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世界をリードする チャンスを手にした日本

人口減少というチャンス、グリーンインフラへのチャンス

- | 「グリーンインフラ」とは何か
- | 人口の減少は、グリーンインフラを取り込むチャンス
- | 税収の減少も、グリーンインフラの増加を求めている
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人口が減少していく時代を迎えている日本。税収も減少するなど悲観的にとらえられますが、実は、世界に向けて、自然と伝統が共存する持続可能な美しくにづくりができる絶好のチャンスです。

Japan has entered into an era of population decline. Many people are afraid of it because it may cause negative impacts such as decreased tax revenues. We believe, on the contrary, this is a great opportunity to show the world that Japan can create a beautiful and sustainable country where nature and tradition can coexist.

Japan Has an Opportunity to Lead the World

The Chance of Utilizing Its Ongoing Population Reduction to Expand Green Infrastructure

In the United States and European countries, city planning using the concept of “green infrastructure” has been prompted in recent years. Even Japan’s Prime Minister Abe mentioned in the National Diet that Japan should actively adopt and implement the idea of “green infrastructure”.

Every natural ecosystem consists of abiotic elements such as solar energy, atmosphere, water, earth and biotic elements including plants and animals. These ecosystem elements form the foundation of human survival by providing us many benefits such as the genetic resources of foods and medicine and the regulation of climate. “Green infrastructure” is based on an idea that city planning should incorporate this natural ecosystem concept. As used it has almost the same meaning as “ecological networks”. It is less costly to build and maintain and there will be almost no waste because dead plants and animals are decomposed by ecosystem microbes. On the other hand, traditional “Grey infrastructure” consists of hard structures made of concrete, steel and asphalt such as paved roads, levees, and sewers. Each structure has only a specific single purpose or function and costs tremendous amounts of tax payer’s money to build, manage, maintain and remove when it becomes old and useless.

Currently, Japan’s population is about 127.1 million. The National Institute of Population and Social Security Research estimates that Japanese population will decrease to about 86.74 million by 2060, an approximately 32% reduction. People tend to take this trend pessimistically, but the most sustainable size of Japan’s population should be 55 million based on our calculation of “Ecological Footprints”

(see “Ecosystem” May 2012 issue). From the view point of sustainability, the current decline in population is rather favorable in general and provides a great opportunity to implement “green infrastructure”. Population decline will likely result in a sizeable reduction of tax revenues over time. This will mean that, among other things, gray infrastructure such as highway and levees cannot be managed and maintained as needed. It will likely become very important for people who live deep in the mountains or near beach areas to consider the possibility of migrating to urban areas.

We can see such examples of city planning in European countries and the U.S. In Schwedt City, Germany, many houses were left vacant due to population decrease. The city government persuaded residents to move and live closer and denser. As a result, more than 3,000 vacant houses were demolished and the newly created vacant area turned into green openspace with rich natural elements which offer citizens to enjoy nature.

South Cape May, New Jersey, used to be an affluent resort town but hurricanes repeatedly hit and damaged the town. Gradually, it returned to meadows and pastures. Still, during stormy weather, seawater would rush in over the sandy beaches and flood the whole areas threatening surrounding residences. The Nature Conservancy, a NGO, bought most of these areas and with the supports from federal and state governments has turned them into saltwater wetlands. They are now good habitat for migratory birds.

Natural ecosystems, the foundation of human survival, are the most important

social capital looking back through human history, we can see that civilization fall when its surrounding nature is destroyed. Luckily, Japan holds in her hand a chance of population reduction that is benign – not due to war, plague, or famine. We should not miss this opportunity to implement “green infrastructure” and to build a beautiful and sustainable community that can coexist with nature.



“Green infrastructure” can perform many functions that “gray infrastructure” does.



City of Frankfurt (Oder), Germany, has been experiencing population decline. The German federal government has been subsidizing demolition and removal of vacant buildings.



Green infrastructure as social capital is necessary in every town in the country. Population reduction is a great opportunity to implement “green infrastructure”.

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