

HUMAN RESOURCE DEVELOPMENT PROGRAMS TO MEET THE NEEDS OF THE NATION AND LOCAL COMMUNITIES FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

This paper will give an overview of the human resource development programs taking place at the National Institute of Technology, Fukushima College (henceforth NCT-FC). Explanation will be given on how these programs correspond to the rising human resource issues which are common all over Japan. Focus will be on matters dealing with local community revitalization and globalization, and on matters which are specific to local communities in Fukushima: such as the decommissioning of the nuclear power plant, the implementation of renewable energy, and environmental rehabilitation. Finally, we will look at how NCT-FC develops its human resource programs to meet the general needs of Japanese communities as well as the specific needs of the local communities. The topic of human resources is an emergent issue especially when it pertains to the sustainable development of small local Japanese communities. Tertiary education will play an important role in the revitalization of these communities.

Keywords: local community revitalization; globalization; decommissioning; implementation of renewable energy; environmental rehabilitation

1.0 INTRODUCTION

Human development has always been a big issue in Japan, at both the national and local levels (Yonezawa, 2014). In the Japanese system, the central government sets long term policies which are often called 'visions'. In order to implement these policies, prefectural and municipal governments then establish a set of detailed plans according to the needs of their communities. (Sonoda, 2015). Current human resource policies in Japan were drastically changed after a decline in population was reported in 2005, and this has become a central concern of the government. (Ministry of Health, Labor and Welfare, 2015). In line with current national policies, after the earthquake in 2011, the Fukushima government announced its specific plans for the revitalization and sustainability of future development in the prefecture (Fukushima prefectural government, 2015). Higher education providers are required to carry out human resource development programs to meet the needs at both the national and local levels. This introduction will firstly review the national policy trends and those at the prefectural government level.

2.0 NATIONAL POLICY TRENDS

The aging population and the declining population rate threaten the sustainability of Japanese society. According to the 2017 provisional estimates, the total population of people over the age of 65 is 25.9 % of the total population (Ministry of Internal Affairs and Communication, Statistics Bureau, 2017). The rate of the aging population has taken place

more rapidly in Japan than in several other developed countries, such as Germany, Italy, France, the US, and the UK. This is due primarily to a long-life expectancy and a decreasing fertility rate (United Nation, 2015).

Since the start of the national census, population decrease was recorded for the first time in 2005 . Even though this trend has continued since 2011, the population of Tokyo and the surrounding area within commuting distance has been increasing. The expanded urban-rural divide has resulted in a serious depopulation of rural areas. Since the younger and more productive generation has moved to Tokyo or other metropolitan cities, the depopulation and the increasing percentage of people over the age of 65 has significantly increased in rural cities, towns and villages. For example, in Fukushima prefecture, people aged 65 or over was 29.5% (Fukushima prefectural government, 2016), and the percentage is expected to increase in the future. The ultra-aging society and depopulation of rural areas are significant obstacles for sustaining development of Japanese communities and the nation as a whole. The Japanese government introduced special policies, named local Abenomics, to revitalize local communities. The "Headquarters for Communities, People and Creating jobs" was established in 2014 and the revitalization of local communities is regarded as one of the most urgent issues which must be dealt with. This trend in the central government policy has influenced the human resource development programs that educators provide.

Globalization is another issue which frequently appears with regard to human resource issues in an educational context (Yonezawa, 2014). Due to global economic competition, there is a strong demand from Japanese industries for global human resources. On the other hand, the number of Japanese who study or work abroad has been shrinking since its peak in 1992. In 1992, 2.05 million Japanese went abroad to study or work but by 2012, that number fell to 1.2 million (The Council of Promotion of Human Resource for Globalization Development, 2012). Statistics also shows that nearly 60 percent of newly employed workers are not willing to work overseas. The percentage workers who prefer working domestically has been increasing since 2004, when it was recorded at 28.7%. This trend is called "inwardly looking attitudes", and industrial leaders have raise a concern about this generation's way of thinking (The Council on Promotion of Human Resource for Globalization Development, 2011, 2012).

To respond to the public concern and demand for global human resources, the Council on Promotion of Human Resource for Globalization Development was established by the government in 2011. This council, which consists of ministers from the Ministry of Economy, Trade and Industry (METI) and the Ministry of Education, Culture, Sport, Science and Technology (MEXT), defined the 'global human resource' factors.

The concept of "global human resources," which Japan must develop and utilize as it goes forth in this globalized world, can be, generally speaking, defined by the following factors: Factor I: Linguistic and communication skills; Factor II: Self-direction and positiveness, a spirit for challenge, cooperativeness and flexibility, a sense of responsibility and mission; Factor III: Understanding of other cultures and a sense of identity as a Japanese."

(Global Human Resource Development Committee of the Industry-Academia Partnership for Human Resource Development, 2011, P7).

According to this definition, global human resources require not only linguistic skills but also communication skills and an understanding of different cultural values. Under this global human resource development policy, education providers have been strongly encouraged to develop programs to foster these types of people.

To sum up, there are two national policy trends in Japan, and education providers are required to develop these policies in their own human resource programs in line with these policies.

3.0 LOCAL POLICIES AND PLANS FOR REVITALIZATION OF FUKUSHIMA

The Reconstruction Agency was established in February 2012 to initiate the reconstruction of the areas affected by the earthquake and tsunami as well as the areas affected by the nuclear disaster (Reconstruction Agency, 2016). According to a report done by the Reconstruction Agency, many houses and facilities have been rebuilt in the earthquake and tsunami affected areas. These areas are moving forward to “overall completion” based on a local revitalization model. On the other hand, the areas affected by the nuclear-disaster in Fukushima still need mid- to long-term support for reconstruction and revitalization. The Fukushima Reconstruction Branch in the Reconstruction Agency clearly stated that “compared to Iwate and Miyagi, the reconstruction of will take a longer time in Fukushima” (Reconstruction Agency, 2016).

With the leadership of the Reconstruction Agency, the Fukushima prefectural government announced a ‘Plan for Revitalization in Fukushima’ (The 3rd Edition) in 2015 (Fukushima prefectural government, 2015). This plan has a pyramid structure which consists of ‘basic concepts, major measures for revitalization and Priority projects for revitalization’ as shown in Table 1.

Table 1: Outline of ‘Plan for Revitalization in Fukushima’ (Fukushima prefectural government, 2015)

Basic Plans	<ol style="list-style-type: none"> 1. Building a safe, secure and sustainable society free from nuclear power 2. Revitalization that brings together everyone who loves and cares about Fukushima 3. A homeland we can all be proud of once again 	
Major measures for revitalization	Reconstruction and revitalization of the evacuate zones	a. Acceleration project for evacuation area
	Living peacefully and securely	b. Assistance for rebuilding livelihoods
		c. Environmental restoration
		d. Protecting the physical and mental health of citizens
		e. Fostering the next generation
		f. Revival of primary industries
	Work in your hometown	g. Revitalization of SMEs
		h. Creating new industries
		i. Project to counter harmful rumors and to preserve the remembrance of the disaster
	Rebuild towns, connect people	j. Town-building for revitalization and exchange network basis strengthening

Among the priority projects a. to j., this paper takes a closer look at the project e. ‘Fostering the Next Generation’, since this is directly related to human resource development policies required by the Fukushima prefectural government. This project is further divided

into three small projects: (1) Creating settings conducive to child-birth and rearing in Japan, (2) Developing people with a positive and motivated approach to lead the revitalization, and (3) Foresting the future workforce of Fukushima industry. Project (2) and (3) are specifically aimed at the development of human resources in Fukushima prefecture.

Project (2)

“ The promotion of education uniquely tailored to Fukushima’s needs, in such areas as science, mathematics and international education.”

Project (3)

“Developing human resources essential to the future of Fukushima’s industries in such areas as renewable energy, integrating medical and engineering expertise, and robotics.”
(Fukushima prefectural government, 2015)

In addition, Fukushima prefecture plans to promote specific industries in project h. (See Table 1.), such as renewable energy and robotics. Environmental rehabilitation is regarded as another core in project c. (Also see Table 1.). To achieve these projects, it is necessary to foster youth to fit in the specific fields.

Along with the National Human Resource policy, there are special needs for human resources who are expected to contribute to the local communities for the revitalization of Fukushima.

4.0 THR RELATIONSHIP AMONGST THE HUMAN RESOURCE DEVELOPMENT PROGRAMS AT NIT-FC: NATIONAL POICIES AND LOCAL HUMAN RESOURCE NEEDS

NIT-FC is one of the higher education providers located close to the tsunami- and nuclear disaster affected areas. Consequently, the college is expected to foster the next generations who will work for the focused fields set by the prefectural government as stated in Chapter 1.2. Since 2011, NIT-FC has run five human resource development programs. Table 2 shows these five plans in a chronological order.

These human resource development programs were implemented after 2011 at NIT-FC and they reflect the human resource policies set out by the national and prefectural governments. Although, a primal focus is on decommissioning and nuclear safety, which are specific to Fukushima prefecture, the national policy of stopping depopulation and fostering global human resources are included in each program. For example, programs B and D, put emphasis on revitalizing the local community, while programs B and C, provide an opportunity to study or do internship overseas. Programs A, C and E, are focused on the revitalization plans of the Fukushima prefectural. Furthermore, program B provides an internship opportunity at Fukushima Renewable Energy Research Institute, program C has a strength in robotic-related technologies, and program E provides research opportunities for environmental rehabilitation.

The human development programs at NIT-FC are designed to achieve both the national and local human resource goals.

Table 2: Human resource development programs provided at NIT-FC

Program title	Program aim and contents
A Human resources for rehabilitation and restoration for Fukushima after the earthquake (2011-)	Aim: to foster human resources for port-disaster rehabilitation and restoration for Fukushima. Contents: Courses on disaster mitigation, disaster prevention, and reconstruction of community
B Glocal human resource development program (2015-)	Aim: To foster human resources with a global mind set as a work force in local public and private organizations Contents: Overseas and domestic internships, Project-based learning to solve community problems, Dispatching information about the current situation of Fukushima's reconstruction to areas outside the prefecture
C Human resource for decommissioning (2015-)	Aim: To foster human resources who will in the future contribute to Fukushima 1 st nuclear plant decommissioning. Contents: Courses on radiation safety, decommissioning technology, (e.g., robotics, material science, remote control devices, sensor devices etc.) Study abroad tour of decommissioning projects, (e.g., Hanford site in the US, Sellafield in the UK) Robot contest for decommissioning
D COC+: 'center of community' human resource development (2016-)	Aim: To foster human resources who will work for the local community in the future. Contents: Social events to connect local private companies and youth. Visits to local companies, Career development events
E Human resource for nuclear regulation, environmental safety and recovery (2016-)	Aim: To foster human resources who will work in the field of clean-up, nuclear waste management and environmental recovery. Contents: Courses on radiation safety, Environmental Protection, Radiation mechanics. Internship programs at private or public organizations specialized in decommissioning, environmental management, environmental rehabilitation, waste management. Annual forum with nuclear related topics Student graduate research related to radiation measurements and monitoring, clean up, environment rehabilitation

There are sufficient natural resources and tourism amenities available in creating new and viable ecotourism activities. Some of the immediate opportunities involve other heritage/cultural products which can be linked to festivals like the areas which are currently marketed by the tourism industry, e.g., the Tip-of-Borneo Jazz Festival, Pesta Jagung or Pesta Kelapa. The creation of marine- and/or freshwater-based boat activities featuring tours to the pristine marine habitats, appreciation of traditional fishing activities and/or visits to geologically interesting rock formations such as the Legend of Supirak can be considered.

With the lack of infrastructure and accommodation available in the villages around the TMP, the success of ecotourism as an immediate livelihood option for local communities is limited at present. Instead, it is more feasible to rely on tourism facilities and attractions

leading to the park. The suitability of facilities is most evident in Kudat town. There are reasonable accommodation choices in Kudat, ranging from the four-

4.0 CONCLUSION

Recovery from the earthquake and the decommissioning of the nuclear power plant are the central challenges for the revitalization of Fukushima and its sustainable development. To achieve revitalization and then sustainable development, human resource development programs have an important role in the long-term perspective. Additionally, nationwide issues which threaten the sustainability of Japanese society, such as depopulation, urban-rural divide, and globalization, are reflected in our current human resource development programs. However, it seems that human resource programs for the implantation of renewable energy have not been fully covered. In the future, new programs for renewable energy related industries might be necessary. NIT-FC will continue to provide various human resource development programs to contribute to the rehabilitation and sustainable development of local communities by foresting future generations under guidelines put forth by the central and local human resource policies.

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