Looking toward 2050
Key challenges METI is facing for the sake of Japan

Rise of emerging countries
What are reasonable directions for international partnerships?

The influence of emerging countries is increasing as demonstrated by expansion of the economy in China and India. Global governance and international cooperation are becoming extremely complex, while structural changes in the world economic framework are progressing. With this understanding, to what degree and in which fields should Japan be cooperating with other countries around the world? It is necessary for Japan to plan and implement national strategies for and partnerships with China, India, and other countries.

How does Japan take a leadership role in making international rules?

The ocean, space, cybersecurity, biotechnology, robots, and other such fields. It is important that Japan proactively participate in making international rules in the fields that are expected to grow in the future. Meanwhile, the establishment of national economic rules such as competition, taxes and tax policies is important. How can Japan involve emerging countries in its partnerships between developed countries and emerging countries? Japan is being asked how it will play that leading role.

How should Japan face issues on a global scale?

What can make Japan’s “international player” in solving global issues such as the increasing demand for energy, the impact of climate change, and inadequate infrastructure? Japan will take advantage of its technology and its “strengths” so to speak, in solving issues around the world, including Asia, by exemplifying overcoming energy and financial deficits and developing superior technological know-how. Japan has an important role in providing solutions to these challenges.

Promoting modernization of social security policy

In order to establish a sustainable social security policy, it is necessary to consider appropriate burdens for the people and a social security system design that reflects these appropriate burdens. Additionally, preventing the expansion of global disparities is important as a foundation for economic growth. At the same time, it is essential to thoroughly improve the efficiency of administration and to streamline financial administration through the use of AI and IoT.

Measures against population decline

Implementing comprehensive measures for reversing the decline in population

What will happen if the population declines? It will have a great influence on the sustainability of social security policy and national security in addition to the reduction of growth potential due to the decline in the labor force and productivity. In order to overcome and reverse the situation, Japan needs to increase the labor force participation ratio of women and elderly persons, and find ways to increase labor productivity, utilizing AI, robotics, and other means. It will also be necessary to increase support for childcare and families to increase birth rates, while deeply considering ways to attract and integrate foreigners to allow them to contribute to Japan’s future.

Regional revitalization

How can we create regional communities that uplift the economic level of Japan?

The power of the town is directly linked to the power of Japan. For example, some SMEs that support regional economies have connections to the global market, and the earning power of some agricultural businesses and touristic businesses stem directly from broader regional farther away. It will be necessary to find methods of creating more regions that are efficient towns while increasing the efficiency of administrative services in order to ensure the sustainability of daily services and infrastructure.

Examining the present and future from various perspectives while engaging in serious discussion is necessary for taking bold steps to the future we visualize. What should we do to improve Japan’s strengths and compensate for its weaknesses?

The “Points for Japan to Take a Leap Forward” was organized at the 16th general meeting of the Industrial Structure Council held on April 27, 2015.

Corporate earnings have reached the highest level ever, and the effective ratio of job offers to applicants is steadily improving. While this data shows the “Japanese economy that is recovering,” the potential growth has decreased and is now less than 1% due to the decrease in population and other factors. The structural issues that Japan is facing have become obvious, and it’s time for Japan to take urgent steps toward reform.

Drastic change in the global economy. Which road should Japan follow?

We also need to monitor issues outside of Japan. For example, the population of India will exceed that of China as number one in the world by 2029, and global energy consumption will be 1.4 times the present consumption by 2040. And, the current percentage of the population aged 65 and over in the world will double by 2050. The environment around Japan is drastically changing. Based on these medium- and long-term trends, this section highlights key challenges METI is facing for the sake of Japan.

Re-analyzing the current situation, we will explore the paths to the future of Japan.

The data for population, energy consumption, and percentage of the population aged 65 and over are from UNCTAD, the IEA, and the United Nations.

New fields

Internal globalization of Japan

Establishing a country that attracts more capital and human resources!

Globalization has reduced the costs for people, goods, logistics and information, making many foreign countries attractive for capital and human resources. In striving for “Internal Globalization” we must make Japan welcome diversity and generate success stories in fields where overseas human resources can expect to play an integral part in order to succeed in the intensifying global competition for human resources. Considering changes to the employment systems to allow for this shift will be necessary.

Solution of issues

Leveraging development of AI and the IoT to realize innovation

In many industries, sources of added value shift away from “traditional” to the quantity and effective use of information and data. In these situations, AI is becoming important, for example, in agriculture, healthcare, and improving how progress in AI and the IoT revolutionizes companies, industries, and society. AI will be desirable to develop an environment where people can create new businesses using information technology.

Innovation

New technology

Human resource development

Establishing an ecosystem of innovation

“Investing in human resources” is a global trend. If we establish a new “mechanism for human resource investment” it will be essential for promoting innovative and global human resources from Japan. And, a key point is whether we can establish an ecosystem for continuously generating innovation by strengthening cooperation between various institutions such as major companies, academia, and medium enterprises, venture companies, universities, and government agencies.

Choice of government size

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Solving global issues

As the world’s center of gravity changes, how should Japan respond?

China, India, and ASEAN are expected to continue growing trends, now and in the future. This will inevitably have significant effects on the economy and society of Japan. The size of the Japanese economy, which used to account for far more than 10% of the world economy, could decrease to 3% by 2050.

How can Japan best nurture and incorporate the vitality of growing commercial sectors? The ways in which Japan has gained market share in the U.S. and Europe in the past are not necessarily effective in today’s emerging economies. “True globalization” that is rooted in local markets and mechanisms for sharing high-level economic rules with emerging countries is needed.

The world’s shifting center of gravity, from advanced countries to emerging countries, will necessitate a transformation in the conventional global governance system dominated by G7 and OECD nations. In this changing environment, international rules-based commitments from emerging economies in the fields of cyberspace, outer and ocean space will be vitally important. Further, the changing power dynamics is expected to increase the difficulty in reaching resolutions concerning conflicts of interest.

The advancement of emerging countries will be highly likely to cause an increase in the consumption of resources, including demand for energy, food, and water. This will most likely result in global-scale challenges, including environmental issues, becoming more serious.

Japan has to think carefully about how to contribute to solving these issues while at the same time associating such contributions with its national interests.

Aiming for an open Japan with India as a touchstone

For example, in India, Japan is promoting various measures that can serve as reference point in the future.

These include development of “Japanese Industrial Townships,” aiming to boost direct investment from Japan and recruiting of highly talented Indian human resources by the Minister of Economy, Trade, and Industry. Japan is planning to strengthen its relationship with India through cooperation between the public and private sectors, promoting a vision for establishing an Indo-Pacific economic community. The vision is: “The integration of Asia including India is progressing, and Japan will play a central role.” In order to create a situation where the power of Japan is believed to be essential for growth in broader Asia, it is important that Japan be open to the region.

Japan establishes an international conference to address global warming

METI has taken the initiative in setting up an international conference called “CEP” focused on addressing environmental challenges, especially those surrounding global warming. It is to serve as a platform for the sharing of knowledge between industry, government, and academic leaders of the world in order to promote innovative solutions to the global warming problem. It is held in Japan every year, with 800 people from international organizations, governments, companies, and the academic community from some 80 countries participating in the first conference last year.

There was a shared recognition in the importance of promoting and spreading the development of innovative technologies in order to solve environmental challenges. Japan, which has continued to promote energy-saving and low-carbon technologies since the 1970’s oil shocks, is well positioned to contribute to reducing emissions of greenhouse gases throughout the world, especially in emerging and developing nations.

*Stands for Innovation for Cool Earth Forum

Enormous change in the balance of the world economy

In 1990, the combined real GDP of Japan, the U.S., and the EU accounted for 70% of the world economy. By 2014, it had decreased to 50%. It is expected to be 30% in 2050. How should Japan respond to an energy environment where the U.S., the EU, China, and India will each secure more than a 10% share of global resources, and where ASEAN is also expected to increase its relative share? A concrete strategy is needed.
Japan has been challenged in terms of "Internal Globalization," which means the capacity for welcoming and integrating foreign human resources and capital. The foreign workforce ratio in Japan is substantially lower than that of other developed countries. Why has Japan been so sluggish in diversifying its talent pool? One of the factors leading to this situation is Japan’s past experiences of success; the country has had abundant and hard-working population that propelled Japan’s rapid economic growth and therefore been less open to the international labor market. Japan also has such unique lifetime employment system that the employers expect employees to work long-time and accommodate any assignments. These characteristics of Japanese business culture have prevented international talent to seek jobs in Japan.

However, “Internal Globalization” and embracing diversity is indispensable for Japan if the country wants to create innovative environment. As cross-border business becomes substantial, Japanese companies are seeking for international talent and capital more vigorously than ever.

Foreign human resources and capital are the keys to taking advantage of Japan’s strengths

What should we do? It seems necessary to eliminate prejudices against foreign human resources and capital, and at the same time, to become aware of the fact that Japan is behind in the world-wide competition in innovation.

First, as for foreign human resources, we should actively promote an increase in the acceptance of overseas students, support for companies to hire these students, and improvements in their everyday environment, recognizing them as valuable personnel who bring in a diverse and different understanding of value. Second, regarding foreign capital, it should be considered as something that connects outstanding companies throughout the world with Japanese companies, and not something threatening like the famous “Black Ships,” the western vessels which arrived in Edo-era Japan.

To achieve this goal, METI has already conducted various measures including training projects at Japanese companies for foreign human resources in order to enhance Internal Globalization. For example, a project called the Internship Project for Fostering Japan’s Internationally Ready and Able Human Resources supports both internships for Japanese citizens to work at foreign companies or organizations and acceptance of foreign interns by Japanese companies. This project is developing human resources called Emerging Markets Innovators, who understand the social issues and characteristics of the markets in developing countries and develop businesses starting in emerging countries in cooperation with Japanese companies.

Furthermore, METI is discovering and developing foreign entrepreneurs and talented personnel in developing Asian countries and providing job-matching support that provides useful information for obtaining jobs at Japanese companies for such entrepreneurs and human resources.

Facing issues such as a low birth rate, an aging society, and tight national finances, Japan should aim to become a country that can attract superior, industrious human resources and companies with growth potential. However, improving this attractiveness by ourselves has certain limitations at present. In order to build resilient, flexible cities and communities to which talented people from around the world are attracted, it is necessary not only to compete within Japan but also to continue to broaden our minds and grow in resiliency in partnership with overseas countries. It is important to have such a perspective.

Not to be left out in global human resource markets

The ethnic and cultural diversity in workforce scores the lowest in Japan among other OECD countries. Though the foreign workforce ratio in Japan beat that of the neighboring Republic of Korea in 2000, Korea has grown its figure 18-fold to surpass Japan’s within just over a decade. The EU and the U.S. also accept more workforce migration in recent years. Japan is facing challenge not to be left behind in international competition for talent acquisition.

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Implementation of Comprehensive Measures against Depopulation

How to Halt the Rapid Decline in Growth Potential?

The negative impacts caused by depopulation are not limited to the decline in the labor force. If the aging of society advances and the number of people who dig into their savings increases, the domestic savings rate will decrease, which means that the capital stocks to be invested in the future will fall. If there is a shortage of young researchers including scientists and engineers, the knowledge that Japan has accumulated will also be lost. These negative factors could have compounding effects in depressing Japan’s growth potential on a very fundamental level. In order to halt the negative spiral of a decreasing population and build a sustainable economy and society, it is necessary to take comprehensive measures that address this reality.

Realization of various working style options that fully utilize the potential labor force

In order to stop or reverse the trend of declining productive population and build a sustainable economy and society, improvement in the birth rate is essential. In fact, France and Sweden have succeeded in improving their birth rates. What is important is to create an environment in which women are able to comfortably raise children while leveraging their professional skills to continue working. It can be said that modifying the existing paradigm of long working hours for men which impedes participation in childcare will be a factor in this improvement.

If rigid labor practices as typified by working long hours can be reconsidered in order to realize flexible options for working style, it will be possible for women, elderly persons, and foreigners to further expand their opportunities to demonstrate their abilities. If the aging of society advances and elderly persons can further expand their activities and establish working style options, and if women are able to expand their fields of activities, it will also have positive effects on the creation of innovation.

Furthermore, robots and AI will be a precious ally in achieving maximum results with limited human resources. The advancement of the technological development of these robots and AI will demonstrate the possibilities for creating new industries and employment. In order to make full use of technology and create added value, people with a strong pioneering spirit will also be needed. Fostering such people is an issue to be addressed through close partnership between educational institutions and the industrial community.

Even if an environment where women and elderly persons can further expand their activities is established and robots and AI are aggressively used, there still remains the possibility that the rapid decline in the labor force will not be able to be compensated for. With an eye toward the supply and demand for the labor force by industry and professions in the long term, it is necessary to squarely address and discuss the recruitment and integration of foreign human resources as needed. In the meantime, it is also an urgent matter to control the increasing costs of social security. Efficient systems that can provide reasonable and economical social security must be designed as quickly as possible.

What can be done in order to prevent depopulation from becoming more severe and to hand down a sustainable society to the next generation? There must be something that can be accomplished from the viewpoint of the economy and industry.

The population of productive aged residents may decrease to about 60% of the current population by 2050. Even if women and elderly people play important roles in Japan’s economy in the greatest extent possible, this alone cannot compensate for the decline in the labor force. Therefore, it is necessary to take comprehensive measures that address this reality.