July 2018

Shimokawa Town the Sustainable Development Goals Report

—The Shimokawa Challenge: Connecting people and nature with the future—

2018

おいでよ。森林と人が輝く しもかわ Shimokawa Town

IGES Institute for Global Environmental Strategies

Shimokawa the Sustainable Development Goals Report 2018

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Shimokawa Town
The Sustainable Development Goals Report 2018

July 2018

Town of Shimokawa

Institute for Global Environmental Strategies

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Message from the Mayor of Shimokawa

In 2006, the town of Shimokawa made local sustainability a priority under its highest-level municipal law, the Shimokawa Basic Ordinance of Local Governance. Selected as an Eco-Model City and FutureCity by the Japanese government, we have been working on various activities based on the concept of reaching comprehensive solutions that create new economic, social, and environmental value to achieve the goals. Such activities includes those aiming to establish a comprehensive and sustainable forestry industry that utilizes every aspect of our forest resources; to increase of self-sufficiency in local energy using forest biomass; and to develop communities responding to the super-aging society.

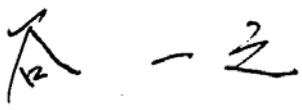
These initiatives are already starting to bear fruit. We came across net population increase in recent years, for example. We have achieved a local self-sufficiency rate of Forty-nine percent thanks to renewable energy sources, and are beginning to see an increase in residential tax revenues. Shimokawa has been recognized for its efforts and outcomes, and the town was the first recipient of the Prime Minister's Award of the 2017 Japan SDGs Awards.

That said, we expect to face a host of social issues going forward that will trigger further population decline, lower birthrates, and an increasingly aging population. It is critical that we use the results so far as a springboard and act now to solve these future challenges, engaging in urban planning from a long-term, multidimensional perspective.

As a way to address these future challenges, we are incorporating the SDGs in our urban planning, and we team up with the Institute for Global Environmental Strategies (IGES) to make SDG concepts widely known among the key players in our municipality as it develops a vision for the future along with key progress indicators. In April 2018, we formulated "The Shimokawa Vision 2030" and were selected by the national government as an SDGs FutureCity the following June. Going forward, we intend to establish partnerships with key players both within the town and beyond in order to make our 2030 vision a reality.

This report was put together with the help of IGES in order to trace the history of the town of Shimokawa while presenting its current situation and approach to the challenges of the future. We hope that you will find the material valuable, and warmly invite you to come to Shimokawa to see our initiatives firsthand if they are of any interest to you. As mayor, I will continue to work with the citizens of my town to make Shimokawa truly sustainable as we support Japan in achieving its SDGs.

July 2018



Kazuyuki Tani
Mayor, the Town of Shimokawa

Message from the President of IGES

It is an honor beyond my expectations that the Shimokawa the Sustainable Development Goals (SDGs) Report 2018, a collaborative effort between the town of Shimokawa, Hokkaido, and the Institute for Global Environmental Strategies (IGES) is being released on the occasion of the 2018 the UN High-Level Political Forum on Sustainable Development. This is the first city-level SDGs report prepared in line with the UN handbook for the preparation of Voluntary National Reviews (VNR) .

In January 2016, the town of Shimokawa and IGES signed a cooperative agreement in the presence of witness Hideka Morimoto, Administrative Vice Minister of the Environment who holds a position as the Regional Revitalization Concierge for Shimokawa town. Under the agreement, Shimokawa and IGES will promote joint research and action projects for sustainable urban development and to present our initiatives in Shimokawa to both a domestic and international audience. This report is one of the results of the collaborative efforts set forth in the agreement.

The town of Shimokawa is one of our leading cities implementing the Sustainable Development Goals (SDGs). The town has been working to build local economic and social systems to address its declining population and sluggish local industry while tapping into its rich local forestry resources. Its efforts were recently recognized when it received the Prime Minister's Award of the Japan SDGs Award in December 2017. At the High-Level Political Forum 2018, discussions will focus on SDG 11 targeting cities. It is hoped that the practical examples and initiatives outlined in this report will help accelerate the implementation and localization of SDGs in other cities around the world.

Shimokawa's integrated efforts to utilize sustainable energy, establish natural capital businesses, and create a thriving senior society—as well as its upcoming plans to enter urban-rural partnerships—all get us closer to actualizing the concept of a Regional Circular and Ecological Sphere (Regional-CES), a key concept of the Fifth Basic Environment Plan of Japan reported to the government in April 2018 by the Central Environment Council, for which I serve as Chair.

Going forward, IGES is working on sustainable development of Shimokawa with a diverse group of stakeholders both within the town and beyond as we develop it as a model area for a Regional-CES. As an agent for change, IGES will continue to contribute to the transformation to sustainable cities and the realization of the SDGs around the world with the dissemination of theses outcomes to Asia and the international community.

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Kazuhiko Takeuchi
President, Institute for Global Environmental Strategies

Message on the Publication of the Shimokawa SDGs Report 2018

The resident members of the SDGs FutureCity Subcommittee together with young staff from the Town of Shimokawa drafted the Shimokawa Vision 2030 (Ideals of Shimoakwa) utilizing the SDGs as a framework. At first, the members involved in the development of the vision were not familiar with the SDGs, but we found that considering areas based on the objectives of the 17 SDGs offered helpful guidance in identifying local issues that had not been discussed in such an upfront manner before, such as gender and marine resources.

We also discussed points that were particularly important in realizing our ideals by 2030 by examining mutual connections and finding leverage points between different local issues, rather than focusing our discussions on a single issue. As a result of such discussions, we were able to present our vision, the Shimokawa Challenge: Connecting people and nature with the future, which consists of seven goals. Taking this opportunity, I would like to thank the members who participated in the discussion with such positive and joyful attitudes, the secretariat that supported us so patiently, and our facilitator, Ms. Junko Edahiro, who guided us and maximized our potential.

Shimokawa will continue to face a number of challenges in the near future. To cope, I believe we need to adopt a particular mind-set and appropriate systems where residents take initiatives and work closely with the municipal government in managing the town. The process of developing the Shimokawa Vision 2030 is one-step on the path to participatory and inclusive local management.

Moving forward, it will be necessary to create more opportunities to engage more residents in the formulation and implementation of the town's sixth Comprehensive Plan and the SDGs FutureCity Plan. Through such attempts, I hope that more people will view town management as a matter that directly relates to their own lives and take up the challenge to realize our vision 2030.

Tsubasa Aso
Chair, the SDGs FutureCity Subcommittee

About This Report

In September 2015, "Transforming our World: the 2030 Agenda for Sustainable Development" and the Sustainable Development Goals (SDGs) consisting of 17 goals and 169 targets were adopted at the United Nations Sustainable Development Summit in New York.

The SDGs are global goals that integrate social, economic and environmental issues, and aim to "leave no one behind" in realizing sustainable, diverse and inclusive societies. SDGs target not only developing countries, but require actions from all countries, including developed nations. Moreover, the SDGs place emphasis on global partnerships whereby all stakeholders, including governments, civil society, the private sector and UN organizations, utilize all available resources to engage in working towards achieving the goals.

At present, over half the world's population lives in cities, and both the number of cities and urban populations are expected to continue to rise. While situations differ from city to city, most cities face an array of socio-economic problems such as unemployment, inequality, poor living environment and environmental problems such as air and water pollution. Meanwhile, it can be argued that with their economic power and diversity, cities are equipped with the potential to solve these problems. Actions by cities on sustainable development lead to solutions to global issues including climate change not only locally, but also to the achievement of international goals such as the SDGs.

City mayors and community leaders, together with relevant stakeholders play an important role in city planning that leads to safe, sound and high-quality lives for the people living and working in cities. Against urban issues such as poverty, violence, social inequality, environmental destruction, climate change and food issues, the SDGs provide cities with opportunities to ascertain linkages between these issues, and also serve as a framework to link differing policy areas in order for cities to discover and implement new mutually-complementary policies and measures. Further, the SDGs can connect diverse stakeholders in cities, serving as a common language among stakeholders such as local governments, citizens and companies working to find solutions to urban issues.

Although cities recognize the importance of engaging in the SDGs, they are still struggling to find ways to take SDGs into account in their local context, and to implement SDGs and carry out monitoring. Due to differing local characteristics, there is no one method or answer that fits all. Therefore, support for cities to learn from each other and apply the SDGs in their own contexts is essential for cities to advance SDG-related initiatives.

The Government of Japan established the SDGs Promotion Headquarters in May of 2016, chaired by the Prime Minister with the Chief Cabinet Secretary and Minister of Foreign Affairs as Vice-Chairs, in order to comprehensively and effectively promote measures related to the SDGs and close coordination among related government agencies. The Promotion Headquarters have drafted guidelines for implementation of the SDGs that incorporate eight priority issues and 140 measures in economic, social and environmental areas. Likewise, the Headquarters released the "SDGs Action Plan 2018" in December 2017 and its expanded version in June 2018, aimed at creating Japan's model for SDG implementation based on further substantiation and expansion of major initiatives. Included as one of the three pillars of the SDG model in this plan is unified government support for local governments that can serve as advanced models and expansion of these best practices in order to

"realize regional revitalization and resilient, environmentally-friendly and outstanding city planning that promotes the SDGs and is suited to the needs and strengths of localities". As one measure, in June 2018, the Government of Japan selected 29 municipalities to become "SDGs Future Cities", and of these selected the leading initiatives of 10 cities to become SDG model projects.

This report, prepared with the Strategic Research Fund of the Institute for Global Environmental Strategies (IGES), will introduce activities of three Japanese local governments aiming to become sustainable cities, namely Shimokawa Town (Hokkaido), Toyama City (Toyama Prefecture), and Kitakyushu City (Fukuoka Prefecture). IGES has a close collaborative relationship with each of these three municipalities, which have worked to address issues faced in their respective locations based on partnerships with citizens from the perspectives of society, economy and environment. These three local governments are engaged in advanced initiatives related to the SDGs and were selected in June 2018 as the aforementioned "SDGs Future Cities" and as SDGs model projects for local governments. Within this framework, they intend to implement even more concrete initiatives going forward.

For the structure of this report, the authors referred to the "Handbook for the Preparation of Voluntary National Reviews: 2018 Edition". The structure takes into consideration specific characteristics and the state of progress on initiatives in each city. In a manner of speaking, it is a voluntary local review on the progress of SDG actions in each city.

By revealing the current state of SDG-related initiatives in each city, this report can serve as a communication tool for residents when engaging in future initiatives, and likewise can serve as a reference to those in other cities in Japan and around the world as they engage in addressing the SDGs.

July 2018
Institute for Global Environmental Strategies

Acknowledgements

This report was prepared based on cooperation between Shimokawa Town and IGES. A writing team comprised of IGES' City Taskforce members Yatsuka Kataoka, Kenji Asakawa and Junichi Fujino prepared the report based on information provision and review by Shimokawa Town, mainly the SDGs Promotion Department (Policy Promotion Department from 1 July 2018) and the General Affairs Department.

Furthermore, this report is based on the opinion exchange and discussions that took place at the "Shimokawa Town Subcommittee on the SDGs FutureCity", where the "ideal state" of Shimokawa in 2030 was deliberated. We would like to express our sincere gratitude to the Subcommittee members Tsubasa Aso, Daisuke Oikawa, Satomi Kawashima, Miki Yamakawa, Motoharu Sato, Seiko Nishikawa, Kazuyuki Takahashi, Taku Nagata, Haruhi Yamazaki, Hiroshige Mitsuhashi, and to Junko Edohiro of e's Inc. who served as a facilitator of discussions at the subcommittee meeting. We would also like to express our gratitude to everyone in Shimokawa Town who cooperated in interviews and information provision. This report was also made possible by the support and cooperation of many persons not mentioned herein. We would like to express our sincere gratitude to all.

Highlights

Shimokawa the Sustainable Development Goals Report 2018

- Creating a sustainable town that is strong and resilient, where people can live happily and no one is left behind -

The town of Shimokawa is located in the northern part of Hokkaido Prefecture. It is a place of rich natural beauty, with 88% of its total area of 644.2 kilometers covered in forests. It is also one of the coldest places in Japan, with winter temperatures plummeting to a record –30ºC. There are currently around 3,400 people that call Shimokawa home.

Shimokawa was originally settled in 1901, and got its start as a forestry and mining town. It reached the height of its prosperity around 1960, when the population soared up to 15,555. That number dropped off dramatically around 1970, however, when its core industries began to decline. In 1980, it had fallen to 7,173, just half of its peak and further dropped to 4,747 in 1995.

Depopulation driven by declining the local core industry and other factors brought stagnation to the region. Faced with so many steep challenges, the residents of Shimokawa formed the Shimokawa Industrial Cluster Research Group in 1998, bringing together a wide range of players that included everyone from members of the Chamber of Commerce and local forestry cooperatives to housewives and government officials. In 2001, the association formulated its Grand Design for Forestry Symbiosis, which was built on a concept of sustainable development that integrated environmental, economic, and social factors. The Grand Design made Shimokawa's forests—its natural capital—the foundation for building a sustainable community that would work together to autonomously solve its problems. In short, it would serve as the basis for all of the town's municipal planning efforts.

Around the same time as the Research Group was active to develop the Grand Design, the wave of rural municipal mergers that swept across Japan and threatened the town's very existence. When it was decided in 2004 that Shimokawa would not undergo a merger with its neighboring municipalities, the town recommitted to developing its autonomy and developed its local autonomy plan, which was followed by the Shimokawa Basic Ordinance of Autonomy in 2007.

Generating economic, social, and environmental value through comprehensive solutions results in a sustainable community

The core activity of Shimokawa for pursing sustainability is a cyclical forest management that maximizes the use of its forest resources. Based on this, Shimokawa promote projects to develop a sustainable community by providing integrated solutions and creating new values through integration of the economic, social and environment dimensions. To revitalize local economy, the town is promoting a comprehensive forestry industry that incorporated traditional forestry operations as well as the development of forest products and forest biomass. Forest biomass would serve as one of the sustainable energy sources used to support local energy independence and the creation of a low-carbon community. These activities are linked with other activities to develop a new social system to cope with super-aging society. These comprehensive solutions are the hallmark of Shimokawa's ongoing efforts to establish sustainable society (see figure below). In balancing the social, economic, and environmental dimensions of development with across-the-board solutions, Shimokawa's efforts closely align with the Sustainable Development Goals (SDGs).

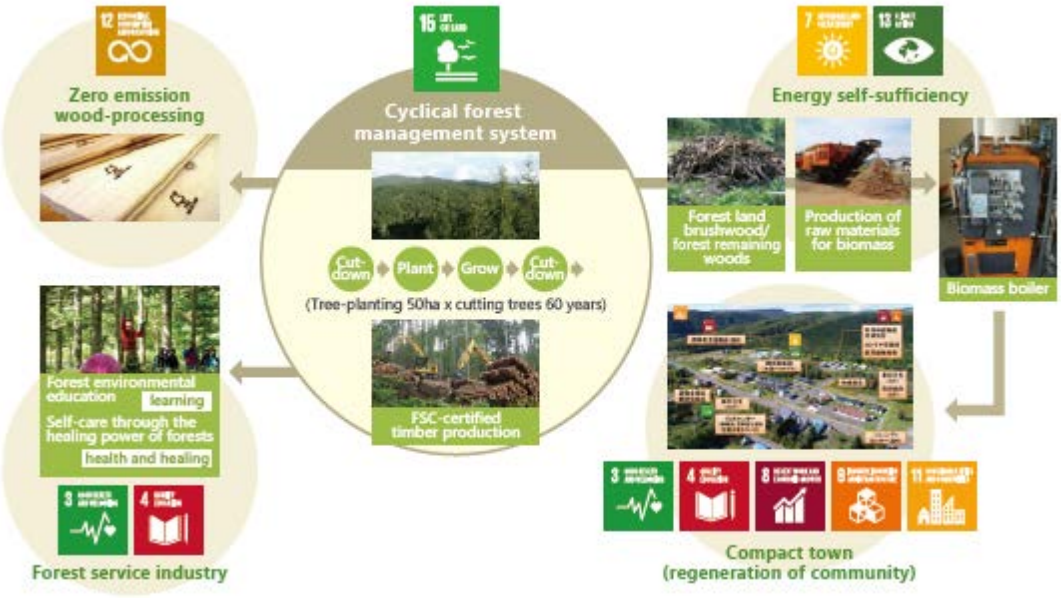


Fig. : Integrated Approach of Three Dimension of Sustainable Town Development in Shimokawa

Shimokawa's efforts have been recognized multiple times at the national government level. The town was selected as an Eco-Model City in 2008 and a FutureCity in 2011. In 2014 it was named a Model of Rural Revitalization, and in December 2017, the Japanese government's Sustainable Development Goals Promotion Headquarters presented Shimokawa with the first Prime Minister's Award for Japan's SDGs.

The Conferment Ceremony for the First Japan SDGs Award, December 2017 (Right: Prime Minister Abe, Left Mayor Tani)

Shimokawa's initiatives are already showing results. The town has been able to use its forests to generate new value (through forest education and the development of new products that utilize forest resources, for example), attract new entrepreneurs, and boost resident incomes to name a few. By introducing forest biomass as an energy source, it has been able to raise its local thermal energy self-sufficiency rate from 9% in 2010 to 49% in 2016. Meanwhile, Shimokawa has cut carbon dioxide emissions by 18% across the region—thereby helping to mitigate climate change as it works to become more energy independent.

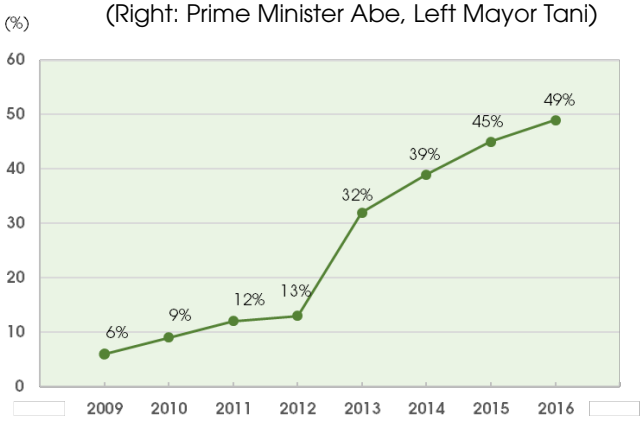


Fig. Thermal energy self-sufficiency rate in Shimokawa (Source: Shimokawa Town 2018a)

Despite these wins, however, future projections indicate that Shimokawa's socioeconomic challenges will only intensify as it continues to suffer from population decline, falling birthrates, and an increasingly elderly population. Global problems like world population growth, food security issues, and climate change are also expected to negatively impact life in the town.

In June 2018, Shimokawa was selected as an SDG FutureCity and its project proposal as a local government SDG Model Project by the Japanese government. These two new designations were created by the national government to promote SDG initiatives on the municipal level. Flexibly addressing the socioeconomic changes outlined above, Shimokawa, as a SDG Future City will further promote actions to become an ever-more sustainable community by incorporating the SDGs as a tool for regional revitalization.

Bringing in local stakeholders to define Shimokawa Vision 2030 (the Shimokawa SDGs)

Shimokawa Town is actively working to incorporate the SDGs into its municipal policies and projects, as it believes that backcasting (defined in the SDG Guide as "generating a desirable future, and then looking backwards from that future to the present in order to strategize and to plan how it could be achieved" (UN SDSN 2015) — creates better communities. The town also expects that the seventeen SDGs can offer guidance in identifying local challenges and solutions.

The first step in these efforts was having residents lead the formulation of a municipal vision (ideals) in the form of Shimokawa Vision 2030. In September 2017, the Shimokawa General Planning Council brought together ten local residents with diverse backgrounds to create the SDGs FutureCity Subcommittee. Using the SDGs to guide its deliberations, the subcommittee met thirteen times over the course of six months to discuss local issues and formulate the goals of Shimokawa in 2030, which it then repackaged and finalized, after receiving public feedback, as "Ideals of Simokawa in 2030" (hereinafter the Shimokawa Vision for 2030). They called it *the Shimokawa Challenge: Connecting people and nature with the future*. The vision for the town was defined as "a sustainable town that is strong and resilient, where people can live happily and no one is left behind". The subcommittee also put together a set of project proposals that would help it achieve this vision including discussions of progress indicators in its discussions as well.

The Shimokawa Vision 2030 is rooted in the town and rooted in the identity of the region. At the same time, however, it encompasses international goals such as the basic SDG principle of inclusion (with "no one is left behind") and the idea of a "decarbonized society" to combat climate change as set forth in the Paris Agreement.

SDGs works as a checklist of local challenges

In discussing the links between Shimokawa's idelas for 2030 and the SDGs as well as the links between various challenges, the SDGs FutureCity Subcommittee put together a set of project proposals stemming from its 2030 vision. The subcommittee members putting the SDGs into a regional context and discussed local issues. Some members pointed out that this practice allowed them to think more deeply about issues that they normally didn't consider—such as marine resources (SDG 14) since Shimokawa is an inland municipality, and peace (SDG 16).

Their deliberations also targeted the indicators they would use to measure the progress of actions taken towards the ideals and the project proposals that would get them there. During the deliberation at the subcommittee, its members gained a deeper understanding of the SDGs while stimulating a broader discussion that included voluntary citizen meetings to discuss the ideals of the town in 2030 outside of the subcommittee itself. Inspired by discussion on gender (SDG 5), active role of women in bearing and raising children while taking an active role in society for local sustainability was recognized, and female members formulated voluntary gatherings of women outside of the subcommittee that is now leading to new activities.

Shimokawa Vision 2030:

The Shimokawa Challenge: Connecting people and nature with the future

Goal 1 **A town where people come together to overcome challenges**

Shimokawa is faithful to its true character, marked by the fortitude to face challenges and the tolerance to accept diversity among various people and viewpoints

Goal 2 **A town where no one is left behind**

Shimokawa is a town where everyone belongs, has an opportunity to shine, and is free to express their full potential in a life that is healthy and meaningful

Goal 3 **A town that makes sustainable use of, and circulates its resources, including people, nature and finance ,**

Shimokawa cyclically and sustainably uses its resources including people, natural resources (including its forests and water), financial and other assets; fosters ongoing growth in its forestry and other industries; and practices local production for local consumption in food, lumber, and energy for the purpose of fostering healthy independence and autonomy

Goal 4 **A town where everyone is considered like family**

Shimokawa values human connection and strives to develop it through mutual consideration and support, ensuring that everyone can live in safety and in peace

Goal 5 **A town that treasures its cultural heritage and resources, and uses them to create new value**

Shimokawa learns from its past and uses it to drive the future, protecting its historical treasures while creating new value

Goal 6 **A town that serves as an example for the rest of the world**

By building on past successes and taking them to the next level, Shimokawa contributes to the creation of a decarbonized society (as outlined in the Paris Agreement) and the achievement of the global Sustainable Development Goals

Goal 7 **A town bringing smiles to children and happiness to future generations**

Shimokawa is always mindful of its future generations and committed to the development of the region as a whole, ensuring that its children grow up healthy, happy, and strong

Committing to the SDGs in order to make the Shimokawa Vision 2030 a reality

The town of Shimokawa is now trying to incorporate the Shimokawa Vision 2030 developed in full consideration of the SDGs as a springboard to formulate the SDGs FutureCity Plan as well as the Sixth Comprehensive Plan (its highest-level municipal plan to be formulated in fiscal 2018) with priority projects that will turn those plans into action. The town will also incorporate the SDGs in other plans, when they are formulated or revised and such plans includes its town master plan and its regional health and welfare plan.

Key projects to promote SDGs actions of the town includes the establishment of the SDG Partnership Center for Cities as a platform to bring together stakeholders from within and outside the region, the development of the Shimokawa SDG Indicators and the Shimokawa Database to measure progress towards SDGs. The town is also moving forward with a project to enhance the value of community by creating job opportunities for people with various backgrounds in partnership with companies out of the region. The project plans are shown in the figure.

This report provides an overview of the initiatives Shimokawa has taken so far to build a sustainable community, the process of formulating its 2030 vision, and future actions. It was compiled through a joint effort between the town of Shimokawa and the Institute for Global Environmental Strategies (IGES), based on existing documents, interviews with key players in Shimokawa, discussions at the SDGs FutureCity Subcommittee. The Shimokawa Vision 2030 set a goal for Shimokawa to become an example to the rest of the world. Our hope is that in reaching people around the world with this report, we are able to share the challenges that this small town nestled the northern reaches of Japan is taking on. We also hope that our outreach gives rise to new partnerships that further the dearly-held wish of the residents of Shimokawa: to create a sustainable town that is strong and resilient, where people can live happily and no one is left behind.

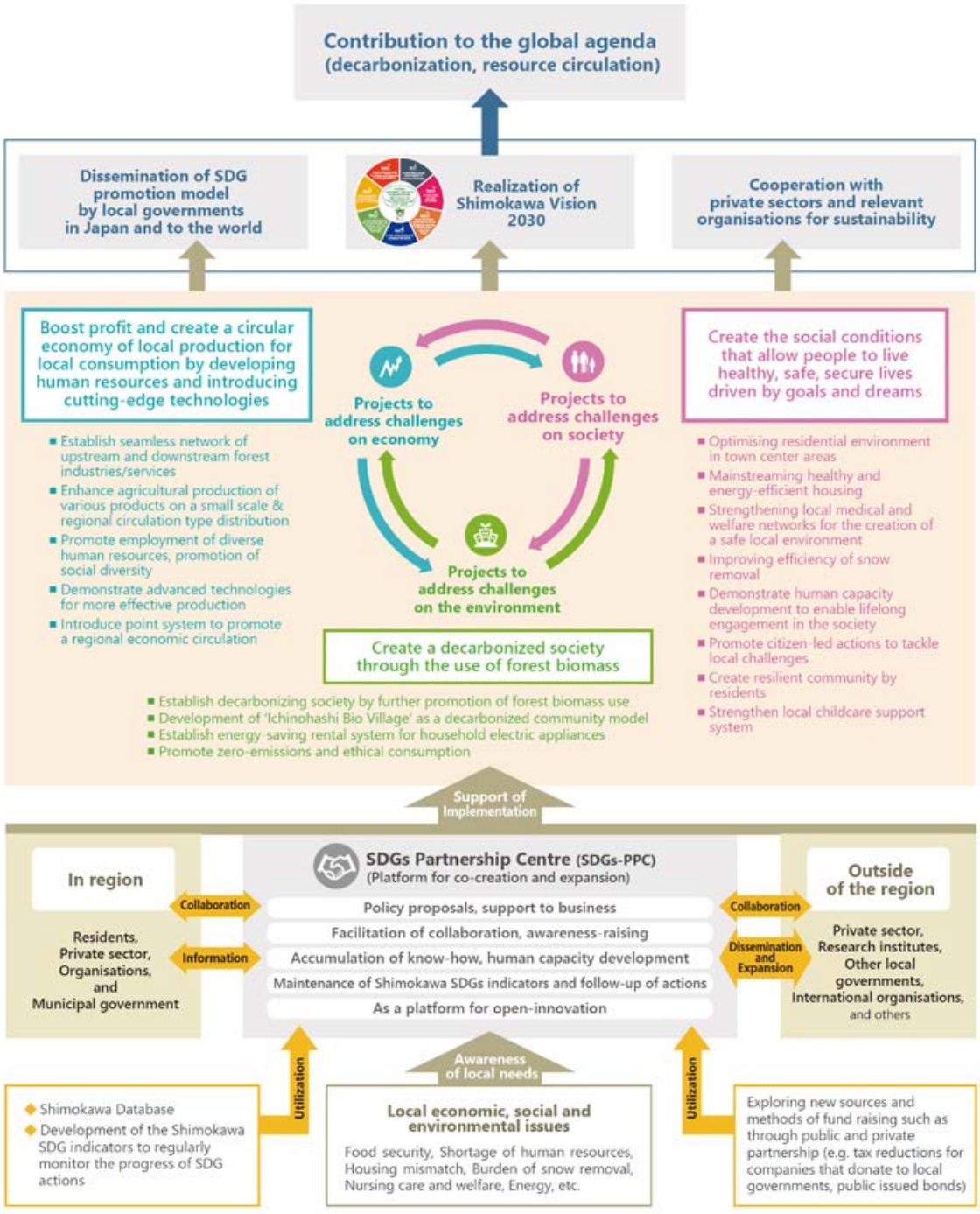


Fig. Projects planned to realize the Shimokawa Vision 2030

1. Introduction

(1) Background to Shimokawa

Shimokawa is a town located in the northern part of Hokkaido Prefecture. It is one of the coldest places in Japan, with winter temperatures plummeting to a record –30ºC.
It is a place of rich greenery, with nearly 90% of its a total area of 644.2 kilometers covered in forests. As of April 2016, it had a population of 3,383 people, around 40% of whom are seniors aged 65 or older. Most of the residents of Shimokawa live in the town center. Its primary industries are forestry and agriculture.

Figure 1 Map of Shimokawa

The history of Shimokawa begins in 1901 when its founders first settled here. Through hard work, those early families were able to develop the town's core agriculture, mining, and forestry industries by tapping into the vast land available here, including copper, gold, and other mining resources as well as the area's abundant forests. In 1924, the village of Shimokawa was officially created when it broke off from the neighboring town of Nayoro. Its municipal status was upgraded from village to town in 1949, when the population hit nearly 4,000. It reached the height of its prosperity around 1960, when more than 15,000 people called Shimokawa home.

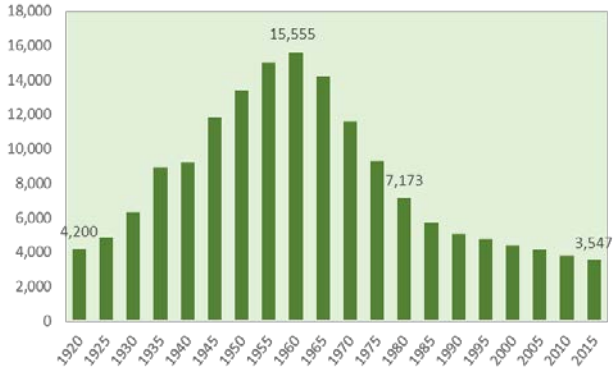


Figure 2 Population of Shimokawa
(Souce: Shimokawa Town 2017)

The town hit hard times in the late 1960s, however, and its core industries began to decline. People fled the area, and its population fell rapidly through between 1970 and the mid-1980s. In 1980, Shimokawa's was shrinking faster than all but three other municipalities in Japan, and only half of its peak population remained. Around that same time, its local forestry office was dissolved in a merger and Japan Railways stopped providing service. The former vitality of this once-bustling region was all but lost.

Later, as a wave of rural municipal mergers swept across Japan in the 2000s, Shimokawa was faced with a pivotal decision—would it merge with neighboring towns, or choose to retain its autonomy? Based on the result of opinion surveys conducted to every household in the region and series of discussion, citizens of Shimokawa decided that the town would remain an independent municipality in 2004. In the same year, the Shimokawa Regional Autonomy Plan was drafted, and in 2007 the Shimokawa Fundamental Ordinance of Autonomy prioritized the creation of a sustainable local community and citizen-led municipal planning efforts. The town's commitment to creating a thriving autonomous community had begun.

(2) The Grand Design for Forestry Symbiosis: A foundation for sustainable municipal development

Among Shimokawa's social challenges are a vulnerable local industry, depopulation, low birthrates, and an aging population. It is working to address them with solutions that take advantage of the natural resources that its forests provide. Shimokawa's sustainable forest management has earned acclaim for being a leading example for sustainable rural development; the Japanese government named it a FutureCity working to drive rural revitalization across economic, social, and environmental dimensions. In December 2017 it received the Prime Minister's Award of the first Japan SDGs Award.

At the heart of all of these initiatives is the Forest Symbiosis Grand Design, proposed in March 2001 through a citizen-led effort. With Shimokawa besieged by numerous crises (depopulation, declining core industries, and the threat of municipal merger), its citizens created the Grand Design and defined their vision for their town along with projects that would translate those ideals into reality (see the following box). The Grand Design envisioned creating integrated local socio-economic system rooted in the natural capital (forests) and harmonizing the economic, social and environmental aspects, which is deeply in line with the concept of the SDGs.

The Grand Design for Forestry Symbiosis: Integrated system for environment, economy and society to enrich quality of life

In 1998, with Shimokawa on the brink of extinction as a result of population decline, supportive local key players came together to form the Shimokawa Industrial Cluster Research Group. The group formulate several sub-groups that discussed idea of possible actions with the aim of creating a resilient local industry that would revitalize the town and make it more autonomous and independent. Participants included a diverse group of stakeholders that included everyone from members of the Chamber of Commerce and local forestry cooperatives to housewives and municipal government officials. There are three basic concepts of the discussion of the Research Group as follows.

- Use our strengths to become even stronger: Build on the existing local industry, the town's current source of competitive strength
- Strengthen partnerships: Build industrial-academic-government partnerships across the region while creating and enhancing networks with external players
- Tap into their unique characteristics and potential: Use the town's unique features and leading qualities to create a competitive advantage

In March 2001, the Group formulated *the Grand Design for Forestry Symbiosis*. As Fig. 3 shows, the Grand Design incorporated the concept of sustainable development, and envisioned to create a local socioeconomic system that balanced three dimensions (industry (economic), society, and nature (environmental)) to improve quality of life for all citizens. The conceptual framework and direction of the town's development showed in the Grand Design have been reflected the municipal policies until now. In other words, it framed the

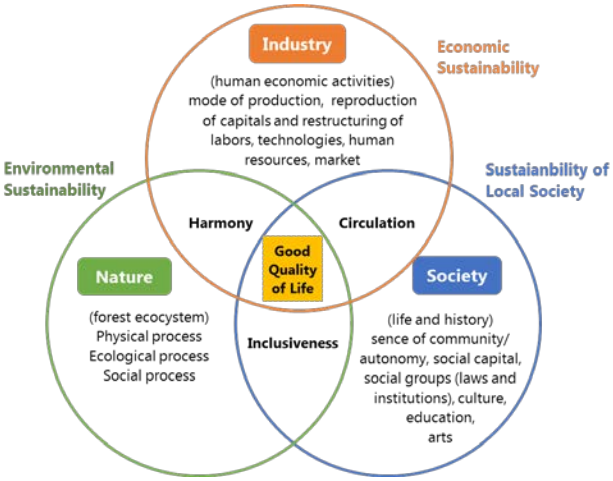


Fig.3 Basic Concept of the Grand Design
(http://www.shimokawa-zaidan.jp/society/02.html

current direction of municipal policies.

(3) Why Shimokawa is taking on the Sustainable Development Goals

The SDGs prioritize comprehensive solutions across three dimensions—economic, social, and environmental—and recognize the importance of partnerships. These concepts are firmly in line with the initiatives that are being implemented in Shimokawa. Many of the targets cited under the SDGs such as forestry, agriculture, urban planning, energy, health, education, and climate change also have a high degree of overlap with the areas that Shimokawa is making a priority. These parallels make it easier for people to get on board with the town's efforts.

By adopting the approaches recommended by the SDGs in its municipal planning efforts, Shimokawa is able to more strategically move ahead with solutions to its problems. The integrated approach proposed by SDG 17 (which deals with partnership and cooperation), for example has helped Shimokawa reframe and strengthen its sustainable development efforts within a broader context. Incorporating this approach makes it even more critical that the town define its vision and then take a future-oriented stance that considers exactly what needs to be done to achieve that vision. This makes it possible for municipal development to moves forward in a more innovative and strategic way.

Another advantage of the SDGs is that they give people a common language they can use to connect with one another. Shimokawa has been teaming up with outside stakeholders (among them the national government, corporations, universities, NGOs, and other groups) in its sustainable development efforts, but by building the SDG framework into its municipal policies, it not only strengthens the Shimokawa brand and presence, but also multiplies opportunities for all kinds of partnerships to develop. This in turn attracts more investments, corporations, new residents, and visitors. As an example, Shimokawa town concluded an agreement to collaborate with Yoshimoto Kogyo Co., Ltd. in July 2018. The opportunity to conclude this agreement was a direct result of both the town and company being recognized by the national government at the first Japan SDGs Awards (Yoshimoto Kogyo as recipient of the Partnership (Special) Award and Shimokawa selected as the winner of the Prime Minister Award).

Four benefits to taking on the Sustainable Development Goals

1) Taking a fresh look at the region through the lens of the 17 SDGs leads to new insights and discoveries towards local issues
2) Looking at the present state of the town through the lens of the future (ideals and vision) fosters solid municipal development through carefully considered action
3) Partnering with a wide range of key players resolves social issues and creates new value
4) Using the SDG framework allows Shimokawa to communicate its attractive qualities and future vision to a broad domestic and international audience, adding value to the town brand and increase its presence, which in turn attracts new residents, visitors, companies, and investment

(4) Solving local issues through the Sustainable Development Goals

Shimokawa's efforts so far have led to the creation of new value through its forests (e.g. forest education and the development of new products that utilize forest resources), helped attract new entrepreneurs to the town, and boosted resident incomes. By introducing forest biomass as an energy source, the town has been able to raise its local thermal energy self-sufficiency rate from 9% in 2010 to 49% in 2016. Carbon dioxide emissions have also been cut by 18% across the region.

Despite these positive signs, however, future projections indicate that Shimokawa's socio-economic challenges will only intensify as it continues to suffer from population decline, falling birthrates, and an increasingly aging population. Global problems like world population growth, food security issues, and climate change are also expected to negatively impact life in the town. Shimokawa needs to be able to flexibly respond to these socioeconomic changes, introducing SDGs as a tool for regional revitalization in its role as a SDGs FutureCity, and becoming an ever-more sustainable community

2. Preparation of the Report

The Shimokawa Town SDGs Report 2018 was a collaborative effort between the town of Shimokawa and the Institute for Global Environmental Strategies (IGES), which entered into a partnership with Shimokawa for the purpose of supporting and publicizing its sustainable municipal development initiatives in 2018.

IGES participated in discussion of the Shimokawa SDGs FutureCity Subcommittee and observed its discussion to developed the Shimokawa's vision for 2030 between September 2017 and March 2018. This report was drafted based such on discussion of the Sub-committee, information gathered through interviews with key stakeholders in Shimokawa, collection of official municipal government documents. The draft was also reviewed by relevant parties in Shimokawa town as well as by outside stakeholders.

The Japanese government selected Shimokawa as an SDGs FutureCity and its proposal as a Local Government SDGs Model Project in 2018 as a government's initiative to promote SDG initiatives on the municipal level. This national recognition spurred Shimokawa to further ramp up its efforts to find solutions to local problems through integration of social, economic, environmental initiatives in cooperation with both its own citizens and partners outside of the region. The Shimokawa SDG Report 2018 will continue to be updated as needed to reflect the progress of the town's upcoming SDG activities and utilize basic data collected during monitoring efforts.

3. Policies and Enabling Environment

3.1 Creating Ownership of the Sustainable Development Goals

(1) Raising public awareness on the SDGs

The town of Shimokawa can be considered fertile ground for implementation of the SDGs, and the Grand Design for Forestry Symbiosis serving a basic concept of development of the town is a perfect example. The idea of persistently and boldly tackling crises and difficulties is woven into the town's

DNA, and its residents have a history of taking the lead in using creativity and ingenuity to solve their local problems. That said, the SDGs themselves are still unfamiliar to the majority of residents, so Shimokawa has launched a series of SDG education and awareness initiatives that include seminars and articles in the town PR magazine. A few of them are listed below. Other activities to spread the word about the importance of taking on the SDGs and about principle and targets of the SDGs include independent study sessions of the Shimokawa Town Council.

[Examples of local activities to build SDG awareness]

◆ Lectures and workshops

July 2017	Film screening, mini workshop on the future of Shimokawa
July 2017	Workshop to discuss the future of Shimokawa
Sept 2017	Tour in partnership with Nikkei Business Publications (SDG talk and field trip)
Oct 2017	SDG lecture (for local residents), workshop on the Shimokawa Vision 2030 (for junior high school students)
Dec 2017	Talk on the concept of "connection"

◆ Other activities

October 2017 through March 2018: Articles on the SDGs published in the town's PR magazine

Workshop on the Shimokawa Vision 2030 for local junior high school students (September 2017)

b) Citizens create a vision for 2030

In September 2017, the SDGs FutureCity Subcommittee was created under the Shimokawa General Planning Council to formulate the Shimokawa Ideals (the vision of Shimokawa for 2030, hereinafter "the Shimokawa Vision 2030). Ten local residents became members of the subcommittee and a facilitator was invited from the out of the town. The subcommittee met thirteen times from September 2017 to April 2018 to formulate the Shimokawa goals, which it then repackaged and finalized in April 2018, after receiving public feedback, as its vision for 2030. The vision was titled *The Shimokawa Challenge: Connecting people and nature with the future*. The Shimokawa Vision 2030 includes seven goals as well as proposed projects that the town would need to make the vision a reality.

Discussion at the Subcommittee

The resident members of the SDGs FutureCity Subcommittee came from diverse backgrounds, and included business owners, nonprofit representatives, agricultural workers, housewives, teachers, and more. The subcommittee invited Ms. Junko Edahiro of e's Inc. to facilitate its meetings. During these

meetings, the members listed up their goals for their town from the vantage point of the SDGs, considered possible project proposals, and even discussed indicators they could use to track their progress. The members not only discussed the 17 SDGs, but also looked at targets that were unique to Shimokawa beyond the UN framework. In the process, they repeatedly worked to fit the SDGs into their local context. Some members noted that this gave them an opportunity to think about issues that they would not normally consider. Marine issues are not an everyday concern in this landlocked town, for example, but SDG 14 (marine resources) reminded them that they needed to protect the headwater environments that served as spawning grounds for cherry salmon (Oncorhynchus masou) and other fish. Peace (SDG 16) was another topic that residents enjoyed revisiting.

Discussions also touched on what kinds of datasets would serve as reference material for considering the ideals (vision) that would linked to the possible indicators they could use to track the progress of initiatives aimed at making them a reality. Through the discussion, the Subcommittee members gained a deeper understanding of the SDGs while stimulating a broader discussion that included voluntary citizen meetings to discuss the ideals (vision) outside of the subcommittee itself. The subcommittee realized the importance of having women bear and raise children while taking an active role in society from the discussion of SDG 5 (gender) —leading to the creation of women's gatherings that are spurring new activities empowering women as well.

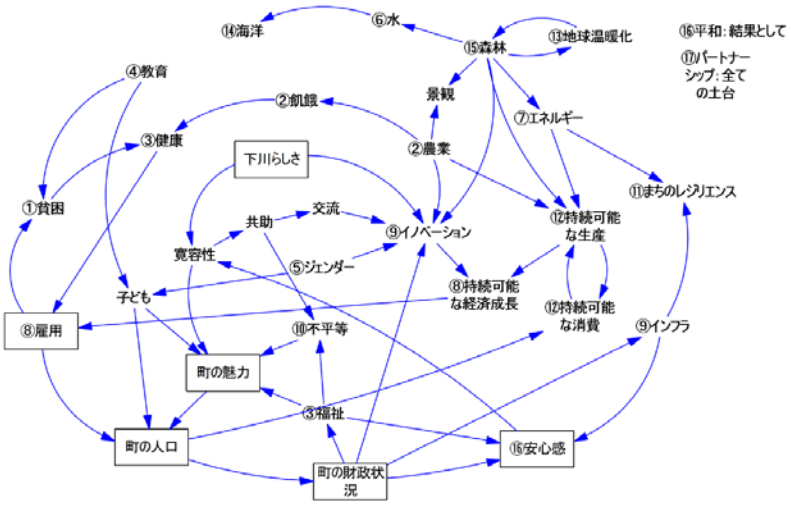
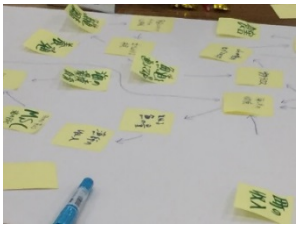


Fig. : 4. Loop diagram for Shimokawa's 2030 vision [in Japanese]
(prepared by the SDG FutureCity Subcommittee)

SDG FutureCity Subcommittee activities (September 2017 through April 2018)

September. 2017	Session 1	SDG Subcommittee procedures
October 2017	Session 2	The concept of "connection"
November. 2017	Session 3	What we want more of and less of in Shimokawa by 2030, and what we absolutely want to see happen by then
December 2017	Session 4	Linking the 17 SDGs to those elements
January 2018	Session 5	Best-case and worst-case scenarios for Shimokawa under the 17 SDGs
February 2018	Session 6-8	Create loop diagram
	Session 9	Supplement loop diagram, use it to discuss a vision (written draft) and concrete actions (leverage points, activities, projects)
March 2018	Session 10	Discuss concrete actions
	Session 11	Discuss progress management indicators
	Session 12	Discuss vision/ideals (draft)
April 2018	Session 13	Solidify vision, taking public feedback into account



3.2 Incorporation of the SDGs in Local Framework and Consistency with the National SDG Framework

(1) Consistency with the national SDG framework

Shimokawa was selected by the national government as an Eco Model City in 2008 and as FutureCity in 2011. The concept behind the FutureCity is very similar to that of the SDGs, as the designation indicates municipalities that are committed to regional revitalization and overcoming local issues with integrated environmental, social, and economic solutions. Shimokawa formulated the FutureCity Plan to address three core challenges with cross-cutting initiatives: creating an integrated forestry industry, becoming completely energy self-sufficient, and meeting the needs of its super-aged population. To the positive results of these initiatives, Japan's SDGs Promotion Headquarters (headed by the Prime Minister) presented Shimokawa with the first Prime Minister's Award for Japan's SDGs.

Subsequently, in June 2018, Shimokawa was selected as a SDGs FutureCity and its proposed project as a Local Government SDG Model Project by the Japanese government. Shimokawa will now be able to move ahead with initiatives to promote local SDG action, align closely with national SDG policy, and reflect the unique characteristics of the town itself—with the aid of national funding as well.

(2) Incorporation of the SDGs in the local framework

The Shimokawa Fundamental Ordinance of Local Autonomy enacted on April 1, 2007 states clearly in the preface that it is designed to "realize a sustainable local community". To purse the objectives of the ordinance, Shimokawa town has been promoting several initiatives which were designated as an Eco Model City (2008), FutureCity (2011), and a Model of Rural Revitalization (2014) by the Japanese government.

Incorporation of the SDGs into municipal plans at a higher level

Shimokawa is committed to making the SDGs a key part of its vision and municipal plans. The first step in this effort was to have its citizens lead the formulation of the Shimokawa Vision 2030 in March 2018.

This vision and the project ideas that came about in the process of discussions were fully incorporated in the proposal for the national SDGs FutureCity program. In addition, Shimokawa town plans to align the Sixth Comprehensive Plan, which is the town's highest-level municipal plan scheduled for formulation in fiscal 2018 with the vision and the project idea as well as SDGs itself (Fig. 5). The town is also working to incorporate SDG concepts and approaches in the formulation and revision of other municipal plans, including the revised local version of the nationally-issued Comprehensive Strategy (the current strategy covers the FY2015–FY2019 project term), the Town Master Plan, and the Regional Health and Welfare Plan, to name a few.

Fig. 5 Process to incorporate SDGs in municipal policies and projects

3.3 Integration of the Three Dimensions

For nearly half a century, Shimokawa has been developing expertise in creating a community that lives in harmony with its surrounding forests. As a Forest FutureCity (a type of FutureCity), it has been pushing comprehensive initiatives to revitalize the local economy with three core components: promoting an integrated forestry industry (economic), energy self-sufficiency through the use of forest biomass (environmental), and addressing its super-aging society (social) (Fig. 6).

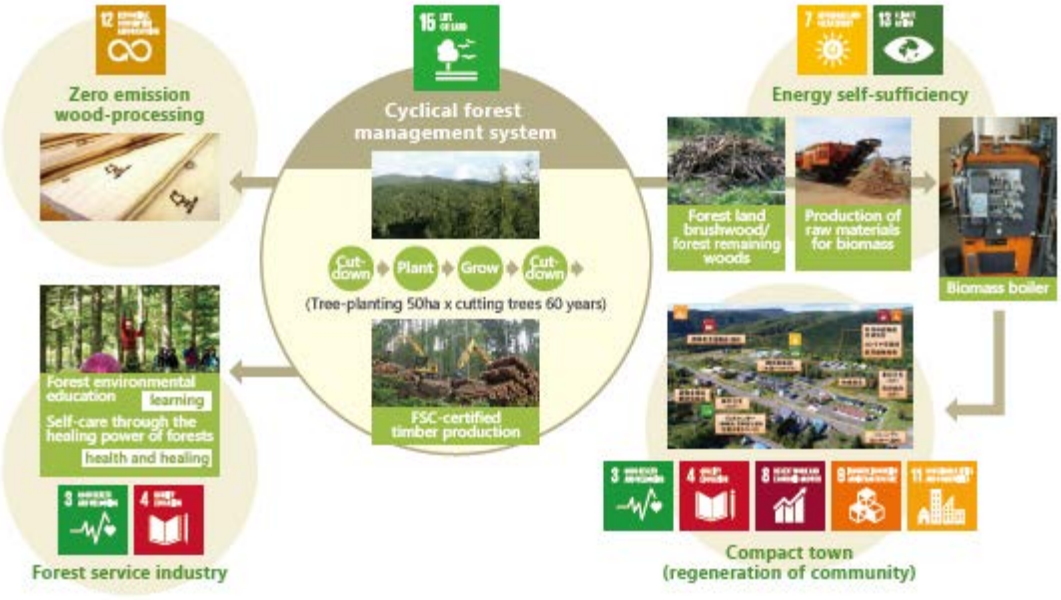


Fig.6 Integrative model of Shimokawa to address economic, social and environmental challenges and create new value

Below is an overview of the projects that address each of these three areas (economic, environmental, and social). Each one is rooted in the use of local forestry resources and organically linked to the others with the aim of alleviating or solving the region's most pressing problems—job creation, energy, and aging.

[The economy]

The cyclical forest management system

Most of Shimokawa's forests are nationally owned, and the town has been gradually obtain a part of them disposed by the national government since the mid-1940s to strengthen its economic foundations and stabilize job creation. Today, it manages about 3,000 hectares of woodland. The current cyclical management and operation system fells 50 hectares a year and plants new trees, which take sixty years to reach maturity. In 2003, Shimokawa went a step further by being the first in Hokkaido to secure international Forest Management Certification from the Forest Stewardship Council (FSC) for all of the forests it owns. The town is also working on initiatives to offset the carbon dioxide emitted through urban living and corporate activities by absorbing and reducing through the town's forest development and biomass utilization efforts in line with the J-VER Offset Credit Scheme established by Ministry of the Environment, Japan.

In an effort to maximally leverage its forest resources, Shimokawa is also encouraging zero-emissions timber processing by efficiently utilizing everything it can from the forests—including waste products. The timber remnants generated during wood processing, for example, are used as fuel for woody biomass boilers, while unformed charcoal is used as a soil enhancer or to melt snow. The system has also generated various new economic activities. Once trees are cut down, the Sakhalin fir needles left behind in the forest are used to make essential oils, which has led to the establishment of companies that make aromatherapy products. Nonprofit organizations have also set up forest-based environmental education programs and forest healing projects, and woodworkers have moved to the area to work with local materials.

[The environment]

Energy self-sufficiency through woody biomass utilization

Forest biomass is produced using the branches, leaves, treetops, and thinned wood generated in the process of felling and logging. Shimokawa uses this material at 30 of its public facilities, not only to improve its energy self-sufficiency rate, but also to help reduce carbon dioxide emissions. These materials and generated cost savings have also been used to upgrade aging facilities and provide funding for parenting support programs.

Table 1: Small-scale distributed renewable energy supply systems: Establishment and results
(Source: provided by Shimokawa-town)

	2011	2016	Change
Woody biomass boilers	7 units	11 units	+4 units
Facilities supplied (public facilities)	14 facilities	30 facilities	+16 facilities
Fuel cost savings	JPY 16 million	JPY 19 million	+JPY 3 million
Reduction in CO_2	900 tons of CO_2	3000 tons of CO_2	+2100 tons of CO_2

Forest-based environmental education programs

Shimokawa offers a fifteen-year integrated forest-based environmental education program for students from preschool through high school. The program uses a variety of activities in the forests, a well-known local resource, to make children familiar with the forests, inspire them to enter forest-related jobs, or get them to think about local forest initiatives and the role that forests play. The overall goal is to develop people who voluntarily take action to build a more sustainable community.

The curriculum sets targets appropriate for each stage of childhood development. Kids learn to play in the forest at the Preschool Center, while elementary school children go on experiential nature tours and learn how to care for the forest through tree-planting and pruning activities. In junior high, students are given opportunities to consider forest jobs and the role that forests play in Shimokawa. High school students study topics like using forests to generate economic value. The Preschool Center offers programs almost every month, while the elementary, junior high, and high school activities are offered once a year.

These initiatives originally started when the nonprofit organization *Mori no Seikatsu* (Forest Living) began offering forest play activities for the local Preschool Center in 2006. The following year, an experiential forest program curriculum was introduced to municipal elementary, junior high, and high schools. The initiatives developed further, and were organized into their current system by 2009. Today, Shimokawa outsources the operation of the program to the Forest Living, while planning, evaluation, and improvement activities are done via a committee of key players (including those representing educational institutions, the board of education, and the town of Shimokawa) that meets every two years.

(Source: NPO Forest Life 2017. Photo; NPO Forest Life)

[Society]

Caring for a super-aging society: The Ichi-no-Hashi BioVillage Project

The Ichi-no-Hashi district is located about 10 kilometers outside the center of Shimokawa. It was once an area of bustling forestry industry activity centered around a local forestry office. In 1960, around 2,000 people lived and worked there. Over time, however, Shimokawa's forestry industry declined and its population shrank to the point that in 2009, there were only 95 people left in Ichi-no-Hashi—over half of them seniors age 65 or older. It had become an underpopulated, aged region with elderly residents increasingly in need of help with shopping, medical transportation, snow removal, and other daily tasks. Public

Collective Housing Model Area (https://www.town.shimokawa.hokkaido.jp/kurashi/kankyo/kankyou/20140221itinohashi.html)

housing facilities had also become dated and worn, resulting in a mounting social crisis.

When the Japanese government selected Shimokawa as a FutureCity in 2008, it kicked off a series of efforts to breathe new life into the rural settlement. A study group consisting of municipal staff and residents was put together in 2010, and a concept for a revitalization project was born. The aim of the project was to create a new community where people of all ages could comfortably live out their lives. The aging public residential facilities were rebuilt to help concentrate housing in the center of the village, and policies were drafted to address issues like industrial revitalization and energy supply.

Using this concept as a blueprint, Shimokawa developed a compact town in 2014 that included housing comprising 22 units as well as a central area providing everyday services including a residents' center and post office, with the goal of improving quality of life for the local residents—particularly the elderly. The result was a compact settlement that also had convenient access to the town center via a community shuttle. Finally, all of the facilities in Ichi-no-Hashi, including the residential and services compound, the neighboring support facility for persons with disabilities, and the water and air heating systems at the public bathhouse, were equipped with heat supply systems that used woody biomass for fuel.

Shimokawa has been making use of the national Community-Reactivating Cooperator Squad program launched in 2010 to generate new industrial activity. The program sends in teams from outside cities and towns to support local activities and help create new community businesses. Pilot projects included setting up local eateries and offering mini supermarket services via a traveling sales vehicle. In more recent years, new industries have sprung up based on local resources. In one example, one former member of the Community-Reactivating Cooperator Squad launched an organic cosmetics business offering products made with chamomile and other herbs grown in the area. Oji Holdings Corporation signed a Forest Resources Multiuse Partnership Agreement with the local bathhouse, opening a medicinal herb-testing laboratory in 2013. The following year, shiitake mushroom cultivation began at the Specialty Forest Products Growing Lab, resulting in new job creation.

Today, the population of Ichi-no-Hashi still hovers around 90 people, but more of them are of working age and new residents are flowing in.

（Left）Shitake mushroom cultivation、（右）travel sales vehicle

Table2: Results from the Ichi-no-Hashi Bio Village project (Source: provided by Shimokawa-town)

	FY2011	FY2016	Change
Population	95	95 (FY2015)	0
Percentage of age 65 or older	52%	28%	-24%
Number of companies	0	5	+5
Employed persons	0	32	+32
Sales from the Specialty Forest Products Growing Lab	JPY 28 million (FY2014)	JPY 56 million	+JPY 28 million

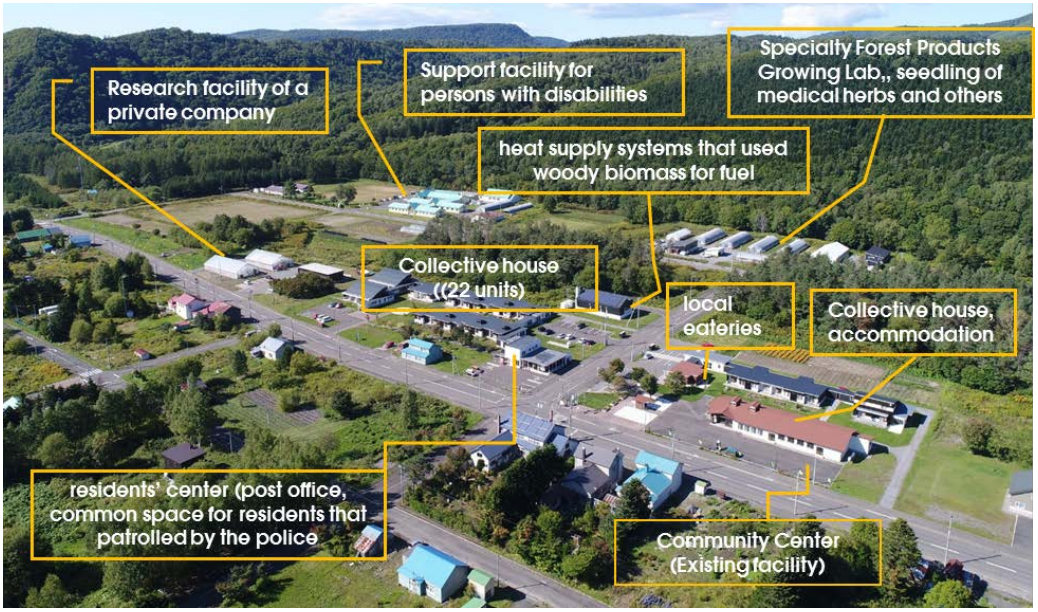


Figure 7. Overview of Ichi-no-hashi Bio-village

3.4 Leaving No One Behind

Shimokawa wants to create an environment where every resident—regardless of their gender, age, position, or whether they are local-born or incoming residents—can enjoy good quality of life. To that end, the town is enlisting the help of the local community in implementing measures to address social issues such as support for the elderly, support for parents, support for the disabled, and support for new residents. The Ichi-no-Hashi BioVillage is one specific example of these efforts.

In addition, the fuel cost savings that have resulted from introducing woody biomass boilers are being put into a Woody Biomass Cost Savings Fund, half of which is being used to fund new parenting support programs. Specifically, the money helps provide free medical treatment to children until they enter junior high school, free vaccines to protect against communicable disease, a 10% reducing in daycare services, a 20% reduction in school lunch fees, picture books for toddlers, and more.

In the process of discussing Shimokawa Vision 2030, the SDGs FutureCity Subcommittee was reminded of just how important it is that women play an active role in the community. The town is already seeing new activities spring up that incorporate the SDGs, among them fresh initiatives created by residents themselves. Shimokawa will continue to use the SDGs as guideposts as it introduces measures to ensure that no one is left behind by its various municipal policies. The goal is to create a town where citizens from every walk of life are given opportunities to learn, where everyone belongs and has the opportunity to shine, and where everyone can live a life that is both healthy and meaningful.

3.5 Institutional Mechanisms

The SDGs are comprehensive targets that span all areas of government policy. Achieving them requires a clear understanding of those targets and the promotion of frameworks marked by both

horizontal and vertical collaboration. It is for this reason that Shimokawa set up a mechanism for bringing its entire administrative organization together to achieve its 2030 vision. External evaluation and verification mechanisms were also brought in to ensure that activities were being properly reviewed and improved as needed. Fig. 8 gives an overview of the entire framework, while Fig. 9 shows the setup within the municipal government alone.

To manage progress, Shimokawa uses a PDCA cycle with the Comprehensive Plan that it implements every fiscal year in line with municipal ordinances. Actions are thus regularly evaluated and reviewed.

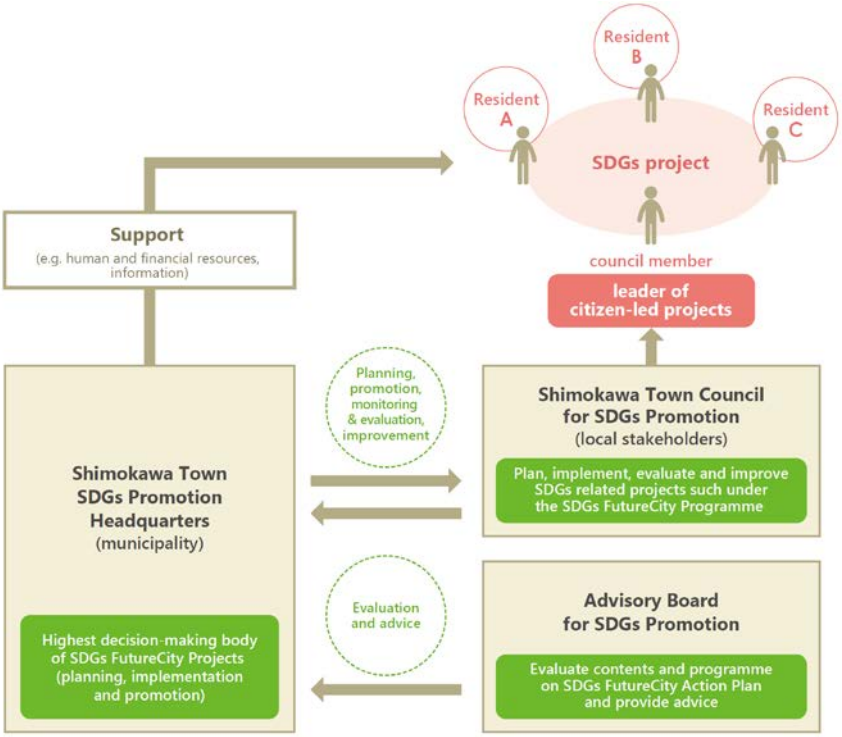


Fig. 8 Institutional arrangement to promote SDGs in Shimokawa

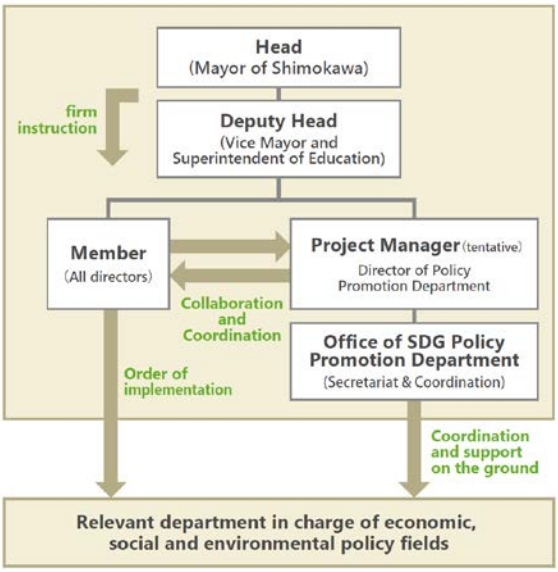


Fig. 9. Shimokawa Town SDGs Promotion Headquarters

4. Structural Issues

Shimokawa is located some 260 kilometers from the New Chitose Airport, its nearest international terminal. The closest domestic airport is Asahikawa Airport, and even that is nearly 100 kilometers away—about two hours by car. There are no public railway stations in the town. In short, physically accessing Shimokawa is far from easy. Add a snowy, bitterly cold climate and you have a place with significant disadvantages in terms of the time and cost involved in transporting people and goods. Meanwhile, a shrinking, aging population with fewer children puts Shimokawa on the forefront of the structural challenges facing Japan as a whole. Finally, because the town's core industries (agricultural, forestry, and forest products) are resource-supply industries, they are highly vulnerable to global economic conditions. Structural issues abound, but Shimokawa is committed to overcoming them by creating an attractive, sustainable town where every citizen is given the opportunity to shine.

5. Goals and Targets

5.1 Current Status

(1) The Fifth Comprehensive Plan and the Sustainable Development Goals

Table 3 checks the measures in the Fifth Comprehensive Plan (Shimokawa's top-level government plan) against the seventeen SDGs. Most of the measures cut across multiple SDGs, but a look at the targets shows that most of them are related to the goals Shimokawa has for its current problems—namely, health, jobs, urban life (creating a town able to cope with low birthrates, aging, and population drain), and forestry (land). Conversely, landlocked Shimokawa has no measures that relate to SDG 16 (marine life).

As stated before, the Fifth Comprehensive Plan is scheduled for review during fiscal 2018, and will be repackaged to the Sixth Comprehensive Plan that includes the measures needed to achieve the Shimokawa Vision 2030.

Table 3　Objectives and Measures of the Shimokawa Fifth Comprehensive Plan (FY2011-2018) against 17 SDGs

Basic objective	Measures \ SDGs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Create a community where people are vibrant and in good health (community welfare and medical services)	Community health and welfare	■		■		■			■	■	■	■					■	■
	Health and medical services		■	■		■						■						
	Support for the elderly			■					■		■							■
	Parenting support	■	■	■		■			■		■							■
	Support for persons with disabilities			■					■		■							■
Cultivate human resources by developing their character, potential, and positive qualities	School education	■		■	■				■	■	■	■				■		■
	Lifelong learning and sports			■	■							■						
	Culture and the arts			■	■							■						
Create safe, secure, and comfortable living conditions	Land utilization and urban districts											■				■		
	Landscaping and parks											■				■		
	Housing							■				■	■	■				
	Roads and bridges											■						
	Measures to cope with snow and extreme cold									■		■						
	Waterworks			■			■					■						
	Sewage system			■			■					■						
	Public transportation			■							■	■						
	Environmental conservation						■	■				■	■	■		■		■
	Traffic safety, crime prevention, and consumer living											■					■	
	Fire prevention and emergency rescue			■													■	
	Disaster prevention											■					■	
	Digitization									■								

Table 3 (Cont.)

Basic objective	Measures \ SDGs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Utilize local resources to develop industry	Agriculture		■						■									
	Forestry and forest products industry							■	■	■		■		■		■		
	Prevention of damage from wild birds and animals		■						■									
	Commerce and industry								■	■		■						■
	Development of tourist attractions								■	■		■				■	■	
	Utilization of local resources and creation of new industry			■				■	■	■	■	■	■	■		■		■
	Employment and labor issues	■		■					■			■						■
Cultivate a resident-led community	Local self-governance and local cooperation											■						■
Administer government and finances efficiently and effectively	Efficient, effective government administration																■	■
	Sound financial management																■	■
	Promotion of regionwide administration																	■

5.2 Shimokawa's status towards priority discussion items at HLPF 2018

This section presents relevant indicators for the SDGs marked as priority items for discussion at the UN High-Level Political Forum on Sustainable Development 2018 organized in July 2018, New York. They are taken from currently available public documents and similar materials (in the figure, all years are fiscal years unless otherwise noted. Reference is in the end note.). Shimokawa will be taking concrete measures to achieve its town vison and goals under its Sixth Comprehensive Plan and the SDGs FutureCity Plan to be formulated and elaborated in 2018. Indicators to track the progress of the SDGs actions will be also developed in relation to the plans.

SDG 6: Clean water and sanitation

Shimokawa is generally in good shape when it comes to its municipal water supply, wastewater treatment (by sewage and decentralized wastewater treatment systems), and the ambient water quality of rivers. Going forward, however, the town does expect that it will have to address social and environmental issues in this area, among them population decline and climate change.

Table. 4

Related SDGs Target	Indicators	Before (year)	Most Recent (year)
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	Percentage of water coverage by population (%)	96.6 (2011)[1]	96.3 (2015)[1]
	Achievement rate of drinking water quality standards (%)	100 (2012)[2]	100 (2015)[2]
36.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	Percentage with sewered population (%)	77.6 (2013)[3]	78.6* (2017)[3]
	Usage rate of flush toilet (%)	87 (2008)[4]	78.3 (2015)[4]
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	Achievement rate of river water quality (DO, %)	100 (2008)[5]	100 (2013)[5]

*Percentage of population with sewer connection or decentralized wastewater treatment was 91.8%.

SDG 7: Affordable and clean energy

Shimokawa will continue promoting the use of local thermal energy in its push to become energy independent. It is also encouraging energy efficiency and the use of renewable energy sources through a program that supports the use of highly insulated, highly airtight, renewable-energy construction for new residential builds and upgrades.

Table. 5

Related SDGs Target	Indicators	Before (year)	Most Recent (year)
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	Energy self-sufficient rate by local heat supply system (%)	12% (2011)[6]	29% (2016)[6]
	Woody biomass supply amount (to the local woody biomass boiler)	4,121 (2012)[6]	13,047 (2016)[6]

SDG 9: Industry, innovation, and infrastructure

Shimokawa is promoting renewable energy. It also continues to work with local residents, companies, research institutions, and other partners to reinforce new industries by creating new and additional values based on local resources.

Table. 6

Related SDGs Target	Indicators	Before (year)	Most Recent (year)
9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	CO_2 reduction by introduction of renewable energy supply system	900 (2011)[6]	3,000 (2016)[6]
9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending	Sales of the products from the Specialty Forest Products Growing Lab (thousand yen)	28,000 (2014)[6]	56,000 (2016)[6]

SDG 11: Sustainable cities and communities

Shimokawa is promoting comprehensive development strategies like the Ichi-no-Hashi BioVillage, which simultaneously tackle economic, social, and environmental issues. It is also supporting seniors and others who are limited in their ability to get out and about due to driving difficulties such by introducing on-demand local public transportation systems. To keep the elderly from becoming isolated or lost, Shimokawa used the latest information technology to set up and run senior watch systems, achieving its goal of installing 120 units between FY2011 and FY2014. In terms of forest development plans, the town is promoting measures to preserve its water resources while making its forests more resilient to disasters by establishing guidelines for headwater forests and for the development and use of forests designed to protect against mountain disasters.

Table. 7

Related SDGs Target	Indicators	Before (year)	Most Recent (year)
11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	People who used local transportation service as life support (number of passengers of shared-ride taxi) (persons)	2,565 (2012) [6]	13,086 (2016) [6]
11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	Resident satisfaction score on the local ambient environment (%)	30.3 (2010)[7]	46.8 (2016) [7]

SDG 12: Responsible consumption and production

Shimokawa continues to protect its forest resources while implementing sustainable management practices that both cyclically manage and thoroughly utilize those resources.

Table. 8

Related SDGs Target	Indicators	Before (year)	Most Recent (year)
12.2 By 2030, achieve the sustainable management and efficient use of natural resources	Recycling rate of municipal solid waste	53.5 (2011)[8]	42.6 (2016)[8]
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	Municipal waste generation amount (per capita/day)	621 (2011)[8]	697 (2016) [8]

SDG 15: Life on land

Shimokawa is promoting measures designed to revitalize local socioeconomic conditions by both protecting and maximally utilizing its forests via cyclical forest management systems. The Shimokawa Forest Development Plan addresses biodiversity by designating water resource protection zones, biodiversity areas, and policies guiding forestry practices.

Table. 9

Related SDGs Target	Indicators	Before (year)	Most Recent (year)
15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	Area certified by FSC (Forest Stewardship Council)	2,080 (2003)9	7708.21 (2018)10

5.3 Outcomes from Key Initiatives

(1) More power to attract people

Although Shimokawa is still experiencing population decline, the social movements (people moving in and out) that impact economic conditions have eased, and Shimokawa has more people coming in than going out over the last five years. The new residents, some returning to rural life and some fleeing cities to seek it out for the first time, are generating new value (starting new businesses) through a variety of initiatives that tap into the town's cultural and natural resources—particularly its forests. Not only are these newcomers breathing new life into the community, but their activities are drawing even more people to move to Shimokawa and make their mark on the town.

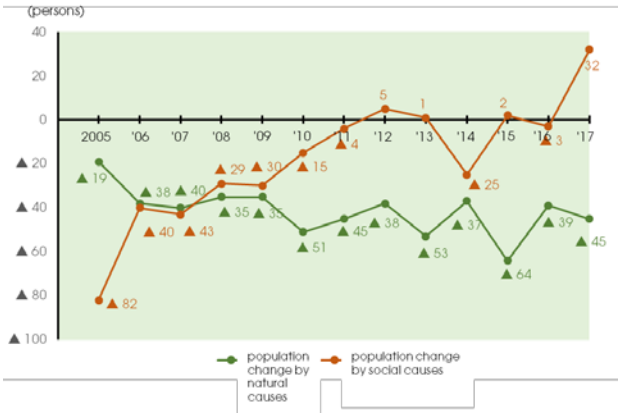


Fig. 10 Demographic statistics (Shimokawa 2018a)

(2) More power to create new value from local resources

Shimokawa has achieved a thermal self-sufficiency rate of 49% thanks to the use of forest biomass, at the same time reducing region-wide carbon dioxide emissions by 18%. The energy conversion has also allowed the town to reclaim an estimated 210 million yen in funds that formerly flowed out of its economy.

(3) A healthier economy

Per-resident tax revenues have been climbing in Shimokawa for several years now, and income taxes were up 16.1% in 2016 over fiscal 2009 levels. These figures point to an increase in individual incomes as well

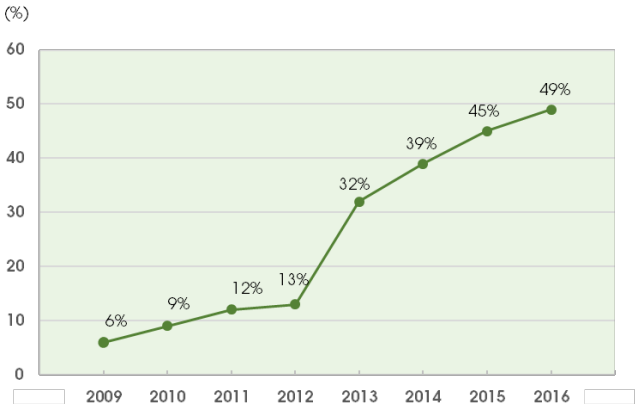


Fig. Local energy self-sufficient rate (Shimokawa town) (Shimokawa 2018a)

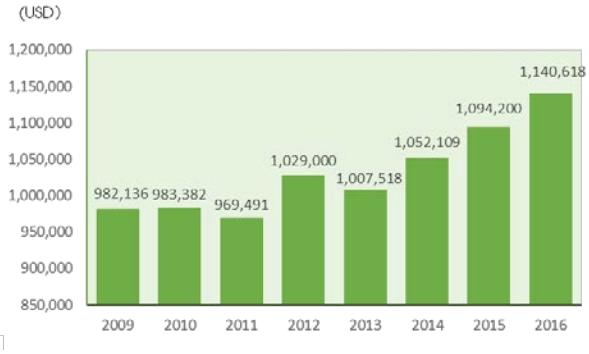


Fig. Revenue of Personal income tax (Shimokawa 2018a)

5.3 Future Challenges

Population projections for Shimokawa estimate a 26.5% decrease between 2017 and 2030, from around 3,300 people to about 2,500. By 2045, the population is expected to dwindle to half of its current levels—just 1,800 people (National Institute of Population and Social Security Research). Population shrinkage intensifies all kinds of social problems. It reduces the number of working-age residents (expected to be just 31% of 2015 levels by 2030), and as the average age get older, it leads to a shortage of workers in the local economy. The services people count on for daily life start to scale back as well, which accelerates population drain and drives further stagnation across the region. Meanwhile, there is likely to be a greater need for senior care services, as well as an increasing number of abandoned homes.

If Shimokawa looks beyond its borders, it finds socio-economic threats on a global scale as well. The worldwide population explosion is causing shortages of water, food, energy, and other resources, while environmental pollution and climate change can have serious local impacts.

Fortunately, Shimokawa and other rural mountain areas in Japan are blessed with an abundance of resources. Because they can produce and supply their own food, timber, and energy, they still have the potential to play a critical role in helping the world cope with the changes that lie ahead. Turning these threats into opportunities will require strategically developing sustainable communities that resolve local issues. It is critical that Shimokawa push even harder to carry out activities that will enhance its value.

5.4 The Shimokawa Vision 2030

Shimokawa town developed the Shimokwa Vision 2030 comprising seven goals (ideals) through six-

month intensive discussions in the SDGs FutureCity Subcommittee and meetings with volunteers. This is the result of inclusive discussions on local challenges and the ideal image of the town for the future. Shimokawa will take action to realize its vision "to create a sustainable town that is strong and resilient, where people live happily and no one is left behind".

Shimokawa Vision 2030

The Shimokawa Challenge: Connecting people and nature with the future

Shimokawa's challenging history and true character

- Over the nearly 120 years since Shimokawa was first established in 1901, our forefathers have used the town's abundant natural resources as the foundation of its prosperity.
- Over time, Shimokawa's agriculture, forestry, mining, and other core industries began to decline. The town faced repeated crises and difficulties, among them the severe population drain of the 1970s/1980s and the threat of municipal merger in the 2000s. Our predecessors faced these challenges with fortitude, overcame them, and managed to develop the town into what it is today.
- Within the rich history and culture we have inherited from our forebears is the boldness to put our wisdom, ingenuity, and hard work into action to face crises and difficulties; the generosity and tolerance to accept people from all walks of life; the foresight to see a hundred years into the future with our cultivation of forests and other lasting resources; the creativity to generate fresh, untapped value; and other invaluable traits that have come to define the true character of Shimokawa.

Shimokawa's challenges today

- It is now 2018, and we live in an age of instability and uncertainty—poised to undergo dramatic changes to the way we work and live. On a global scale, climate change is harming our natural environment; there is an increasing scarcity of energy, food, and other resources; and we are experiencing a Fourth Industrial Revolution driven by advanced technology. At home, Japan leads the world in population decline, falling birthrates, and an aging citizenry.

The Shimokawa Vision 2030

- Amidst these uncertain times, we need to treasure the foundation our ancestors built and our true character more than ever. We must further develop these gifts and take them to the next level to make Shimokawa a sustainable town that is strong yet adaptable, where people can live happily and no one is left behind. This is how we will continue to thrive in the generations to come.
- Achieving this requires that a diverse group of key players, both from within Shimokawa and beyond, come together to build a Shimokawa that is ready for the future, yet faithful to its true character.

The Shimokawa Sustainable Development Goals (SSDGs)

Goal 1 **A town where people come together to overcome challenges**

Shimokawa is faithful to its true character, marked by the fortitude to face challenges and the tolerance to accept diversity among various people and viewpoints

Goal 2 **A town where no one is left behind**

Shimokawa is a town where everyone belongs, has an opportunity to shine, and is free to express their full potential in a life that is healthy and meaningful

Goal 3 **A town that makes sustainable use of, and circulates its resources, including people, nature and finance ,**

Shimokawa cyclically and sustainably uses its resources including people, natural resources (including its forests and water), financial and other assets; fosters ongoing growth in its forestry and other industries; and practices local production for local consumption in food, lumber, and energy for the purpose of fostering healthy independence and autonomy

Goal 4 **A town where everyone is considered like family**

Shimokawa values human connection and strives to develop it through mutual consideration and support, ensuring that everyone can live in safety and in peace

Goal 5 **A town that treasures its cultural heritage and resources, and uses them to create new value**

Shimokawa learns from its past and uses it to drive the future, protecting its historical treasures while creating new value

Goal 6 **A town that serves as an example for the rest of the world**

By building on past successes and taking them to the next level, Shimokawa contributes to the creation of a decarbonized society (as outlined in the Paris Agreement) and the achievement of the global Sustainable Development Goals

Goal 7 **A town bringing smiles to children and happiness to future generations**

Shimokawa is always mindful of its future generations and committed to the development of the region as a whole, ensuring that its children grow up healthy, happy, and strong

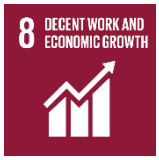
5.4 Priority Goals and Targets

Shimokawa has set the following priority goals and targets across economic, social, and environmental dimensions in order to resolve its local issues and achieve its vision for 2030. The indicators to monitor the progress of actions will be developed as "Shimokawa Indicators"

The economy: Boost profit and create a circular economy based on local production for local consumption, through human capacity development and introduction of cutting-edge technologies

Shimokawa is building on its experiences with cyclical forest management to create permanently sustainable cycles for other natural resources, people, finances, and more. Shimokawa's foundation in the economic dimension is not only to amplify growth and profit for the town's core industries (agriculture and forestry), but also to create a model of circular economy through promoting local production and local consumption of food, timber, energy, and more. In order to create this base, Shimokawa town is going to promote actions to achieve success in sustainable forest management (Target15.2), production and distribution of small-scale crops (Target2.3), placing diverse talent in key positions (Target10.2), improving productivity by introducing cutting-edge technologies (Target9.b), and promoting a regional circular economy while supporting business expansion and entrepreneurship (Target8.1, Target8.3).

<Relevant Goals and Targets>



8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

Target: 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

Target: 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

Target: 10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

Target: 9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

Society : Create the social conditions that allow all people to live healthy, safe, secure lives driven by goals and dreams

Shimokawa's foundation in the social dimension is creating a community where every individual is able to continue expanding their potential while living a life of safety and security through connection and mutual support. In order to create this base, Shimokawa's targets are to achieve success in making healthy, energy-efficient homes commonplace (Target3.d), setting up a comprehensive regional framework for enhanced safety that includes snow removal and disaster preparedness programs (Target11.b, Target11.3), human resource development (Target4.3), and resolving community challenges (such as providing parenting support) through citizen-led efforts (Target17.17, Target5.4).

<Relevant Goals and Targets>

11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate

17.17 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

The environment : Create a decarbonized society through the use of forest biomass

Shimokawa's foundation in the environmental dimension is creating a decarbonized, recycling-oriented society with even more advanced, thorough renewable energy usage by continuing to leverage its forest biomass resources. In order to create this base, Shimokawa will take actions to expand the use of renewable energy sources (Target7.2), promote independent energy management at the community level along with the introduction of energy-efficient home appliances (Target13.1), and setting up centers dedicated to reuse and upcycling.

<Relevant Goals and Targets>

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

4) Developing SDG indicators that reflect local realities and targets

It is critical that Shimokawa establish indicators to measure its progress towards achieving the SDGs. The basic idea was to use the national indicators issued by the United Nations as a guideline, though many of them pointed to goals that were either optional at the municipal level or did not apply at the municipal level at all without modification. It is also true that indicators developed for the macro level do not always accurately reflect conditions at the micro (municipal) level.

Japan has had some success with existing municipal-level evaluation indicators like the Comprehensive Assessment System for Built Environment Efficiency (CASBEE), but they did not always offer comprehensive coverage of the 17 SDGs. They are also of limited use as evaluation tools for policy implementation, since they were created primarily using publicly available statistical data that would be too labor-intensive for municipalities to collect on their own—meaning that they do not necessarily reflect micro conditions on a municipal scale. The important thing was that Shimokawa use the indicators issued by the UN as overarching concepts, returning to the underlying purpose of each target, for example, and reinterpreting them to suit local conditions. In this way, individual indicators were developed in line with the town's own targets.

Shimokawa has committed to incorporating SDG concepts into its next Comprehensive Plan, to be formulated during fiscal 2018. Because progress management of this plan will be carried out from an SDG perspective, the town is working with residents and the IGES to come up with quantitative SDG indicators. Shimokawa's independent indicators were developed alongside the Shimokawa Vision 2030 issued by the SDGs FutureCity Subcommittee, and are being discussed as a way to identify the extent to which the vision have been achieved and manage the progress of projects being implemented to that end.

Aside from these discussions, Shimokawa is in the process of interpreting the SDG indicators in a way that is unique to its own circumstances, working alongside IGES with a focus on information like Resident Tax data and family composition data. This approach will make effective use of data that can be collected in the course of basic, existing municipal activities—making it possible to not only collect information in an ongoing way despite the town's significant limitations in terms of human resources and logistics challenges, but also to accurately assess local conditions without relying on region-wide statistical data. When it comes to inequalities, for example (SDG 10), Shimokawa can evaluate its economic inequalities in a relative way by using the last several years of Resident Tax data to analyze changes in household income disparity (Gini coefficient) over time while also comparing it to national data from the same year. With poverty (SDG 1), it can look at the individual family composition data tied to Resident Tax data for each household in order to analyze the income of fatherless households and measure gaps with existing poverty lines. In this way, the town hopes to be able to see how far it has come in reducing poverty and track the progress of projects designed to help fatherless families.

Although Shimokawa is still in the process of determining exactly which indicators it will use, it does plan to develop its own set of unique indicators (the Shimokawa SDG Indicators) that include both shared indicators that make use of easily obtainable data (such as national government statistics). This will allow the town to compare itself to other municipalities. It will also develop unique indicators based on data that it is able to collect independently. The development of the Shimokawa SDG Indicators will be ongoing as during fiscal 2018 as the town formulates its new Comprehensive Plan. Shimokawa also intends to create a database (the Shimokawa Database) to keep track all of the indicator data.

Table 10: Sample Shimokawa SDG indicators (Sources provided by Shimokawa Town)

SDGs	Shimokawa SDG indicators	Baseline	Data source
SDG 1 Poverty	1-2 Percentage of people who feel they have the money to enjoy their lives and leisure time	46.4%	Residents' Survey[1] (2017)
	1-3 Percentage of fatherless households living below the poverty line	(Under survey)	Resident Tax data/fatherless household data (2017)
SDG 2 Hunger	2-4 Agricultural yield	JPY 2.63 billion	Independent town surveys (2016)
	2-4 Agricultural balance sheet	JPY 1.79 billion	Input-output tables (2008)
	2-7 Real food self-sufficiency rate	10.1%	Family budget survey (2017)
SDG 3 Health	3-1 Percentage of people who feel that they and their families are healthy	69.6%	Residents' Survey (2017)
	3-2 Percentage of people showing "no abnormalities" on health examinations (NHI/Happylth)	6.4%	Independent town surveys (2013)
SDG 4 Education	4-1 Academic ability of elementary sixth graders against the national average	Average 1.028 > 1	National Assessment of Academic Ability (2016)
	4-2 Academic ability of junior high third graders against the national average* (National Assessment of Academic Ability)	Average 0.852 < 1	Same as above
	4-8 Percentage of people who feel they have opportunities to participate in independent and lifelong learning activities	30.2%	Residents' surveys

Table 10 (Cont.)

SDGs	Shimokawa SDG indicators	Baseline	Data source
SDG 5 Gender	5-2 Percentage of women (age 18–49) who feel they can comfortably juggle family and career	51.0%	Residents' surveys (2017)
	5-3 Percentage of women (age 18–49) who feel they can easily continue to work while raising children	42.3%	Same as above
SDG 6 Water/ sanitation	6-1 Water supplied per resident	108.4 m^3	Independent town surveys (2016)
SDG 7 Energy	7-1 Thermal energy self-sufficiency rate	49%	Same as above
	7-2 Electrical energy self-sufficiency rate	4%	Same as above
SDG 8 Economic growth and jobs	8-1 Unemployment rate	2.2%	National census (2015)
	8-2 Percentage of people who feel their work is meaningful	49.5%	Residents' surveys (2017)
	8-3 Regional production	JPY 21.5 billion	Input-output tables (2008)
	8-4 Regional balance sheet* (input-output tables)	–JPY 5.2 billion	Same as above
SDG 9 Industry	9-1 Working population	1,788	National census (2015)
	9-2 Added value rate (agriculture, forestry, commerce, industry, etc.)	54.4%	Input-output tables (2008)
SDG 10 Inequality	10-1 Number of foreign residents		National census (2015)
	10-2 Income disparity (Gini coefficient)		Resident Tax data (2017)
SDG 11 Cities	11-1 People who feel that Shimokawa is a nice place to live now	73.9%	Residents' surveys (2017)
	11-2 People who intend to keep living in Shimokawa in the future	73.1%	Same as above
SDG 12 Production/ consumption	12-2 Recycling rate	47.5%	Survey by Ministry of the Environment (2015)
	12-3 Annual per-person waste output	1,077 t	Independent town surveys (2016)
SDG 13 Climate action	13-1 Carbon dioxide emissions	29,000 t-CO_2	Independent town surveys (2015)
	13-2 Carbon dioxide fixation*	1.12 million t-CO_2	Same as above
	13-3 Carbon dioxide absorption	731,000 t-CO_2	Same as above
SDG 14 Marine resources	14-1 Biochemical oxygen demand (BOD)	0.5 mg/l or less	Independent town surveys (2017)
SDG 15 Land resources	15-1 Area under optimized forest management (FSC certified forest area)	Municipal forests: 100% Private forests: 61.9%	Independent town surveys (2017)
	15-5 Forest utilization rate	70.7%	Independent town surveys (2016)
SDG 16 Peace	16-1 Percentage of people who feel that they live safe, comfortable lives	54.2%	Residents' surveys 2017)
	16-2 Percentage of people who feel that they have strong ties to the community	64.2%	Same as above
SDG 17Partnership	17-3 Percentage of people who feel satisfied with town development efforts	Average 5.88/10	Same as above
	17-4 Percentage of people who are interested in town development efforts	Average 5.94/10	Same as above

[1] Survey given to all Shimokawa residents age 18 and older / Collection rate: About 60% (FY2017)

6. Measures and Means of Implementation

(1) Funding

Shimokawa is making efficient use of its independent financial resources while also tapping into national support programs such as the SDG Model Project. Financial and personnel support is being secured through private partnerships, and the town is also looking to utilize research funding from universities and similar institutions.

(2) Inclusiveness and partnerships

If Shimokawa wants to use the SDGs to achieve its vision, it must have a diverse group of stakeholders from both within the town and outside take charge of rolling out its policies and projects. The town has already implemented a variety of programs in partnership with both internal stakeholders and external organizations—including other municipalities, companies, and research institutions. As of May 2018, Shimokawa has collaborative projects with seven corporations spanning a wide variety of industries, among them manufacturing, finance, real estate, transportation, and IT/telecom. In July 2018, Shimokawa town concluded an agreement to collaborate with Yoshimoto Kogyo Co., Ltd., as was a direct result of both the town and company being recognized by the national government at the first Japan SDGs Awards (Yoshimoto Kogyo as recipient of the Partnership (Special) Award and Shimokawa selected as the winner of the Prime Minister Award).

Press conference to announce the collaborative agreement between Shimokawa and Yoshimoto Kogyo .Co.

In areas like forestry management and agriculture, Shimokawa is teaming up with public research institutions and agricultural high schools in Hokkaido. With other municipalities, Shimokawa town collaborates under specific topic such as carbon reduction initiatives and PR/support measures to bring in new residents. Such collaboration includes the Alliance of Local Governments aiming to Sustainable Development (7 members), Alliance of Small and Sustainable Local Governments (3 members), the Local Venture Initiative (10 members). One collaborative highlight regarding the SDGs was the city of Sapporo with which Shimokawa organized a joint SDG event.

Shimokawa is using its past successes in this area as a springboard to develop local initiatives that will serve as a new model for the SDGs with the intention of broadly popularizing them. The town has established the tentatively-named SDG Partnership Center for Cities (SDG-PC) and is putting together a framework that will allow it to roll out programs while collaborating with and getting feedback from diverse key players both within Shimokawa and beyond.

Shimokawa intends to make the SDG-PC a hub for co-creation and development—a center that links together diverse stakeholders in order to identify various regional challenges across all three dimensions (economic, social, and environmental), propose policies developed through communication and collaboration with companies and other organizations in Shimokawa and

beyond, support commercialization of key programs, and more.

(3) Specific project examples

If Shimokawa wants to achieve "good quality of life" for its citizens by 2030, it must have a diverse group of key players from both within the town and outside take charge of rolling out its policies and projects—and this, in turn, requires cross-functional, broad-based resources in terms of expertise, technology, and funding. The foundational program that Shimokawa will roll out in order to promote its upcoming SDG initiatives is the Enhancement of Quality of Life through SDG Partnerships Project.

The project actually consists of two subprojects, described below.

(a) SDGs Partnership Center for Cities Construction Project

This project establishes the SDG Partnership Center for Cities (SDG-PC) as a "hub for co-creation and development). The center is designed to lay firm groundwork for SDG-related initiatives through partnerships that extend beyond Shimokawa's borders. The SDG-PC will take up a variety of local challenges and encourage a diverse range of key players to independently roll out solutions. The center's work will include proposing measures and formulating business plans developed through collaboration and feedback among government agencies, corporations, and other organizations both in and out of Shimokawa, as well as providing support through technological and funding matching services. It will cut through the barriers created by vertical organizations (such as government agencies) to foster organic collaboration on various projects with the purpose of generating multidimensional synergy. The SDG-PC will also have functions such as creating and maintaining the Shimokawa Database and theShimokawa SDG Indicators; monitoring of policies and projects; sharing practices implemented in the town within Japan and beyond; and providing consultations on human resource development, policy proposals, project implementation support, and other key topics for government agencies, companies, and other interested parties both domestic and international.

(b) Urban Corporation Partnership Program to Place Key Talent in in Rural Villages for Industrial Value Creation

This comprehensive project cuts across economic, social, and environmental dimensions via collaborative relationships across a diverse group of the society. It uses the Ichi-no-Hashi village as a proving ground to create new industrial value through corporate partnerships, which in turn are used to create more job opportunities—particularly for women and seniors. Specifically, the project works with urban companies to bring in expertise, technology, and other resources while placing talent in key positions to create more value in rural industrial activities. The project will establish a confectionery manufacturing facility, introduce equipment to boost production and profit, and more. It is also designed to contribute to energy self-sufficiency and decarbonization in the settlement, as the new facilities and equipment will make use of forest biomass for fuel.

In addition to these projects to facilitate partnership and support project/business development in the town, the model projects showned in Fig. 13 will be implemented to resolve Shimokawa's challenges across economic, social, and environmental dimensions. Synergy is generated by linking

projects that solve problems socioeconomically and environmentally. Through these activities, Shimokawa will be able to further strengthen its current efforts and further collaborate with residents and a variety of other stakeholders to achieve sustainable development that taps into its native strengths and pairs them with outside resources.

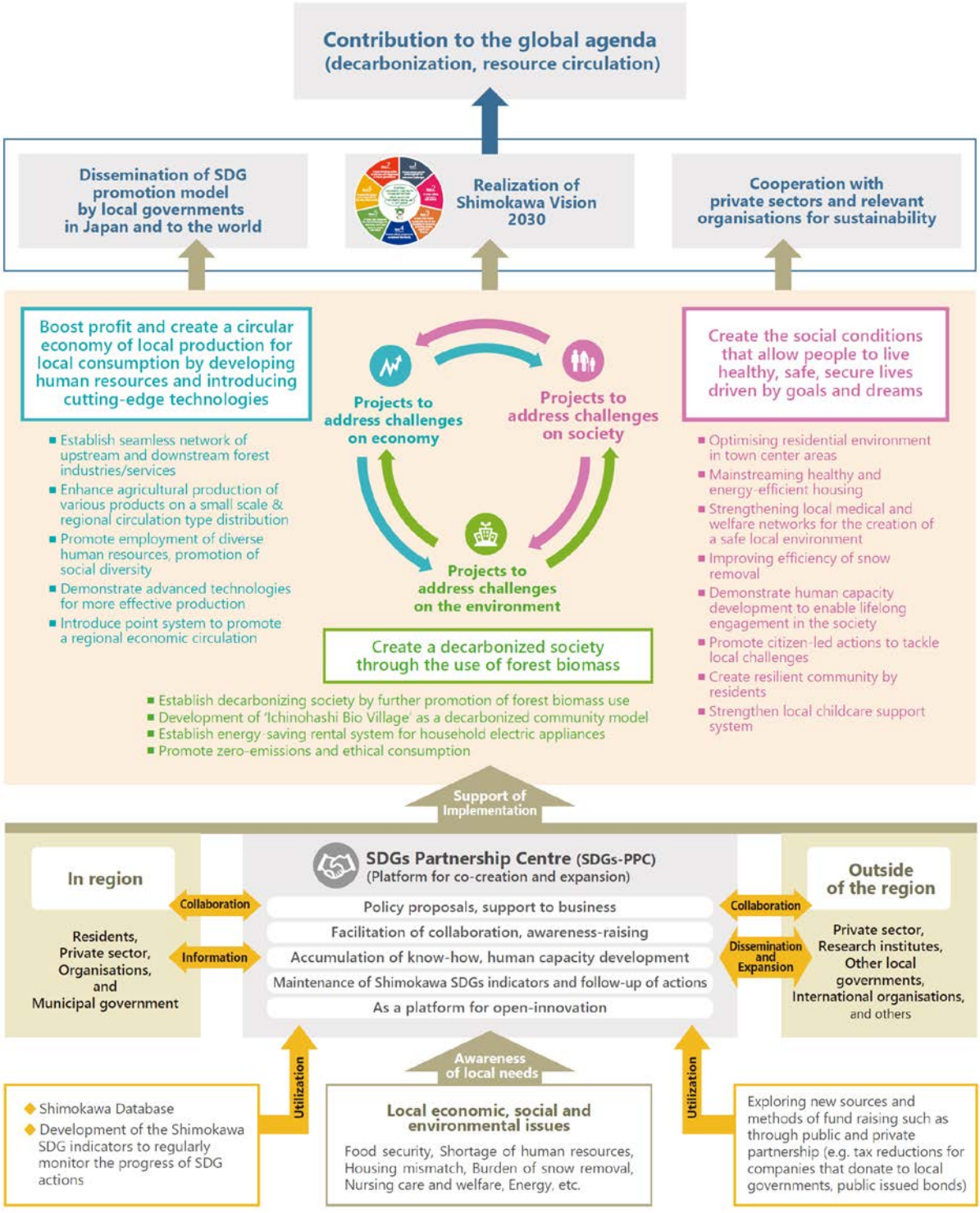


Fig. 13 Projects planned in Shimokawa to realise its Vision 2030

(4) Spreading the word outside of Shimokawa

Shimokawa wants to contribute to the promotion of the SDGs by sharing them with people across the country and around the world. The town already gets around a thousand domestic visitors on study and observation tours a year, while about seventy come from Southeast Asia, Africa, and other overseas locations. It is hoped that bringing in these guests will help bring Shimokawa's successes as a FutureCity and more to a wider audience. Going forward, the town plans to work with the Japan International Cooperation Agency (JICA), IGES, and similar organizations to actively spread the word about its SDG initiatives.

7. Conclusions: Next Steps

Shimokawa has been using cyclical forest management practices as a springboard for promoting comprehensive initiatives to solve its local socioeconomic problems. It has built SDG principles into its highest-level municipal guidelines—the Comprehensive Plan—and swiftly had its citizens lead the effort to formulate its town vision for 2030 using the SDGs to guide them. Finally, Shimokawa is using the backcasting method to map out its future priority areas and projects.

The Shimokawa Vision 2030 is rooted in the town and rooted in the identity of the region. At the same time, however, the vision encompasses international goals such as the basic SDG principle of inclusion ("no one is left behind") and the idea of a "decarbonized society" to combat climate change as set forth in the Paris Agreement. Shimokawa will continue to face severe socio-economic challenges, but the spirit of persistently and boldly tackling crises and difficulties is woven into its DNA as the *Shimokawa-ism*. As a SDGs FutureCity, the town is committed to implement specific actions to cope with local sustainability issues through incorporating the SDGs and thereby contribute to the resolution of similar problems on a global scale.

The next step for Shimokawa is to formulate the Sixth Comprehensive Plan during fiscal 2018 and implement a set of projects indicated in Fig. 13 as a the Local Government SDGs Model Project. Without a collaborative effort that involves its citizens, other stakeholders throughout the region, and outside partners, the plan cannot be well impelmented. Going forward, the town is committed to spreading the word about these initiatives to a wide international audience; expanding its network to include companies, NGOs, and other organizations that are tackling the SDGs elsewhere; and making its vision a reality. Shimokawa: a sustainable town that is strong and reslient, where people can live happily and no one is left behind.

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Appendix:

Outline of the 5th Comprehensive Plan of Shimokawa (additional information for Table 3)

Basic objective	Measures	Related targets and policies
Create a community where people are vibrant and in good health (community welfare and medical services)	Community health and welfare	■ Build a community where all residents can enjoy a healthy, safe, and comfortable life ■ Promote awareness of human rights and create a town free from crime ■ Secure staff resources to improve the quality of welfare and medical services, while attracting new users and service providers to move in and settle down ■ Create comfortable living conditions for the elderly so that their lives are safe, secure, and enriched ■ Invigorate local communities through job creation in the social services sector, stimulate the local economy, and encourage young people to settle in the town
	Health and medical services	■ Encourage residents to take charge of their own health, extend healthy years, and maintain and improve quality of life ■ Support residents' disease prevention and health promotion efforts ■ Maintain a municipal hospital ■ Create a medical system that matches the expected future needs of the community (e.g. in-home care, stopping disease progression, treating chronic conditions, and long-term hospitalization)
	Support for the elderly	■ Help keep seniors healthy, vibrant, and independent through support, encouraging social participation, and promoting good health ■ Provide customized nursing-care services and service to prevent the need for long-term care ■ Build comprehensive elder-care system ■ Create round-the-clock systems that offer full, ongoing consultation, medical, and social services ■ Secure the human resources needed to provide nursing care
	Parenting support	■ Create an environment where people feel secure in having and raising children (e.g. improve maternal and child healthcare services and regional childcare support centers)
	Support for persons with disabilities	■ Support independence, employment, and opportunities for social participation for all residents with disabilities ■ Operate safe and comfortable support facilities for persons with disabilities by improving support services and offering individualized whole-life support
Cultivate human resources by developing their character, potential, and positive qualities	School education	■ Provide support to target groups to improve educational conditions and reduce financial/community burdens ■ Create a coordination/discussion council of key institutions to improve special needs education ■ Make efforts to improve academic and physical strengths ■ Build a distinctive educational environment, including forest education ■ Improve teachers' capacity to use and teach ICT, including qualifications ■ Promote health and safety measures for children ■ Promote activities to build attractive schools and secure enough students at Hokkaido Shimokawa Commercial High School
	Lifelong learning and sports	■ Provide more learning opportunities in every life stage and promote self-directed learning activities ■ Improve facilities such as community centers to enhance the functionality of community education services ■ Facilitate health promotion through sports and improve athletic conditions

Basic objective	Measures	Related targets and policies
	Culture and the arts	■ Support voluntary cultural activities and promote cultural experiences to help people find their purpose ■ Provide opportunities to appreciate a variety of quality artistic and cultural performances ■ Protect and effectively use precious tangible and intangible cultural properties while organizing and improving related reference materials and facilities to exhibit and preserve them
Create safe, secure, and comfortable living conditions	Land utilization and urban districts	■ Promote effective land use based on social conditions and residents' needs ■ Create spaces where people can gather in the town
	Landscaping and parks	■ Maintain and manage parks properly and improve utilization ■ Improve parks systematically from a user perspective
	Housing	■ Build a well-balanced stock of rental houses using both public and private sources ■ Create positive living environments in existing public rental houses ■ Support environmentally-friendly living conditions and the construction of homes that people can in comfortably and for the long term while encouraging the utilization of vacant homes
	Roads and bridges	■ Maintain and manage roads and bridges to ensure safe and pleasant road transportation along with systematic development
	Measures to cope with snow and extreme cold	■ Ensure safe transportation and comfortable living conditions during winter
	Waterworks	■ Maintain, manage, and systematically develop waterworks
	Sewage system	■ Manage sewage facilities properly and systematically upgrade aged facilities ■ Increase the percentage of flush toilets
	Public transportation	■ Maintain existing bus routes and promote collaboration with on-demand transportation services ■ Improve on-demand transportation systems in consideration of persons needing assistance with transportation ■ Take measures to address aging bus shelters
	Environmental conservation	■ Promote collaboration among government, businesses, and residents town-business to create a low-carbon community that links comfortable living conditions to global warming countermeasures ■ Preserve the overall environment of the town ■ Secure comfortable living conditions by building an eco-friendly, sustainable, and recycling-oriented community
	Traffic safety, crime prevention, and consumer living	■ Raise resident awareness of traffic safety and crime prevention, develop and enhance crime-prevention groups, and promote linkage with public sections ■ Improve safety education for persons needing assistance with transportation, enhance community activities, and promote community-based collaboration ■ Raise resident awareness of remittance fraud and eco-friendly activities, and improve systems that provide information and consultation assistance

Basic objective	Measures	Related targets and policies
	Fire prevention and emergency rescue	■ Maintain a fire prevention system that can quickly and accurately initiate firefighting activities ■ Improve fire prevention and create an emergency rescue system adapted to the unique local conditions and resident requests
	Disaster prevention	■ Raise awareness of disaster prevention and risk management in every resident while maintaining, managing, improving, and developing a system that links various disaster prevention communication devices
	Digitization	■ Use research and development, existing facilities, and systems that can keep up with digitization
Utilize local resources to develop industry	Agriculture	■ Boost agricultural production ■ Secure prospective famers and maintain the number of farming families so there are sufficient agricultural workers
	Forestry and forest products industry	■ Promote cyclical forest management, secure job opportunities, and get a stable supply of lumber to local sawmills ■ Promote forest development and cut production costs ■ Secure and promote the development of human resources in forestry and organizations engaged in the forest product industry ■ Strengthen the business foundations of organizations engaged in the forestry and forest product industry while enhancing physical distribution networks for lumber and other wood products ■ Revitalize the forestry and forest product industry by promoting forest biomass energy, creating a low-carbon community, improving disaster prevention activities, and promoting activities to create more jobs ■ Create a forest culture
	Prevention of damage from wild birds and animals	■ Secure and foster prospective hunters, and reduce damage costs through enhanced damage prevention measures ■ Consider the effective use of wild game (e.g. Hokkaido deer) through collaboration with neighboring municipalities
	Commerce and industry	■ Support the management of SMEs, maintaining business operators and jobs ■ Secure prospective business operators and labor force through collaboration with the Japan Industry Revitalization Support Organization ■ Enhance production and distribution system for specialty products while maintaining and improving local brands ■ Revive accommodations, support businesses using vacant stores, revitalize local businesses, and improve the community ■ Revitalize the local economy by promoting economic exchange through collaboration among towns, private companies, and public organizations
	Development of tourist attractions	■ Promote tourism by creating new sightseeing opportunities with local resources and regionwide collaboration
	Utilization of local resources and creation of new industry	■ Create an environmentally-friendly, future-minded town through collaboration among key players, and make efforts to create "a town that everyone wants to live in".
	Employment and labor issues	■ Secure job opportunities that match local conditions, ensure safe employment for workers, and improve social welfare

Basic objective	Measures	Related targets and policies
Cultivate a resident-led community	Local self-governance and local cooperation	■ Share information with residents and encourage their participation so that municipal development is citizen-led ■ Build inter-community networks, support local autonomy, and enhance collaboration between residents and administrators ■ Revitalize community-based activities, enhance public relations, create more opportunities for resident feedback, and provide information
Administer government and finances efficiently and effectively	Efficient, effective government administration	■ Promote resident participation in administration and community-building activities ■ Promote quality administrative services, effective and efficient administration and management, and reform administrative and financial management ■ Promote resident-friendly municipal assemblies
	Sound financial management	■ Promote sound financial management based on clear policy ■ Compile budgets based on comprehensive planning, and administrative assessments, etc. ■ Share more information with residents ■ Promote proper taxation, secure internal revenue sources, and improve ratio of paid taxes
	Promotion of regionwide administration	■ Promote collaboration and exchange with neighboring municipalities, encourage effective regionwide administration to resolve common community problems while ensuring the exercise of individuality and independence ■ Promote autonomous community-building based on role-sharing collaboration, and cooperation, leveraging attractive features (such as urban town-center functions, agriculture, forestry, and the fishery industry in neighboring municipalities), the natural environment, history, culture, and the like.

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