

Human Capital Development in Asia under Japanese Assistance : The Experience of Sri Lanka

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I. Introduction

There is evidence that raising the national income alone will not support development. However, many prerequisites of development can be met by economic growth,¹⁾ which is dependent on the level of human capital in the country. Development of human capital is the way to achieve sound economic growth, and distribute its benefits equitably to meet people's needs. Furthermore the development of human capital will also help to provide equal opportunities for people to contribute to economic growth. This is the way to a sustainable solution to socioeconomic problems such as poverty, unemployment and inequality while promoting economic development and raising growth rate of the national income.

Education and training are leading factors of human capital development, which contribute to economic growth. Although there are controversial views on growth and development, economic growth in developing countries is considered the most powerful strategy in eradicating poverty. Therefore international organizations and donor countries have focused exclusively on human capital development in their efforts to reduce poverty and promote economic growth in developing countries.

Japan, a major donor country, has focused on human capital development in supporting recipient countries to achieve sustainable development through 'self-help efforts'. The concept of self-help efforts refers to the acceptance of responsibility and ownership, by developing countries for their countries' future, and effort to further develop their countries (ODA White Paper, 2007 : 38). In this respect, Japan's annual ODA (Official Development assistance) budget has allocated considerable financial and material assistance under 'technical cooperation' to enhance human capital in developing countries. In addition, in the last few

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1) See Boyce et al. (2006) for detailed analysis on dimensions of human development.

decades a number of government, semi-government and private institutions like the Ministry of Higher Education (Monbusho in Japanese), the Association for Overseas Technical Scholarship (AOTS), Japan Foundation, Organization for Industrial, Spiritual and Cultural Advancement-International (OISCA) and Japan Vocational Ability Development Association (JAVADA) have provided many educational and training programmes for the augmentation of human capital in developing countries. These educational and training programmes are largely influenced by Japan's own remarkable economic recovery, made possible through the accumulation of human capital, especially through education.

The effect of Japan's enormous contribution to the development of human capital and its role in the nation-building efforts of Asian countries has not been assessed. Even today, hardly any studies are conducted in host countries to assess the strengths and weaknesses of foreign training and evaluate the contribution of those foreign scholars to their own economy. However, Japan will continue its strong emphasis on allocating ODA funds for the improvement of human capital in Asia and other developing countries. Therefore, it is important to examine how the Japanese government and its institutions have assisted human capital development and how it has helped Asia's socioeconomic development.

We sincerely hope that the results of this study will contribute to improvement of policies in public and private institutes in Japan for the education, research and training of human capital in developing countries. They may also contribute to improvement of policies and programmes promoting the internationalisation of Japanese university education. It is anticipated the results of this study will contribute to establishing Japan as the education centre of Asia. With this in mind, this study aims to investigate Japan's policies and performance in human capital development in Asia, giving priority to the education of foreign students under government and private funds, and the training [JICA's (Japan International Cooperation Agency) technical cooperation and AOTS's training programme] offered in Japanese government and private institutions. The analysis of the study is based on the empirical survey and a hearing survey conducted in Japan and Sri Lanka in the period 2007-2009.

II. Human Capital Development in Sri Lanka under Japanese Assistance : Retrospective and Prospective

The results of recent studies have shown the interaction among education, productivity and economic growth. However, it is obvious, that education is the most important factor in economic growth and this is supported by both individual and aggregate data (Pritchett,

1996 : 1). The causal relationship between human capital and economic growth may have led Japan and other donor countries to place greater emphasis on human capital development, mainly education and training in their ODA in the last 50 years.

Japan's ODA policy has been influenced by its own development experience from the Meiji Restoration in 1868. It is accepted that human capital development in Japan has been the most powerful factor in its economic success. According to the ODA White Paper (2007 : 38) Japan's remarkable economic recovery is attributed to the development of education, economic and financial capital from the Edo period onwards. It is evident how much Japan's own development experience has influenced its ODA policy, which is based on strengthening 'self-help efforts and ownership' in developing countries. Japan believes that nation building begins with human capital development. The following statement shows it is a fundamental principle of Japan's development assistance ;

To foster human capital that will take part in the development process, it is essential to promote assistance not only in primary education, but also in various other educational opportunities such as higher education, technical education, vocational training, and practical training in areas such as administration (ODA White Paper, 2007 : 81).

Although the Japanese government, semi-government and private institutions, have launched a large number of educational and training programmes for human capital development, the present study focused only on the following three programmes, which have been foremost in enhancing human capital in Asia : 1. Human Capital Development through Technical Cooperation under JICA : 2. Human Capital Development through Provision of Education under Monbusho ; and 3. Human Capital Development through Provision of Technical Education and Vocational Training under AOTS.

1. Human capital Development through Technical Cooperation under JICA

Economic cooperation between Japan and developing countries began on October 6, 1954, when it joined the Colombo Plan²⁾ with a contribution of US\$ 50,000. At this time, Japan was still a recipient of aid from the World Bank and the U. S. for the reconstruction of its own economy.³⁾ Within a short period, Japan's ODA expanded to encompass all developing

2) The Colombo Plan was launched in 1951 and takes its name from Sri Lanka's capital where the plan was formulated and established. Originally called the Colombo Plan for Cooperative Economic Development in South and Southeast Asia, it changed its name in 1977 to the Colombo Plan for Cooperative Economic and Social Development in Asia and the Pacific (Arnold, 1996 : 35).

3) Japan was an aid recipient of the United States and World Bank during the difficult years after

countries. From 1989 onwards Japan was one of the world's biggest donors. The most important feature of this economic assistance is that it has been distributed among almost all socioeconomic sectors needing assistance. Among these, assistance for human capital development through Technical Cooperation is one of the most important pillars of Japan's ODA Programme, which was launched under JICA as Grant Aid.⁴⁾

According to available data, technical cooperation began in the early 1960s. This aimed to provide developing countries with the necessary support for strengthening their self-help efforts. In particular, this assistance attempted to assist foreign students, improve the higher educational institutions, develop administrators, develop and enhance vocational skills, improve occupational safety and health, and strengthen industrial competitiveness (ODA White Paper, 2007 : 81). The data in Table 1 demonstrates technical cooperation is one of the most important programmes in Japan's ODA Programme, particularly its grant aid programme. The total ODA (loan and grants) accounted for US\$ 350,800.7 million in the period 1960-2008, of which about 35 percent comprised grant aid. About one-third of the grant aid was given for human capital development through technical cooperation. The technical aid itself consisted of about US\$ 43,127.64 million in this period. This statistical evidence shows how much importance Japan places on human capital development, one of the most significant strategies to achieve self-reliant development in developing countries.

Japan's economic assistance to Sri Lanka commenced in the mid-1960s⁵⁾ and extended to most socioeconomic sectors. In the last two decades Japan has been the country's major donor. The most significant part of this aid has been assistance for human capital development through technical cooperation, particularly the acceptance of trainees and dispatch of Japanese experts and infrastructure related to the upliftment of education. Table 2 shows the overall performance of Japanese assistance for human capital development (except educational infrastructures and materials) in Sri Lanka from 1954 to date. The data in the table reveals that Japan has trained more than ten thousand Sri Lankans in various industrial

the war. America provided a total of US\$ 5 billion to finance the emergency provision of daily needs and the import of industrial raw materials. In addition, the World Bank also supplied loan facilities in 1953 to finance the construction of a thermal power station in Tanagawa by the Kansai Electric Power Company. Over 14 years, Japan received a total of 34 loans from the World Bank (worth about US\$ 860 billion), and these loans made a great contribution to the construction of basic infrastructure and key industries, particularly roads, power stations, and steel mills. The repayment of these loans was completed in July 1990 (MOFA, 1994 : 3-12).

- 4) There are three main categories of Japan's development assistance or the so-called ODA : (a) bilateral grants (grant aid and technical co-operation) ; (b) bilateral loans (loan assistance, generally known as Yen loans) ; and (c) contributions and subscriptions to multilateral donor organizations. The grants provide cash, goods or services for which no repayment is required.

- 5) See Ratnayake (2004) for detailed information on Japan's ODA to Sri Lanka.

Table 1 : Trend of Japanese ODA and its Composition, 1960-2008

Period/Year	Japanese Bilateral Assistance (US\$ Million)				Composition (%)		
	Total ODA	Grants	Technical ^(a) Coooperation	Loans	Grants	Technical ^(b) Coooperation	Loans
1960-1969	2,525.3	920.4	75.8	1,281.5	36.45	8.24	50.75
1970-1979	13,916.51	2,450.33	1,011.81	8,059.82	17.61	41.29	57.92
1980-1989	59,101.85	47,054.67	5,782.45	27,485.12	25.91	37.75	46.50
1990-1999	138,253.8	47,054.67	18,817.71	65,280.02	34.03	39.99	47.22
2000	16,299.7	5,678.2	2,430.19	6,881.69	34.84	42.80	42.22
2001	12,624.79	4,741.74	1,941.82	5,494.06	37.56	40.95	43.52
2002	12,229.53	4,372.65	1,811.85	5,266.22	35.75	41.44	43.06
2003	12,970.87	4,443.1	1,879.57	5,982.35	34.25	42.30	46.12
2004	16,175.81	7,130.63	1,914.14	6,039.91	44.08	26.84	37.34
2005	18,619.38	9,173.63	1,852.05	6,705.37	49.27	20.19	36.01
2006	17,063.95	7,650.3	1,847.58	5,539.66	44.83	24.15	32.46
2007	13,566.29	5,982.82	1,812.61	5,682.67	44.10	30.30	41.89
2008	17,452.92	7,763.62	1,950.06	6,933.44	44.48	25.12	39.73
1960-2008	350,800.7	122,678.1	43,127.64	156,631.8	34.97	35.16	44.65

(a) Technical aid comes under grants ; (b) Technical Assistance as a percentage of grants

Source : OECD Home Page

disciplines, spending more than 14,164 million Yen in the period 1954-2008. If the trainees under Japanese experts are included, the number is even greater. The training, which provided training facilities to Sri Lankans and dispatched Japanese experts and young volunteers to Sri Lanka, has encompassed most sectors of the economy. The following sectors are the most significant areas of human capital development : agriculture, fishing, light industries, automobile, textiles, communication, industrial machinery, ceramics, printing, chemicals, food processing, health, administration and management (ODA White Paper, Various Issues).

In addition to human capital development, Japan has granted a large sum of money to improve educational facilities in Sri Lanka, particularly since the mid-1970s. The most acclaimed among these projects were the Peradeniya Teaching Hospital, the Faculty of Dental Science hospital in the University of Peradeniya, and the Institute of Computer Technology in the University of Colombo. In addition, Japanese grants also helped with equipment and facilities in the Universities of Peradeniya, Colombo, Ruhuna, Sri Jayewardenepura and Moratuwa. Moreover, Japan also supplied grants to establish and develop a television station in the government sector and to improve abilities in telecasting in Sri Lanka. All

Table 2 : Performance of Japanese Technical Cooperation Assistance to Sri Lanka

Period	Acceptance of Trainees to Japan		Dispatch of Japanese Experts to Sri Lanka		Total Cost (Yen '000')
	Numbers	Cost (Yen '000)	Numbers	Cost (Yen '000)	
1954-1987	2,077	3,687,005	191	1,032,473	4,719,478
1988	143	364,706	9	102,281	466,987
1989	156	351,302	5	60,858	412,160
1990	135	400,363	7	66,781	467,144
1991	157	406,640	8	113,137	519,777
1992	178	449,295	5	86,668	535,963
1993	196	428,541	15	104,315	532,856
1994	199	513,422	14	167,429	680,851
1995	230	551,905	25	326,954	878,859
1996	221	570,167	4	322,024	892,191
1997	243	636,168	12	209,624	845,792
1998	280	562,881	12	185,516	748,397
1999	341	597,462	114	5,169	602,631
2000	331	582,423	96	743,381	1,325,804
2001	348	601,429	67	467,687	1,069,116
2002	288	664,765	51	412,650	1,077,415
2003	268	597,112	47	326,006	923,118
2004	286	543,047	107	536,125	1,079,172
2005	398	469,523	81	686,107	1,155,630
2006	3,100	610,365	96	252,523	862,888
2007	737	336,742	128	270,383	607,125
2008	630	239,480	132	240,951	481,193
1954-2008	10,942	14,164,743	1226	6,719,042	20,895,953

Source : JICA, Kokusai Kyoryoku Jigyodan Jigyo Jisseki Hyo, Various Issues

these clearly demonstrate how Japan believes that high standards of education and training are essential for economic development. Finally, although it is difficult to quantify, it is apparent that the contribution of these grants to the national economy of Sri Lanka, was substantial.

2. Human Capital Development through Provision of Education under Monbusho Assistance

Education is a major area of Japan's human capital development in developing countries

which began in the early 1960s. It encompasses not only accepting government funded foreign students, but also developing higher education facilities such as colleges, support in improving operation and management capabilities, enhancement of education and training capabilities, enhancement of coordination with the business circle and local communities, and developing regional networks among higher education institutions that extend beyond national borders (ODA White Paper, 2007 : 82).⁶⁾ However, the present study is confined to examining the acceptance of foreign students under government support, with special reference to Sri Lanka. Figure 2 demonstrates⁷⁾ the overall trend of foreign students accepted by Japanese educational institutions under different funding sources in the period 1975-2007.

Figure 2 demonstrates three major waves of acceptance of foreign students into Japanese educational institutions in the period 1975-2007 : first, 1975-1982 ; second, 1983-1998 ; third, 1999-2007. The number of foreign students in the first period was around 10,000, but it rose to more than 50,000 and 100,000 in the second and third periods respectively in relatively shorter periods. These trends are closely related to the development of the Japanese economy and the policy change towards education in particular, and an increase in international influence in general. In the first period, Japan was concerned with its own development, while giving some attention to international requirements. However, Japan's emergence as a developed country, and the rapid globalization of most of its economic activities in the second period, influenced Japan to play a more active role in the area of human capital development, in line with other advanced countries in the Western world.⁸⁾ In addition, Prime Minister Yasuhiro Nakasone's plan in 1983 to increase foreign students from 50,000 by 1990 to 100,000 by the beginning of the 21st century was also a strong factor in this rapid increase of foreign students in the second and third periods. The goals of 50,000 and 100,000 foreign students were finally achieved in 1993 and 2003 respectively (Figure 2 and Appendix Table 1).

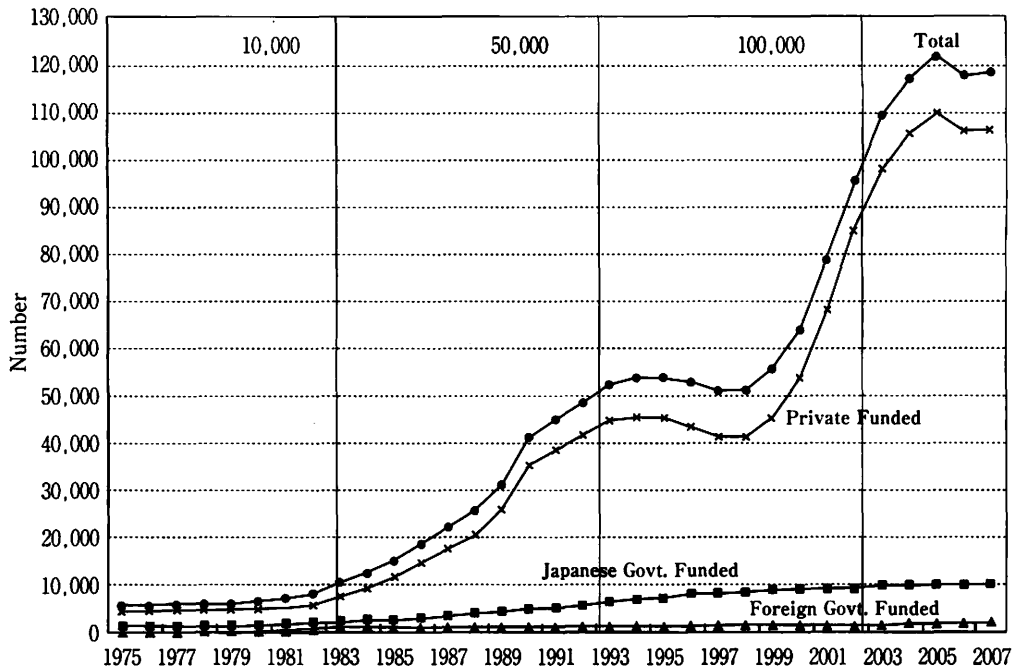
Although the number of foreign students studying in Japan doubled over a ten yearperiod

6) See ODA White Paper (2007), especially pages 81-101 for detailed information on Japan's specific approaches for human capital development in developing countries in recent years.

7) See Appendix Table 1 for more information on foreign students in Japan by source of funds.

8) "Twenty years ago, then-prime minister Yasuhiro Nakasone set forth his Plan to Accept 100,000 Foreign Students. This was in 1983, when Japan had only about 10,000 foreign students. Nakasone's bold plan was to bring the number to 50,000 by 1990 and to 100,000 by the beginning of the 21st century. At the time the plan was formulated, Japan had gained considerable international influence due to its growth as a large economic power. The government held the view that Japan should play a more active role in the area of international exchange, in line with developed countries" (The Jakarta Post, December 3, 2008).

Figure 1 : Tend of Foreign Students in Japan by Source of Funds



Source : Japan Student Services Organization (JASSO) Home Page

(1993-2003), government funded students showed an insignificant increase compared to private funded students. During this period, private funded students increased by 2.2 times from 44,783 in 1993 to 98,135 in 2003. However, government funded students increased only about 1.5 times in the same period. Overall, Japanese government funded students increased nearly 10 times during the period 1975-2007. In other words, 86 percent of foreign students in Japan were private financed students while 12 percent were Japanese government-sponsored or so-called Monbusho Students in this whole period. Although the number of Monbusho students increased to around 10,000, its share declined from 19 percent in 1975 to 8 percent in 2007.

The data in Table 3 depicts the trend of international students by nationality, studying in various Japanese academic institutions under both Monbusho and private finance in 2006 and 2007. One significant feature of this rapid increase of privately financed students is that nearly 80 percent of them came from China, Taiwan and Korea. The geographical situation as close neighbours and the use of Chinese Characters (*Kanji* in Japanese) in the language of Japanese educational institutions in particular, are major factors behind this large inflow of students from these three countries. Although the share of Sri Lankan students is only about one percent of total foreign students, it is a significant number according to population size of the country. Most of the Sri Lankan students are following

Table 3 : Number of International Students by Nationality

Country/region	Number of Students		% of Total		Country/region	Number of Students		% of Total	
	2006	2007	2006	2007		2006	2007	2006	2007
China	74,292	71,277	63.0	60.2	Germany	393	449	0.3	0.4
South Korea	15,974	17,274	13.5	14.6	UK	333	370	0.3	0.3
Taiwan	4,211	4,686	3.6	4.0	Russia	334	337	0.3	0.3
Vietnam	2,119	2,582	1.8	2.2	Australia	354	330	0.3	0.3
Malaysia	2,156	2,146	1.8	1.8	Brazil	342	316	0.3	0.3
Thailand	1,734	2,090	1.5	1.8	Canada	286	307	0.2	0.3
U. S. A	1,790	1,805	1.5	1.5	Cambodia	278	283	0.2	0.2
Indonesia	1,553	1,596	1.3	1.3	Egypt	251	283	0.2	0.2
Bangladesh	1,456	1,508	1.2	1.3	Laos	266	229	0.2	0.2
Nepal	998	1,309	0.8	1.1	Iran	236	229	0.2	0.2
Sri Lanka	1,143	1,181	1.0	1.0	Turkey	171	169	0.1	0.1
Mongolia	1,006	1,110	0.9	0.9	Uzbekistan	139	167	0.1	0.1
Myanmar	736	849	0.6	0.7	Saudi Arabia	23	159	0.02	0.1
Philippines	542	538	0.5	0.5	Sweden	137	145	0.1	0.1
India	525	480	0.4	0.4	Others	3,732	3,788	3.2	3.2
France	417	471	0.4	0.4	Total	117,927	118,498	100	100.0

Source : Japan Students Services Organization (JASSO) Home Page

postgraduate programmes rather than undergraduate courses, because of the language barrier (see Table 4). The other distinctive feature of foreign students studying in Japan is that about two thirds of them are majoring in humanities and social sciences with only one third majoring in fields such as science and engineering (see Appendix Table 1 and Appendix Figure 1). As shown in the Table 4, only 13 percent of the students are Japanese government sponsored while the majority are private funded students in period from 2004 to 2007.

3. Human Capital Development through Provision of Technical Education and Vocational Training under AOTS

The Association for Overseas Technical Scholarships (AOTS) was established in 1959 with the support of the government, especially the Ministry of International Trade and Industry (presently the Ministry of Economy, Trade and Industry) as the first technical cooperation organized on a private basis in Japan. Its main purpose was to promote international economic cooperation and enhance mutual economic development and friendly relations

between Japan and other countries (AOTS Home Page, 2008). The main activities of this organization can be categorized into three major areas according to the nature of its training programmes: first, conducting training programmes in Japan to provide technical and management training for engineers and managers in developing countries; second, conducting group training programmes overseas with instructors/experts sent from Japan to provide technical and management training for engineers and managers in developing countries; and third, the management of Kenshu (training) Centers. The second activity also involves training the people from the country where it took place, and people from neighbouring countries called 'the third-country' training Programme.⁹⁾ The data in Table 5 shows how AOTS was actively involved in training large numbers of people in fields where there was an urgent need in developing countries.

In the period 1959-2007, it has trained about 117,496 people (Table 5) in almost all countries in the developing world. According to the AOTS, in the year of its establishment it accepted only 43 trainees, but at present it receives more than 5,000 trainees in Japan, including those who attend overseas training programs as well as distance training programs. In total AOTS offers training to more than 14,000 people a year. Ninety percent of its trainees originated from Asia and South America, of which 82 percent are from Asia. There are two reasons behind this concentration of AOTS trainees in these two regions; first, Japan's strong socioeconomic relationship and close geographical location in Asia; and second, the large concentration of people of Japanese origin or so-called *nikkeijin* in South America, particularly in Brazil.¹⁰⁾

The other significant aspect of AOTS's human capital development cooperation is that almost 60 percent of its training programmes were concentrated in ten areas in order of aid distribution; the automobile industry, electrical goods, industrial machinery, construction, household electrical appliances, telecommunication equipment, textiles, chemical, heavy electrical training and other machinery. Of these, the first three areas comprised nearly 40 percent of the total training areas in the period 1959-2007. This shows the industrial areas have a highly comparative advantage in Japan's industrial structure and the high demand for such areas in developing countries.

Sri Lanka's experience further demonstrates that although the above industrial areas, specifically the automobile industry, electrical goods and telecommunication equipment are

9) See <http://www.aots.or.jp/eng/indexeng.html> for further information on AOTS's major activities in Japan as well as in developing countries.

10) Today, Brazil is home to the largest Japanese population outside of Japan, numbering an estimate of more than 1.5 million (including those of mixed-race or mixed-ethnicity), more than that of the 1.2 million in the US (http://en.wikipedia.org/wiki/Japanese_Brazilian)

Table 4 : Number of Sri Lankan Students by Institution and Major Field, 2004-2007

Institution	Major Field	2004		2005		2006		2007		Total
		Gov*	Priv.	Gov.	Priv.	Gov.	Priv.	Gov.	Priv.	
Graduate School	Humanities	1	11	3	20	3	16	3	15	72
	Social Science	10	26	7	34	5	28	6	27	143
	Science	11	3	11	5	6	4	6	7	53
	Engineering	29	36	39	44	38	43	41	60	330
	Agriculture	16	16	20	14	22	16	21	14	139
	Health Care	10	5	12	6	10	9	10	8	70
	Education	1	4	0	5	0	2	0	1	13
	Arts	1	0	1	0	0	1	0	1	4
	Other	8	29	9	19	11	28	7	15	126
Undergraduate	Humanities	1	30	4	56	3	37	2	49	182
	Social Science	0	99	1	104	1	112	0	119	436
	Science	0	1	0	1	0	0	0	0	2
	Engineering	16	30	16	27	16	22	13	19	159
	Agriculture	0	4	2	2	0	1	1	0	10
	Health Care	0	1	0	0	0	1	1	1	4
	Education	0	2	0	3	0	2	0	0	7
	Arts	0	2	0	2	0	0	0	3	7
	Home Economics	0	0	0	0	0	1	0	1	2
	Other	0	17	0	22	1	28	0	29	97
Junior Collages	Humanities	0	14	0	24	0	3	0	13	54
	Social Science	0	2	0	2	0	4	0	7	15
	Engineering	0	3	0	3	0	5	0	11	22
	Arts	0	3	0	1	0	0	0	0	4
	Other	0	2	0	1	0	10	0	9	22
Collage of Technology	Humanities	4	0	0	0	0	0	0	0	4
	Engineering	19	0	17	1	17	1	19	0	74
Professional Training Collage	Humanities	0	80	0	123	0	140	0	100	443
	Social Science	0	5	0	36	0	207	0	297	545
	Engineering	0	42	0	57	0	116	0	166	381
	Agriculture	0	2	0	2	0	3	0	2	9
	Home Economics	0	56	0	38	0	15	0	40	149
	Arts	0	12	0	48	0	82	0	34	176
	Other	0	96	0	62	0	68	0	1	227
University Preparatory Course	Humanities	0	4	0	3	0	5	0	2	14
	Total	127	637	142	765	133	1,010	130	1,051	3,995

* Japanese Government funded (Monbukagakusho) students

Source : JASSO (Gov. = Government ; Priv. = Private)

popular training fields, the most favoured sector of the AOTS training programmes in Sri Lanka is the ceramics industry. The major reasons for the popularity of these two areas of training under AOTS may have been Japanese investment in the ceramics industry,

particularly Noritake, and telecommunications¹¹⁾ in Sri Lanka.

III. Challenges for the Future Japanese Technical Assistance to Sri Lanka

People who received training in various industrial disciplines are actively engaged in the nation building efforts of their respective nations. However, many studies have emerged, which are critical of Japanese ODA and its contribution to the socioeconomic development of recipient countries. Financial assistance was provided for higher studies in Japan under the Monbusho Scholarship and for training programmes under JICA and AOTS, all of which have been largely funded as part of the Japanese ODA programme. People's attitude to Japanese assistance in the development of human capital, is another major stumbling block which prevents them from getting the best results (mainly, transfer of technology) from such aid. This has been supported up by the surveys of Sri Lankans who studied or trained in Japan in the last 10 years.¹²⁾ The survey in Sri Lanka reveals that more than 90 per cent of Sri Lankans have negative attitudes towards their studies and training in Japan. They stated that they could not obtain the knowledge they needed while studying or training in Japan. Most of them believe they can get more knowledge from Western countries, particularly from English-speaking countries, than from Japan. This attitude is not confined to Sri Lankans who studied or trained in Japan, but is also prevalent among Sri Lankan intellectuals who studied in Europe. Although the language barrier is one of the major reasons for this attitude, inferiority complexes relating to the English language and Western culture are other major sources for this negative attitude. Most of them criticized their Japanese teachers, indicating that they do not speak English and do not teach the theoretical side of subjects at the classroom level as in undergraduate courses.

This study has found that the different educational systems or approaches in postgraduate studies in Japan is the major factor in creating this negative attitude among Sri Lankan students, rather than the language barrier. Unlike other countries, at postgraduate level, educational institutions in Japan give first priority to the practical side rather than the

11) Noritake Porcelain established its Sri Lankan factory in 1973 which has been one of the most successful Japanese firms in Sri Lanka. Today, more than 1200 people work in this factory situated in Matale. Furthermore Japan's NTT (Nippon Telegraph & Telephone Corporation) purchased 35 percent of Sri Lanka Telecom for US\$ 225 million in 1997.

12) A similar survey has been conducted in Thailand, Malaysia, Indonesia, China and Korea by Saga University during the period 2000-2002. The survey examined the attitudes and problems of former foreign students relating to their education and life in Japan.

theoretical side. They think that students who come from foreign countries have already acquired sufficient theoretical knowledge in their undergraduate studies. Consequently, Japanese academics advise foreign students to continue their postgraduate studies by way of conducting field-work outside the classroom. However, many students do not accept such a system because, not only they have difficulties in doing work similar to 3K work,¹³⁾ but also think that such work should be done by blue-collar workers under their supervision. One of the Japanese professors in the field of Agricultural Science said that it is very difficult for him to educate or train Sri Lankan students to be productive in the Sri Lankan economy because they do not like to work in the field as farmers or carry-out field-level experiments to discover suitable technologies. He noted that Sri Lankan students are very talented in class-room studies but not in the field.

In addition, the Japanese higher education system aims to produce people who are self-reliant in their field of study. In this respect, unlike in many Western universities, professors in Japanese universities do not give lectures to postgraduate students. They always advise their students to work alone or with fellow students or with the research assistants of the relevant departments, giving advice only when students need it. Although creating independent people with confidence in their subjects is the major objective of this system, the Sri Lankan students who have been used to following lectures and examination systems, do not adapt easily to the Japanese system. They constantly expect to learn from lecturers, but such a system is not a part of Japanese postgraduate studies which is based on the doctrine of self-study. This is recognized as a major obstacle to the transfer of knowledge to Sri Lankan students studying under Japanese assistance.

Another fact revealed in the survey was that many of the students who were invited under *Monbusho* were engaged in economics activities, especially in the automobile business, rather than devoting time to their studies. Some of them had no intention of returning to their previous position in Sri Lanka, and others intended to continue their research and or work elsewhere in the world. According to Japanese officials, it is difficult to provide short term training benefits to Asian people, because they vanish before the programme finishes, to work illegally in 3K jobs in Japan.

The study also found that Japanese ODA directed towards the development of human capital in Sri Lanka, did not produce the desired results, because of Sri Lanka's colonial tradition and their fixation with the English language and Western culture, and because of their poor appreciation of the 'economic miracles' worked in Japan. Unless there is a

13) In Japan 3K means Kitanai (dirty), Kitsui (hard) and Kiken (dangerous), which has been used typically to define some unpopular works among Japanese people.

Table 5 : Number of Sri Lankans Trained under the Association for Overseas Technical Scholarship (AOTS) Programme, 1959-2007 (cumulative value)

Area of Training	Sri Lanka		Asia	Middle East	Africa	South America	Oceania	Europe	World	
	No.	Share (%)							No.	Share (%)
Heavy Electrical Machinery	5	0.22	2,370	153	32	383	28	9	2,975	2.53
Household Electrical Appliance	18	0.81	3,339	55	123	157	5	24	3,703	3.15
Telecommunication Equipment	79	3.54	2,642	132	137	556	1	40	3,508	2.99
Other Electrical Goods	171	7.66	12,618	133	94	639	3	105	13,592	11.57
Industrial Machinery	38	1.70	7,737	237	158	389	23	69	8,613	7.33
Agricultural Machinery	14	0.63	623	16	68	17	2	10	736	0.63
Other Machinery	6	0.27	2,634	15	11	36	1	193	2,890	2.46
Automobile Industry	171	7.66	16,737	1,116	1,529	1,533	365	846	22,126	18.83
Shipping Industry	7	0.31	1,423	30	200	113	27	18	1,811	1.54
Heavy Vehicles	7	0.31	356	47	14	62	5	7	491	0.42
Precision Equipment	2	0.09	1,348	27	20	66	2	2	1,465	1.25
Metal Industry	11	0.49	1,421	8	15	50	0	1	1,495	1.27
Nonmetallic Goods	3	0.13	1,329	84	13	65	0	0	1,491	1.27
Iron & Steel	3	0.13	1,570	62	62	103	1	4	1,802	1.53
Petroleum & Coal	1	0.04	231	48	19	4	0	0	302	0.26
Chemical	14	0.63	2,748	148	31	94	0	14	3,035	2.58
Paper & Pulp Industry	0	0.00	301	2	2	2	0	0	307	0.26
Ceramic	268	12.01	1,253	7	56	20	0	29	1,365	1.16
Leather	0	0.00	92	0	0	0	2	0	94	0.08
Rubber	3	0.13	1,051	92	3	1	0	101	1,248	1.06
Publish & Printing	0	0.00	577	0	9	3	4	0	593	0.50
Wood	1	0.04	488	0	0	1	7	1	497	0.42
Textile	20	0.90	2,929	9	165	224	0	7	3,334	2.84
Food	4	0.18	1,120	23	14	75	2	4	1,238	1.05
Other Manufacturing	7	0.31	578	2	8	28	8	1	625	0.53
Agri/Fores/Fishery	5	0.22	345	22	6	32	4	4	413	0.35
Iron Industry	1	0.04	61	0	3	4	0	1	69	0.06
Construction	25	1.12	3,904	130	47	212	12	15	4,320	3.68
Other	1,347	60.38	25,500	683	1,713	3,868	28	1,566	33,358	28.39
Total	2,231	100.00	97,325	3,281	4,552	8,737	530	3,071	117,496	100
Share (%)^a	1.90	—	82.83	2.79	3.87	7.44	0.45	2.61	—	—

a. Share of the total trainees

Source : AOTS Home Page, http://www.aots.or.jp/jp/about/annai/pdf/08_kokko.pdf

change in these negative attitudes and, people are compelled to learn from Japan, as many East and Southeast Asian countries are doing, it will be difficult to produce any positive results from Japanese ODA to develop the human capital needed to modernise Sri Lanka. This means that a change of attitude in the recipient country is more critical in the application of foreign aid to growth and development, rather than criticism of the donor's behaviour and applications for more aid.

Nevertheless, it is important to understand the strengths and weaknesses of human capital development in Japan because there are many criticisms of the present education system, particularly higher education, both from Japan and from other countries. The following statement in The Jakarta Post on Japanese higher education provides a suitable example in this regard;

There is also a growing concern that some universities are accepting foreign students too easily, without establishing sufficient admission procedures, educational content or administrative requirements. In addition, the number of foreign students working illegally has been growing. A think tank submitted a report in December titled *Developing New Policies Governing Foreign Students* to the ministry, in which they recommended that the ministry switch from an emphasis on expansion to an emphasis on quality. The report was compiled by Tsutomu Kimura, President of the National Institute for Academic Defense and University Evaluation, who rang the alarm bells : “According easy enrollment to foreign students simply to secure student numbers or meet targets should be treated with considerable trepidation.” Universities need to pay close attention to these students’ class attendance, and to ensure that those with poor grades are given all the instruction they need.” Kimura also said universities needed to improve their international standing if they wished to attract talented foreign students to Japan (Jakarta Post, December 3, 2008).

All these findings demonstrate that an improvement in the quality of education to meet international standards is urgently required. Without such reforms in educational institutions it will be difficult to present Japanese universities as economically and academically attractive to talented international students. Finally, producing even a small number of high quality educated people is more important than increasing the number of foreign students in educational institutions.

IV. Concluding Remarks

Japan’s marked emphasis on human capital development in its ODA budget has been substantially influenced by her own development experience since the Meiji Restoration. Japan’s ODA philosophy of self-help efforts is one of the most important factors in its human capital development activities in developing countries. The Ministry of Foreign Affairs (2007) in Japan noted that, assistance for human capital development is considered

a decisive factor in strengthening self-help efforts or ownership of developing countries. Keeping this philosophy as the fundamental principle of its ODA policy, it has extended diversified programmes under the management of government, semi-government and private institutions, allocating a large sum of money for training and educating people in developing countries, and for providing the necessary infrastructure facilities in those countries over the last 50 years. All these efforts have made a substantial contribution to the nation building efforts of developing countries, specifically in Asia, though it cannot be quantified. However, there are disparate opinions on the quality of human capital developed under Japanese assistance, compared to that developed under European and American assistance. Many argue that the quality of human capital developed under Japanese assistance is lower than that developed under European and American assistance. The present study found that the main reason for this opinion is closely related to 'The European Complex' among the people in Asia, as a result of the colonial influence.

The findings of the present study may have limitations because they were entirely dependent on the literature survey rather than a sample survey conducted in Sri Lanka. Therefore, it is important to conduct a comprehensive survey on returned scholars and trainees who are working in different sectors in Sri Lanka to gain further understanding of the strengths and weaknesses of Japanese human capital development programmes.

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Appendix Tables and Figures

Appendix Table 1 : Trend of Foreign Students by Source of Funds (as of May 1st each year)

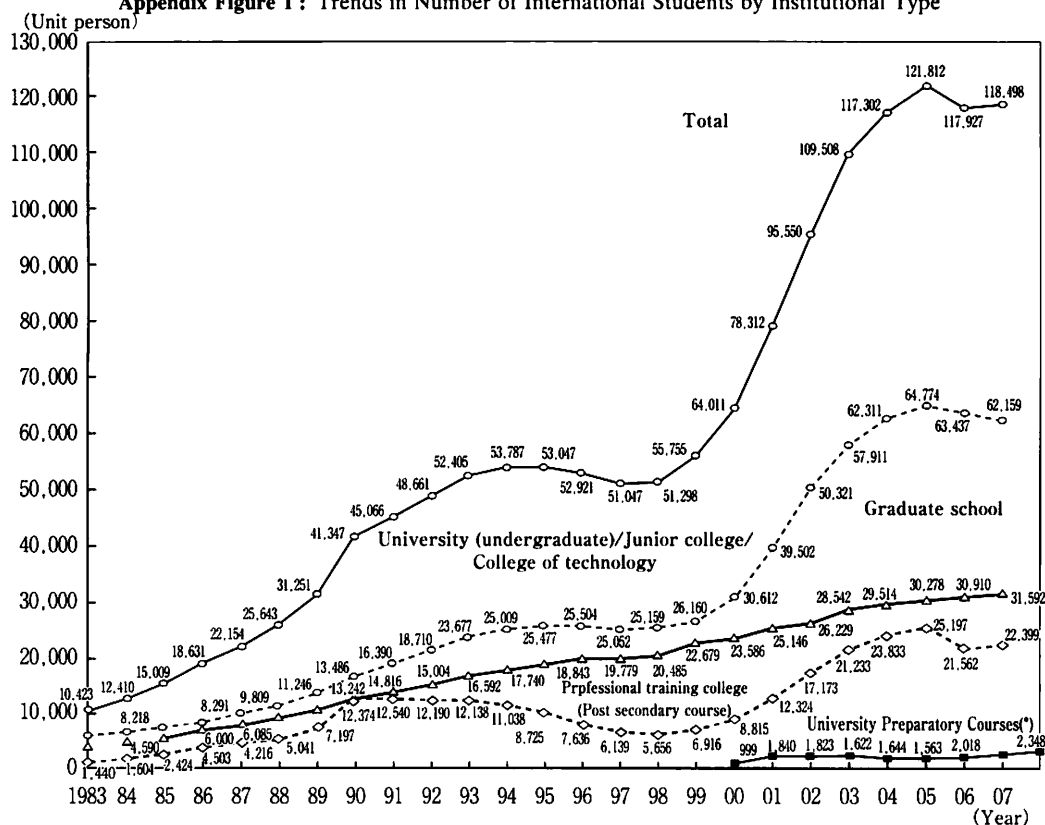
Year	Japanese Government Funded	Foreign Government Funded	Private Funded	Total
1975	1,050	0	4,523	5,573
1976	1,037	0	4,634	5,671
1977	1,081	0	4,674	5,755
1978	1,075	0	4,774	5,849
1979	1,183	105	4,645	5,933
1980	1,369	419	4,784	6,572
1981	1,578	475	5,126	7,179
1982	1,777	662	5,677	8,116
1983	2,082	863	7,483	10,428
1984	2,345	798	9,267	12,410
1985	2,502	774	11,733	15,009
1986	3,077	895	14,659	18,631
1987	3,458	995	17,701	22,154
1988	4,118	976	20,549	25,643
1989	4,465	934	25,852	31,251
1990	4,961	1,026	35,360	41,347
1991	5,219	1,072	38,775	45,066
1992	5,699	1,058	41,804	48,561
1993	6,408	1,214	44,783	52,405
1994	6,880	1,330	45,577	53,787
1995	7,371	1,231	45,245	53,847
1996	8,051	1,297	43,573	52,921
1997	8,250	1,524	41,273	51,047
1998	8,323	1,585	41,390	51,298
1999	8,774	1,542	45,439	55,755
2000	8,930	1,441	53,640	64,011
2001	9,173	1,369	68,270	78,812
2002	9,009	1,517	85,024	95,550
2003	9,746	1,627	98,135	109,508
2004	9,804	1,906	105,592	117,302
2005	9,891	1,903	110,018	121,812
2006	9,869	1,956	106,102	117,927
2007	10,020	2,181	106,297	118,498

Source : Source : Japan Student Services Organization (JASSO) Home Page

Appendix Table 2 : Number of International Students by Major Field

Major field	Number of students		Percentage of total	
	2007	2006	2007	2006
Humanities	27,763	27,443	23.40	23.3
Social science	47,611	46,665	40.20	39.6
Science	1,586	1,501	1.30	1.3
Engineering	18,059	17,715	15.20	15
Agriculture	2,857	2,832	2.40	2.4
Health care	2,692	2,852	2.30	2.4
Home economics	2,514	2,275	2.10	1.9
Education	3,124	3,171	2.60	2.7
Arts	3,439	3,997	2.90	3.4
Others	8,853	9,476	7.50	8.0
Total	118,498	117,927	100.00	100.0

Source : Japan Student Services Organization (JASSO) Home Page

Appendix Figure 1 : Trends in Number of International Students by Institutional Type

Source : Japan Student Services Organization (JASSO) Home Page

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