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# Research on Solving Regional Issues by Promoting Local SDGs

**Shun Kawakubo Professor, Faculty of Engineering and Design, Hosei University** 

- 1. The 2030 Agenda for Sustainable Development (2030 agenda) (2015.9)
- → Agenda for sustainable development toward 2030 adopted at United Nations in 2015.
- → The SDGs, consisting of 17 goals and 169 targets, were presented in the 2030 Agenda.
- 2. The Paris Agreement (2015.12)
  - → An agreement to combat climate change and to accelerate actions for a sustainable low carbon future.



 $\rightarrow$  Transition toward sustainable world is accelerating after 2015.



## The Sustainable Development Goals (SDGs)

#### The SDGs consist of 17 aspirational goals and 169 specific targets

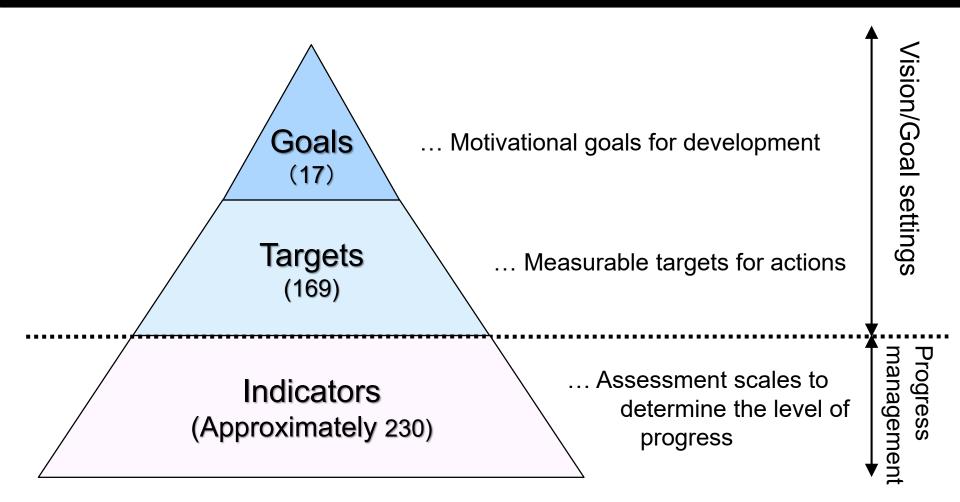


A set of global goals toward 2030 adopted in Sep. 2015

Universally applied to all countries and regions

Requirement for monitoring/evaluation progress to achieve the goals/targets

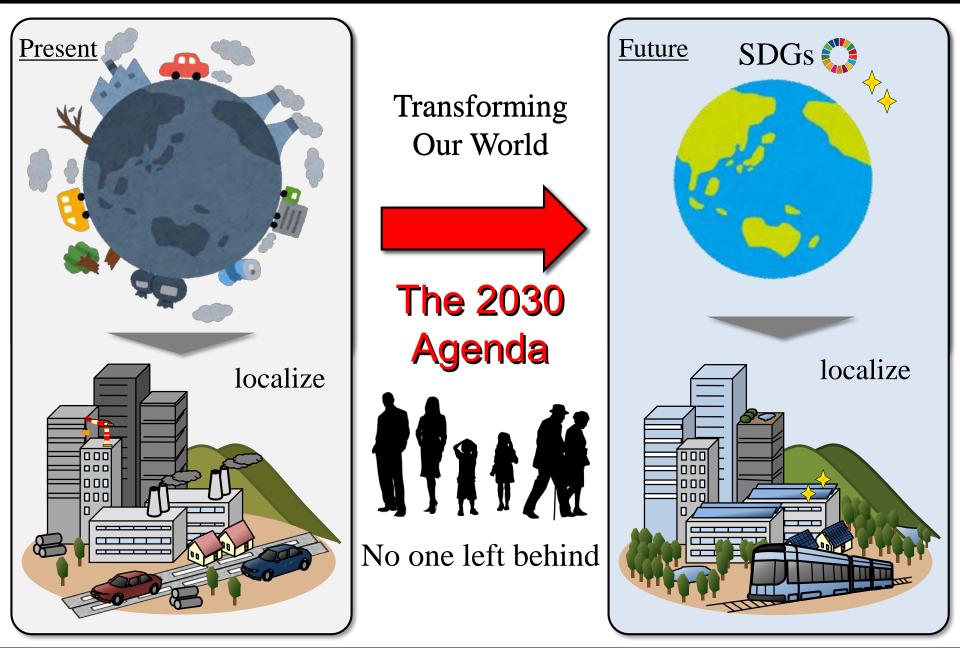
## Three layered structure of SDGs: Goals, Targets and Indicators



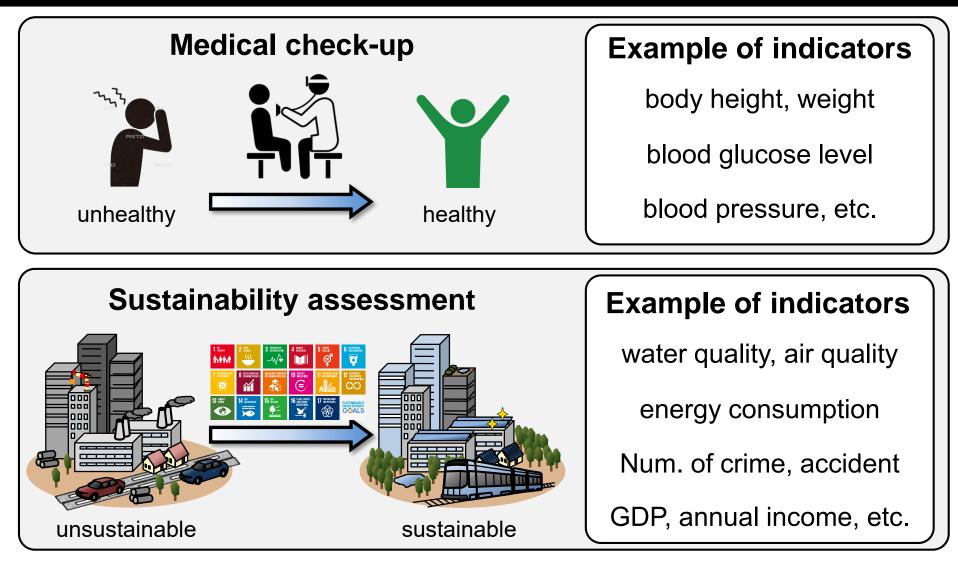
17 goals, 169 targets and approximately 230 indicators

Progress management toward achievement of goals and targets using indicators

## "Think globally, act locally" is the key to achieve SDGs

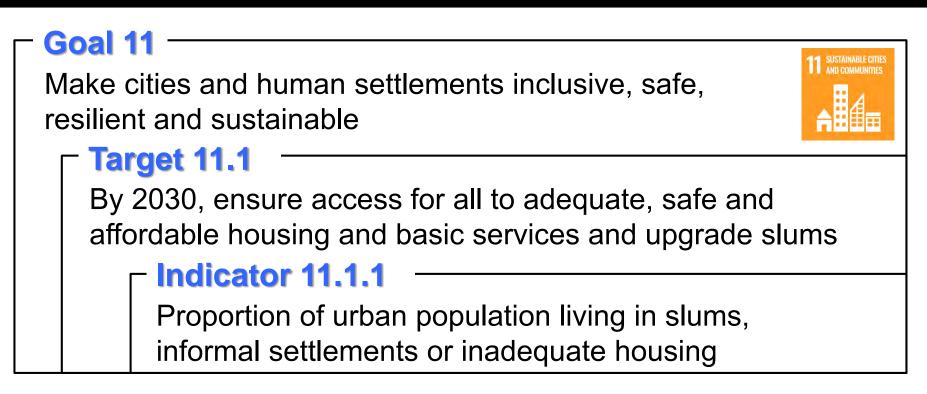


## Confronting challenges 1: Failure to follow up and review



Implementing appropriate follow-up and review, using indicators, is critical to achieving the SDGs

Confronting challenges 2: Lack of usable indicators



Example of three layered structure of SDGs

- Some targets and indicators don't reflect local context of each country.
- Supplemental targets and indicators or slightly modified targets and indicators are required

## Localization of the global SDG indicators

232 indicators that are not suitable for the national context or for which data cannot be collected at the municipal level were translated into indicators that are applicable to the specific conditions of Japanese municipalities.

example:

#### **Global indicator 11.1.1**

Proportion of urban population living in slums, informal settlements or inadequate housing

↓ localization

#### Local indicator 11.1.1

Percentage of homeless population (number of homeless / total population)

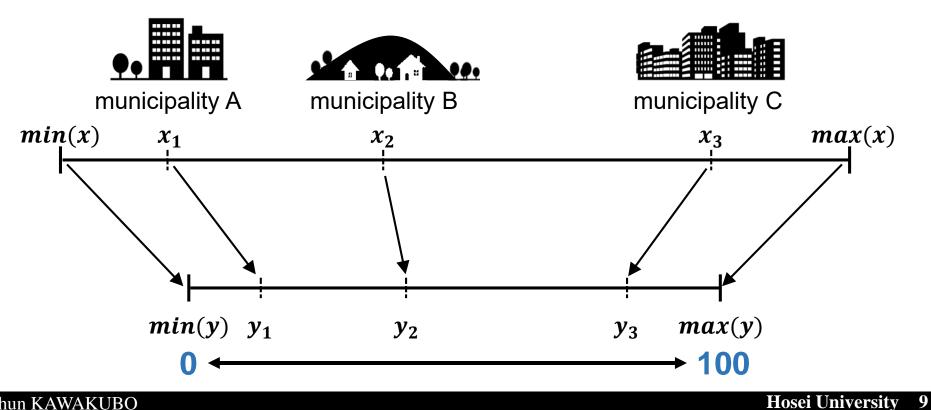
## Assessment of municipalities in the context of the SDGs

## min-max normalization

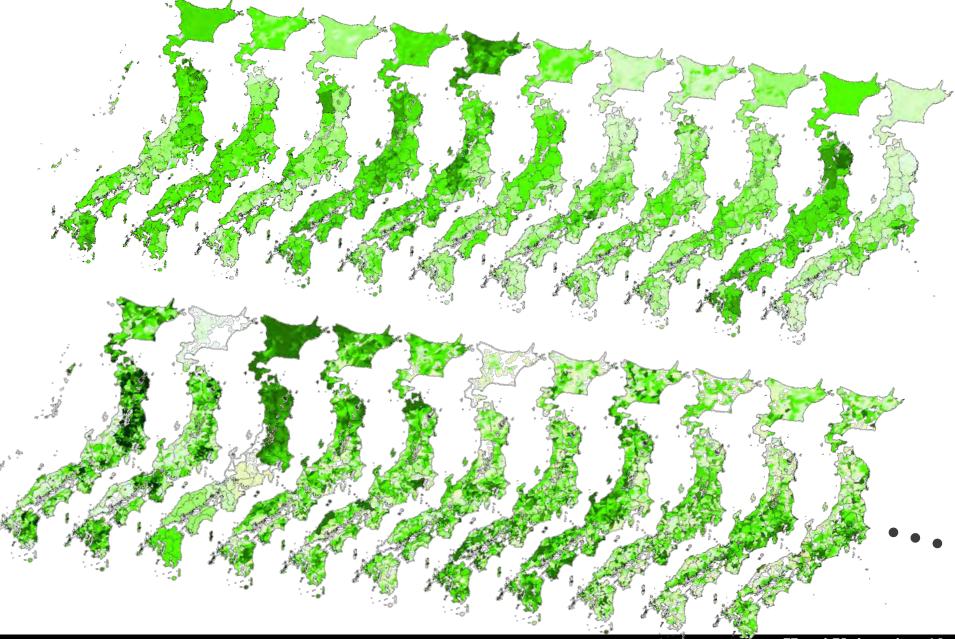
 $\Box$  Method to normalise indicator values to a score of 0-100

Score for municipality *i* 
$$y_i = \frac{x_i - min(x)}{max(x) - min(x)} \times 100$$

 $\max(x)$ : Maximum value in the group,  $\min(x)$ : Minimum value in the group



## Assessment of municipalities in the context of the SDGs





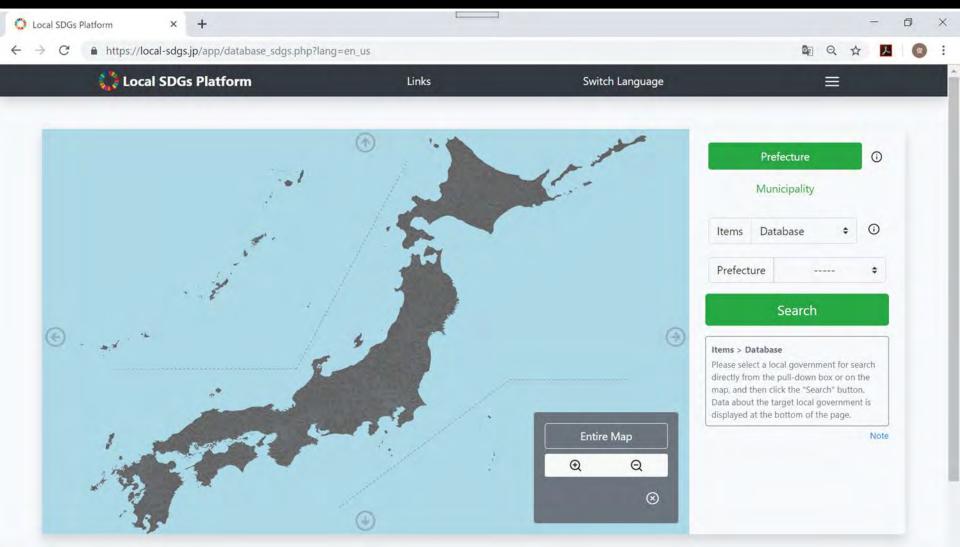
# LOCAL SDGs PLATFORM

A platform that enables local governments to register, search and share their efforts and best practices toward achieving SDGs

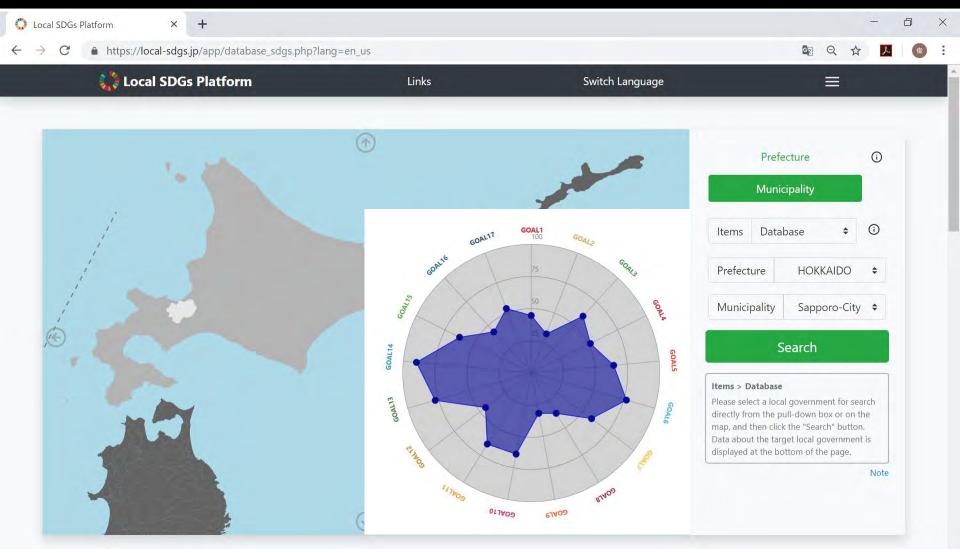
A platform to register, search, share SDGs initiatives and activities led by local governments in Japan

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A platform to register, search, share SDGs initiatives and activities led by local governments in Japan



A platform to register, search, share SDGs initiatives and activities led by local governments in Japan

C 🔒 https://lc	Prefecture : HOKKAIDO, Municipality : Sappo	ro-City	
Goal No.	Local indicators for prefectures and municipalities (Detail) HOKKAIDO(Reference) Sapporo-City	Score Sapporo-City	Graph
	Mon         NO POVERTY         Please click here for further information 7	44.71	
GOAL2	ZERO HUNGER Please click here for further information	32.63	
GOAL3	GOOD HEALTH AND WELL-BEING Please click here for further information V	59.77	
	QUALITY EDUCATION Please click here for further information V	51.43	
GOAL5 5	GENDER EQUALITY Please click have for further information	64.46	
	CLEAN WATER AND SANITATION Please click here for further information V	77.00	
GOAL7	AFFORDABLE AND CLEAN ENERGY Please click here for further information V	58.87	
GOAL8	DECENT WORK AND ECONIMIC GROWTH Please click here for further information V	36.87	
GOAL9	INDUSTRY, INNOVATION AND INFRASTRUCTURE Please cick here for further information ?	31.88	
GOAL10	REDUCED INEQUALITIES Please click here for further information V	64.13	
GOAL11	SUSTAINABLE CITIES AND COMMUNITIES Please click here for further information V	64.97	

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C 🔒 ht	ttps://local-sdgs.jp/app/database_sdgs.php?lang=en_us				🔄 🕁	1
Goal No.	Local indicators for prefectures and municipalities (Detail)	Raw data [units] HOKKAIDO(Reference)	Raw data [units] Sapporo-City	Score Sapporo-City	Graph	
<b></b> GOAL1	1 Munn NO POVERTY Please click here to hide detail information ♡			44.71		
<ul> <li>✓ LI1.1.1</li> <li>LI1.2.1</li> </ul>	Proportion of relatively poor households	6.72[%]	5.26[%]	62.33		
✓LI1.3.1.1	Proportion of socially protected households	2.04[%]	2.04[%]	14.89		
✓LI1.3.1.2	Proportion of socially protected persons	1.26[%]	1.26[%]	10.64		
✓LI1.3.1.3	Mean period of receipt of protection	9.07[year]	9.07[year]	6.38		
✓LI1.4.1	Water utility penetration rate	98.35[%]	98.35[%]	55.32		
✓LI1.4.2	Home vacancy rate	14.13[%]	14.17[%]	42.92		
✓LI1.5.1	Proportion of fatalities due to natural disasters, etc.	1.34×10 <sup>-3</sup> [%]	1.34×10 <sup>-3</sup> [%]	70.21		
✓LI1.5.2	Proportion of public spending for disaster recovery	2.64×10 <sup>-1</sup> [%]	N.A.[%]	N.A.	-	
✓LI1.5.3 LI1.5.4	Proportion of municipalities with disaster prevention committees	97.77[%]	97.77[%]	96.30		
✓LI1.a.1	Proportion of public spending for lifestyle protection	1.48[%]	8.46[%]	98.30		
✓LI1.a.2.1	Proportion of public spending for hygiene	2.97[%]	2.83[%]	8.67		
✓LI1.a.2.2	Proportion of public spending on education	21.52[%]	4.67[%]	29.58		
✓LI1.a.2.3	Proportion of public spending on hygiene + education + lifestyle protection	25.97[%]	15.96[%]	85.73		
✓LI1.b.1	Mean period of protection for single-parent households	5.06[year]	5.06[year]	0		
GOAL2	2 Item ZERO HUNGER Please click here to hide detail information ♡			32.63		
✓LI2.1.1	Prevalence of patients exhibiting malnutrition or vitamin deficiency	3.70×10 <sup>-5</sup> [%]	3.72×10 <sup>-5</sup> [%]	0		
✓LI2.2.1	Prevalence of developmental disorders	1.03[%]	1.03[%]	46.81		
✓LI2.3.1.1	Total agricultural productivity per agricultural worker	8.98[million yen per capita]	1.03[million yen per capita]	18.80		

#### Shimokawa—Interview Article

We interviewed Takeshi Minoshima, head of the Policy Promotion Division - SDGs Strategic Promotion Office for Shimokawa, Hokkaido, which was the recipient of the Prime Minister's Award at the First Japan SDGs Award Ceremony held in 2017.



Takeshi Minoshima head of the Policy Promotion Division SDGs Strategic Promotion Office for Shimokawa

#### 1. Can you tell us how Shimokawa came to be involved in SDGs?

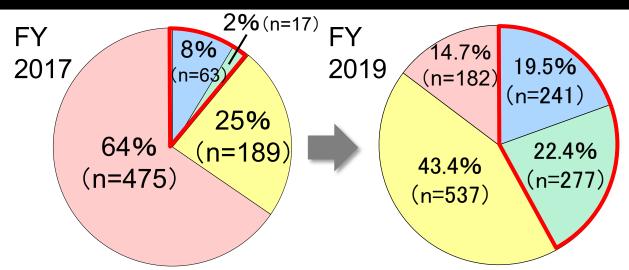
Shimokawa was already working toward becoming a sustainable community as well as proceeding with urban development that integrates the economy, society, and the environment. These activities were already highly compatible with the SDGs, so we thought that we could pursue an urban development that aligned with SDG principles. In 2016, I was again put in charge of a project related to the FutureCity Initiative and, as such, had begun collecting information on my own. I also had had the privilege of serving as an observer for the creation of SDGs for Our Cities and Communities—Introduction Guideline\*1), which turned out to be an extremely meaningful experience. Being involved in the making of the SDG guidelines gave me access to the most up-to-date information available. There was a lot of discussion regarding the SDG-related activities that other municipalities were engaging in as well as the different approaches being taken. I was able to start engaging with the SDGs in our own town using this information as a reference.

(\*1: Institute for Building Environment and Energy Conservation (IBEC). Sustainable Development Goals (SDGs) for Our Town: Guidelines for Implementation. http://www.ibec.or.jp/sdgs/)

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#### Research achievements to date



Supporting municipalities to address the SDGs

We are working to achieve the SDGs

- plan to work towards achieving the SDGs.
- considering working towards the achievement of the SDGs
- not working towards achieving the SDGs and have no plans to do so in the future



Osaka Prefecture wins Japan SDGs award by using the platform

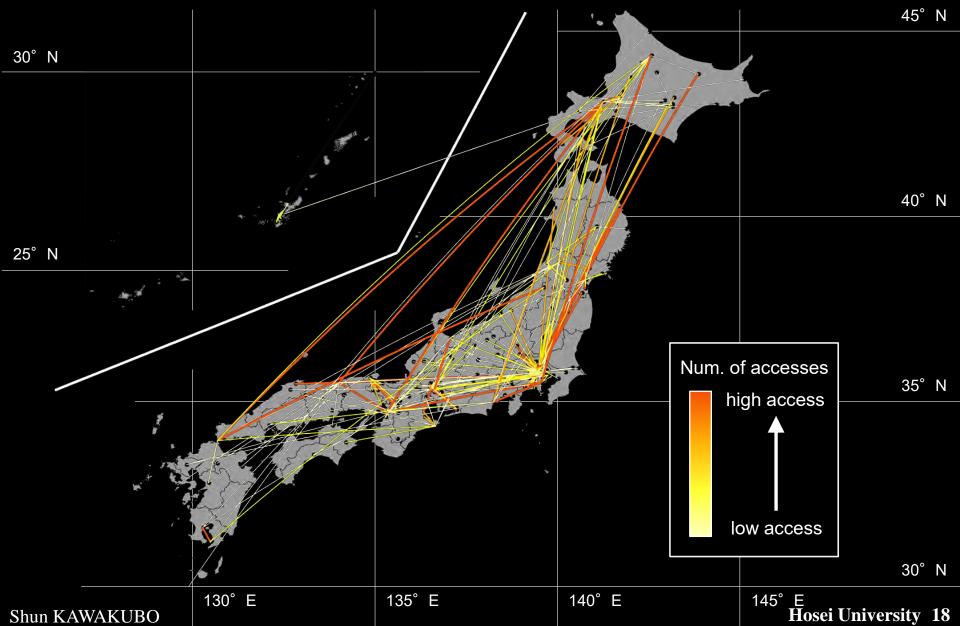


Awarded the EcoPro Award and Green Purchasing Award

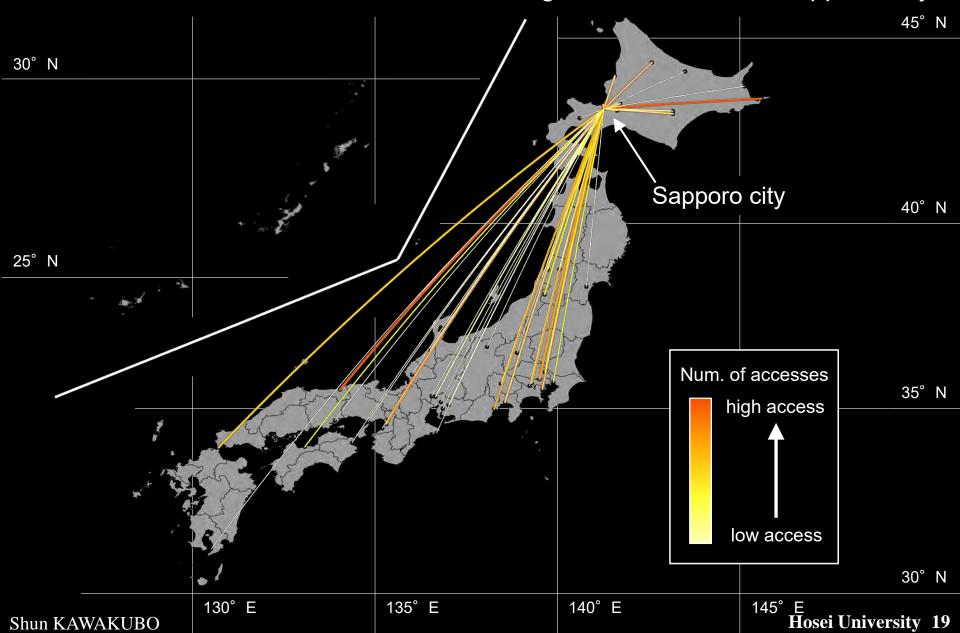
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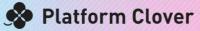
Analysis of the data gathered on the Local SDGs platform Visualisation of the municipalities that users are searching for



Analysis of the data gathered on the Local SDGs platform Visualisation of the number of users searching for information on Sapporo City



#### New online SDGs platform: Platform Clover



Currently, only Japanese support is available.



プライバシーポリシー SDGsとは?

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#### New online SDGs platform: Platform Clover

#### Platform Clover

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? SDGsとは? ログイン

プロジェクト ▼ 🗙 選択してください ▼ 🗙 選択してください ▼



産業系食口スを減らすプラットフ・・・
 <u>#地方創生SDGs</u>
 <u>#ローカルSDGs</u>
 #バートナーシップ
 #ESG投資



少ないエネルギーで気持ちよく暮… <u>#カーボンニュートラル</u> <u>#自然素材 #木が好き</u> …



Q検索

夏爽やか・冬暖かい低CO2断熱材…
 #健康 #自然素材
 #セルロースファイバー …



イニシャルCO2の低い家づくり〜… <u>#LCCM #自然素材</u> <u>#イニシャルCO2</u> <u>#工務店</u>

ヒトコロナウイルス229E に対する木材の効果を評価

結果)



誰もが活躍し、働きがいを見出し…
 #働きがい
 #労働環境
 #女性活躍
 #新たな価値

[セスキテルペン面量の比較]



住宅リノベーション ~性能向上… <u>#住宅</u> <u>#リフォーム</u> <u>#性能向上</u> <u>#終の棲家</u> <u>#資産価値</u> …





## Thank you very much

Part of the content of this presentation was supported by the Japan Environmental Restoration and Conservation Agency (JPMEERF20211004) "Research on Solving Regional Issues by Promoting Local SDGs". We would like to express our sincere gratitude for the support we have received.

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Kawakubo Laboratory is conducting researches **SUSTAINABLE GOALS** that contribute to the achievement of SDGs