

***Adopting Orphan Migrants in Japanese Elderly Care Services: A Diversified Model  
for Ishikawa Prefecture***

Safinoor Sagorika, Japan Advanced Institute of Science and Technology, Japan  
Shungo Kawanishi, Japan Advanced Institute of Science and Technology, Japan  
Shinobu Hasegawa, Japan Advanced Institute of Science and Technology, Japan

The Asian Conference on Aging and Gerontology 2020  
Official Conference Proceedings

**Abstract**

The percentage of individuals over the age of 65 is increasing rapidly in Japan. This growing number of senior citizens requires prolonged medical care along with other supports. There is no direct route to increase the population growth rate instantly to serve the increasing number of senior citizens. On the other hand, millions of orphan children throughout the world are dying without food, shelter, and social security. Migrating those orphan children from other countries to Japan could be an alternative way to save their lives as well as raise them under Japanese education and manner and provide them the opportunity to serve Japanese medical, healthcare, and other services. With this view, the research aims to 1) analyze the scenario of workforce shortage in Japan; 2) examine different ways of workforce supply, and 3) demonstrate different issues of adopting orphan migrants to the Japanese community. Accordingly, the research followed the exploratory research strategy based on different pieces of literature, statistical data, and case studies from different sources. The results are presented in different graphs, tables, and figures. Based on the findings, the research formulated an alternative workforce development strategy for elderly healthcare services by establishing human bondage between the orphans and elderly people. The research also examined the tentative funding, calculated the expected expenditure, and explained a diversified model for the proposed project. In addition, the research discussed different issues of implementing the model in Ishikawa prefecture Japan as a pilot project of adopting orphan migrants.

Keywords: Elderly Care, Japan, Workforce, Orphan Migration

**iafor**

The International Academic Forum  
[www.iafor.org](http://www.iafor.org)

## **Introduction**

With the improvements in healthcare, medicine, and medical technology, the healthy life expectancy of the world population has been increasing since the last few decades. Living a long healthy life is a good sign in Japan and considered a positive life-fact among other nations in the world. However, having a longer life and well-being, proper health care, including mental support, should be the essential element to ensure a peaceful and valued elderly life.

In the case of ensuring proper care for the increasing number of senior citizens, health, and care industries need to supply more workforce based on the increasing demand. Currently, many industrialized nations in the world have an increasing demand for elderly care. In Japan, elderly care is considered as an extremely important matter to ensure prolonged healthcare services. As per the information provided by the Japan Statistics Bureau, currently, Japan has the highest rate of elderly citizens 34% above the age of 60 in the world. This trend will keep continuing, and people over 65+ will increase by around 40% by 2060 (NIPSSR, 2017).

In order to overcome the increasing demands in the care sector, many industrialized countries like the USA, Germany, Canada, Spain, and South Korea are one step ahead and accept a good number of foreign workers in the health and care sectors. In Japan, on the other hand, the Japanese immigration policy remains a bit far away from accepting foreign immigrant workers (Deutsch, 1999). Although this trend has been changing recently, many foreign workers would not be interested in coming to Japan to find their future career due to uncertainty and strict rules (Okunuki, 2018). As a result, Japanese healthcare industries may face new challenges.

There needs an alternative and sustainable way to contribute to the Japanese elderly citizen's well-being and health care issues. Adopting orphan migrants age group 5-8 from different parts of the world, who are living under extreme hunger and a high risk of death, can be an alternative solution.

## **Statement of Problems**

Modern Japan is home to the highest number of citizens above the age of 65 in the world. At the same time, the population of Japan declined by almost one million during the 2010-2015 period (*Statistical Handbook Japan*, 2018). The Japanese government has been aware of this issue and taken different initiatives, including pensions policies, health care benefits, institutional care, home care, and many more for elderly citizens. Besides, the current government also has estimated that the population of Japan will decline by approximately 15%, or 20 million people, by 2040, which will create more new challenges (IBA, 2016). So, the decline of the population and the rising number of elderly citizens will naturally result in a huge labor force shortage. Hence the problems may be summarized as follows:

- The continuous decreasing trend of the Japanese population results in various social, economic, and geopolitical problems.
- The increasing number of elderly citizens results in more pressure on the regular workforce.
- There is no immediate route to increase the population growth rate.

## Purposes

Based on the above situations, the primary purpose of the research is to propose an alternative workforce development strategy for Japanese elderly society based on establishing human bondage between the orphans and elderly people. Other purposes include:

- a) analyze the scenario of workforce shortage and determine different ways of workforce supply in Japan;
- b) examine the scope of adopting orphan migrants to the Japanese community, and
- c) formulate a project-based proposal for contributing to the future workforce in Japan

## Methodology

This research is based on an exploratory research method. Research data were collected from secondary sources like journal articles, thesis papers, statistical reports, news articles, case studies, government websites, databases, etc. MS Excel was used to create tables and graphs. The results are presented in different graphs, tables, and figures.

## Japanese Workforce Facts

The working-age group from 15 to 64 increased constantly during the post-war years and reached a peak of 87.26 million in 1995. After that, it entered a period of decline, and the population decreased to 77.28 million in 2015. However, this research tends to focus on the situation in the current year 2020, and the year 2040, and 2060 in terms of the Japanese workforce and elderly citizen's issues.

According to the results of the medium-fertility projection, the population of the working-age group is expected to continue to decrease below 75 million in the current year 2020, 60 million in 2040, and will drop to 47 million by 2060 (see table 1).

Year	Age Group 15-64 (000)	% of the Total Population
1995	87,260	--
2015	77,282	60.8
<b>2020</b>	74,058	59.1
2030	68,754	57.7
<b>2040</b>	59,777	53.9
2050	52,750	51.8
<b>2060</b>	47,928	51.6

Table 1: Projection of working-age group 15-64, (Source: NIPSSR, Japan, 2017).

The working-age group indicates the age group 15-64 population and workforce indicates the actual number of people who are involved in different professions.

Currently, Japan has an increasing demand for the workforce in many sectors. The demand is mostly expected from nursing care, farming, and 12 other industries (Review, 2019). The available data showed that the total workforce in the medical and

welfare sector was 7.47 million in 2014. It is projected that the demand will rise around 23% and 1.63 million more workforces will require by 2030. The demand will also increase more in the next decades (Times, 2015).

### Japanese Elderly Citizen Facts

National Institute of Population and Social Security Research (NIPSSR) projected that one in three people in Japan will be elderly by 2040. It also estimated that based on the medium-fertility and the medium-mortality assumption by 2060, 1 in 2.5 people will be 65 years old and over, and 1 in 4 will be 75 years old and over (CabinetOfficeJapan, 2016). Table 2 shows the projection of the increasing number of elderly citizens from the year 2000-2060 based on medium-fertility projection.

Year	Age Group 65+ (000)	% of the Total Population
2000	22,271	17.5
2015	33,868	26.6
<b>2020</b>	36,192	28.9
2030	37,160	31.2
<b>2040</b>	39,206	35.3
2050	38,406	37.7
<b>2060</b>	35,403	38.1

Table 2: Projection of Japanese elderly people, (Source: NIPSSR, Japan, 2017).

The following figure shows the ratio between individuals 65+ and individuals 20-64 to support each elderly person from 1990 to 2060 in Japan.

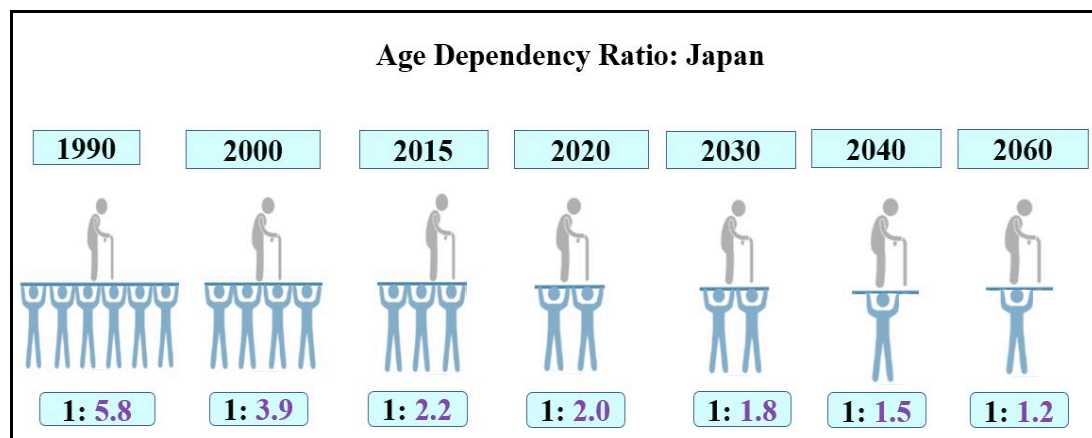


Figure 1: Age dependency ratio, Japan.

Figure 1 shows that there were around six working people to support one elderly person during the 1990s, less than four in 2000, around two and a half in 2015, two in 2020, and one and a half working people can afford a single elderly person by 2040 (NIPSSR, 2017) (News, 2018). The number of supporting people will keep decreasing until 2060.

The lower fertility rate, one-child trend, live as a single individual, rural depopulation, etc. results in declining, filled with elderly people, and not enough younger people to provide care for them. It is very pathetic to know that, in the year 2016, around 6.6 million elderly citizens in Japan were living alone, and many of them were at the risk

of isolation and lonely death (Miyanaga & Poudyal, 2019). Moreover, it is predicted by the NIPSSR in April 2019 that 40% of Japanese people both in rural and urban will live alone and live by themselves in 2040 (Abe, 2019). So, what could be the tentative solutions to ensure proper care and accompanying them?

### **Tentative Solutions**

Previous literature shows that countless studies and researches have been done and still, there are many ongoing pieces of researches on 'Japanese elderly care issues' with a diverse solution point of view. Among them, (Mizuno, 2016) discussed different issues on 'Abenomics' and 'Womenomics' which inspire Japanese women to join in the industries, inspiring corporations to employ more women into different sectors. Many researchers examined and suggested bringing enough foreign workers might fill up the demand in the industries and could immediately supply caregivers for elderly citizens (Lopez, 2012) (Sigurðsson, 2017). On the other hand, some researchers also proposed using non-human apparatus in serving medical sectors. Sigurðsson (2017) believes that medical robots for elderly care may add a new solution. Similarly, Artificial Intelligence and care robots might help Japan to maintain expected levels of products and services (Dallin, 2016).

Improvements in technology, especially robotics, AI, automation, are highly considered to overcome these issues. In recent years Japan is considering elder-care robots equipped with AI could be a great possibility to fulfill the demand for the increasing number of senior citizens (Sigurðsson, 2017). Perhaps Japanese elderly care technology could serve as a major tool not only in Japan but also in other countries, which may boost the Japanese economy.

Despite having many wonderful services, however many elderly citizens do not feel comfortable with the accompany of machines. They expect not only physical support but also spiritual support. Spiritual support is something that robots cannot provide, only people can do. They need love, sympathy, care, and the accompany of human companion in their elderly age when they are lonely and incapable. If technology shows significant development, probably some physical supports may be covered by care robots.

There are many other proposed solutions to fill up the workforce shortage, but many of these proposals are simply unworkable. Increasing the amount of working time is not a new issue, the Japanese are already overworked (Lewis, 2019). Increasing the age of retirement, elderly citizen as a resource, increasing the number of female workers, birth rate, the number of care facilities, Abenomics 1.0, and 2.0 could not find success (Sigurðsson, 2017).

Japanese immigration policies are not much willing to seek employment from abroad. At the same time, recent public opinion polls consistently found that more than half of the Japanese do not support large-scale immigration (Semuels, 2017). Since the government started accepting foreign nurses and caregivers in 2008, it was challenging for them to pass national exams in Japanese, and it took time to adjust to a new society and work environment in Japan (BBC, 2015). Similarly, Japanese people also need to adjust to them which cannot be done overnight.

So, it is more difficult to find skilled workforces in the health and care sector comparing to other sectors (Japan Times, 2018). It seems Japan needs to produce enough manpower inside Japan for this sector which is very difficult. Alternatively, if they bring foreign workforces, they need to provide the necessary education, medical training, and language learning facilities.

### **Orphans Migration as Alternative Solution**

However, as far as we know, there is no research conducted on a humanitarian point of view. In addition, no research discussed establishing a natural human relationship before providing and receiving care services, for example, adopting orphan children to save their lives and let them grow-up under Japanese education and manner so that it could be flexible both for the children and Japanese people to adapt to each other. Later these children will contribute to other people's lives in a way that they just do not do the work based on their profession but from their affection. This is the missing part of the current elderly care service in Japan. The professional people who are hired and paid for the service may not have the feeling of that kind of heart. The research also focuses the sustainability issues through the Corporate Social Responsibility (CSR) and Return on Investment (ROI) point of view to encourage the involvement of Japanese companies/organizations in a broader perspective to create greater business value in Japanese society.

This study proposed a completely different way to increase the population as well as contribute to filling up the gap in the health and elderly care sector. The approach is to bring double orphan children in Japan from other parts of the world age from 5-8 who are living under extreme hunger and life insecurity. The research proposes the age group 5-8 because this age range would be more convenient to adapt to a new environment. They can spend a year, learning very basic Japanese before entering elementary school. Japanese children start their elementary school at the age of 6, which also could be a convenient age for learning a new language for foreign orphans (Committee, n.d.). We propose to keep the age range from 5-8 because it may not be possible to find only 5 years of age group children.

The research designed and proposed a way to provide them all facilities in life, including food, shelter, security, education, and immigration in Japan. After that, they will have a secure life and contribute in the Japanese elderly care sector. As mentioned before, this research has proposed a diversified model to establish a new institute/organization for them in Ishikawa prefecture. If the project is succeeded, then it could be extended in other prefectures in Japan.

### **Worldwide Orphans Scenario**

An orphan is a child under 18 years of age who has lost one or both parents to any cause of death, defined by UNICEF and global partners (Finklestone, 2019). As per the estimation of UNICEF, the orphan population is 153 million in the year 2018. However, other sources claim that there are over 400 million parentless children in the world (Bakır, 2018). If orphan children had their own country, it would rank 9th in the world population (Finklestone, 2019). Few important facts about the world orphan children are given below:

- Children with no parents are considered as “double orphans.”
- Children with one parent who lost either father or mother are “single orphans”.
- 26 million children among 153 million orphans are considered as double orphans (DARAGO, 2016).
- More than 60 million orphan children go to bed hungry every night. (“World Orphans Day,” n.d.)
- 400,000 orphans die every year because of malnutrition (“World Orphans Day,” n.d.).

Table 3 below shows the countries having major orphans in the world (“World Orphans,” n.d.), (Kuligowski, 2019), (“SOS Children’s Village, Canada,” n.d.).

<b>Countries</b>	<b>Number of Orphans</b>
India	20,000,000
China	576,000
Cambodia	553,000
Bangladesh	4,400,000
Ethiopia	6,000,000
Guatemala	370,000
Haiti	750,000
Iraq	5,000,000
Kenya	2,500,000
Rwanda	1,000,000
South Africa	3,900,000
Uganda	2,500,000
Syria	800,000
USA	443,000

Table 3: Countries having major orphans.

### **Orphan Migration Ethical Issues**

The world policymakers need to re-distribute the world population and create balance in the society. For example, the research found that 400,000 orphan children die every year because of malnutrition (“World Orphans Day,” n.d.). On the other hand, Japan needs about 200,000 immigrants per year to keep the population over 100 million (Dallin, 2016; Soble, 2014). It is found that in many parts of the world, there are a large number of orphan children without food and shelter. They are embracing death frequently for many reasons. On the other hand, in many places, there are enough food, security, shelter, and resources but very fewer children, fewer people, fewer workers, and more elderly people. So, global leaders need to come forward and take proper initiatives to overcome these challenges from the ethical point of view.

## Supervisory Board

The research proposed a project-based model for establishing an institute or organization which will run by a group of supervisory boards to manage and supervise all administrative and management activities. In this case, initiators may consult with some international organizations like Save the Children, UNICEF, The Mother Teresa Foundation, WHO, etc. to start the proposed program. However, it is worth mentioning that the program will have its own policy and value with ideas from other institutes or organizations.

First, it will need approval from the Japanese government and the concerned international advisory boards and legal advisors. After that Ministry of Foreign Affairs and Ministry of Health, Labor and Welfare, Japan, may take the lead to be the central supervisory board and policymaker. Alternatively, in this case, the Japanese government may choose the central supervisory board as per the government strategy. Accordingly, Ishikawa City Corporation and Ishikawa Chamber of Commerce may supervise, run, and provide all supports to the institute locally under the guidance of the Ministry of Health, Labor, and Welfare. As a fund provider ICC and JICA may look after the proper utilization of the money in the project. Figure 2 below shows the different roles of the supervisory boards to run the program successfully.

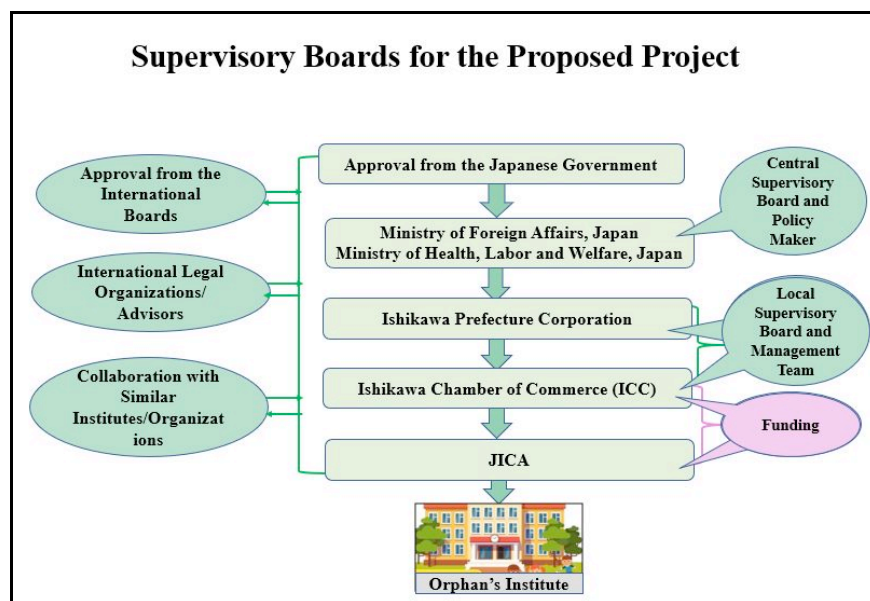


Figure 2: Supervisory boards and funding model.

## Legal Support

Concerned international legal organizations for the orphans will provide the necessary guideline, policy, and support under international adoption law to smoothly migrate the children in Japan. International Organization for Migration (IOM), UNICEF, and the International Labor Organization (ILO) can provide the necessary support for this program. Similarly, Japanese legal support agencies/authorities will also work jointly with the international boards to ensure human rights and proper justice for the children under Japanese legislation.



## Proposed Model

The following diversified model represents the complete picture of the proposed project. The three major groups on the top row in figure 3 indicate the International boards, the Japanese government, and funding agencies. These groups will perform major and primary functions. The Japanese government will take the lead to make necessary collaboration and co-operation with different international boards, i.e., UN, UNICEF, WHO, IOM, etc. to get approval to start the project smoothly. International boards will support and approve to receive children from different parts of the world. They will also provide international policy planning, legal support, and other necessary issues to migrate the orphan children in Japan safely. After that, the Japanese government will approve the project formally. At the same time, it will provide Japanese government policy and guideline, legal and administrative direction, assign funding agencies and the central supervisory board and, all necessary arrangements to start up the orphans' institute.

Funding agencies will provide necessary funds based on the estimated expenditure for the project. It can be a yearly basis or long-term basis. After the children graduated and entered their work, a certain amount of money will be deducted monthly basis for a certain period and transfer to the funding agencies as Return on Investment (ROI).

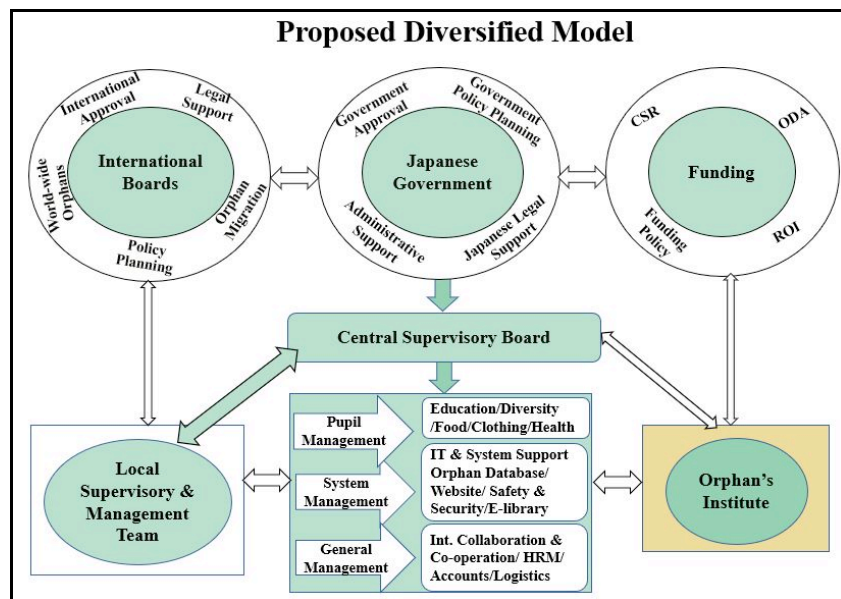


Figure 3: Proposed diversified model.

The central supervisory board will make the special policy for the institute based on the government policy guideline and supervise and monitor whole activities.

At the bottom level, the left group indicates the local supervisory board or the admin and management team. This group consists of the core people who will basically run the institute practically. Administration and management include three major functions, (i) pupil management, (ii) system management and, (iii) general management.

**(i) Pupil management** includes providing all educational supports, especially educate them the diversity to adjust with different people, places, environments, and societies.

It will also ensure food, clothing, medical, sports, library, and all other necessary facilities to the children.

**(ii) System management** consists of ensuring all the IT and system support, including institute website, orphan’s database, education, and learning technologies, computer systems, network management, office management databases, and software, general safety and cybersecurity, etc.

**(iii) General management** includes national and international collaboration and co-operation, human resource management, staff training, accounts, logistic supports, R&D, projects, and publications, etc.

Finally, all these activities will contribute to start the institute and run the project to achieve long-term goals.

**Expected Expenditure**

In Japan, primary and secondary education covers 12 years of study. It takes 6 years in elementary school, 3 years in junior high school, and 3 years in senior high school. Compulsory education includes a total of 9 years of education fixed from elementary to junior high schools. Higher education includes junior colleges, colleges of technologies, universities, graduate schools, miscellaneous schools, etc. However, Haku Tax Accounting Office, Tokyo, Japan, provided information about the amount of government tax, which is spent as educational expenses per student per year in Japan. The yearly expenditure for each student is about 840,000 yen for elementary school, 960,000 yen for junior high school, and 900,000 yen for senior high school (“Expenses for compulsory education,” n.d.).

Again, bellow figure 4 represents the list of consumed items and average monthly consumption expenditure of two or more persons in Japan. The average monthly consumption expenditure was 283,027 Yen for two or more persons in 2017 (*Statistical Handbook Japan*, 2018). We have divided this amount into two then added the government expenditure with it to calculate the total yearly cost of a student. Here only yearly expenditure of an elementary school student is added to estimate the total cost.

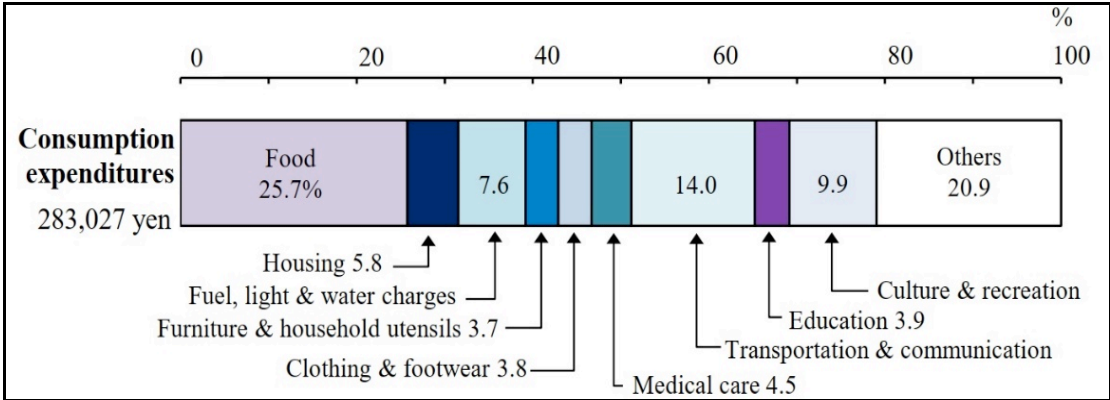


Figure 4: Average monthly consumption cost of two or more persons in Japan, 2017  
Source: Statistical Handbook Japan, 2018.

Based on the information provided in figure 4 and adding the average amount of government expenditure per student, we have estimated the total consumption cost. Table 4 shows that the total consumption cost per child per year is **2,538,162 Yen** and, 500 children per year are **1,269,081,000 Yen**.

Govt. expenditure, per elementary student (1year)	840,000 Yen
Total expenditure 1 child (1 year)	<b>2,538,162 Yen</b>
<b>Total expenditure 500 children (1 year)</b>	<b>1.269 Billion Yen</b>

Table 4: Total consumption expenditure including government expenditure per student.

In table 5, we have calculated the percentage of tentative amounts from the ODA fund for the proposed project.

Total amount: <b>1,124.086 billion Yen</b>	
1% of ODA=	11.24 Billion Yen
0.50% of ODA=	5.62 Billion Yen
<b>0.15% of ODA=</b>	<b>1.68 Billion Yen</b>

Table 5: ODA contribution from Japan to JICA in 2016.

In 2016, the total contribution for ODA from Japan was 1,124.086 billion Yen, (JICA, 2017), which was 12.7% increased from 2015. If only 0.15% of total ODA is increased for the proposed project for 500 orphans' children per year cost, even it exits the estimated **1.269 Billion Yen** yearly cost. So only **0.15%** increased funds from total ODA may support to run the whole project successfully.

However, this is the initial estimation. The amount may be increased based on the country's inflation rate and other conditions. So, 8%-10% additional coast may be added every year with the total expenditure. We also calculated 1% of ODA, and 0.50% of ODA, to keep the options that if incase more fund is needed than the estimated **0.15%** of ODA.

### **Tentative Fund Support for the Proposed Project**

Many national and international organizations in Japan are working for humanitarian issues, education, health, water, and sanitation, infrastructure, food security, agriculture, and disaster supports, etc. Every year these organizations are spending a huge amount of money for development purposes. Some of the targeted organizations which can support the project are discussed below.

From the Ishikawa prefecture statistical webpage, it is found that there were 3,270 manufacturing industries in this area in 2016. Among them, 150 companies are listed under the Ishikawa Chamber of Commerce (ICC). If the 150 companies come forward under the platform of ICC and invest 5% of their yearly profits as Corporate Social Responsibility (CSR) funding, the project could be started.

On the other hand, among international organizations, JICA from Japan is renowned over the world for its international contribution which is known as the Official Development Assistance (ODA). The financial and technical assistance that

governments provide to developing countries as part of this economic cooperation is called ODA. JICA is the world's largest bilateral aid agency and in charge of administering Japan's ODA (JICA, 2017).

However, based on the above discussion, the research has proposed three ways to collect funding for the program. The research does not encourage collecting funds as a donation instead it strongly recommends receiving the fund as an investment and plans to return the fund after a certain period as Return on Investment (ROI).

Firstly, this research expects to receive a CSR fund yearly basis from 150 companies under the Ishikawa Chamber of Commerce (ICC) and spend on the proposed project. With the help of this fund, the orphan children will receive all the facilities. After 12 to 13 years of education and training, when they will grow adult and join their job, a certain amount of money will be deducted monthly basis for a certain period from their salary and transfer to ICC as Return on Investment (ROI).

Secondly, collect funding from JICA. The fund will be received, utilized, and returned the same way as the ICC CSR fund.

Finally, if only the ICC fund is not enough to run the program, in that case, ICC CSR +JICA may create joint funding to support all the activities for the proposed project. In this case, the JICA fund would be utilized in a different way and consider it as an investment rather than a donation.

### **The Implication of the Project**

The proposed institute/organization will receive orphan children from different parts of the world and provide all the facilities to raise them under Japanese education and manner. This process will create time, and space, which could be flexible both for the children and Japanese people to adapt to each other.

At the same time, any Japanese parents, especially affordable elderly parents who do not have children or whose children are living in a far place, can adopt children from the orphan institute. In this case, they will receive children under the circumstances of some formal procedure. As a result, many children will find a new home with new fatherhood and motherhood. These elderly adoptive parents may also open their hearts to accept them and fill up the lonely space in mind. The research emphasizes the meaning of elderly care in children and parental care. Or it can be expressed by more natural family care rather than the so-called formal occupation. When these children grow up and become caregivers, they just do not do the work based on the obligation due to their profession but from their heart full of kindness and responsibility. This part is missing in the current elderly care service in Japan. Many discrimination and abuse cases are often found in the elderly care services (nippon.com, 2019). The professional workers who are hired and paid for the service may not have that kind of feeling to do the work from the sense of responsibility and kindness.

The rest of the children who will not be adopted by any parents, the institute itself will raise them up and bring new children to maintain the flow.

## **Conclusion**

This research considers aging and long-life expectancy as an optimistic and natural process of human life rather than difficulty. One of the greatest outcomes of scientific discovery is to ensure a prolonged life. Nobody wants to die soon. Problems may be considered as the lack of positive outlook towards senior citizens, imbalance in world-wide human resource distribution, lack of policies and initiatives, and lack of great leaders to find diverse ways to make a better solution. Though there are many ways to proceed but accepting orphan migrants and raise and provide them the opportunity to contribute to other human beings could be one of the ways and add new fuel to the elderly care workforce issue. Besides, orphan migration should also be considered from the humanitarian point of view. After completion of necessary education and training, they can contribute to different positions in the Japanese medical and health care sectors, especially in the elderly care sector to contribute to humankind.

## **Limitation and Scope of Further Research**

Collecting the fund could be the greatest challenge in the implementation of the project. Without ensuring secure sustainable funding sources, it would be difficult to implement all other plans.

On the other hand, this research mainly focuses on two basic social issues; supporting both Japanese elderly and foreign orphans in Japan. However, Japanese society may not be fully ready to provide a truly comfortable environment for foreign kids to grow without negative life experiences. However, it is optimistic that they are on the way to proceed through diversity education and many supporting activities for the foreigners in Japan.

The project for introducing “Diversity Studies” to the public school curriculum from nursery school to the senior high school in Nomi City in Ishikawa prefecture could be an important test case to see how the city government and an educational institution can collaborate to create a new global environment in the community and grow a global mind in each citizen. In the further development of the research, it is expected to expand this aspect more elaborately so that it can contribute to the making of a truly functioning system for the project with no pressure.

## References

- Abe, R. (2019). 40% of Japan's households in 2040 predicted to have only one member, pp. 20–21. Retrieved from <https://mainichi.jp/english/articles/20190420/p2a/00m/0na/006000c>
- Bakır, Z. Z. (2018). *Global Report on Children 2018. Insamar*. Retrieved from [https://insamer.com/en/global-report-on-children-2018\\_1516.html](https://insamer.com/en/global-report-on-children-2018_1516.html)
- BBC. (2015). Who will look after Japan's elderly? Retrieved from <https://www.bbc.com/news/world-asia-31901943>
- CabinetOfficeJapan. (2016). *The Aging Society: Current Situation and Implementation Measures FY 2015*. Retrieved from <http://www8.cao.go.jp/kourei/english/annualreport/2016/pdf/c1-1.pdf>
- Committee, T. I. C. (n.d.). Japanese school system. Retrieved September 13, 2019, from [https://www.tokyo-icc.jp/guide\\_eng/educ/01.html](https://www.tokyo-icc.jp/guide_eng/educ/01.html)
- Dallin, J. (2016). The Issue of Japan's Aging Population. *Law School International Immersion Program Papers*, 8(8), 16.
- DARAGO, J. (2016). Are There Really 153 Million Orphans Worldwide? Retrieved April 21, 2020, from <https://www.hopeeffect.com/153-million-orphans/>
- Deutsch, D. (1999). *The psychology of music*. Academic Press. Retrieved from <https://books.google.com/books?id=A3jkobk4yMMC&pg=PA153>
- Expenses for compulsory education. (n.d.). Retrieved from <http://www.haku-tax.com/blog/2011/07/post-37-116662.html>
- Finklestone, T. (2019). Who Is An Orphan? Retrieved from <http://onetrackinternational.org/who-is-an-orphan/>
- IBA. (2016). Population crisis: can Japan lead the way in finding a solution. Retrieved from <https://www.ibanet.org/Article/NewDetail.aspx?ArticleUid=9B04FBAD-7938-4E67-B14F-D638206C9542>
- Japan Times, T. (2018, December 15). Japan wants more foreign workers but they may not want Japan: poll, p. 2018. Retrieved from <https://www.japantimes.co.jp/news/2018/12/15/national/japan-wants-foreign-workers-may-not-want-japan-poll/#.XXjA6SgzY2w>
- JICA. (2017). JICA Annual Report 2017. Retrieved from [https://www.jica.go.jp/english/publications/reports/annual/2017/c8h0vm0000bws721-att/2017\\_all.pdf](https://www.jica.go.jp/english/publications/reports/annual/2017/c8h0vm0000bws721-att/2017_all.pdf)
- Kuligowski, S. (2019). How Many Orphans in the U . S .?, 1–7. Retrieved from <https://adoption.com/how-many-orphans-in-the-us>

- Lewis, L. (2019). Japanese still suffer “death by overwork” as long hours persist. *Financial Times*, 11–13.
- Lopez, M. (2012). Reconstituting the affective labour of Filipinos as care workers in Japan, 2(Ohno 2011), 252–268.
- Miyanaga, R., & Poudyal, H. (2019). Participation of nurses and care workers in the decision-making process for people with dementia in Japan: Discussion paper. *International Journal of Nursing Studies*.  
<https://doi.org/10.1016/j.ijnurstu.2019.02.011>
- Mizuno, T. (2016). *Abenomics is Womenomics*. Retrieved from  
<http://www.japanpolicyforum.jp/archives/economy/pt20160605163823.html>
- News, I. (2018). INTERNATIONAL MONETARY FUND Mexico ’ s Economic Outlook in Five Charts, pp. 1–7. Retrieved from  
<https://www.imf.org/en/News/Articles/2018/11/27/na112818-japans-economic-outlook-in-five-charts>
- nippon.com. (2019). Elderly Abuse a Growing Problem in Aging Japan, pp. 2–5. Retrieved from <https://www.nippon.com/en/japan-data/h00428/elderly-abuse-a-growing-problem-in-aging-japan.html>
- NIPSSR. (2017). *Population Projections for Japan (2017): 2016 to 2065 (in Japanese)*. Retrieved from <http://www.ipss.go.jp/index-e.asp>
- Review, N. A. (2019). Japan expects up to 340 , 000 foreign workers after bill passes, pp. 1–5. Retrieved from <https://asia.nikkei.com/Spotlight/Japan-immigration/Japan-expects-up-to-340-000-foreign-workers-after-bill-passes>
- Samuels, A. (2017). Can Anything Stop Rural Decline? *The Atlantic*, pp. 1–9. Retrieved from <https://www.theatlantic.com/business/archive/2017/08/japan-rural-decline/537375/>
- Sigurðsson, E. Ö. (2017). Impacts of Population Aging in Modern Japan and Possible Solutions for the Future. *University of Iceland Press*.
- Soble, J. (2014). Japan stands by immigration controls despite shrinking population, pp. 2–6. Retrieved from <https://www.ft.com/content/32788ff0-ea00-11e3-99ed-00144feabdc0>
- SOS Children’s Village, Canada. (n.d.). Retrieved April 22, 2020, from <https://www.soschildrensvillages.ca/bangladesh>
- Statistical Handbook Japan*. (2018). Retrieved from  
<https://www.stat.go.jp/english/data/handbook/pdf/2018all.pdf>
- Times, T. J. (2015). Workers in Japan estimated to decrease 12% by 2030 as society grays, p. 2030. Retrieved from  
<https://www.japantimes.co.jp/news/2015/11/25/national/workers-japan-estimated->

decrease-12-2030-society-grays/#.XqRGlWgzY2x

World Orphans. (n.d.). Retrieved April 22, 2010, from  
<https://www.worldorphans.org/where-we-work/>

World Orphans Day. (n.d.). Retrieved April 21, 2020, from  
<https://www.thestarsfoundation.net/world-orphans-day3.html>

**Contact email:** [ssagorika@jaist.ac.jp](mailto:ssagorika@jaist.ac.jp)