ UNFCCC launches “Race to Zero Campaign” for all non-stakeholders including business, city, investor, university on June 2020.
- ◆ Already 733 cities join this race (91 from Japan).
- ◆ KL city hall has already declared zero carbon city by 2050 with scientific evidence (scenarios) supported by UTM/IGES/others.

It mobilizes a coalition of leading net zero initiatives, representing 733 cities, 31 regions, 3,067 businesses, 173 of the biggest investors, and 622 Higher Education Institutions. These ‘real economy’ actors join 120 countries in the [largest ever alliance](#) committed to achieving net zero carbon emissions by 2050 at the latest. Collectively these actors now cover nearly 25% global CO₂ emissions and over 50% GDP.

<https://unfccc.int/climate-action/race-to-zero-campaign>

KL scenarios towards Zero Carbon by 2050

Key countermeasures of commercial sector: Energy Efficient Device (Cooling, Heating) and PV (Solar Renewable Energy)



Source:

¹Kuala Lumpur Low Carbon Society Blueprint 2030 (2016) – inclusive of non-energy related GHG emissions (waste and carbon sink)

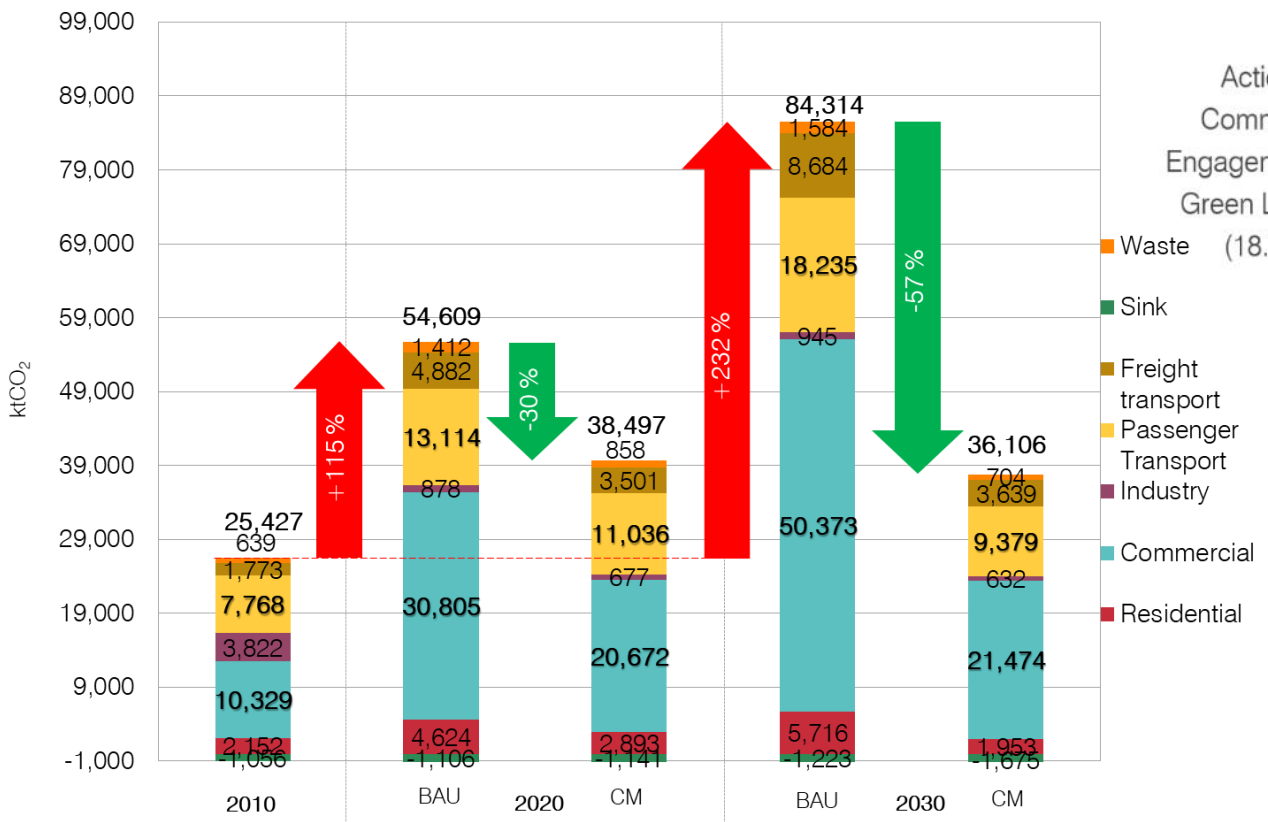
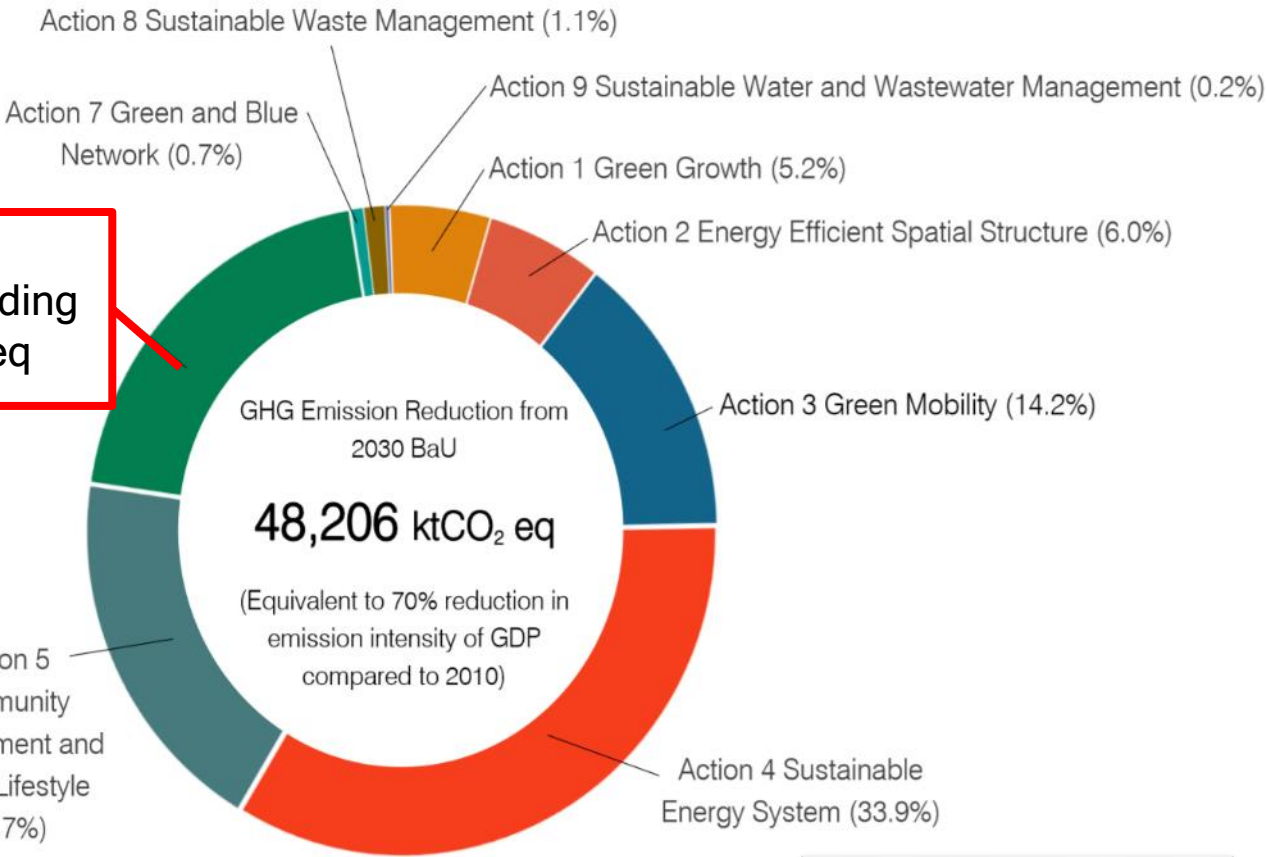
²Draft Kuala Lumpur Local Plan 2040 (2020) – inclusive of non-energy related GHG emissions (waste and carbon sink)

³Kuala Lumpur 2050 Zero Carbon Scenario (2021) – mainly energy related GHG emissions

Buildings contribute

up to **49%**
of total GHG
emissions in
Kuala Lumpur

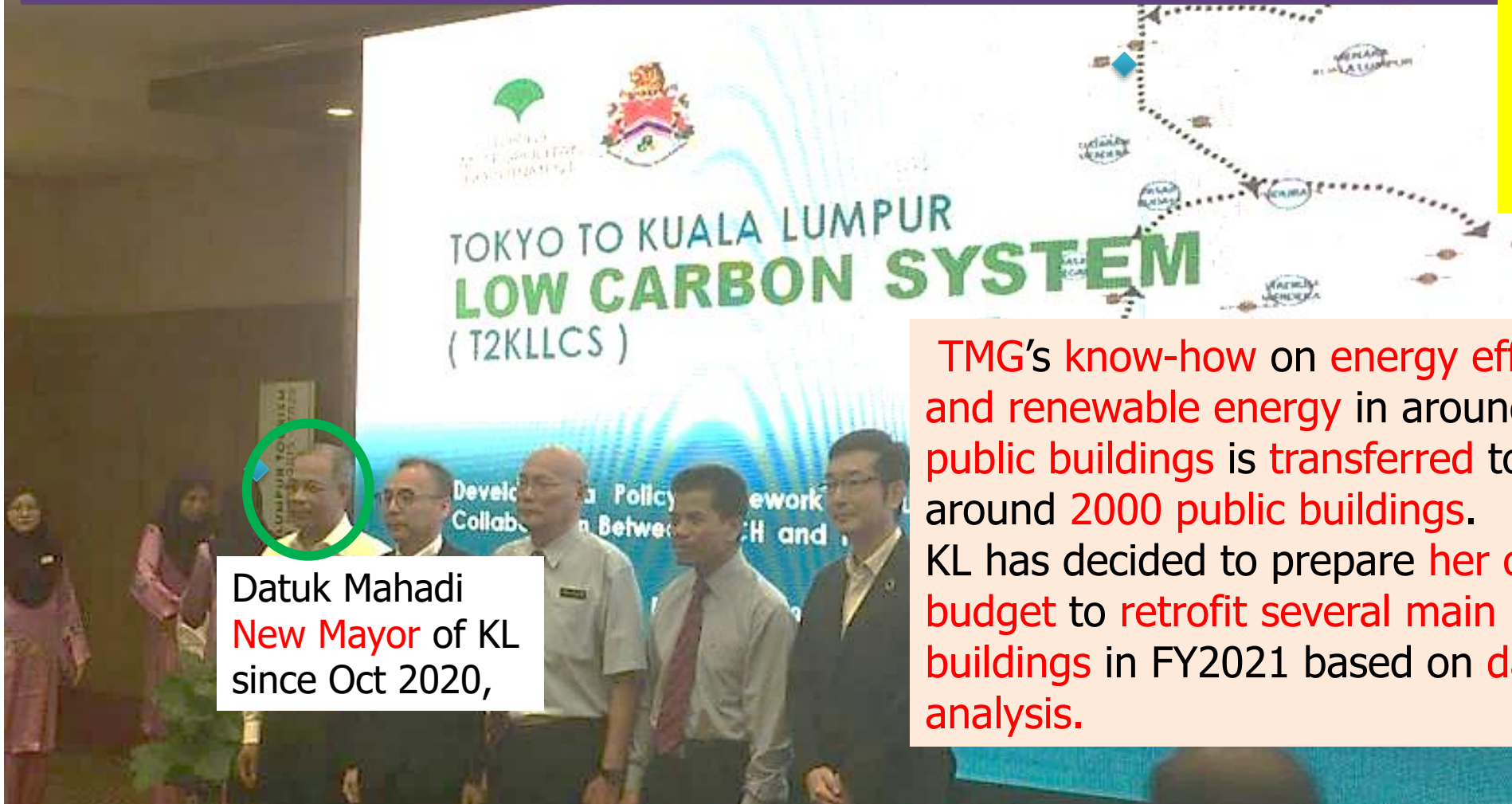
Action 6
Low Carbon Green Building
(20.1%) = 9,673 ktCO₂eq



Tokyo to Kuala Lumpur Low Carbon System = T2KLLCS

FY2019

with
IGES,
UTM,
SEDA



Datuk Mahadi
New Mayor of KL
since Oct 2020,

TMG's know-how on energy efficiency and renewable energy in around 4000 public buildings is transferred to KL for around 2000 public buildings. KL has decided to prepare her own budget to retrofit several main public buildings in FY2021 based on data analysis.

Interim output from T2KLLCS project

Government building profiling is made

T2KLLCS: Analysis shows that 405 units of buildings consumed 77% of total electricity bill



80% by 20%!

405 units out of 1,955



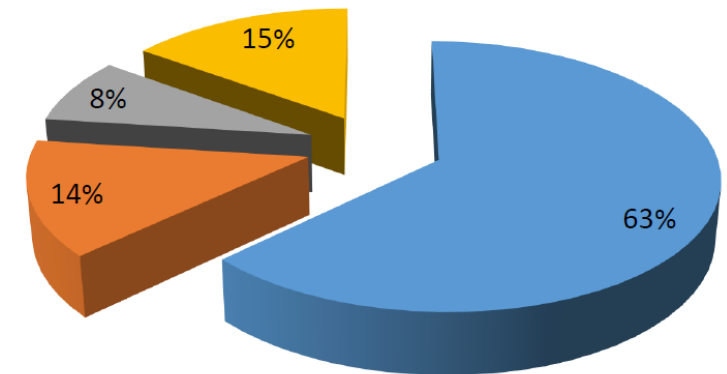
111.8 million kWh
energy consumption



77.6 million kg
CO₂e/year

T2KLLCS: **63%** OF POWER CONSUMPTION BY KLCH BUILDINGS IS FROM AIR CONDITIONING SYSTEM

- Air Conditioning
- Lighting System
- Equipment
- Others



FY2020 : Secure budget for EE retrofitting

FY2020



City Hall Tower 1



City Hall Training Centre



City Hall Tower 2



City Hall Tower 3

Buildings	Retrofitting instruments	Budget	Year
Menara1 Tower	AHU	4,000,000 RM	2021
Menara1 Auditorium	Heat source, cooling tower, pumps, AHU	3,500,000 RM	2021
Menara3	Heat source, cooling tower, pumps, AHU	10,000,000 RM	2022
IDB training center	VRF	2,500,000 RM	2021

Zero Carbon City International Forum (March 2021)

FY2021

Governor of TMG
Madame Koike



Mayor of KL
Datuk Seri Mahadi



Declare Carbon Neutral KL
by 2050 with technical
support of TMG

Reduce TMG's
carbon and
support KL's
buildings Climate
change actions

Zero Carbon City International Forum

Leader of
Glasgow City
Council



Minister of
Environment,
Japan



TMG-KL collaboration is the
first decarbonization
domino from Japanese
cities to oversea cities.
I would like to spread out
this best practice.

<https://www.iges.or.jp/en/events/20210317>

FY2021: Complete the ASEAN first comprehensive public building energy efficiency system

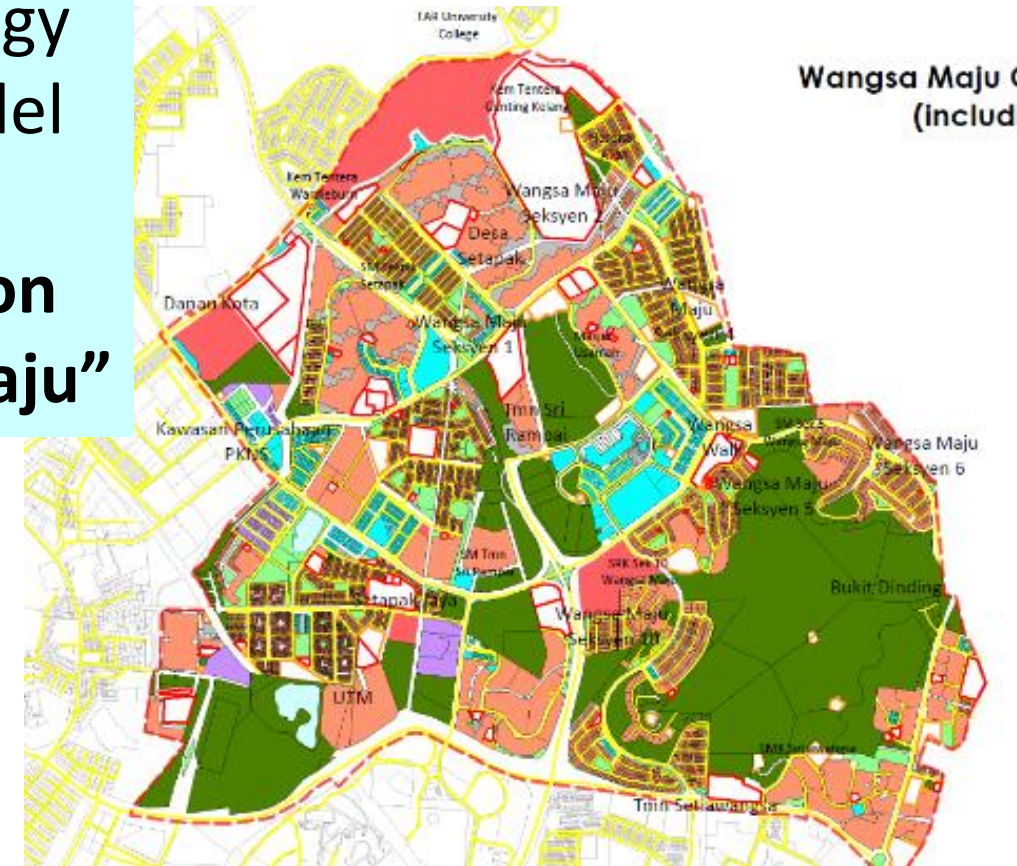
FY2021

Tentative overall goal of T2KLLCS in FY2021

Develop a scheme (**methodology** and **team/organization**) to conduct EE and RE in public buildings under the planned roadmap to achieve 70% by 2030 and zero carbon by 2050

e.g. Develop “**Low Carbon Public Building Procurement Plan towards 2030 and beyond**” (the first plan in (at least) ASEAN at municipal level)

Apply this methodology to the model district **Zero Carbon “Wangsa Maju”**



City related COP26 side events by IGES

1) Japan Pavilion side event organized by MOEJ/ICLEI/IGES “Leading efforts towards achievement of Zero Carbon City” on **2 Nov 2021** (13:00-14:30)

2) Japan Pavilion side event organized by MOEJ/IGES/OECD/ICLEI “Roles of multi-stakeholders towards subnational decarbonization” on **10 Nov 2021** (10:00-11:30)

3) UNFCCC official side event organized by IGES and UTM “Call for an integrative approach: Climate, biodiversity, disaster risk reduction and SDGs” on **10 Nov 2021** (11:30-12:45)

4) Japan Pavilion side event organized by MOEJ/IGES/NIES “Partnerships between Japan and the rest of Asia for a new age – Using the Asia-Pacific Integrated Model (AIM) to pave the way for carbon neutrality in the region” on **11 Nov 2021** (15:00-16:30)

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**HIGH-LEVEL POLITICAL FORUM
ON SUSTAINABLE DEVELOPMENT**



HIGH-LEVEL POLITICAL FORUM ON SUSTAINABLE DEVELOPMENT

The HLPF (High-Level Political Forum) is the main United Nations platform on sustainable development and it has a **central role in the follow-up and review of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) at the global level**. General Assembly resolutions 70/299 and 75/290 B provide further guidance on the follow-up and review of the 2030 Agenda and the SDGs.

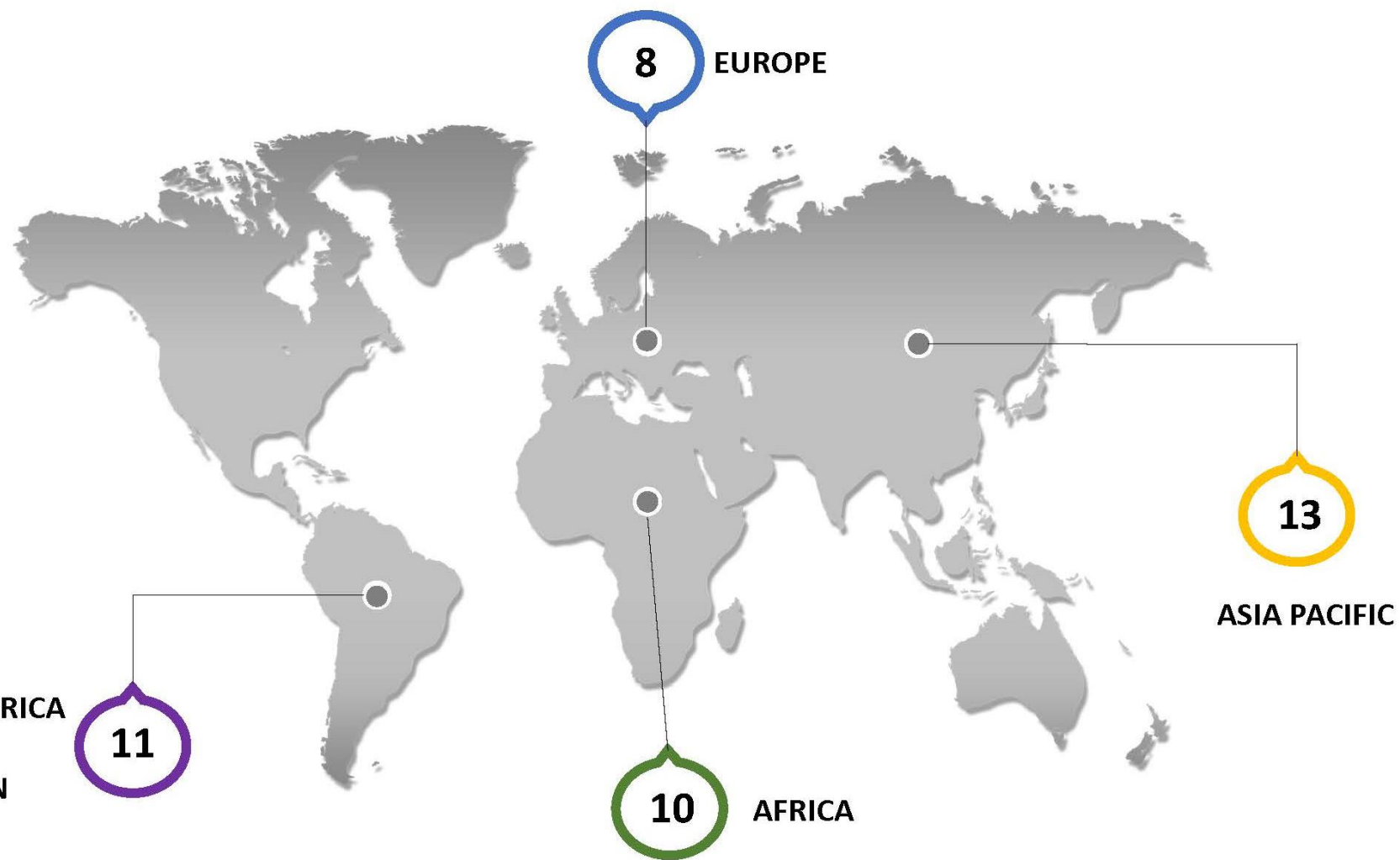


HLPF 2021 IN NUMBERS

(6-15 July 2021, hybrid meeting)



VOLUNTARY NATIONAL REVIEWS 2021



- [Afghanistan](#),
- [Bhutan*](#),
- [China*](#),
- Democratic People's Republic of Korea,
- Indonesia**,
- Iraq*
- Japan*
- [Lao People's Democratic Republic*](#),
- Malaysia*
- [Marshall Islands](#),
- Myanmar,
- [Thailand*](#),

HLPF2021

HIGH-LEVEL POLITICAL FORUM 2021 UNDER THE AUSPICES OF ECOSOC

【事例】日本の地方自治体による VLR の実施

2018年に富山県富山市、北海道下川町及び福岡県北九州市が、2019年に静岡県浜松市が公益財団法人地球環境戦略研究機関(IGES)と連携して、ローカルレベルにおけるVLRを実施した。VLRを実施したこれらの地方自治体はHLPFでそれぞれのVLRを発表しており、また、IGESは自治体によるVLRの実施を推進するため、世界のVLRに関する情報をまとめたプラットフォーム「VLR Lab」を整備している。VLRは各自治体において実施されるものだが、その作業において各自治体のSDGs推進体制やこれまでの取組を見直し、国内外に取組・課題を共有することにつながる。政府は2019年に改定したSDGs実施指針において、VLRの積極的な実施も後押しすることとした。VLRを実施し、HLPFのような国際的な場で発表することは、地方自治体の国際的な相互の学び合いや連携にもつながるところ、地方自治体による更なるVLRの実施が期待される。



Toyouke City Sustainable Development Goals Report 2018



Okuyakui City Sustainable Development Goals Report 2018



Shimokawa Town Sustainable Development Goals Report 2018



Hamanaka Voluntary Local Review Report 2019

Sustainable development (HLPF) is the core United Nations platform for follow-up Sustainable Development and its 17 Sustainable Development Goals.

It will be held from Tuesday, 6 July, to Thursday, 15 July 2021, under the auspices of ECOSOC. This includes the three-day ministerial meeting of the forum from Tuesday, 13 July to Thursday, 15 July 2021.

The forum will focus on achieving a sustainable and resilient recovery from COVID-19 that puts us on track to meet the Sustainable Development Goals. The theme will be "Sustainable and resilient recovery from the COVID-19 pandemic that addresses the environmental dimensions of sustainable development: building an inclusive and resilient recovery in the context of the decade of action and delivery for the 2030 Agenda".

The forum will also consider the integrated, indivisible and interlinked nature of the Sustainable Development Goals 1 on no poverty, 2 on zero hunger, 3 on good health and well-being, 4 on quality education, 5 on gender equality, 6 on clean water and sanitation, 7 on affordable and clean energy, 8 on decent work and economic growth, 10 on reduced inequalities, 12 on responsible consumption and production, 13 on climate action, 16 on peace, justice and strong institutions, and 17 on partnerships for sustainable development.

The forum will be able to explore various aspects of the response to the COVID-19 pandemic and the need for a sustainable and resilient recovery that can control the pandemic and build back better.

Japan submitted her 2nd Voluntary National Reviews (VNRs) at HLPF2021, including 4 Voluntary Local Reviews (VLRs)



NEW YORK



2021 VNRS

WATCH THE 2021 HLPF ON UN WEBTV, FACEBOOK, TWITTER, AND YOUTUBE: [@UNWEBTV], AND YOUTUBE: [UNWEBTV] WHEN ENCOUNTERING TECHNICAL DIFFICULTIES WITH UN WEB TV, PLEASE WATCH THE EVENT LIVE ON TWITTER



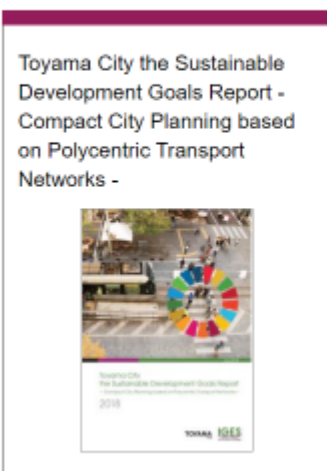
IGES SDGs project, "Aspiration to Action," will examine and suggest essential "means of implementation (MOI)" so that global SDGs can be put into action through active engagement with various stakeholders and partners.

IGES Website



日本語 English

Home Background Publications Activities What are SDGs Commentaries



<https://archive.iges.or.jp/en/sdgs/report.html>

Sustainable Development Goals Reports on Cities - Launch of the World-First Voluntary Local Reviews (VLRs) on Shimokawa, Toyama, and Kitakyushu

16 July—IGES is pleased to announce the launch of several Sustainable Development Goals (SDGs) / Voluntary Local Review (VLR) Reports today on the sidelines of the 2018 UN High Level Political Forum held in New York. The VLR reports document the efforts of three local authorities in Japan working to advance the SDGs—namely, Shimokawa Town (Hokkaido), Toyama City (Toyama Prefecture), and Kitakyushu City (Fukuoka Prefecture), which led to their selection as "SDGs Future Cities" by the Japanese government in June 2018.

The reports, jointly written with IGES, comprise some of the first SDG reporting carried out by local governments anywhere in the world. All reports are structured around the "Handbook for the Preparation of Voluntary National Reviews: 2018 Edition", taking into account specific characteristics and the level of progress on SDG initiatives in each respective city. While all cities recognise the importance of engaging in the SDG agenda, many are still working to find ways to adapt the Goals into their local context with regard to implementation and monitoring. These reports seek to contribute to the sharing of good practices on the SDGs between local authorities, illustrating how three Japanese cities are driving action on the SDGs both in terms of policy and planning.

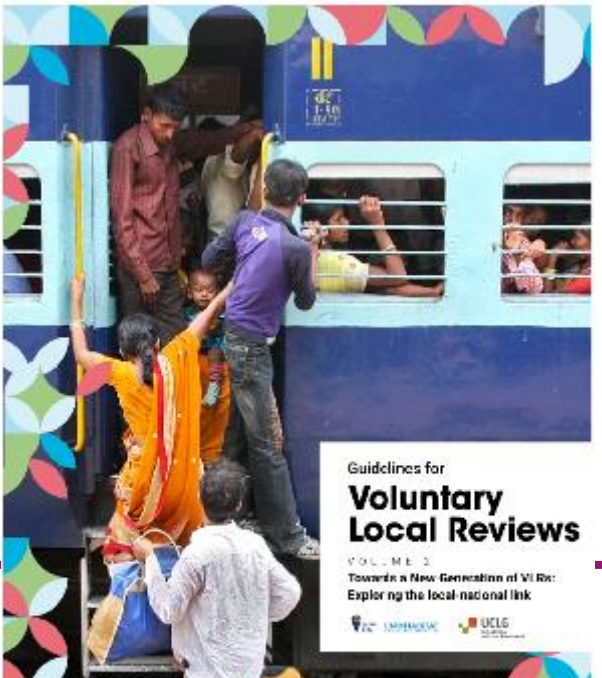
July 13, 2021 Side Event: UN-HABITAT/UCLG
 VLR-VSR Days event VSR: Voluntary Sub-national Review



Master of Ceremony: Shipra Narang Suri, Chief Urban Practices Branch, UN-Habitat	
Time CEST	Session
4.00 – 4.15pm	Opening Session <ul style="list-style-type: none"> <u>Maimunah Mohd Sharif, UN-Habitat Executive Director</u> <u>Emilia Saiz, UCLG Secretary General</u>
4.15 – 4.45pm	<u>Launch of the Vol.2 of the Guidelines for VLRs</u>



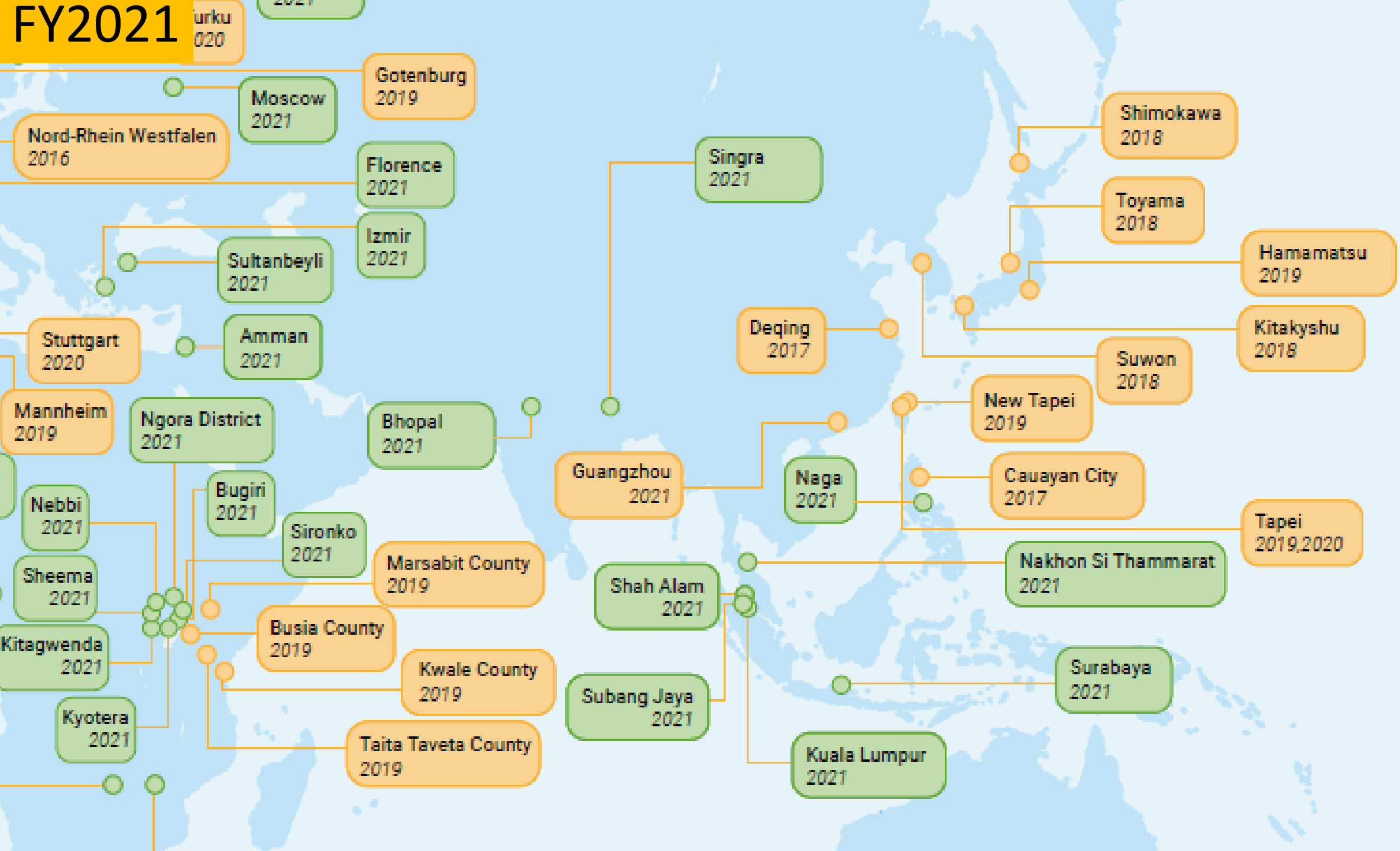
<https://www.youtube.com/watch?v=QNRBoASxQxg>



- Martino Miraglia, Human Settlements Officer, SDG Localization and Local Governments, UN-Habitat & Ainara Fernández, Research Officer, UCLG
- *Finland – VLR-VNR live laboratory*
 - Sami Pirkkala, Secretary General of Finnish National Commission on Sustainable Development
 - Mia Malin, Project Manager SDG at City of Helsinki

<http://uclg-unhlocalreporting.org/>

FY2021



Panel Discussion

Moderator: Edgardo Bilsky, Coordinator of UCLG Research Unit

Speakers:

- Alfredo González Reyes, Head of the 2030 Agenda, Mexican National Government, Mexico
- Hüseyin Keskin, Mayor of Sultanbeyli, Turkey
- Stefan Wagner, Head of Department of International Affairs, Bonn, Germany
- Jonan Fernández Erdozia, General Secretary for Social Transition and 2030 Agenda, Basque Country, Spain
- Ken Oluoch, Senior Programme Officer, Sustainable Development Goals Unit Council of Governors, Kenya
- Junichi Fujiino, Programme Director, Integrated Sustainability Center, IGES, Japan



State of the Voluntary Local Reviews 2021: FROM REPORTING TO ACTION

<https://www.iges.or.jp/jp/pub/vlrs-2021/en>

22 September 2021

SHARE THIS



How Can Voluntary Local Reviews (VLRs) Amplify Local Sustainability?

STORY HIGHLIGHTS

- If the VLR movement wants to speed up the transition to sustainable development pathways, it is worth asking: how can VLRs amplify local sustainability?
- VLRs provide a bird's eye view on the working of local governments, helping to find synergies between existing strategies, identify policy gaps, and create partnerships with multiple stakeholders.
- VLRs hold the power to amplify local sustainability by encouraging cross-sectoral collaboration within local administrations.

<https://sdg.iisd.org/commentary/guest-articles/how-can-voluntary-local-reviews-vlrs-amplify-local-sustainability/>

By Fernando Ortiz-Moya, Yatsuka Kataoka, and Junichi Fujino, Institute for Global Environmental Strategies (IGES)

SDGS

11. SUSTAINABLE CITIES & COMMUNITIES

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**HIGH-LEVEL POLITICAL FORUM
ON SUSTAINABLE DEVELOPMENT**

Localizing Climate Actions and SDGs in Asia

Paris Agreement (Dec. 2015)

2 degree target/1.5 degree

**Nationally Determined
Contributions (NDCs)**



Locally Determined
Contributions (**LDCs**)

2030 Agenda (Sep. 2015)

17 goals, 169 targets

**Voluntary National Reviews
(VNRs)**



Voluntary **Local** Reviews
(**VLRs**)

**Cities are places that are vulnerable to climate change
and can accelerate energy transition for global sustainability!**

Appendix

Going local

The First Official Side Event focusing on VLRs at HLPF

The SDGs provide an unprecedented opportunity to align global, national and subnational priorities and engage all stakeholders at the local level in efforts towards sustainable development. If current trends continue, by 2050 cities will host approximately 70 per cent of the world's population and produce 85 per cent of global economic output. Urbanization is not only a demographic or spatial phenomenon but a force which, if steered and deployed correctly, can help the world overcome some of its major global challenges. Urban policy decisions can have extraordinarily far-reaching impacts across all the SDGs, including poverty alleviation and reduction of inequalities, climate mitigation and adaptation, promotion of safety and good governance and in ensuring access to energy, transportation, waste management, food supply, water and sanitation, education, health care, technology infrastructure including broadband and others, not just for urban populations but also for the surrounding peri-urban

Chair:

- H.E. Mr. Sergiy Kyslytsya (Ukraine), Vice President of ECOSOC

Interactive panel discussion

Moderator:

- Mr. Tony F. Pipa, Senior Fellow, Global Economy and Development, Brookings

Panellists/Resource persons:

- Ms. Noraini Roslan, Mayor of Subang Jaya, Malaysia (VLR city)
- Mr. Jan Vapaavuori, Mayor of Helsinki, Finland

Lead discussants:

- H.E. Mr Nikolai Astrup, Minister of Local Government and Modernisation of Norway
- Mr. Bjorn Arild Gram, President of the Norwegian Association of Local and Regional Authorities
- Ms. Cllr Thembisile Nkadimeng, President of the South African Local Government Association

Respondents:

- Ms. Arantxa Tapia, President of Regions4 (VLR region)
- Ms. Penny Abeywardena, New York City's Commissioner for International Affairs
- Mr. Kenji Kitahashi, Mayor of Kitakyushu City, Japan

📅 THURSDAY, 8 JULY 2021

🕒 12:15 PM - 1:15 PM

📍 VIRTUALLY (HELD NEW YORK TIME)

🟦 OFFICIAL MEETING



UN Web TV, HLPF2021, 5th meeting, 3:44:49

<https://media.un.org/en/asset/k10/k10fokr233>

Kitakyushu City submitted
the world-first VLRs at HLPF2018

**Economic and Social Council**

Distr.: General
16 August 2021

Ministerial Declaration of HLPF2021 on Aug 2021

2021 session
Agenda item 5
High-level segment

Ministerial declaration of the high-level segment of the 2021 session of the Economic and Social Council and the 2021 high-level political forum on sustainable development, convened under the auspices of the Council, on the theme “Sustainable and resilient recovery from the COVID-19 pandemic that promotes the economic, social and environmental dimensions of sustainable development: building an inclusive and effective path for the achievement of the 2030 Agenda in the context of the decade of action and delivery for sustainable development”

38. We will enhance our work to develop effective, accountable and transparent institutions at all levels and ensure more responsive, inclusive, participatory and representative decision-making processes. We will strive to equip domestic institutions to better address interlinkages, synergies and trade-offs between the Goals and targets through a whole-of-government approach that can bring about transformative change in governance and public policy and ensure policy coherence for sustainable development. We encourage the empowerment of women and their full, equal and meaningful participation in the design, implementation, monitoring, evaluation and reporting of national sustainable development strategies. We commit to involving and empowering local authorities to ensure local ownership of the Sustainable Development Goals, in particular by citizens, community and local organizations, and to shape and translate national development priorities into local realities and, in this regard, note voluntary local reviews as a useful tool to show progress and foster exchange in local implementation of the 2030 Agenda and the Sustainable Development Goals.



**United
Nations**

Department of
Economic and
Social Affairs

Global Guiding Elements for Voluntary Local Reviews (VLRs) of SDG implementation

https://sdgs.un.org/sites/default/files/2021-06/GlobalGuidingElementsforVLRs_FINAL.pdf

Introduction

As part of its follow-up and review mechanisms, the 2030 Agenda for Sustainable Development encourages member States to "conduct regular and inclusive reviews of progress at the national and subnational levels, which are country-led and country-driven" (paragraph 79)¹. As part of this review, starting in 2016, countries have presented their Voluntary National Reviews (VNR) to the UN High-Level Political Forum (HLPF) on Sustainable Development.

Local and regional governments are increasingly engaging in their own subnational reviews, so called Voluntary Local Reviews (VLRs), which have proven useful for cities and regions to foster SDG localization and demonstrate local governments' capacity and commitments. Unlike the VNRs, local



Guidelines for
Voluntary Local Reviews

VOLUME 2

**Towards a New Generation of VLRs:
Exploring the local-national link**



5 Conclusions and recommendations: towards a new generation of VLRs

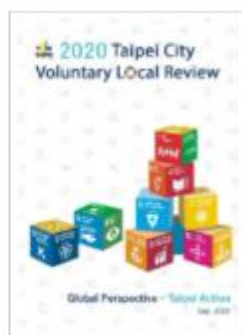
Voluntary Local Reviews (VLRs) are facing a promising future. Since their first appearance in 2016, at the onset of the SDG era, and their widespread establishment as a valuable tool for local governments reporting on the localization of the SDGs in 2018, when New York City and the three Japanese municipalities of Kitakyushu, Toyama and Shimokawa officially presented their VLRs to the international community, a considerable number of new VLRs is being published every year. 'Clusters' of reviews within certain national or regional contexts are now also catalysing participation and creating small but meaningful snowball effects, with more and more local governments committing to implement, review and share the work and progress that their communities and territories are making in the achievement of the 2030 Agenda. In the meantime, local governments, their national associations and civil society organizations are also experimenting with new ways to report on the SDGs from the bottom-up; Voluntary Subnational Reviews, for instance, are gaining traction in several countries all over the world. All these

VLR Lab

This online platform provides all you need to know about cities and regions taking a lead on “Voluntary Local Reviews.”

[VLR Lab Home](#)[News](#)[Events](#)[About VLR](#)[Background](#)[Form](#)

VLR-YEAR:2020



Taipei City

[Learn more](#)



Espoo

[Learn more](#)



City of Turku

[Learn more](#)



Mannheim City

[Learn more](#)

<https://www.iges.or.jp/en/projects/vlr>