

Chapter 6

Platinum Industry and a New Society



6.1 What Is a Platinum Society?

6.1.1 *Per Capita GDP and Average Life Expectancy*

The problems we are facing now, which are characteristic of developed countries, have been caused by the rapid advances of the twentieth century. As shown in the diagram (Fig. 1: Trajectory of Sudden Expansion in Human Development in the twentieth Century), average life expectancy worldwide and per capita GDP portray the exact same arc. From the changes shown, we can get a solid sense of how turbulent the twentieth century was.

Until the Industrial Revolution, the rise in both average life expectancy and per capita GDP was gradual. However, both show a steep rise from the beginning of the twentieth century and within the space of 100 years, per capita GDP spiked six times higher. Average life expectancy quickly reached beyond 70 years of age and in countries famous for longevity such as Japan, average life expectancy entered into the 80 years of age bracket. The reason why average life expectancy rose is that because of the development of agriculture and industry, there was an increase in the number of people who could easily obtain food. Far from that, overeating and obesity became social problems in Japan and diseases such as dementia have increased along with the rise in longevity.

Examining closely the issues characteristic of developed countries, it all seems to come down to global warming and the aging of society. The material culture that expanded rapidly in the twentieth century triggered an increase in energy consumption as well as CO₂ emissions, causing global warming, and as a result, climate change is now a reality.

Social structure also underwent major changes. As mentioned earlier, average life expectancy worldwide is more than 70 years. Developed countries are now dealing with problems such as old-age pensions, medical expenses, and cases of dementia. Japan has covered costs for old-age pensions and medical expenses at social

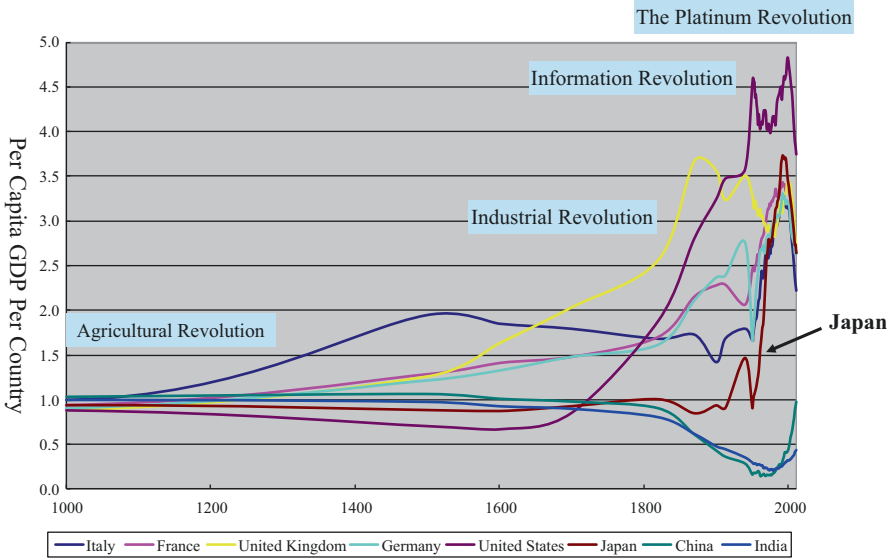


Fig. 6.1 Change in per capita GDP of major countries with per capita GDP in the world as the Standard. (Created by the Author. Source: Angus Maddison: Statistics on World Population, GDP and Per Capita GDP, 1-2008 Conference Board Total Economy Database™, January 2012, <http://www.conference-board.org/data/economydatabase/>)

security costs. However, it is self-evident that as the population ages, these costs will become excessive. Furthermore, through the saturation of man-made objects, demand for something new will decline and demand will be mainly for replacement products, causing economic growth to slow down even further. Things will not keep going properly by simply adhering to a conventional line of thinking.

The aging of the population can be seen as the realization of longevity. Life expectancy at the beginning of the twentieth century was merely 31 years. Humankind has been successful in doubling life expectancy over a 100 years span, making the dream of longevity come true. Although some elderly people require nursing care, others are still quite healthy. Many people can still be active in society and be independent with just a little support. The experience and knowledge that older people have acquired over a long number of years can be put to use in the field of education. Preventative medicine for avoiding the need for care will probably become a new industry. The aging of society is not just comprised of risks but also contains some kind of opportunities as well.

These issues are common to developed countries including Japan, and developing nations are bound to experience them at some point. Out of all the nations faced with challenges, if Japan can take the initiative in facing up to these problems and possibly take the first step towards resolution, then Japan will become a leading country in resolving societal problems.

Figure 6.1 shows the changes in per capita GDP in major powers, with the global per capita GDP as the standard. Humankind has negotiated various major turning points thus far, such as the Agricultural Revolution, the Industrial Revolution, and

the Information Revolution. Each time economic growth resulted. Undoubtedly the opportunity for Japan to create a new social model has arrived.

6.1.2 *From Quantitative Sufficiency to Qualitative Sufficiency*

In the twentieth century, humankind continually kept going in their race toward material affluence, health and longevity. An impasse in material culture and the aging population are contemporary problems but such problems have arisen because humankind made long cherished dreams come true.

From now on, as the next kind of affluence, quality should be sought over quantity. From 2010, I have been proposing the Platinum Society in which citizens who are satisfied in quantity in turn seek a high-quality society. Platinum contains various kinds of luminance including green for ecology, silver for health, and bright red for IT. I coined it to mean a lifestyle of a level higher than others. In the twentieth century, quantitative sufficiency was sought after and advances in science and technology made that possible. The twentieth century was a golden century for humankind. If that was a gleaming golden age then the twenty-first century, when qualitative sufficiency is being achieved, must be a glorious platinum century that shines brightly. In other words, the Platinum Society is a model of growth in a mature society, and as mentioned in the introduction, has the following views of the world.

1. No insecurity about resources, energies, etc.
2. No pollution, but maintenance of sustainability in the earth's environment
3. Living in harmony with a diverse and beautiful nature
4. Health and maintaining self-reliance long term
5. Opportunities to participate lifelong in society
6. Lifelong growth
7. Employment opportunities
8. Rich in both cultural and qualitative terms

These are items to be taken up not only by developed countries, including Japan, but by countries all over the world. This is a pioneering model that hold true for all countries. On the negative side, developed countries generated issues such as pollution and lifestyle-related diseases in the process of seeking quantitative sufficiency. Developing countries need not take the same path as taken by developed countries. Instead, they should aspire to a Platinum Society (Fig. 6.2).

The Platinum Society does not conflict with a low-carbon society or the Vision 2050 mentioned earlier.

The Platinum Society Network, of which I am the founder and chairman, presents awards every year to entities from all over Japan that are implementing excellent initiatives. The inaugural Grand Prize in 2013 was presented to the town of Ama, on an island in Shimane Prefecture, where a revitalization project involving the local high school led to the revitalization of the island. The inaugural Award for Excellence was presented to Kamikatsu town in Tokushima prefecture. The town is famous for its *Irodori* (meaning bright colors) Project.



Fig. 6.2 Amachō, known for high school revival, received First Place in the first Grand Prize for the Platinum Competition

Kamikatsu town originally produced mandarin oranges. However, in 1981 the mandarin orchards suffered devastating damage from abnormally cold weather. In an effort to recover financially, Kamikatsu residents started up a project of selling to restaurants the flowers and leaves they found growing naturally in hilly areas of the town. Although they encountered difficulties in the beginning, the project became a resounding success after the town's residents persevered by analyzing customers' needs and conducting market surveys, developing new products and skillfully incorporating IT.

Nowadays, old ladies living in Kamikatsu use computers to sell their goods to restaurants in cities. The elderly residents of Kamikatsu are all enjoying good health with work giving meaning to their everyday lives. There are hardly any elderly who are bedridden in Kamikatsu.

With a community base like this, Kamikatsu has begun its "Sanitation System Inspired by a Zero Waste Policy." Although the town achieved success with its *Irodori* Project, the local municipality does not have much leeway in its finances with a population of just under 1700. The residents have come together to implement a strict system of separating rubbish into 34 different categories for recycling. This enabled the town to greatly reduce its rubbish processing costs. The town has teamed up with residents and Lixil Corporation to promote the demonstration of a new wastewater purification system, thus playing a part in preserving the environment.

Many hints for resolving issues faced by developed countries are to be found in the series of initiatives implemented by Kamikatsu town.

6.1.3 *An Island (Ama-cho) that Increased the Number of Children Attending School Despite a Declining Birthrate*

The Dozen group of islands, located in Oki district in Shimane prefecture, is another region that has overcome issues.

A declining birthrate and aging population are both proceeding at a fast pace in the Dozen island area. In 2007 the number of children aged 15 was 51, less than half of what it had been at the peak period. The Shimane Prefectural Oki-Dozen Senior High School, located in the town of Ama, in the center of the Dozen area, had only 28 new students enter in 2008, reaching a new low that threatened the school's existence.

The residents of Ama helped to launch the Oki-Dozen Senior High School Appeal Project. All the island's residents sought to make the school recognized as being very attractive in the field of education, and they enacted a strategy to stop the younger generation from leaving the island and to attract families with young children, and former residents back to the island.

The high school set up a community development course and prepared a unique curriculum that includes community life studies, work experiences at local businesses, and studies to resolve issues through collaboration with the local community. Using interaction with high school students as a starting point, the local community is aiming to revitalize the region by making use of local resources. The sightseeing plan *Hito-tsunagi* (connecting people), which was put together mainly by Dozen High School students, did an amazing job of receiving first prize in a national sightseeing plan contest for high school students.

As well as the creation of substantial content education-wise, a dormitory was set up to enable students who are not from the island to attend the school. Activities to attract students for *Shima-ryugaku* (Studying on the Island) are being promoted. The catchy Japanese name has been receiving attention from the media and in 2012, enough applicants were received to boost the number of classes, something unprecedented. Nowadays nearly half of the new students entering the school are not local island residents.

This project at Ama is unique in the way that it connected the school and the local community. Measures aimed at stopping the decline in population are usually focused on developing industry and creating employment. However, as the town of Ama is poor in industrial resources, the community decided to do their best by using education as their own special feature. The town hopes to nurture the kind of people who can find out what the issues are on their own initiative and think of a way to resolve those issues while networking with other various people. This can be viewed as a model for creating human resources in a problem-solving developed country.

Actually, from the perspective of regional development, this project has even greater significance. If a community loses its senior high school, the teenagers will leave their hometown when they graduate from junior high school. Upon graduation from senior high school, the teenagers will probably leave their hometown too, but

if they spend those extra 3 years on the island when they are at such an impressionable age, there is sure to be a big difference in their feelings and a deepening of their affection for their hometown. In actual fact, quite a few students who graduate from Dozen Senior High School leave the island saying that they will return after they have finished their university education. Right now many places around Japan are trying to copy the successful Dozen Senior High School initiative. This is because the initiative has proved its worth.

6.1.4 Contributing to Lowering Carbon in Asia from Actual Experiences (Kitakyushu)

Kitakyushu in Fukuoka prefecture has long been a city with heavy and chemical industries, focused mainly on steelworks. In the 1960s the city experienced serious pollution issues. The city's residents demanded to have their blue sky restored and various countermeasures were implemented. As a result, by the beginning of the 1990s the city was able to overcome its pollution issues. This result was brought about by collaboration amongst various stakeholders including the residents of Kitakyushu, the city office, corporations and the national government. The city of Kitakyushu became the focus of attention from other cities in Japan and also cities overseas which were experiencing similar problems. At the World Summit on Sustainable Development held in Johannesburg in 2002, the "Kitakyushu Initiative" was incorporated in the Plan of Implementation, for municipalities around the world to learn from the experiences of Kitakyushu. In 2013, the Organization for Economic Co-operation and Development (OECD) selected Kitakyushu City as part of its Green City Program along with Paris, Stockholm, and Chicago (Fig. 6.3).

In 2010, Kitakyushu city established the "Kitakyushu Asian Center for Low Carbon Society." As well as aiming to vitalize the regional economy through eco-business, the Center acts as a core facility for contributing to green growth which makes economic growth compatible with environmental conservation in Asia. The "Kitakyushu Model" is composed of five categories that have a major impact on urban environments. The categories are management of waste, town water, sewage, and energy, as well as environmental conservation and traffic control. These categories are then further systemized and structuralized with three main elements: roles; processes; and outcomes. This is all managed in a cloud-based database. As it was anticipated that this would be used in countries outside of Japan, from the beginning the database was set up in English and then translated into Japanese and Chinese so that it can be used in three different languages. The database has the records of various actions that have been taken from the past through to the present. It also includes mistakes from the past which serve as lessons for the future.

The Asian Center for Low Carbon Society supports cities in various Asian countries including Vietnam, Indonesia, Cambodia and Thailand, in resolving urban environmental problems. As a model environmental city, Kitakyushu may be more famous in Asia rather than in Japan. In the future, the Center intends to cover not only low carbon but also sustainable economy and ageing.

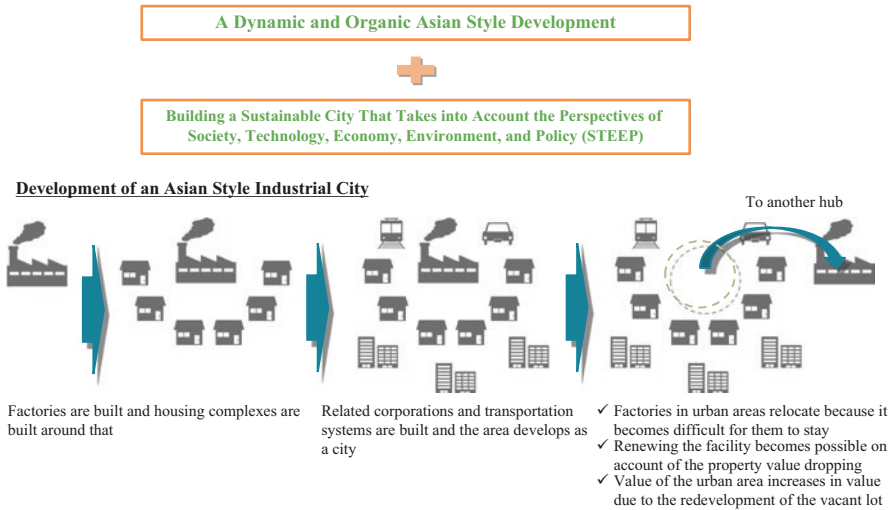


Fig. 6.3 Special characteristics of the Kita-Kyushu Model: Asian dynamism. The Kita-Kyushu model has at its foundation a global standard platform of urban renewal, but it is also a “model of an environmentalized city that is compatible with an Asian industrial city” which has included the developmental trajectory of Kita-Kyushu City which is both an industrial city and a future-facing environmental city. This makes it possible to take an Asian Style approach that cannot be accommodated by a Western Style one which presumes a top-down zoning policy. (Source: MI Consulting)

6.1.5 Leadership that Achieved a Miracle (Yanedan)

Resources and problems that have to be resolved are not all the same for various regions. The important thing is to have a vision and work towards achieving that vision.

In the city of Kanoya, in Kagoshima Prefecture, is the mountainous area of Yanagidani, commonly known as Yanedan. This area was also experiencing the aging of its population as well as a declining birthrate. However, the community was able to revitalize the area over a period of ten-something years and their success is referred to as the Yanedan Miracle. The central figure in this is Tetsuro Toyoshige who was appointed head of the local community center in 1996. Mr. Toyoshige felt a sense of crisis when he considered that in the population of 300 people, the aging ratio stood at 40% and also hardly any community activities were being undertaken. He unfurled his vision of not depending on government but for Yanedan residents to generate an independent source of funds and to revitalize the local community. Then action was taken (Fig. 6.4).

By using abandoned farmland provided by local residents, Mr. Toyoshige started cultivating sweet potatoes with the help of local youth. He then set about establishing the Yanedan brand of *shochu*, or Japanese traditional spirit distilled from sweet potatoes. Red chili peppers are also grown and exported to Korea. In this way, Yanedan was able to secure an independent source of income. The residents received permission to use land owned by the village and they opened the Wakuwaku Sports

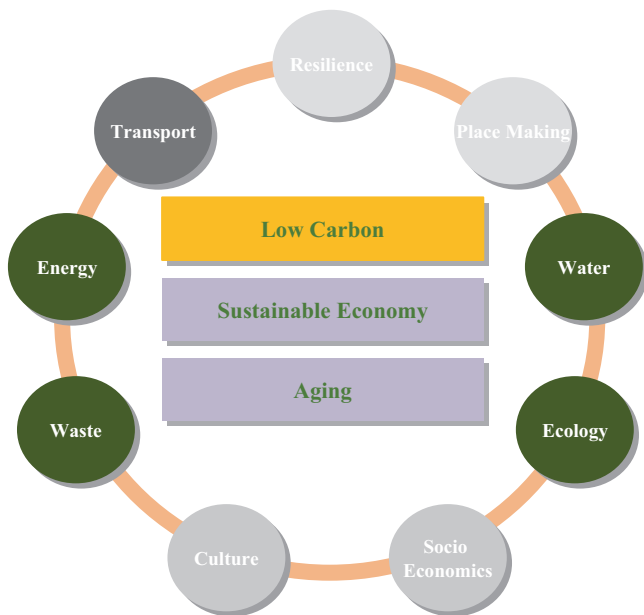


Fig. 6.4 Expandability of the model: The theme of sustainable possibility. (Source: MI Consulting)
 We are currently organizing the 4 areas of waste management, water and sewer management, energy management, and environmental conservation
 We are scheduled to expand through incorporating elements described below in order to further our efforts to build a comprehensive and sustainable city

Park complete with handmade sports equipment. This contributed to promoting the health of the village’s residents and the medical expenses for residents of 75 years or older is 40% less than other communities in Kanoya city.

Although the revitalization was triggered by one person who took on the role of leader, nowadays each resident actively takes part in leadership and participating in community activities. In 2007, Mr. Toyoshige established the *Furusato Zoyo Juku*, a learning center for fostering municipal workers who can become leaders involved in revitalizing the community. Three years ago, the *Furusato Zoyo Super Juku* was established for training *Furusato Zoyo Juku* graduates into elite leaders to revitalize the community, thus further broadening community activities.

6.1.6 Realizing a Vision in a Megalopolis (*Futakotamagawa*)

Stories about regional revitalization often occur in isolated areas but urban areas have their own problems too. Futakotamagawa, located beside the Tokyu Electric Railway Line, is home to the Tamagawa Takashimaya Shopping Center, the first suburban shopping center opened by a Japanese department store. Development centered around the shopping center and it was a popular area. It is the destiny of cities to continue to make progress in order to keep on being appealing. The

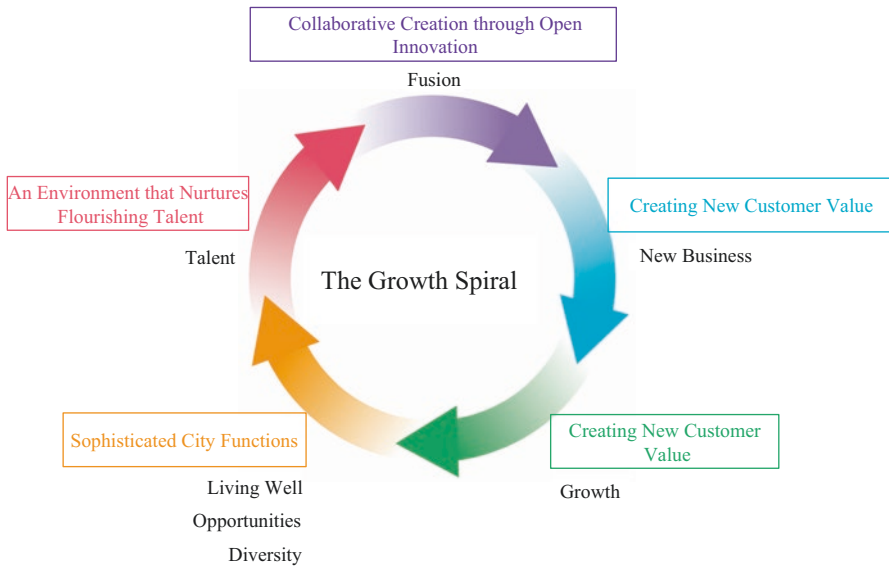


Fig. 6.5 Image of the growth spiral of a creative city. (Source: Tokyu Corporation)

Futakotamagawa redevelopment project began in 1982 and this mammoth project was finally completed last year after a total of 33 years.

In town planning, not only development of hardware needed but also software is essential too. To that end, the Creative City Consortium (CCC) was established in 2010 (Fig. 6.5). The executive committee members include Tokyu Corporation, Culture Convenience Club Co. Ltd., and Dai Nippon Printing Co. Ltd., which supports regional revitalization activities throughout Japan.

With Futakotamagawa as a model area, CCC is composed of members from different types of businesses, as well as creative artists and academics, to create an advanced example of a new urban environment that goes beyond the limitations of business categories, where various kinds of activities can be developed in order to realize social systems and workstyles, and lifestyles. The strengths lie in how the mechanism can fuse together the knowledge and expertise of the participating corporations and so on, making it an appropriate venue for the experimental adoption of new ideas. A win-win relationship was forged with stakeholders including local corporations and residents. Here just taking the pick of good points from certain corporations was not permitted and corporations firmly entrenched in community activities were welcomed with open arms. Participating corporations are required to prepare themselves to interact with local stakeholders over the long term.

Five years since its establishment, CCC has expanded its activities to cover the so-called Platinum Triangle, an area connecting Futakotamagawa, Shibuya, and Jiyugaoka. In the Platinum Triangle reside a large number of the “creative class” of people, those who can generate new value, and new innovations will be created with a major consumer market being formed which will be on the receiving end of those innovations. This means that ideas can lead to business opportunities and people will have the chance to realize their dreams in this area.



Fig. 6.6 The public running tour of segway® Personal transporter. (Photos from Tokyu Corporation)

One example of outcomes by CCC is the Segway Tour in Futakotamagawa, the first of its kind wherein participants can ride Segways on public roads in Tokyo (Fig. 6.6). This is the Quomo Project, started up by CCC with mobility as its theme. With the cooperation of Setagaya Ward and the Futakotamagawa Traffic and Environment Cleanup Promotion Council, tours began in April 2016 by utilizing measures for exceptional cases under the Ministry of Economy, Trade and Industry's System of Special Arrangements for Corporate Field Tests. Keeping in mind the Olympic and Paralympic Games Tokyo 2020, CCC is conscious of urban development activities aimed at the next generation and creates and disseminates actual examples by using methods including new technologies and the easing of regulations.

In the future, CCC intends to expand its place for activities from Futakotamagawa to the Platinum Triangle and create innovations necessary for new sustainable urban development in the megalopolis of Tokyo. Tokyo is the driving force for Japanese innovations and the Platinum Triangle is expected to be the engine of growth for this.

We are now facing many problems. However, it is true that through the hard efforts of our predecessors, we have acquired various goods, information, and means of transportation enabling the realization of a society with long life expectancy. Self-sufficiency in resources, low carbon, overcoming pollution and coexisting in harmony with nature, good health and self-reliance, lifelong growth, various options, freedom of participation...Let's work towards the Platinum Society that will realize all of this.

6.2 Towards Becoming a Nation Self-Sufficient in Resources

6.2.1 *Making a Self-Sufficiency Rate of 70% a Reality with Vision 2050*

The Platinum Society is a society wherein people can be proud and shine in life as well as it being a society that is rich in quality.

One part of the concrete picture of the vision is a nation that is self-sufficient in resources. Japan is said to be a resource-poor country. Japan depends on imports for most of its energy and earns foreign currency after importing raw materials, including minerals, processing them and then exporting those processed products. However, that model has its limitations.

So far just 10% of the world's population in developed countries has monopolized industry and the remaining 90% in the other countries had no choice but to sell primary resources. The developed countries bought the primary resources cheaply and by selling to the world at expensive prices, they were able to achieve economic growth. However, this structure of relationships is already starting to fall apart. The countries that depended on exporting primary resources have started up their own industries. Products are flooding the world and competition over prices is happening, narrowing the gap between resources and products.

As the world is being flooded by yet another industrial revolution, Japan needs to aim towards becoming a nation that is self-sufficient in resources. Being 100% self-sufficient is ideal but in reality, about 70% would be enough.

As discussed in Chap. 1, energy consumption will decrease from now onwards. As proposed in Vision 2050, energy utilization efficiency will improve and if natural energies are expanded, it is possible to reach a rate for energy self-sufficiency of 70% by 2050.

Saturation of man-made objects is also becoming obvious. Technology for recycling is improving and if material recycling systems are better maintained, many materials such as iron and cement, rare metals and rare earths, can be acquired by recycling from urban mines. Aiming for a self-sufficiency rate of 70% for mineral resources is a possibility.

Currently for food, the rate is 40% (on a calorie base) and this too could be increased to 70%.

In regard to water and timber, achieving a rate of 100% is totally within reach. Japan has many sources of water and two thirds of the nation is covered in forests making the potential for timber resources high. Currently, the self-sufficiency rate for timber resources is low at around 25%. However, if forestry is revived, as an industry it would generate somewhere in the vicinity of 5 trillion yen.

Looking at the results above, Japan's self-sufficiency rate for materials would be greatly increased. In line with Vision 2050, achieving a self-sufficiency rate of 70% for materials is indeed possible by 2050.

6.2.2 *A Scenario for Reviving Forestry*

Despite Japan having an abundance of forest resources, 75% of the demand for timber relies on imports. About 10 million hectares were afforested for restoration after World War II. However, during the period of economic growth young people left the countryside for the cities and there was a lack of workers in the forestry industry. On top of that, cheaply imported timber became available and domestic timber was buffeted by price competition. Forestry workers aged without any drastic reforms of the industry such as streamlining of business operations or expansion of scale. Due to a labor shortage, forests did not receive adequate care and a vicious cycle occurred with forests becoming wilder as national land conservation worsened. This cycle must be broken.

European timber exporting countries such as Sweden and Austria share common features such as large-scale management, rational mechanization, and creation of supply chains. The logging and carrying costs per cubic meter for these countries are 2000 and 4000 yen respectively, but it is about 8000 yen in Japan. The density of Japan's forestry road network is extremely low, one-tenth and one-fifth of Sweden and Austria, which is one of the reasons for high cost of timber in Japan.

Hopes are being pinned on Smart Forestry. It is anticipated that Smart Forestry can overcome various issues with technology and business models. The Platinum Society Network has established a forestry revival working group and is examining exactly what needs to be done by Smart Forestry.

Actually, several advanced cases have already occurred in Japan. For example, in Gunma prefecture forestry associations have cooperated with each other to establish the Shibukawa Sanzai Center where an entire lot is purchased in one lump sum. This center has become the core of the supply chain making it possible to accept various qualities of timber. Another example is the town of Shimokawa in Hokkaido where the whole community tackles the revitalization of forestry (Fig. 6.7). Shimokawa was the first town in Hokkaido to be recognized by the Forest Stewardship Council, which is responsible for certification globally of sustainable forestry control and management and as well as adding higher value to timber, sawdust from the sawmill in the town is used for biomass. It is used in public facilities and this venture is touted as reducing both CO₂ and running costs at the same time.

If supply chains are formed and the use of biomass spreads, the revenue from this can be plowed back into Smart Forestry. If forestry is revitalized, forests will be better looked after and a healthy natural environment can be maintained. This in turn will lead to soil conservation while preventing the occurrence of landslide disasters.

Use of biomass, reduction of CO₂, economic revitalization, strengthening national land, and preservation of the environment and water resources—the benefits from creating supply chains and from smartening the forestry industry are major. That is why the government and corporate groups with massive capital should participate actively and using their size as leverage, should guide Japan's forestry to a strong revival.



Fig. 6.7 Efforts to revitalize forestry & timber industry in town of Shimokawa

6.3 Coexisting in Harmony with Beautiful Nature

6.3.1 *A World that Is Comfortable for All Living Things*

As mentioned earlier, Japan should aim at becoming a leading country in resolving societal problems. I believe that Japan has the strength to do so. In actual fact, Japan has overcome many difficulties in the past.

When industrialization was proceeding at a fast pace during Japan's period of high economic growth, the natural environment was being polluted at various places throughout the country. Pollution-related diseases such as Minamata disease (from mercury poisoning), Itai-itai disease (from cadmium poisoning), and Yokkaichi asthma (from sulfur-oxide pollution) occurred. Whether it is the United States or Russia or wherever, any areas close to industrial zones are liable to be polluted. However, as Japan is limited in terms of space, houses are quite often located close to factories and people have been directly affected. In light of this situation, the industrial world developed technologies to eliminate toxic substances and thus overcame pollution issues.

If a burden is placed on the natural environment, not only people but all living things will be affected. If forests die and the natural environment falls into ruin, then living things in that area lose their habitat. Many wild animals are in danger of extinction and already some species endemic to Japan have disappeared.

People who are upset at seeing nature in such a state have been trying to make things as they once were long ago and activities for environmental conservation have started up in various areas. These efforts have been rewarded and once again Japanese crested ibises grace the skies of Sado Island in Niigata prefecture, while the white stork has been successfully returned to the wild in Toyooka city in Hyogo Prefecture, and fireflies are once again to be found in Mishima city's Genbei River in Shizuoka prefecture. Each of these habitats is being successfully rehabilitated. In addition, people are connecting these activities to making their areas more appealing. The city of Sado has established the Toki Forest Park which provides services like an environmental study program to learn about the ecology of crested ibises. In Toyooka, a special brand of rice on the market touts that the environment it has been grown in is so beautiful as to be a habitat for white storks. The city of Mishima holds events like its firefly festival which revitalize its tourism.

The prosperity of humankind is only possible through living in harmony with nature. There can be no future for humankind if development that creates a burden for the environment is pursued. A society that lives in harmony with nature is one of the vital elements that make up the Platinum Society.

6.3.2 Initiatives by Corporations for Living in Harmony with Nature

During the years of Japan's economic bubble, corporate support of the arts was popular. However, in the 1990s, attention was focused on environmental problems, and more and more companies conducted environmental activities such as planting trees and conducting cleanups. It is wonderful that there are still companies continuing or even further extending such activities. However, there seems to be a trend for these kinds of activities to be discontinued, especially when such activities are so different to the companies' main type of business. In the same way that corporate support of the arts petered out as the economy slumped, it is only natural that extra activities are cut short when earnings structures worsen.

Environmental conservation activities by corporations should be positive activities that link up with the company's activities, not simply volunteering to help nature that has been damaged. Because such activities will in turn contribute to the company's main business, the company can throw in the necessary resources on a continual basis.

The beverage company Ito En, Ltd., conducts a Program for Revitalizing Tea-Growing Regions. The total area under contract cultivation is 668 hectares while 366 hectares are new tea plantations, making a total of 1034 hectares (as of the end of 2015). Contract cultivation means that farmers grow the tea and Ito En buys the entire amount. New tea plantations refers to large scale tea plantation business operations that use abandoned farmland, and provide various kinds of support to the farmers including technology and use of IT.

For Ito En, revitalizing tea-growing areas is not simply part of their CSR activities but it is advantageous for the company as it is directly linked to the main business, with stable procurement of raw materials for their beverages. That is why the company can continue such activities long term. In addition, management is stabilized through buying the entire contracted amount from farmers and providing technological support. Farming on agricultural land that was once abandoned resolves this issue for the local community and creating jobs adds social value. Thus, this project makes all three parties happy. Ito En recycles used tea leaves into fertilizer and feed. The company was featured in a special article titled “50 Companies That Are Changing The World” in the American business magazine *Fortune* and was ranked at number 18 out of the fifty, the highest for a Japanese company.

I'd like to introduce one more corporate initiative for farming. It is Vegetalia, Inc., a venture business started up in 2010 that promotes smart agriculture in accordance with scientific backing.

Agricultural practices these days came into being the mid-twentieth century and are based on the Green Revolution which has a three-piece set of high-yield varieties of seeds, fertilizers and pesticides. Through this, production increased dramatically but in turn led to issues such as environmental destruction and an increase in abandoned farmland. The biggest issue is that farmers are still sticking to methodology that is more than 50 years old and no innovations have been made. In recent years, with advances made in science, the mechanisms of how plants grow, and how disease and insect damage are caused have become clearer. This means that agricultural production of the bio-harmonized type, which is kinder to the environment, is not impossible.

PaddyWatch, a program developed by Vegetalia, is a tool leading to agricultural innovation through a fusion of science and technology (Fig. 6.8). With PaddyWatch, a sensor is inserted into a rice field to measure the water level, water temperature, temperature and humidity. This data is sent to smartphones or tablets via an app making management by remote control possible. Management of water is very important in growing rice and it is quite a burden to farmers as the amount of time spent on water management is said to make up 25% of rice-farming work time. If this can be monitored, the working efficiency will be boosted.

Moreover, the most effective time to use pesticides and fertilizers can be determined from the data generated so even if the farmer doesn't have much experience, they can carry out the work practices appropriately. Satoshi Koike, president and CEO of Vegetalia, said “Currently, agricultural production relies largely on the experience, intuition and the master skill of experienced farmers but experience can be replaced by scientific backing from plant science, intuition can be replaced by the IoT sensors, while master-skills can be replaced by scientific data and AI.”

Methods developed by Vegetalia have been adopted by Niigata city's agricultural reform project which has been designated as a National Strategic Special Zone by the Japanese Government. Niigata is a major farming area in Japan but even so people there have a strong sense of impending crisis for the future of farming. The lack of successors in farming villages coupled with the aging population is of serious concern. As farmers age and their physical strength weakens, the area that they

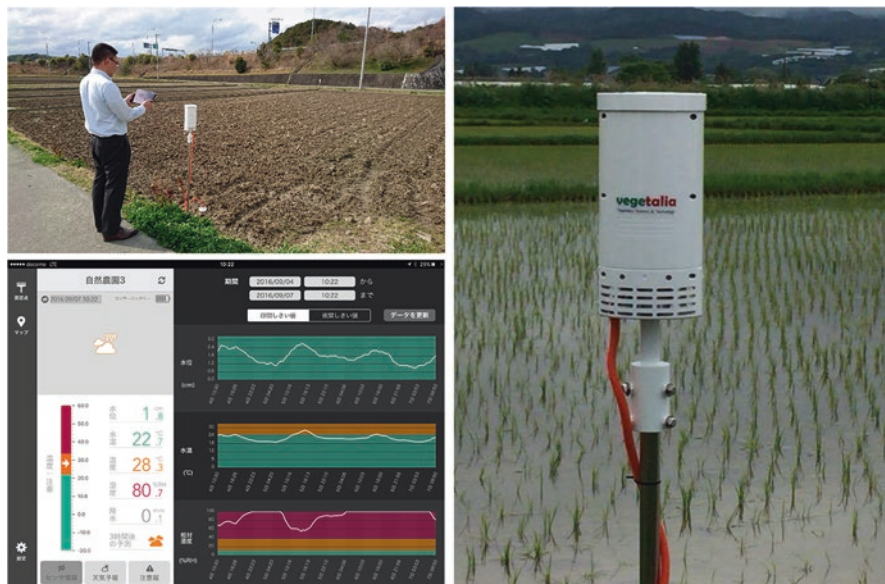


Fig. 6.8 A rice field sensor, “PaddyWatch,” uses sensing technology. (Courtesy: Vegetalia)

A sensor attached under the small cylindrical case (shown on the right) measures the water level and temperature. The data is controlled by a special app and can be accessed on a tablet device or smartphone (shown on the top left and bottom left).

can cultivate decreases and the amount of unused farm land increases. Once fertile and productive farm land gets abandoned and the real function of the land is lost, and the natural environment is laid to waste. Attempts to revive rice fields that have been dried out and farmland that has been badly neglected is much more trouble than trying to continue farming and is not a problem that can be solved in a short time. It bears a striking resemblance to the decline in forestry.

However, agriculture is now facing a new phase through the participation of corporations. Both for Ito En and Vegetalia, the corporate activities of their own companies are of primary importance but they could not exist if not for a healthy natural environment. Their corporate activities are synonymous with environmental conservation and coexistence with nature. Both are excellent examples of how business and activities contributing to society can be linked together.

Farming must be a commercially practicable industry in order to promote the participation of corporations. To that end, improving agricultural production by using ICT is a prerequisite condition. Japanese agriculture is not particularly efficient when compared on a global level. This is especially difficult in respect to growing rice. The gross output for one hectare of farm land for vegetables is 4,300,000 yen while for rice it is a mere 950,000 yen, making it about one quarter that for vegetables. This needs to be improved.

Improving productivity will contribute to the promotion of agriculture and a reduction in abandoned farm land, as well as leading to environmental conservation

of the area. That little sensor standing in a rice field could be a key device in protecting the global environment.

6.4 Good Health and Self-Reliance for a Fulfilling Life

6.4.1 *The Wisdom of Seniors Is a Social Resource*

We should aim for a society where people can enjoy a better Quality of Life (QOL) while maintaining quantitative richness as well. To that end, remaining active for one's entire life is vital.

Most companies have a retirement age of 60 or 65 years of age but the sixties age bracket nowadays is different from the old days. Most people in their sixties are active seniors who enjoy good health while their brains still function well and they are still keen to continue working.

Mayekawa Manufacturing Co., Ltd., a company well-known for its industrial freezing technology, has an unorthodox employment system with its zero retirement policy implemented since 1976. If the employee so desires and if there is a need in the workplace, employment contracts can be renewed annually past the age of sixty enabling the employee to continue working. Work is still full time and social security is still applicable but wages are reduced by about 40% and the workplace also changes.

These employees, who have opted to stay on past 60, are expected to pass on knowledge and techniques they have acquired to younger employees. Younger employees are kept busy everyday with their work duties but when an older employee with experience and leeway joins them, some kind of chemical reaction is said to occur and products that are top class globally can be created through cooperative work between the younger and older generations. Furthermore, when a younger employee hits some kind of wall, they can often make a breakthrough from the intuition that only a veteran employee possesses, or, the veteran employee can offer the younger employee appropriate advice. As of August 2016, the ratio of people in the company's employ in Japan who are aged 60 or over reached more than 10%. The oldest employee is 84 years old while there has been a case where a certain technical advisor reached the age of 94.

Because Mayekawa Manufacturing Co., Ltd., realizes the significance of retaining employees aged 60 and over, the company operates its continued employment system. For seniors too, continued employment where they can make use of their experience is worth working for.

The British economist, John Maynard Keynes, wrote an essay in 1930 titled *Economic Possibilities for Our Grandchildren* in which he proposed that the economic problem may be solved within 100 years, or in other words, in 2030, and people would be freed from having to work. Even so, Keynes recommended that we work three-hour shifts per day. At the time of writing the essay, it seems that a sort nervous breakdown was common in England and the United States amongst the

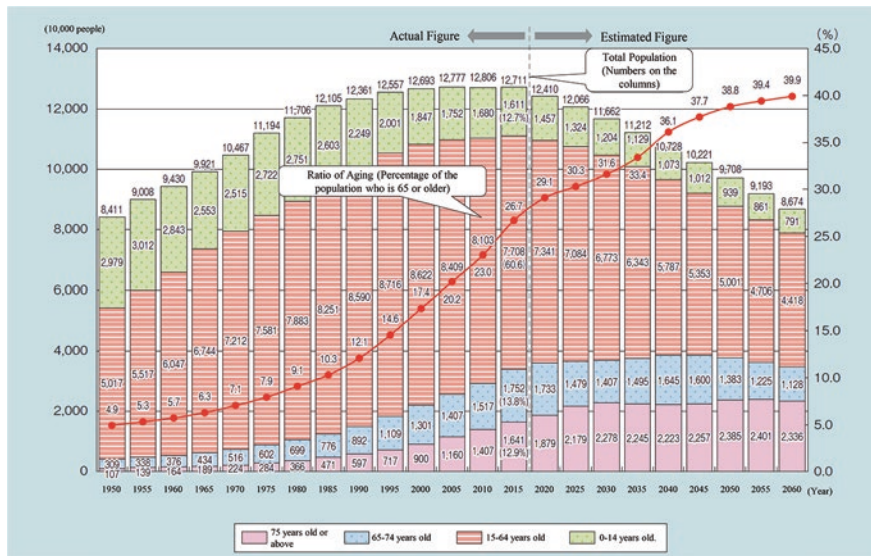


Fig. 6.9 Changes in aging and future projections

Source: “2016 Annual Report on the Aging Society,” Cabinet Office

Sources: The “National Census” by the Ministry of Internal Affairs and Communications (until 2010), “Estimated Population (Presently confirmed number as of October 1, 2015 based on the 2015 preliminary reports of the population in the National Census)” by Ministry of Internal Affairs and Communications (2015), the estimated results calculated from the hypothetical median birth and death rates in “Japan’s Estimated Population in the Future (calculated January 2012)” by the National Institute of Population and Social Security Research (from 2020 onwards)

Note: The total numbers from 1950–2010 include unknown ages. To calculate the ratio of aging, we subtracted unknown ages from the denominator.

wives of the well-to-do classes. Having a place in society through work that is valued and the feeling of being of help to someone is essential for maintaining one’s mental and physical health.

According to the Cabinet Office’s “Annual Report on the Aging Society: 2016,” the percentage of the population aged 65 years or older was 26.7% in 2015. It takes 2.3 people who are now employed to support one elderly person. By 2050 the percentage of the population aged 65 years or older will rise to 38.8% and one elderly person will be supported 1.3 people who are employed (Fig. 6.9). Medical care, nursing care and age pensions will reach a deadlock if things continue this way.

To begin with, the idea of workers being aged from 15 to 64 was modelled on the industrial production in the years of Japan’s economic bubble and is not in line with contemporary society. The percentage of today’s youth, who are fewer in number than before, continuing on to university has risen so that half of them will not start work until they are 22 years old. On the other hand, there are many people who are aged 65 years or older who can still work hard.

If those active seniors can enjoy an independent life, that will lighten the load for the younger generation who are working, as well as ease worries about the nation’s

finances. Moreover, the knowledge and technical knowhow of active seniors is essential for increasing new industries that will support the Platinum Society. Hopes are pinned on the activities of seniors for education suited to the Platinum Society—not regular school education but practical education for younger employees, as conducted at the Mayekawa company. There should be many opportunities for this kind of activity. No matter how much mechanization and automation advance, master skills are still necessary in the industrial world. “Remaining active for one’s entire life” improves the QOL of seniors as well as being a significant motto for the Platinum Society overall.

6.4.2 Making Use of the Knowledge and Experience of Seniors for the Next Generation

Trials are being made to make wide use of the knowledge and experience of active seniors in the field of education.

The city of Kashiwa in Chiba prefecture, the University of Tokyo’s Institute of Gerontology, and the Urban Renaissance Agency (responsible for housing) are currently promoting urban design for a society of longevity. Nextph, is a learning space for children from Grade 3 in elementary school through to children in Grade 3 of junior high school, is operating as a partner business. Perhaps the most unique feature of Nextph is the Robot Club which has senior staff as its tutors.

Nextph has involved corporations, schools and local residents in its activities. Active seniors, who have already retired, teach English and math classes at Nextph. One of the senior tutors is Tatsuo Muto who was an engineer at Mitsubishi Chemical Corporation. Mr. Muto initially participated as an English teacher but after a while, he decided that he want to teach the children real science and proposed the robot class. After he began a class for which he developed original materials for teaching programming and so on, it filled up very quickly and has been extremely popular. Currently, the number of classes has been increased and a number of seniors have taken on the role of tutors.

With the advance of ICT, programming is already becoming mandatory in junior high schools while from 2020, it will also be a mandatory subject in elementary schools. From that social backdrop, there is a demand for programming classes and robot classes are well attended right across Japan. However, the number of people who can teach such classes is limited. People who are now employed are busy enough with their own work and do not have the leeway to participate in education. That is why participation by seniors is necessary.

Active seniors like Mr. Muto have a wealth of knowledge and experience they have accumulated during their time in the real world, and they can provide children with lessons taken from real life, different from classes at school or a cram school. At the same time, for the seniors, being able to participate in society of their own volition gives them meaning. For seniors to live their lives in good mental and phys-

ical health, being felt needed by society and continuing to be connected to society is important.

Therefore, the Platinum Society Network started up Platinum Mirai Schools. These schools are a near-future active learning platform where platinum master seniors and children full of curiosity learn about sustainable society building through exciting and top quality ways.

Various topics were considered for teaching at the schools but first of all, a robot class was begun. It is intended to enlist senior staff through collaboration with local municipal entities, employment centers for people with special talents or skills, or by using the alumni network of university teachers. Students at the Platinum Mirai Schools pay for their tuition monthly and that goes towards the remuneration of the staff. Through this method, the children attending the schools and their parents, and the staff members can tackle this initiative as proper work and by setting up a system where the money rotates, it is possible to manage the school in a sustainable manner instead of some kind of temporary activity.

The schools have been started up in Tokyo and Nagasaki. They will be used as a model to open further schools nationwide. Classes will expand to include not only robot classes but also English classes and environmental issues and so on, themes of a highly social nature.

6.5 Diverse Options and Freedom of Participation

6.5.1 Why Are Bonds Being Sought After Now?

Lifestyles and workstyles are becoming more and more diversified. This also includes diversification of the connections between society and individuals. As agricultural people, Japanese people have long been connected to land. Beginning with growing rice, work has had its roots in the local community, leaving no other option than to belong to the local community group. Anyone who disrupted that unity was ostracized and could lose their work as well as their domestic base. Not all that long ago, corporate culture was somewhat close to that. Lifetime employment was the base for life and participation in company events such as parties, sports days and company-sponsored recreational trips for employees were practically compulsory.

The local community that was bound together by rice-growing, and companies from some time ago, were places for forging bonds through group work. An affluent society was made possible because of the solidarity in such groups. However, now that people have acquired that affluence, its value has faded. These days, whenever something occurs, there is a clamor about the importance of bonds but that could be due to an instinctive feeling of crisis about the disappearance of such bonds.

Bonds are formed when people take part in group work earnestly. If so, then group work for creating the Platinum Society could take on that role too. These days, aside from working to earn one's livelihood, people often have some other kind of work they do because it gives their life meaning, or else they do something

pro bono to contribute to society by using their work skills. Also, people are showing interest in participating in activities for communities that share specific values different to work, family life or hobbies.

With advances in technology, spatial distances have shrunk and many more options are available for working styles and life styles. Until now, people were more or less forced to participate in activities at the place of their affiliation such as companies, but from now on they are free to choose for themselves as to what kind of activities they do and what kind of communities they join. It is up to the individual to decide on what kind of community they will participate in, or indeed, whether they will participate or not.

6.5.2 Freedom of Mobility Induces Changes to Work Styles

In 1964, the year that the Olympic Games were held in Tokyo, the Tokaido shinkansen (bullet train) started running between Tokyo and Osaka, shrinking the travelling time to 4 h. The next year it became even quicker at 3 h and 10 min. Before the bullet train started operations, this journey took 6.5 h so the new travelling time was a great reduction compared to before. Nowadays, it takes only 2.5 h. When the new Chuo Shinkansen, a maglev line, commences operations this journey will only take about 1 h. By air, it takes about 1 h from Haneda Airport in Tokyo to Itami Airport in Osaka. Shinkansen networks apart from the Tokaido line have been developed and the areas within reach of a one-day trip from Tokyo have definitely increased.

Innovations in transport will occur from now on too. Due to advances in ICT, the cost of transferring information is practically zero. Transport costs for human beings are undergoing a slashing of prices. With the entry of low cost carriers, the prices of air tickets have fallen to about half of what they had been previously. If a plane similar to that of an advanced drone becomes real, then cost structure will be totally changed. Technically speaking, that is quite possible. The Airbus Group has already successfully completed its first test flight while unmanned combat drones are being used by the United States to carry out bombing strikes in Syria. Being unmanned does give some cause for concern but human beings also make mistakes. In any case, drones that are chosen are sure to have strict safety measures in place.

At the same time the degree of freedom in transport is expanding, the freedom not to move at all has also been created. Previously meeting up at a company and having face-to-face talks was the norm, as was reading documents that were circulated and stamping one's seal on them. However, nowadays most deskwork is done on computers. The system for holding video-conferences has become widespread and opportunities for everyone to gather together have noticeably decreased. Foreign-owned companies and major corporations have adopted telecommuting more and more. The number of people who do not have to get on trains at the same time every day is increasing.

If the need to go to the office decreases, then it is no longer necessary to live within commuting distance of the company. Nowadays we often hear of people who

have built houses in Tochigi or Ibaraki prefecture and commute to their workplaces in Tokyo by the bullet train. But if telecommuting has begun in earnest, then it is not even necessary to live in the Kanto area. Company employees could live wherever they wanted to, such as in Hokkaido or Okinawa. Ordinarily they would work from their homes and go to the office by bullet train or plane when the need arises. The diversification of transport methods and transport networks, and the development of ICT have begun to change people's concept of moving around.

These changes will probably change systems like the number of days people go to work and the number of hours they work. We already have in place systems like flextime and a reduction in the number of working hours but these systems are not perfect. "I returned to my workplace after maternity leave under the system of shorter working hours, but if my child comes down with a fever and I have to arrive late and leave early, then I feel bad about this." Some people are working like this, afraid they are giving trouble to their colleagues. "It is difficult for me to go the office very day now that I am busy looking after my child but I would like to work a few hours each day from home." Some people have the will to work but due to problems with the system, they are unable to work. The ultimate ideal would be for parental leave not to even be necessary. To carry this out, it would be necessary to have an appropriate appraisal system and a fair salary structure system set in place. This is a highly significant topic for Japan where the population is decreasing.

Through technological advances, gaps in physical and spatial terms and in terms of time are being filled in, and working styles are being diversified. As a result of diverse options being proposed, the number of people who chose provincial cities may increase. For families with children, instead of having the children attend city schools that have hardly any space for sports grounds, it could be that children are happier racing around at full speed in schools in natural surroundings. Adults do not have to be exhausted from commuting to work on trains and they can enjoy their free time together with their children. These adults may choose to enjoy their own time in their own fulfilling way. If things went like that, then the overconcentration of people in Tokyo could be resolved.

Of course, there will always be people who prefer to live in cities. Being able to choose the lifestyle they like and the working style most appropriate for them is what is meaningful.

6.5.3 Spread of Multi-habitation

For the most part, we have succeeded in acquiring most of what humankind sought after in the twentieth century. People in developed countries do not live in want of housing, food, and clothing, and have been successful in evading the fear of dying due to a marked rise in longevity. Because of advances in means of transport and also in ICT, physical and spatial distances are narrowing more and more. People of today must decide on how to live in a world this free.

One answer is multi-habitation, or, the use of more than one residence. Nowadays, when mobility is much easier, a way of life wherein people live in a condominium during the week when they go to work, and then spend their weekends in a detached house in a provincial city, is a possibility. In the future, as autonomous cars become a reality, even people living in Hakone or the foothills of Mt. Fuji may commute to Tokyo. If they do not have to drive themselves, they can do work in the car, even if the commute takes 1–2 h.

A place for work and a place to live in – how should they be designed?

The choice made by Minoru Yamamoto, COO of Aratana, Inc., which is based in Miyazaki prefecture, is quite interesting. Aratana is an IT venture company that specializes in e-commerce websites and marketing tailored to such websites. Because of its line of business related to e-commerce, the company's location in Miyazaki prefecture has not posed any problems. Ninety percent of the company's clients are in Tokyo. Yamamoto himself is from Mie prefecture but he decided to move to Miyazaki so that he can continue his favorite hobby of surfing. "One step inside the office and it is the same business environment as Tokyo. One step outside and Miyazaki is a wonderful place to live in," says Yamamoto. He frequently enjoys surfing on his days off.

Past work options were split between either going to industrial areas on the Pacific Coast side of Japan, as symbolized by the employment en masse of middle or high school graduates from the rural districts during Japan's economic growth years, or to stay in one's local area and work in local industry. The first option meant leaving a natural environment but the latter option meant that the kinds of employment to be found were limited. However, now it is possible to live in a provincial city for the sake of one's hobby and yet be employed in the same way as if one lived in Tokyo, meaning one can enjoy the best of both.

As part of its management concept, Aratana has the ideal of employing one thousand people in Miyazaki and is actively promoting the employment of city-bred college graduates in the regional cities as well as those returning to their hometowns after having lived and worked in a big city.

6.5.4 Tokyo Work Styles and Countermeasures for Declining Birthrates

Not only venture companies like Aratana, but a trend seems to be emerging for major corporations to choose provincial cities too. In March 2016, YKK AP, manufacturer in nonferrous metals, transferred part of its headquarters to the city of Kurobe in Toyama prefecture. The YKK Group has an R&D base in Kurobe and by using natural resources like the wind, sun and underground water to the maximum, the company is promoting the development of its Passive Town Kurobe Model, a residential development which can keep electricity costs low. Known for its famous Kurobe Dam, this area is rich in water resources and abundant nature, making it a

very comfortable environment to live in. With the opening of the Hokuriku bullet train line, access to Tokyo has become much better. The company intends to promote community-based development and use this in making its products.

By moving the company's headquarters and functions to a provincial city, the residential environment of the company's employees has undergone a major change. Rents are cheaper and with the shorter commute, employees are able to enjoy more leisure time. It is hoped that this excellent environment will lead to the promotion of health too.

Komatsu, a Japanese company that enjoys a major share of the world market in construction equipment, has proved there is a significant difference in the lifestyles of employees in Tokyo and in provincial cities.

Komatsu's headquarters are based in Tokyo but in 2001, the company set forth guidelines to move the headquarters' functions and partially they have made a move back to the city of Komatsu in Ishikawa prefecture, the birthplace of the company. The company's bases in Japan can be broadly divided into three groups: Tokyo, where the headquarters are; Osaka and the North Kanto area, where the production bases are located; and Ishikawa, where the company originates from. A survey on the average number of children per married female employee in each group revealed 0.9 for Tokyo, 1.3–1.5 for Osaka and the North Kanto area, and 1.9 for Ishikawa. The figure for Osaka and the North Kanto area is about the same as the national average but Tokyo and Ishikawa are clearly different. The percentage of female employees aged 30 years or older and who are married is 50% for Tokyo, 70% for Osaka and the North Kanto area, with Ishikawa taking the top ranking at 80%. Although the company system is the same, the percentage of female employees who are married is lower in Tokyo and also the number of children is lower. On the other hand, Ishikawa has a higher percentage of female employees who are married and also the number of children is higher. In general it is said to be difficult the women in executive positions to have children but that theory seems to only hold true for Tokyo.

Japan's total fertility rate in 2015 was 1.46. Although this represents a slight rise, it is not high enough to stem the decrease in population. The government devised measures to counter the declining birthrate but we are still nowhere near the target of a birth rate of 1.8. The Komatsu company's case may provide some hints for overcoming this problem.

6.6 New Industries Created in a Platinum Society

6.6.1 Marunouchi Platinum University – Thinking About Regional Issues in a Big City

If industries change and workstyles change, the knowledge and abilities required of individuals will also change. The kind of mature affluence to which the Platinum Society aspires is not something that is handed out. It must be seized, or at least

found, by the individuals themselves. QOL improves because it is something the individual choses of their own will from diverse options. What is needed now is a place to study, where people can polish up their skills for the Platinum Society.

In July 2016, the Marunouchi Platinum University was opened in a business district in Tokyo. The career courses serve as a venue for lots of people to undertake new studies and to take up new challenges. Initially it was intended for business-people in their forties or fifties who work in the Marunouchi, Otemachi and Yurakucho areas. However, after it was launched we found that the classes were full of a diverse range of students, from those in their twenties to the senior generation who had already reached retirement.

The Town Revitalization by Outsiders Course began as soon as the university opened. Office workers from big cities have to think about revitalization of areas that are trying to deal with various problems. Over a period of 4 months the students learn about three cases and create business plans for each of them.

One of the cases is that of Isen town on Tokunoshima in the southwest island group of Kagoshima prefecture. What made this town, with its popular of just over 7000 people, so famous throughout Japan is the longevity of the island residents and the island's fertility rate. Of the Japanese people listed in the Guinness Book of Records for their longevity, two out of the three are from Tokunoshima. The number of centenarians on the island always numbers twenty or more while the average life span is more than 80 years of age. The total fertility rate is about twice that of the national average at 2.81. The island has boasted this top record for two consecutive years.

Mayor of Isen, Akira Okubo, who was a guest lecturer at the university, said that the reason for the town's high birth rate was that the local community was still quite strong and helped to bring up the local children. Tokunoshima is famous for bull fighting and it is still very popular in Isen. Mayor Okubo said that bullfighting generates a lot of energy that excites people of all ages and both genders. This energy may be behind the longevity and the high birth rate of Isen (Fig. 6.10).

But even Isen is experiencing a decrease in population, and revitalizing the town and securing employment for the future are major challenges. At the Marunouchi Platinum University, such challenges are shared and people who are not from Isen but who are business people living in Tokyo, try to think up ideas for overcoming these challenges. The students at the university are given homework and as they are attending the course of their own volition, each person has a very serious attitude towards their study.

Tomoo Matsuda, Vice President of the Marunouchi Platinum University, said that usually meetings are carried out within the vertical superior-subordinate relationship structure of Japanese companies but meetings at the Platinum University are held with students are of differing ages and with different kinds of work. So it is possible to have a discussion with everyone on the same level, thus causing an unexpected chemical reaction. People from the financial world stress that sociality is vital while those from NPOs stress that if ideas are not feasible from the business side then they will not be sustainable. One of the appealing things about the university is the unpredictability which is surprising in itself.



Fig. 6.10 Mayor Akira Okubo of Isenchō on Tokunoshima Island. (Photo by Marunouchi Platinum University)

Not only Isen but also the cities of Miura in Kanagawa prefecture, and Hachimantai in Iwate prefecture are taken up as cases for study. Miura, famous for bluefin tuna, is a middle-ranking city which has the Healthy Peninsula Plan as its theme. Hachimantai is a famous highlands resort area with hot springs and skiing but it is in need of a business plan for revitalization of the region. The university's students study urban planning through these three examples of the isolated island model of Isen, the suburban model of Miura, and the highlands resort model of Hachimantai. Study is not limited to the classroom but students can go out and do fieldwork if they so desire. It is hoped that the students who have graduated from this course can become leaders in carrying out regional revitalization making use of the knowledge and experience they have gained in the course of their studies.

6.6.2 Developing Human Resources for Realizing the Platinum Society

The Platinum Society Network recognized from the time of its establishment that human resources who can be the driving force for regional development should be nurtured. Therefore, the Platinum Society School was set up. It is aimed at local government employees who are indispensable for overcoming local issues. Such people understand the situation and mechanisms. Because we want this kind of

people to become future leaders, rather than young people or seniors, we get people from this group in the middle to take part.

At this school, students acquired practical knowledge such as cognitive power, ability to resolve issues, and leadership and management abilities which enable them to solve problems. New networks that bridge municipalities are formed. They must come to Tokyo 2 days a month but they share a learning environment with other students in similar circumstances and there are certain things they can only gain through an earnest exchange of opinions. It is hoped that the students can forge relationships wherein they can rely on their fellow students for help with just one phone call, 10 or 15 years later.

Over a period of 6 months, students compile all their work into “Platinum Concept for Our Town,” a plan for implementing a project feasible for their own local municipality. This is not just brushing up some plan that already exists but is a proposal for what should be done anew as a solution in light of issues faced by the local community. Even if their proposal cannot be carried out right away, their experience of trying hard to come up with some concept will certainly be of use to community activities.

The Platinum Society School is now entering its ninth term of operation. Many graduates have commented that they wish to implement a Platinum Society School in their own local region and in 2014, The Platinum Society School @ Local Municipalities kicked off.

The basic way of thinking for this is the same as the Platinum Society School but the actual curriculum is customized to suit the location. For example, there was some news about a certain municipality wanting to educate its employees to become next-generation leaders. Therefore, a competition was held that focused on analyzing problems particular to that community and drafting proposals to overcome those problems. As doors should be open to local residents too, various programs were tailored to local communities such as a school that included the participation of residents, and also a school focusing on the topic of reconstruction after earthquake disasters was conducted. In the 2 years thus far, about ten municipalities have taken part including Toyota in Aichi prefecture, Higashi-Matsushima in Miyagi prefecture, Toride in Ibaraki prefecture and also in Saitama prefecture. As many enquiries are received, the number of schools conducted in the future will probably increase.

Human resources development by the Platinum Society Network is expanding across various age groups.

The Platinum Development of Future Human Assets is held in a training camp style during the summer holidays for up to 1 week at the longest (Fig. 6.11). Experiences learned from those of the same generation with diverse ways of thinking while sharing eating and sleeping arrangements together as well as having contact with such first rate teachers as Yasushi Akashi, former United Nations Under-Secretary-General for Humanitarian Affairs, and Dai Tamesue, former elite



Fig. 6.11 The project to foster future human resources @ Aizu. (Photo by the Platinum Society Network)

track and field athlete, is sure to have a major impact on the future of these impressionable young people. This initiative began in Aizu Wakamatsu in Fukushima prefecture and has also been conducted at Kashiwa in Chiba prefecture and Kikuchi in Kumamoto prefecture. University students have participated as tutors together with active seniors and this school has evolved as people from diverse age groups have built it up.

Various schools specializing in a particular field have become available too. A Platinum Energy School was held for junior and senior high school students to consider energy-saving and energy-creating in the town of Noheji in Aomori prefecture and also in Saitama prefecture. A Platinum Public Health Nurse School focusing on community health has begun in Fukuoka prefecture at Hisayama town which is the largest base for epidemiological research in Japan. In Tokyo, results of the fusion with administration can be observed.

The human resources development program has become quite substantial in terms of both quality and quantity. However, it had its start in just one platinum seed in the Platinum Society School. That seed travelled across different fields, generations, and communities as it put out new buds and roots and began to grow. There are still many platinum seeds lying dormant in the community. It would be ideal if the graduates of the Platinum Society human resources development program could find the seeds and help them to grow.

6.6.3 Education Changing Through ICT

Education is a new industry in the Platinum Society. Education different to what we have known thus far is sure to be created. The way that education should be may change dramatically due to the wave of internationalization and computerization. Education until now has been a place to gain as much knowledge as possible. However, even if enormous volumes of knowledge are gained, there is no hope to compete in a society where large amounts of information easily go to and fro across borders.

In the coming years, children will need to have the ability to create new values in a community of a global scale which will be made up of different cultures and sense of values. With the change from an industrial society to an information society, a twenty-first century education model for developing abilities will be sought after.

The computerization of education is indispensable. New information devices such as electronic blackboards and tablets, and digital education materials will soon be the norm. The importance of using ICT in the field of education will increase as materials made easy to understand with images and sound are developed, together with repetitive learning using computers. Teachers and students will be connected through the internet for teaching and learning together so that technically, no matter where you live in the world, you can always be in an educational environment. Also, classrooms will be freed up to the outside, making it possible for parents and local residents to participate in conversations while classes are being held.

The importance of computerization and digitalization has already been expounded upon at length but actually the field of education seems to be an exception, and with no progress being made in positive discussions. Especially in Japan, the demerits of computerization of education have been pointed out and it can be said that Japan lags behind other nations in the computerization of education. According to the Ministry of Internal Affairs and Communications (MIC), the number of students who use ICT both inside and outside of schools in Japan is particularly low making them noticeably behind other countries. Looking at the situation for ICT infrastructure in schools, according to research by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), the number of computers used for education is limited to one computer per 6.2 students.

The Association of Digital Textbook and Teaching was established in July 2010 to resolve this situation. The purpose of the association's activities is to promote an environment where all elementary and junior high school students in Japan can study using digital textbooks. Specifically, this means (1) preparing 10 million tablets for use; (2) Developing digitalized versions of all the textbooks and learning materials; and (3) achieving a LAN penetration rate of 100% for Wi-Fi inside classrooms. The association is aiming to achieve these goals quickly, earlier than planned by the government. For that to happen, a three-party group must be formed consisting of the users (those at the schools, the students and the parents, and so on), the public service (the government and municipal entities); and the private sector (such as DiTT).



Fig. 6.12 Programming workshop conducted by the NPO, CANVAS

The situation seems to be changing at last. MEXT and MIC have worked together to conduct empirical research at schools across Japan. The debate about institutionalizing digital textbooks has begun in earnest. Provision of information devices and an internet environment is receiving a lot of support. Furthermore, based on the belief that the Fourth Industrial Revolution will occur, MEXT has announced measures to adopt classes about programming from the stage of elementary schooling.

Local governments including those in Osaka, Arakawa ward in Tokyo, together with the cities of Takeo in Saga prefecture and Bizen in Okayama prefecture have given information devices to the elementary and junior high school students in their areas. Currently, there is a movement underway in 158 municipalities to adopt digital textbooks. It is clear that if the heads of local government are eager about this initiative, it is definitely possible to implement.

Private enterprise is also making a serious effort in this regard. So far Microsoft, Intel and the NTT Group have been taking the lead in collaborating with schools and building up the number of precedents of the computerization of education. The number of corporations participating has increased with the services provided and areas covered becoming more diverse. The number of corporations introducing special tablets for correspondence courses is rapidly increasing.

Debate in the private sector to make programming a required subject in compulsory education is becoming livelier. The NPO Canvas has had “Learning through Programming” not “Learning about Programming” as its slogan since 2002. Canvas has strived to develop curriculums, train instructors and organize a support system through collaboration with municipalities, boards of education and schools throughout Japan. In recent years, the number of learning centers teaching programming has surged. It is hoped that programming will be introduced in schools making use of the knowledge from the private sector (Fig. 6.12).

Changes arising from computerization are not restricted to elementary and secondary education. Japan Massive Open Online Courses (JMOOC) has lectures by professors from such universities as the University of Tokyo, Kyoto University and Keio University available online for free. MOOCs were originally started up by Stanford University, Massachusetts Institute of Technology, Harvard University and the University of California, Berkeley. Anyone can get the world’s best education for free as long as they have access to the internet. The number of options open to

students has increased but viewed from a university perspective, it means they are compared to universities around the world. Some say that MOOCs could totally undermine the existing business model of universities.

Computerization and digitalization are making advances but there are still many problems to be addressed. The biggest problem is cost. Japan does not spend a lot of money on public education. When comparing costs of education in Japan to the country's GDP, Japan ranks lowest out of all OECD member countries. Japan needs to invest more in the computerization of its education system.

Another problem is that digital textbooks are not recognized as official textbooks. Legally, textbooks are defined as books and must be in paper format to be officially recognized as a textbook. At long last, MEXT has begun to make revisions to the system but 4 years have been wasted since the author and others have first made such suggestions.

The computerization of education is not just an issue for national and local governments but is also an issue for all Japanese people, including those involved in education, and the parents of schoolchildren. Local municipalities, the government, the Diet and private enterprises each have a role to carry out. It is important to advance the development of both hard and soft infrastructure, support for teachers and a revision of the legal system concerning the computerization of education.

6.6.4 Adult Education as a New Industry

In 2013, Associate Professor Michael Osborne published a paper that stated that in 10 years' time, advances in AI will mean that many kinds of occupations will be taken over by computers. This sensational news was also reported in Japan. Various kinds of work ranging from jobs for entering data or being a supermarket cashier, which are mostly part-time, to occupations which require knowledge and experience, such as accountants and loan officers, are supposed to be taken over by machines.

Not all of that may be true but undoubtedly, many kinds of work will disappear. Already a lot of jobs have been lost due to the introduction of IT. A typical example is factories that carry out mass production. Various processes have been automated and industrial machines can do the work with unrivalled accuracy, leaving no place for human beings.

On the other hand, it is true that due to the introduction of IT, work which didn't exist before has been created.

Construction is one area late to introduce IT. However, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), has launched i-Construction, a program aimed at increasing productivity in the entire construction production system and creating appealing construction sites. With this program, through the introduction of IT, computers have taken over a large amount of work previously done by

hand. However, not everything can be switched over. Some work, like maintenance, can only be done by human beings.

Much of Japan's social infrastructure is in a state of deterioration. There is nothing as difficult as the maintenance of facilities that have undergone repair work many times. As well as requiring excellent technical skills, the kinds of materials and work are not the same, so such maintenance has to be carried out on an individual basis which makes it extremely costly. Therefore, most infrastructure is left to deteriorate, leading to accidents such as the collapse of tunnel ceilings.

The introduction of a monitoring system, where sensors are installed in tunnels and on bridges, is now under consideration. Sensing technology and monitoring are two areas in which computers excel even though they cannot do the actual maintenance. The most appropriate kind of person for this work would be those who have worked on construction sites. If they receive special training and become IT engineers who can actually do the maintenance, then the problems of maintenance management of social infrastructure and of employment can both be resolved at the same time.

With the introduction of IT, the number of people working in the industry will no doubt be reduced. However, Henry Ford, who introduced mass production of the Ford Model T car more than 100 years ago, improved productivity ten times over and expanded the car market 100 times, and in turn improved profits ten times over. Even if we cannot expect such a bubble like that, if production efficiency at construction sites improves by ten times with the introduction of IT, then the existing market can expand while a new market including maintenance will occur and employment opportunities will increase.

"Learn a trade" is something often said but the kind of work one should take on will change according to the era. That change is happening faster and faster so people with their lives ahead of them need to always try learning something new. Society needs to develop educational institutions and educational systems to keep pace with those changes.

New business opportunities are possible regarding establishing educational institutions and qualification programs. New industrial education suited to a Platinum Society is needed. To that end, education and qualification programs themselves could become new industries.

6.6.5 Developing Leaders Who can Carve Out a Path to a New Era

In 2008, The University of Tokyo launched its Executive Management Program (Todai EMP). This is an educational program for those who will become future leaders and the program aims to develop human resources with high levels of general skills who can create a new era. Students are individuals in their forties with the potential to become top managers. No matter what situation they face, real leaders

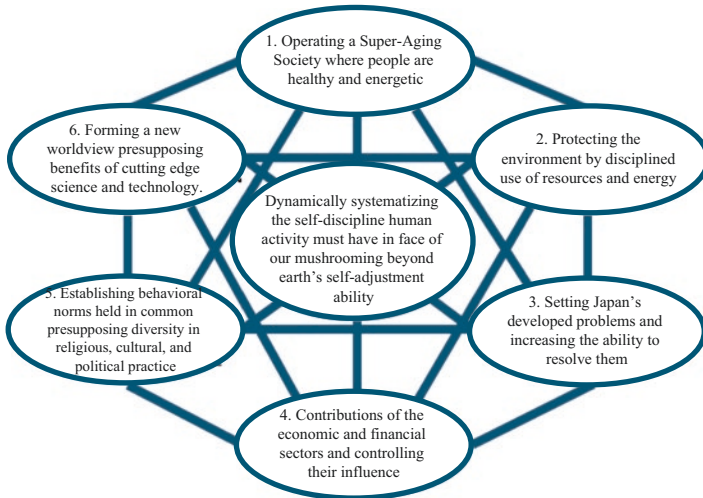


Fig. 6.13 Structure of The University of Tokyo’s EMP “High culture and wisdom” program
 The lectures cover a diverse field including: Religion, Philosophy, and Thought; Economics; Law and Political Science; The Global Community and Japan; Agricultural Science; Medicine and Health Sciences; Drug Development; Life Sciences; Neurology; Information Science; Media Studies; System Engineering; Material Engineering; Material and Energy Circulation and Environment; Space and Atoms; Architecture; Barrier-Free; Gerontology; Mathematics; History of Science; Cognitive Science, Social Psychology; Robot Engineering; Radiation; and, Innovation of Japanese Society.

must act based on solid knowledge and multifaceted ways of thought. Therefore, the program is designed so that students hold highly persuasive discussions about certain issues and they can propose and promote concrete measures to resolve those issues (Fig. 6.13).

Communication is divided into three areas and of the 180 classes that make up the program, 65% involve knowledge and insight.

Most of the classes are conducted by about one hundred lecturers from the University of Tokyo. With the broad range of knowledge the University of Tokyo has accumulated, opinions are exchanged during discussions while conveying ways of thinking to break ground with leading-edge knowledge. Rather than just learning about knowledge that is already complete, students try to understand the researcher’s way of thinking, and the origin and background of how that knowledge was created, with the purpose of acquiring an even sharper insight. Attention is focused on nurturing skills for building logic that is universal and goes beyond culture.

Through a series of lectures, the structuration and integration of knowledge should advance. For example, in medical lectures the students can learn about possibilities for curing cancer and dementia, and students can build a common knowledge base. By imagining the impact this will have on society in the future, they can each deepen their thoughts on this by connecting it to religion, philosophy, thought

and finance. If they conduct discussions after that, then they will probably gain an even deeper understanding and new awareness. Today EMP is not a one-way educational program from lecturers to students but through lively discussion between the lecturers and students, or amongst the lecturers themselves, or the students themselves, everyone can learn from each other making it a place where new perspectives and opinions emerge.

In the lectures about space and particle physics, the students learn the importance of theoretical hypotheses, as well as the need to develop new observation equipment and machines. These days, even if advances are made in theoretical research and development technology, quite often simulations cannot be conducted, although this is not widely known. Regardless of a leader's field of expertise, they need to know that situations exist that can only be known about on the inside and also they need to know that problems do exist. Through these lectures, the students appreciate anew that in many fields, risk-taking by trial and error is necessary.

After the entire program has finished, the participants will have gained knowledge over a broad area and a multifaceted way of thinking. Graduates and the University of Tokyo lecturers hold meetings, research meetings, and on-site visits to different locations after the program finishes. Because each student is trying to advance their knowledge and participating in activities, the time spent in exchanges is fun and fulfilling. Graduates of the program number more than 320. Each year about 50 people are expected to graduate from the program, from now on. Today EMP graduates are expected to be active in various areas of society.

6.6.6 Questioning Anew the Importance of Education

Since the Industrial Revolution, business activity globally has increased at a yearly growth rate of about 3%. In the future, with the growth of developing countries, this trend is sure to continue for the long term. Finally, in 2080, the average earnings per person globally will reach what it is in developed countries now.

However, there is no guarantee that current problems such as the economic disparity between nations and between individuals will move in the right direction and be resolved, or that regional conflicts around the world will be settled. Also, if humankind continues on with the current lifestyle that depends of fossil fuels, the effects of global warming will further accelerate the disparity between nations.

Society is continually changing and the increasing rate of globalization gives impetus to social changes. Globalization is no longer restricted to the economic sector. Various areas such as politics, science and technology, culture and so on, are linked to one another in their development. This is not to say no to new developments themselves. However, as a large volume of technology keeps being implemented into society at an even faster pace than before, social changes accelerate and become more complicated. Because of that, many people keenly feel how difficult it has become to show leadership.

Nonetheless, if the world's third largest economic power, Japan, is to continue developing, it is vital that those in a position of leadership understand the newest knowledge in various fields and how such knowledge is undergoing change. Then, by strengthening their ability to foresee the future and their ability to communicate, it is necessary to strengthen the impact on other countries.

Learning is not just necessary for those in leadership positions. Through advances with AI, computers, sensors, robots, and 3D printers, part of the work currently done by human beings will be taken over by these inventions. That does not mean that people's work will be taken but rather, new kinds of jobs and new work will also be created. At such a time, conventional knowledge and skills will not be enough to deal with this new situation. New knowledge and skills are necessary for tackling new work. Until now, it was possible to learn on the job and accumulate experience through work after one had finished school and become a working adult. But from now on, in order to keep step with the social changes happening, knowledge and technology must constantly be updated. A diverse educational system that supports people's learning is needed.

In the future, labor productivity will increase through the application of new systems and people will have plenty of time and opportunities to receive education after they have become working adults. Many people will receive education appropriate for the new times and partake in work that is advanced and of a high level, thus contributing to the further development of society.

6.7 The Platinum Society Becomes More Visible

6.7.1 How to Promote a Platinum Society

Even in Japan, which is a leading country in resolving societal problems, problems have come to light in remote island regions, making them problem-saddled regions.

Tanegashima in Kagoshima prefecture has a population of about 33,000 and a surface area of 445 square kilometers. Tanegashima is a narrow yet long island stretching from north to south. It is divided into one city, Nishinoomote, and the two towns of Nakatane and Minamitane. Out of all the outlying islands not connected to any of the four main islands of Japan, Tanegashima is the fifth largest. The rate of its declining population and the aging of its population are higher than the national average thus truly making it a problem-saddled region.

In 2012, the University of Tokyo's Organization for Interdisciplinary Research Projects set up the Presidential Endowed Chair for Platinum Society. Collaborations between industry, academia and the public, based on this Presidential Endowed Chair have been advanced, and this movement has expanded to a point where a total of nine universities are conducting activities on Tanegashima (as of August 2016). This provides university researchers with the opportunity to verify technology they developed themselves and brush it up as technology that can further enrich the local community (Fig. 6.14).

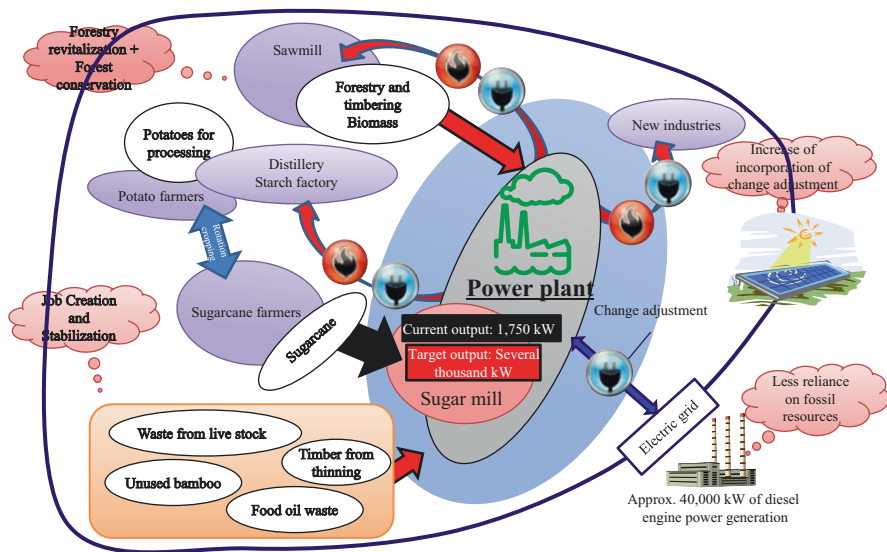


Fig. 6.14 Conceptual diagram of the agricultural and forestry collaborative system implemented in Tanegashima. Kikuchi Y. et al. *Journal of Industrial Ecology* DOI: 10.1111/jiec.12347 (2016)

Tanegashima has various kinds of agriculture and livestock industries such as sugar cane, sweet potatoes including the Anno variety for the fruit and vegetable market as well as other kinds of sweet potato for making Japanese *shochu* (white liquor) or starch, wet-rice cultivation, and the raising of Wagyu cattle. Out of these, sugar cane holds a special place as part of the island's culture and the sugar cane industry, including the manufacturing of raw sugar, is one of the key industries of the island.

Sugar cane juice is extracted by crushing the sugar cane. This juice is then clarified, made more concentrate and crystallized to make raw sugar. Fibrous solids that remain after this processing are called bagasse and from long ago, have been used as fuel inside the sugar processing factory. All the electricity and heat needed for processing sugar can be provided by the bagasse but research has shown that in most sugar mills, energy derived from bagasse is affordable and can become excess by increasing energy efficiency at sugar mills.

On the other hand, other vital island industries, the starch factory and farmers growing mangoes continue to burn fossil fuels to maintain temperatures in hot-houses or for generating steam from water. This is a general-purpose system used in households too but from an engineering perspective, it is a waste to use fossil fuels in order to obtain temperatures lower than 150 degrees. If the leftover heat generated at the sugar factory could be used, it would easily meet the demand.

The system where different industrial facilities share materials or energy is called industrial symbiosis. This system is ideal but actually implementing this in the community is not as easy as it may sound. As well as technology for transporting heat, sorting out the connection with relative laws and creating a system for cooperation

within the municipality, it needs to be clarified as to whether it is attractive for the local residents or not. This is a difficult role to be carried out by corporations and business operators alone. In that regard, the university has a neutral position in the local community. An effective method would be for the university to take on the main role and explain the academic significance from many sides, and for industry, academia and the public to find some way to grapple this.

On Tanegashima, several projects like this have been set up. In regard to sugar cane, there is a verification plant, the first of its kind in the world, for the inversion production process for sugar and ethanol. It received the Grand Prize for the Global Environment Award in 2013. In this case too, the university has conducted a systematic analysis for reducing the burden on the environment and for the adoption of technology. The method Tohoku University has for producing biodiesel using ion-exchange resin means that high quality biodiesel can be produced continuously from low grade waste cooking oil by the easy procedure of simply passing it through a resin packed tower. Facilities for verifying this technology on a scale for adoption have been built on Tanegashima, the first of its kind in the world. Trial runs using a common rail diesel engine are being conducted.

Researchers from Kyoto University, the Nara Institute of Science and Technology, and Kumamoto University are collecting unusual data from all around the world related to health management, by using a wearable sensor to measure changes in a person's heart beat to try to anticipate circumstances that could impact on the functions of the person's autonomic nervous system due to heat stroke and so on, and develop a mechanism to sound an alarm. These projects are also being used in education in the local community.

Lecturers from the University of Tokyo, Tohoku University, and Kobe University introduce projects at the local prefectural Tanegashima senior high school as well as getting the students to quantitatively specify local problems using the Regional Economy Society Analyzing System (RESAS). The students then conducted a project to consider ways to resolve those problems. The outcomes were suggested and transmitted at a symposium attended by the head of local government, industrial associations and local residents. Opinions were exchanged with seniors from public organizations and new knowledge was conveyed with a kind of fusion starting to occur. The appeal that local communities that have started to move towards a Platinum Society have is also spreading to further than university researchers and corporations hoping to develop business. In the Hands-on Activity Programs conducted by the University of Tokyo for undergraduate students, a program related to agriculture, forestry and fishing industries in Tanegashima and regional revitalization, was proposed for FY2016. Although this was proposed for the first time when the program was in its fifth year, out of the total number of 443 programs, the Tanegashima program ranked first domestically while it was ranked high by program applicants, including for programs conducted overseas. This revealed how students from urban areas were attracted to experiences in regions undergoing innovations. In this way, exchanges of new knowledge are being created one after another, like chain reactions.

6.7.2 The Platinum Network Society and the Platinum Vision Award

The Platinum Society is a model for growth in a mature society. A mature richness in terms of quality and a vision that seeks QOL is not confined to certain regions or countries, cities or countryside, or outlying islands. However, specific ways to achieve such a vision or initiative differ with each area. In looking at areas across Japan, there are many examples to be found that exhibit various kinds of resourcefulness and clever ideas. Areas experiencing certain problems may be able to get some hints by looking at how other areas with a similar problem handled it. By exchanging each other's ideas and knowledge, it may be possible to come up with something even better. Joining hands with each other will lead to a bigger movement giving them the power to demand legal and social reforms.

From this kind of idea, the Platinum Network Society was launched in August 2010 by its 46 founders. Even if social reforms are known to be necessary, all of society moving together as one is not a reality. So, first of all, the frontrunners need to go ahead and increase the number of supporters. Then, when critical mass is reached, everyone can move together. The people gathered here are the frontrunners who can make a move before others.

More than 6 years have passed since the Society was launched. The Society has grown into a large organization and as of September 2016, the Society has 84 corporate members, 154 local government members, 56 special members, and 6 members from outside of Japan, making a total of 300 altogether. As mentioned earlier, the Platinum Network Society conducts various activities such as developing various educational programs for fostering human resources, publishing the Platinum Society Handbook, holding symposiums, establishing individual working groups for health management, and holding discussion meetings to generate ideas (Fig. 6.15).

Amongst such undertakings, the Platinum Vision Award, inaugurated in 2013, has been often mentioned in the media and is credited with making Platinum Society ideals better known. Recipients of the Platinum Vision Award include local governments, corporations or organizations that have created a new industry through some kind of innovation, or are aiming to resolve regional problems by ingenious measures. Through their efforts, these governments, corporations, and organizations represent a society that is aiming to become a platinum society.

6.7.3 Creating the Platinum Society Handbook

The Handbook was created so that methods from these advanced examples can be used in other similar cases. Japan's rapid economic growth during the period between 1955 to the 1970s was maintained by the development of factories in regional areas as society became more industrialized. At that time, the development

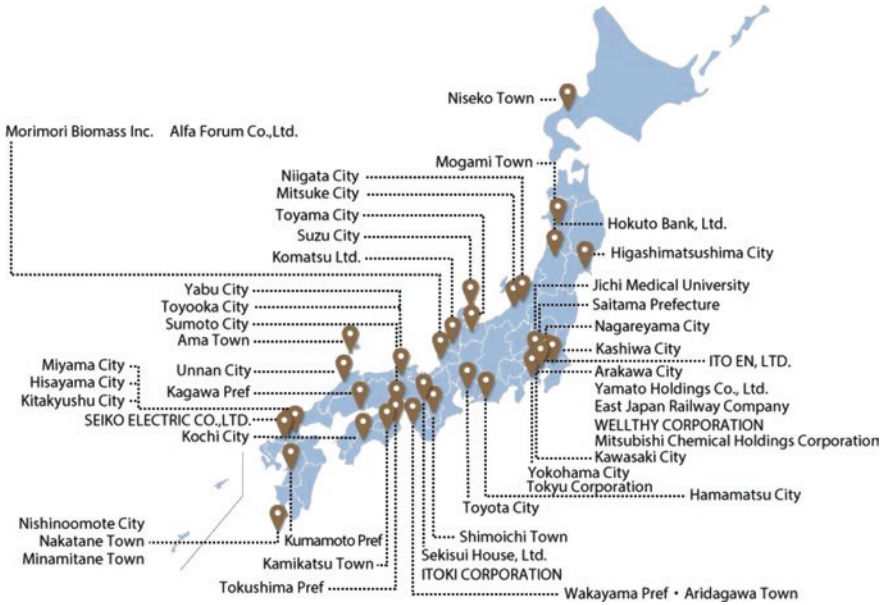


Fig. 6.15 Past organizations that received the Platinum Grand Prize

of factories in regional areas, and methodology for rolling out the same measures in similar cases were researched and retained in the form of textbooks, handbooks and manuals, and this supported the industrialization era. In order for a Platinum Society to evolve, we need to create methods for utilizing similar cases such as those that supported the era of industrialization. Figure 6.16 shows the overall image of structural analyses as listed in the Handbook.

The following content has been compiled and recorded in the Platinum Society Handbook.

1. Finding problems (regional) and setting goals
2. Projects that have been conducted (specific details, schedules, costs, systems, etc.) and factors for their success.
3. Local resources that were used.
4. Mechanisms and systems
5. Outcomes and future developments

Finding problems and setting goals should be kept as simple and clear as possible when planning and implementing specific projects. By keeping these simple and clear, the project is more likely to be successful. Specific details about the system for promotion and also factors for success or factors that inhibited past projects are included. These specific details include schedules, (the project's processes), costs, and bringing in experts as leaders. Numbers 3 and 4 are prerequisites for carrying out projects. Number 3 includes a review and rediscovery of materials unique to that area. Number 4 describes regulations as well as any subsidies which may be avail-

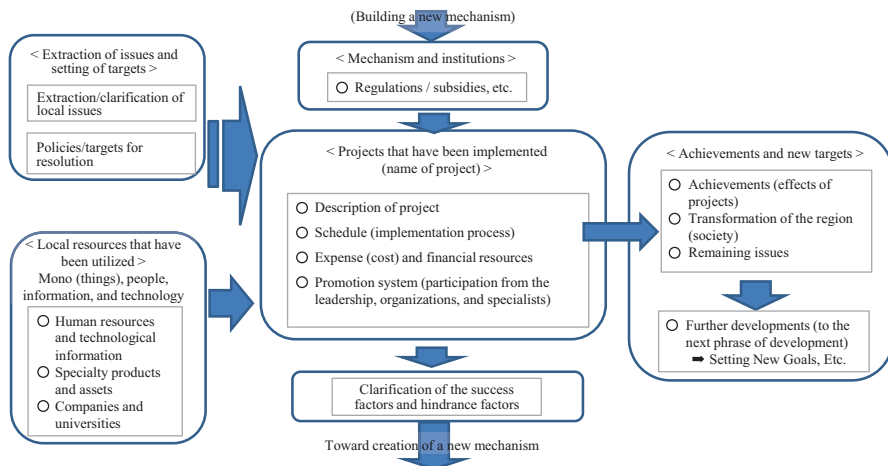


Fig. 6.16 Methods of creating a Platinum Society—The structure of a platinum vision handbook. Komiya H, Matsushima K. (2012) Platinum Vision Handbook —Change the world through the power of active elderly. Platinum Vision Committee, Japan

able. Nowadays, examples that aim at promoting deregulation by utilizing the Comprehensive Special Zone System are increasing. Due to outcomes from this, further deregulation or new support measures are coming into force.

For development in other areas the results, including any impact the project had on the local community, are expressed in numbers so that the accuracy and details can be adequately grasped. Further developments are also described as it is possible that the local community may be impacted even further as the project continues to expand.

The basic intention of the entire Handbook is to make Input-Output relations as clear as possible so that cause-and-effect relationships are clarified. To this end, the IDEF system of analysis was used as a base.

Rather than examples, the Handbook focuses more on factors for success and the development processes of various cases.

For example, the senior high school in the town of Ama was in danger of becoming closed down. However, the implementation of a program to have students come to the island and study at the school successfully increased the number of classes. This excellent result was brought about by the sense of crisis shared by the town mayor and island residents that keeping the school viable was directly linked to keeping the island viable. As well as the entire town getting involved in this project, factors for its success are that experts were brought in from outside and that the project was carried out with collaboration and division of roles with these experts. Out of these, ideas unique to the island were born. They included conducting social education with the town residents as teachers, and opening a publicly run learning center.

Toyooka city has made extensive use of white storks and developed a special brand too. In order to raise white storks by artificial incubation and eventually

release them back into the wild, the city had to undergo a major change in developing and expanding farming land that either used very little or no agricultural chemicals. The brand of organically grown rice known as “Rice that Raises White Storks” was produced and marketed. Now, efforts are being put into attracting businesses to further promote the economic environment. The city is being developed as an environmental and economic city.

The number of cases described in the Platinum Society Handbook is more than 30. Case examples will continue to be gathered and analyzed. As well as providing examples from diverse areas for reference, hopefully it will lead to the implementation of projects in many different locations.

From before, I have thought that the ideal for various organizations is a distributed cooperative autonomous system. For example, in a human body, organs such as the heart and the liver function autonomously but in its entirety, the system is created to be one life. In the management of organizations, although the individual elements are active separately, it is better for the entire system to be properly balanced, as necessary. The Platinum Society Network is also based on this idea.

The Oki-Dozen Senior High School Appeal Project in Ama, the Zero Waste policy in Kamikatsu, the Miracle of Yanedan village, and the Platinum Triangle initiative centered around Futakotamagawa—what each of these locations is aiming for is quite diverse. These diverse communities each exist independently of each other but they are organically connected against a backdrop of information and freedom of mobility. That distributed cooperative autonomous system is what the Japanese Platinum Society looks like. Expanded to world-sized scale, it is the kind of world we hope to achieve in the twenty-first century.

6.8 The Platinum Society and Vision 2050

Vision 2050, which was promoted at the end of the twentieth century, is a macro vision derived from thinking sustainably about the Earth from the perspective of materials and energy. At this time, lifestyles and social systems could not all be included. However, in the 2000s, a vision was shown wherein Japan, as a problem-saddled developed country, should aim to become a leading country in resolving societal problems instead. A clearer image of this is the Platinum Society (Fig. 6.17).

As has been touched upon earlier, the Platinum Society is already beginning to sprout up in various locations around Japan. It is becoming accepted as a practical vision and not simply some armchair theory. It goes without saying that the Platinum Society will not be a reality if the Earth ceases to exist. A platinum kind of perspective is essential in regard to measures for ensuring Earth’s continued existence. In other words, the series of visions that started with Vision 2050 are intertwined with each other and combining them into one vision paints a much bigger picture of the world.

The New Vision 2050, the main theme of this book, was born from such ideas as: each individual pursues a Quality of Life; regions are each attractive in their own



Fig. 6.17 Platinum society. (Source: The platinum society network)

unique way; society is sustainable without having to abandon such matters as economic development and reducing carbon. The New Vision 2050 logically shows that such things are a possibility.

The road is not smooth. Obstacles must be overcome and there are problems that have to be settled. At times it will be necessary to make mid-course adjustment. But even so, this is the road that must be taken. The reason is because the future for the world beyond the New Vision 2050 will definitely be bright.

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