Foreword

Japan has been actively extending international cooperation in the education sector as one of the priority areas of its ODA (Official Development Assistance). The Rationale is based on the recognition that education is a cornerstone of human security, nation-building and human resources development. At the Kananaskis Summit in 2002, Japan announced “Basic Education for Growth Initiative (BEGIN), identifying Japan’s strategy to support basic education in developing countries, giving due consideration to the Millennium Development Goals (MDGs) and the Education for All Dakar Framework for Action. BEGIN identifies three priority areas of Japan’s basic education cooperation, namely, ensuring access to education, improving the quality of education and enhancing the management of education. BEGIN also emphasizes developing countries’ ownership and commitment as an important philosophy of Japan’s assistance in education.

The Japan Education Forum (JEF) is an annual, one-day international forum held in Tokyo. It was established in March 2004 as part of a new education cooperation initiative by the Japanese Government. Its purpose is to provide an opportunity for in-depth exchanges on the relevant experiences of developing and developed countries and to serve as a platform for constructive discussions on new and innovative ways to promote educational development and cooperation. The discussions also provides an opportunity to debate the outcome of the research conducted by the Cooperation Bases System with the support of the Ministry of Education, Culture, Sports, Science and Technology.

JEF IV, this year’s forum, focused on Japan’s strategy for international educational cooperation in support of EFA and MDG goals. It aimed at elucidating the principal characteristics, and results achieved, of Japan’s cooperation policies and programs in the field of education by comparing them with those of other donor countries and by listening to the views of the developing country partners. The forum continued to highlight the importance Japan attached to improvement in the quality of education and the respect for developing country ownership in educational cooperation, which had been the main focus of JEF III held a year ago. This document contains a summary report of JEF Ⅳ.

Program

9:00-	**Registration**
10:00-10:15	**Opening Session:** Opening address: **Yasuko Ikenobo**, Senior Vice-Minister of Education, Culture, Sports, Science and Technology, Japan Opening address: **Masakazu Sekiguchi**, Parliamentary Secretary for Foreign Affairs, Japan
10:15-10:45	**Keynote Speech:** "Japan's educational cooperation: Present situation and future directions" **Mr. Mitsuya Araki,** President, The International Development Journal Co. Ltd.
10:50-11:30	**Keynote Speech:** "International educational cooperation and the expectation for Japan's contribution" **Dr. N'Dri Assié-Lumumba,** Professor, Cornell University, USA
11:35-12:00	Questions and Answers with Keynote Speakers
12:00-13:45	**Break (Lunch)**
13:45-16:45	**Dialogue Sessions:** "Improving the quality of education: Japanese approaches in support of EFA and MDG goals"
13:45-15:00	**Session 1** "Positive contributions made by Japan's educational cooperation – in the areas of school management, teacher training, mathematics and science education and educational administration" Moderator: **Dr. Joseph P. Riley,** National Institute of Education, Nanyang Technological University, Republic of Singapore Speakers: **Dr. Shigekazu Takemura,** Professor Emeritus, Hiroshima University, Japan **Dr. Shaaban Hamed Ali Ibrahim,** Assistant Professor, National Center for Educational Research and Development, Arab Republic of Egypt
15:00-15:30	**Break**
15:30-16:45	**Session 2** "Possible future directions for Japan's educational cooperation – focus on early childhood care and education" Moderator: **Mr. Nicholas Burnett,** Director, EFA Global Monitoring Report, UNESCO Speakers: **Mr. Takashi Hamano,** Associate Professor, Ochanomizu University **Ms. Ramatoulaye Diop Sabaly,** Director, Preschool Education Directorate, Ministry of Education, Republic of Senegal

【Opening Session】

Greetings by **Yasuko Ikenobo**
Senior Vice-Minister of Education, Culture, Sports, Science and Technology, Japan

I would like to express my sincere gratitude to all the participants who have gathered here for the Japan Education Forum IV today, and on behalf of the Ministry of Education, Culture, Sports, Science and Technology (MEXT), one of the organizers of the program, I would like to extend a warm welcome to all of you.

This forum is being held with the objective of supporting the autonomous development of education in developing countries to achieve "Education for All" (EFA), a goal toward which the international community has been making concerted efforts. This fourth JEF will focus on the topics of "improving the quality of education" and "Japan's cooperation in education," comparing with other donor countries, and invite lively discussions from different perspectives.

It is our great pleasure to have Mr. Mitsuya Araki, President of the International Development Journal and Professor N'Dri Assié-Lumumba from Cornell University as our keynote speakers. Mr. Araki has been an active opinion leader in Japan in the field of international development cooperation. Professor Assié-Lumumba has not only been engaged in educational cooperation in Africa but also has extensive experience in research both in Japan and the United States. I believe their lectures will make important contributions to the discussions at this forum. I would also like to express my deep gratitude to the prominent participants who have come from within Japan and abroad to take part in the dialogue sessions at this forum.

During the process of its modernization, Japan emphasized the importance of "human resource development." Learning from our experience in education since modernization, we are now endeavoring to support developing countries with an emphasis on educational cooperation. We are very pleased to be able to hold a dialogue session for discussing some of the achievements of educational cooperation using the knowledge and experience of Japan in education, particularly in the fields of science and mathematics. With the main theme of improving pre-school education as a means to achieve the global goal of EFA, another dialogue session will introduce the discussions held in UNESCO last year and Japan's cooperation in Senegal and other countries, and will focus, among other topics, on the possible future direction for Japan's educational cooperation. I am sure these discussions will provide us with significant insights.

Last August MEXT issued a report on the future direction of international educational cooperation compiled by the Minister's Committee for International Cooperation in Education. The report proposes the promotion of international cooperation utilizing the "knowledge" of universities. Many of the activities to be introduced today also make good use of the knowledge and expertise of Japanese universities. MEXT will continue to play an active role in promoting international cooperation through utilizing the "knowledge" of universities.

I sincerely hope that this forum will provide an opportunity for a wide range of participants from Japan and abroad to gain a deeper understanding of the various endeavors of our country and the importance of improving the quality of education in educational cooperation. Thank you.

【Opening Session】

Greetings by **Masakazu Sekiguchi**
Parliamentary Secretary for Foreign Affairs, Japan

On behalf of the Ministry of Foreign Affairs, one of the organizers of this program, it is my great pleasure to welcome you to the Japan Education Forum (JEF) IV. The JEF provides a platform for a frank and open exchange of views on international cooperation in order to support efforts to improve education in developing countries, and this is the fourth forum since its inauguration. We are pleased to be able to hold this forum with practitioners and researchers both from Japan and abroad who are working on the front lines of education.

Education is essential in allowing people to cultivate their talents and abilities fully in order to achieve self-realization and to bring about human security that enables people to live with dignity. Education is not only imperative for the economic and social development of a country but is also the foundation of international peace and coexistence across different cultures beyond national and regional boundaries. Japan has positioned “human resource development” fostered by education as the foundation of its development, and based on its experience, Japan has made education an important part of international cooperation, including ODA. In fact, Japan provided about 4.825 billion dollars of international educational cooperation during the six years from 2000 to 2006. This was the second largest after France.

Unfortunately, more than 77 million children are still deprived of educational opportunities, and about 780 million adults are illiterate today. To address this situation, the international community is striving to achieve “Education for All” (EFA) so that everyone will be able to receive a basic education. The Millennium Development Goals (MDGs) have also set universal primary education as one of the goals that the international community must work together to achieve.

In order to support the realization of these goals jointly pursued by the international community, Japan announced the “Basic Education for Growth Initiative” (BEGIN) at the G8 Summit held in Kananaskis in 2002 and identified the following three areas as the priorities for Japan’s educational cooperation: expanding access to education, improving the quality of education and improving the management of education. Based on this initiative, Japan has promoted “hard-type” assistance such as building schools and facilities as well as “soft-type” cooperation, such as teacher training and curriculum improvement of mainly science and mathematics, strengthening school management skills and other projects. Japan has also actively supported higher education, technical education and vocational training for human resource development, which is the basis for nation-building of developing countries. In addition to these activities, as UNESCO is playing the lead role in EFA, Japan has established a trust fund in UNESCO to cooperate in implementing various educational projects.

In order to gain further understanding and support of the Japanese people for ODA and to respond to the diversified needs of developing countries, we would like to implement international cooperation in education and other areas more strategically by promoting further collaboration in different aid schemes and cooperation with other donors and international organizations, universities, private enterprises and NGOs.

The EFA Dakar framework for action was adopted in 2000, setting 2015 as the target year for achieving its goals, so this year marks a half-way turning point. In order to achieve Education for All, we must provide not only universal access to education but also high-quality education. In closing I would like to convey my sincere hope that this forum will provide an opportunity for lively discussions on Japan's efforts to improve the quality of education, that the participants will learn more about our past activities and achievements and that there will be productive discussions on how educational cooperation should be carried out. Thank you for your attention.

Executive Summary

Japan Education Forum IV
-Collaboration Toward Greater Autonomy in Educational Development-

Outline of the Forum

The importance of achieving universal access to basic education in developing countries is widely recognized in the international community. Not only developing countries but also industrialized countries and international organizations are making efforts to make "Education for All (EFA)" a reality. Japan has also been actively extending international cooperation in the area of basic education as one of the priority areas of its ODA, recognizing that education is a cornerstone of human security, nation-building and human resource development. The Japan Education Forum (JEF) is an annual forum established in March 2004 by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Ministry of Foreign Affairs (MOFA) as a part of Japan's international cooperation in education for developing countries. With the underlying theme of "Collaboration Toward Greater Autonomy in Educational Development," JEF is jointly organized by MEXT, MOFA, Hiroshima University and the University of Tsukuba and sponsored by the Japan International Cooperation Agency (JICA) and the Japan Bank for International Cooperation (JBIC).

Maintaining the basic theme of "Collaboration Toward Greater Autonomy in Educational Development," JEF IV was held in Tokyo on February 2, 2007, focusing on "improving the quality of education" and "Japan's educational cooperation" compared with that of other donor countries. A total of about 150 people participated in this forum including many from the United Nations development cooperation agencies, universities, foreign embassies to Tokyo and the general public. In the morning, keynote speeches were made by Mr. Mitsuya Araki, president of the International Development Journal, and Dr. N'Dri T. Assié-Lumumba, professor of Cornell University, USA. Summaries of their speeches follow.

Keynote Speech by Mr. Mitsuya Araki, President, the International Development Journal Co. Ltd

In his speech entitled "Japan's Educational Cooperation: Present Situation and Future Direction," Mr. Araki explained the features of Japan's educational cooperation in the past: 1) Japan has placed more emphasis on basic education since 1990, 2) Japan has focused on science and mathematics in basic education, areas in which Japan is relatively strong, 3) Japan has focused more on basic education in Africa and on higher and vocational education in Asia, and 4) a large part of its cooperation has been "hard-type" cooperation such as building schools. He also pointed out that 5) there are not enough experts on cooperation for basic education (about half of the on-site activities are carried out by the Japan Overseas Cooperation Volunteers (JOCVs) and other volunteers), and 6) as the funds for cooperation are provided by various agencies and the cooperation plans are not integrated, neither policies nor their implementation are conducted in a coherent manner. Mr. Araki suggested six tasks for the future direction of Japan's educational cooperation: 1) Japan must develop intensive and strategic training systems so that the budget could be used more effectively, 2) Japan must recognize the importance of promoting cooperation in higher education to redress the disparities among ASEAN countries as an important aspect of Japanese policies toward Asia, 3) Japan must promote autonomy of Japanese universities and their education by further promoting collaboration and networking among the countries in Asia through

cooperation in higher education, 4) Japan must also promote projects to link "university, industry and community" with ODA, 5) as Japan will integrate its technical cooperation with financial cooperation from 2008, Japan must seek better planning and implementation of projects in the field of educational cooperation, 6) Japan must clarify its basic framework and the direction of its cooperation policies for Africa before the G8 summit is held in Japan in 2008.

Keynote Speech by Dr. N'Dri Assié-Lumumba, Professor, Cornell University, USA

Prof. N'Dri Assié-Lumumba spoke about the status of Japan's educational cooperation and what is expected of Japan's activities. She discussed the colonialism and imperialism of Western countries that Africa had to face and how Africa has been at the mercy of the changing policies of international development aid. Referring to the background that has brewed mistrust among African people, and the fact that Japan has not historically exploited or controlled Africa, she said that Japan's call for "collaboration toward greater autonomy" has been welcomed with trust by African countries. In particular, she referred to Japan's "Basic Education for Growth Initiative" (BEGIN), which promotes the ideal of self-help efforts and ownership of developing countries, and praised Japan's efforts to improve its educational cooperation by learning from its experiences in the field. She also said that educational issues in developing countries must be addressed by taking the entire educational sector into consideration and cited the important role of secondary education, which serves as a bridge between the primary and higher educational levels, as well as terminal education for many. While needing assistance, how can African countries achieve autonomy in order to solve their own problems, and how will it be possible to rebuild a respectful partnership with dignity through knowledge and mutual understanding between the countries that receive aid and those that offer aid? Referring to these fundamental questions of development cooperation, Prof. Assié-Lumumba emphasized the great importance of peace education to promote social justice, gender and human political rights.

Dialogue Sessions: "Improving the Quality of Education"

Two dialogue sessions were held in the afternoon discussing Japan's education cooperation in the past and its future direction under the theme of "Improving the quality of education: Japanese approaches in support of EFA and MDG goals." Although time was limited, there was a vigorous discussion with many questions from the floor. Summaries of the sessions follow.

Dialogue Session 1:

The theme of the first session was "Positive contributions made by Japan's educational cooperation." Prof. Joseph Riley from the National Institute of Education, Nanyang Technological University (Singapore) served as moderator, and experts in science and mathematics education from Japan and Egypt reported on the topic.

Dr. Shigekazu Takemura, professor emeritus of Hiroshima University spoke about his experiences with the project called "Strengthening of Science and Mathematics in Secondary Education (SMASSE)" in Kenya. Launched eight years ago, this project aims at making continual efforts to bring about self-transformation using the project design matrix (PDM). Through this project, one central training center and 103 local teacher-training centers have been established, and the number of staff members is now about 80. Every year, about 1,000 people who have been trained at the central training center provide training in local provinces. Giving various

examples, Prof. Takemura emphasized the importance of developing human resources who are capable of critical thinking, rational judgment and scientific and logical thinking.

Dr. Shaaban Hamed Ali Ibrahim, associate professor of the National Center for Educational Research and Development of Egypt spoke about the joint project of the two countries called “Improvement of Science and Mathematics Education in Primary Schools in Egypt.” He said that although the education sector in Egypt has been greatly improved through the reforms conducted in the 1980s, the quality of education is not yet satisfactory. In particular, the quality of science and mathematics education in primary schools is low with various issues such as the strict atmosphere in classrooms, teacher-centered classes and learning by rote memorization. He pointed out that the low quality of teachers, problems with the teaching materials and educational methods used, the inadequate educational facilities and environment are some of the underlying factors. The government has been making considerable efforts to address this situation as an essential part of national development. The relevant organizations in the two countries have worked together to implement this project since 1997, and the third phase is underway. Through this project, issues have been clarified, guidebooks and new teaching methods have been developed, and experts in Egypt have been receiving training in Japan. Already some important signs of improvement have been observed in the science and mathematics classrooms in Egypt. Prof. Shaaban said that Egypt will continue working on the improvement of education, learning from the Japanese methods of open classes and lesson study.

There were various questions and comments from the floor regarding the two presentations. The discussions were wide-ranging. Some of the questions and comments were about practical aspects such as: 1) how the roles of JOCVs should be evaluated in terms of their on-site activities in educational cooperation, 2) what kind of vocational training is effective, 3) how these projects are implemented (terms, selection of pilot schools, etc.), and 4) how student-centered lessons should be carried out. There were also fundamental questions such as: 5) how it is possible to develop comprehensive education that encompasses emotional intelligence while developing rational thinking and critical thinking at the same time, and 6) whether science and mathematics education is the most appropriate area for Japan’s educational cooperation.

Dialogue Session 2:

The theme of the second session was “Possible future directions for Japan’s educational cooperation.” Mr. Nicholas Burnett, director of the EFA Global Monitoring Report of UNESCO served as moderator, and presentations were made by the experts from Japan and Senegal who have been working on early childhood/pre-school education (or ECD) for many years. Early childhood education has recently been attracting more attention in the field of international educational cooperation. In this session, some suggestions for possible future directions of Japan’s educational cooperation were made.

At the beginning of the session, Mr. Burnett presented some important findings from studies carried out on early childhood education: 1) early childhood education has huge benefits relative to its cost, 2) what is more important than securing teaching materials is the nature of the interaction between children and adults and how to select and support adults who take care of children, 3) there are regional differences, but enrolment in early childhood education is low in developing countries, and 4) there are few donors and activities for early childhood education.

Mr. Hamano, associate professor of Ochanomizu University spoke about the importance of early childhood

development, current international cooperation in this field, and Japan's past activities and possible future directions. Early childhood education is one of the six goals of the "Dakar Framework for Action" adopted in 2000, and various benefits are expected: 1) ECD has a high profitability, 2) ECD is an effective measure for achieving the development goals of poverty reduction and universal basic education, 3) ECD reduces the repetition of grades and dropping out of primary and middle school students, 4) ECD stimulates the well-balanced physical, intellectual and emotional development of children, 5) ECD strengthens ties between homes and the local community, 6) ECD facilitates mothers' employment, 7) ECD promotes girls' education and 8) ECD contributes to economic growth. The projects in this field were mainly conducted by the World Bank, UNICEF and NGOs, but generally speaking, donors have not placed a high priority on early childhood education. Japan's projects in this field include dispatching JOCVs, providing technical cooperation, developing the Cooperation Bases System, receiving trainees, implementing grass-roots technical cooperation, and providing assistance through the UNESCO/Japan Funds-in-Trust for EFA. Although there are still many international issues, this is an area in which Japan can cooperate effectively, based on mutual dialogues between donors and developing countries, as Japan has been engaged in promoting early childhood education for many years.

Ms. Ramatoulaye Diop Sabaly, director of the Preschool Education Directorate of the Ministry of Education (Senegal) reported on the present status and issues of the early childhood education in Senegal and Japan's contributions in this field. In Senegal, 23% of the total population are children of 6 years old or younger. In order to create a well-balanced society in Senegal, she said, it is critical for the country to promote education targeting this age bracket. Regarding the current situation in early childhood education, she mentioned various issues including access and quality, management and human resources. The future task of Senegal is to address these issues effectively and strategically and solve them in a comprehensive manner, placing a priority on early childhood education in the country's policies. As part of one of Japan's cooperation projects on early childhood education, Ms. Sabaly has received training in Japan on staff education and training, designing facilities and equipment, teaching/learning methods, and administrative management. She said that through her work in the government, she is continuing efforts to improve the situation by adapting what she learned in Japan to the situation of her country.

Following these presentations, there were many questions and comments from the floor: 1) (based on Mr. Bernett's opening remark) what the cost-benefit ratio, which is high in the US, is in Senegal, and if it is high in Senegal, what the actual figure is, as evidence is necessary in order to carry out projects using ODA, 2) (based on the situation such that many of those who receive early childhood education are from wealthier families) how funds should be allocated fairly, 3) what the contents of the curricula and programs are, and 4) how we can promote wider participation of donors and expand government budgets. Following the replies of the two speakers, noting that early childhood education has a diverse meaning and various issues, the moderator concluded the session by stressing the need for wider participation by donors in this field, which has a high cost-benefit effect.

【Keynote Speech】

“Japan’s Educational Cooperation:

Present Situation and Future Directions”

Mitsuya Araki

President, The International Development Journal Co. Ltd

Mr. Araki is president and chief editor of the International Development Journal, founded 40 years ago. His main field of specialization is policy and system of Japanese foreign assistance, with a well-received book of his testimony on the history of Japan’s development assistance in the 1970s, 1980s and 1990s. Recipient of the Minister of Foreign Affairs Award and the International Cooperation Merit Award of the Japan International Cooperation Agency (JICA), he has served on many government committees, including the Second Consultative Committee on ODA Reform, the Board on Comprehensive ODA Strategy, the Task Force on the Revision of the ODA Charter and the Task Force on the ODA Mid-term Policy of the Committee for International Cooperation in Education, Committee of the International Educational Cooperation Bases System and the Committee for “Projects to Promote Regional Research to Meet the Needs of the World” of the Ministry of Foreign Affairs and the Ministry of Education, Culture, Sports, Science and Technology.

“Japan’s Educational Cooperation: Present Situation and Future Directions”

Mitsuya Araki
President, The International Development Journal Co. Ltd

Ladies and gentlemen,

Today, I would like to speak on the topic of “Japan’s Educational Cooperation; Present Situation and Future Direction.” I don’t know if I am the right person to address this subject, but as I was kindly invited to this forum and asked to serve as a keynote speaker, I decided to accept this honor.

I am a journalist or rather, a “journalist on development,” which requires some expertise in this field. This has become my lifework, in which I have been engaged for 40 years.

Regarding educational cooperation, I have not worked on-site as an expert in educational cooperation, but I have made extensive, in-depth investigations into global trends in international cooperation, the policies of Japan’s ODA and the policy aims of educational cooperation in terms of development strategy. I have sometimes criticized them and sometimes made suggestions. Today I would like to make some policy suggestions in the hope that they will be useful for the improvement of Japanese educational cooperation.

First, let me give you a brief overview of Japan’s educational cooperation in terms of its history, actual amounts and characteristic features. Then I will discuss the issues, especially challenges related to educational cooperation and finally its future direction.

Japan’s educational cooperation changed greatly after the World Conference on Education for All, which took place in Thailand in 1990. This conference set out an important direction that emphasized the importance of basic education in ODA policies. Before this, Japan had conducted cooperation in basic education only sporadically, such as Japan Overseas Cooperation Volunteers (JOCVs) teaching science and mathematics as one of their activities. Young Japanese people taught science and mathematics, such as arithmetic, as a means of establishing close contact and exchange with children in developing countries.

Traditionally, Japan’s educational cooperation had seen primarily offered in the form of vocational training aimed at developing skills. There were many cooperation projects to build or expand faculties for agriculture, engineering and medicine in higher education institutions. One of the symbolic examples of Japanese cooperation in higher education was the case of King Mongkut’s Institute of Technology. The original concept was to establish a telecommunication center to improve technical skills, but later the project planners elevated the center to an institution of higher education. Japan has supported this institute for over 30 years. During that time, Thailand has industrialized and developed greatly as we see today. The leaders of Thailand say they are thankful to Japan for this cooperation, to which Japan has devoted efforts for more than 30 years.

In Kenya, Africa, the Jomo Kenyatta University of Agriculture and Technology is attracting attention for linking agriculture and technology. This has become known in Africa as a Japanese cooperation project in higher education for producing new leaders to promote the country’s development.

Having historically made these efforts, Japan witnessed the global trend of “Education for All.” Following the World Education Forum held in Dakar, Senegal in 2000, the G8 Kananaskis Summit took place in 2002. At this summit, Japan announced the “Basic Education for Growth Initiative” (BEGIN) and pledged to the international community that it would provide more than 250 billion yen of educational assistance during the

five years from 2002. As of the end of 2003, Japan had provided approximately 105.1 billion yen, which is about a half of the committed amount.

In order for people to get out of poverty, they must develop their potential. Therefore improvement of basic education and healthcare became the main targets for achieving “poverty reduction.” This led to the concept of “human security.”

In order to provide assistance to reduce poverty, Japan has emphasized “elimination of poverty through growth” in its policy, making use of its past experience of assistance. This concept is incorporated in the “ODA Charter,” a so-called assistance charter, revised in 2003. As I participated in the working group for establishing the ODA Charter as a member of the Board on Comprehensive ODA Strategy, I remember the process of the discussion very well.

I would now like to give a brief overview of the actual amount of bilateral ODA for educational cooperation. According to the DAC statistics, it was between 900 million to 1.1 billion dollars during the period of 1997 to 2003 (commitment base), and represented 7-10% of the total ODA. In 2004, however, it increased to around 1.4 billion dollars, and its proportion in Japan’s total ODA increased to 10.4%.

The breakdown of the 1.4 billion dollars into three cooperation schemes shows that technical cooperation is by far the greatest at 820 million dollars, followed by yen loans equivalent to 310 million dollars and grant aid at 220 million dollars. Between the two categories of financial assistance, grant aid is increasing more steadily than yen loans. Since time is limited, I will skip the detailed explanation of the figures by implementation agencies in terms of yen, but I would like to summarize the three schemes of Japan’s educational cooperation, excluding Japanese government scholarships to foreign students.

First, grant aid. Since 1990, the grant aid consigned to JICA by the Ministry of Foreign Affairs has placed priority on building primary schools to support basic education. About half of the budget, i.e., 8 to 10 billion yen per year, has been allocated to building primary schools. So far primary and middle schools have been built in 27 countries. These projects tend to be concentrated in sub-Saharan Africa; more than half of the 27 countries (16 countries) are in that region. Primary schools have not been built in Latin America. Second, technical cooperation, which is the main scheme of JICA’s cooperation, comprises three categories: basic education, higher education and vocational training. JICA’s technical cooperation has continued to increase since the end of the 1990s, reaching about 27.7 billion yen in fiscal 2004, accounting for about 20% of Japan’s total technical cooperation. Of the 27.7 billion yen, 10.7 billion yen (39%) was for basic education, and about 50% was for higher education and vocational training.

The regional breakdown of the disbursement of the educational cooperation in the form of JICA’s technical cooperation was: 41% for Asia, 20% for Africa, 18% for Latin America, 13% for the Middle East, in this order. As for the spending on basic education, however, it was 31% for Africa, 29% for Asia and 17% in Latin America. This shows that in the case of basic education, more assistance was given to Africa than to Asia. Basically, cooperation in basic education seems to be primarily directed to Africa, a priority region for “poverty reduction” as designated in the Millennium Development Goals.

Cooperation in basic education, however, is relatively new. Until 1990, cooperation in basic education was only conducted by dispatching JOCVs and others. Recently, cooperation in basic education mostly consists of training mainly science and mathematics teachers and supporting local educational administrations. The dispatch of JOCV teachers, however, accounts for about 40% of the budget on basic education. Their subjects

are not limited to science and mathematics but also include music, physical education, Japanese and pre-school education. The “Special In-service Teacher Participation Scheme,” which began in 2001, is also stimulating Japanese education.

The cooperation in science and mathematics education under the project-type technical cooperation is aimed at improving classroom instruction at schools by training science and mathematics teachers at primary and middle schools. Gradually, various combinations of activities have been adopted, such as pre-service teacher training, the creation of guidebooks, support for school administration and the improvement of curriculum and textbooks. These are the main activities of JICA’s projects for educational cooperation.

Next, I would like to discuss JICA’s cooperation in higher education. This effort used to be focused on building and expanding faculties of agriculture, engineering and medicine in universities. Recently, however, we see the following five new trends:

First, there are projects to respond to diverse needs, such as providing assistance to faculties of economics and business administration, short-term training and life-long education. Second, universities are trying to contribute to society, addressing local development issues. Third, networking of higher education institutions is being promoted. Fourth is promotion of information and communication technology and distance learning. Fifth, strengthening of university management capacity.

I myself recently had the opportunity to see an example of university contribution to society and another example of networking of institutions of higher education. The former was the “University-Industry-Community Links” at Gadjah Mada University, a core university in Central Java of Indonesia. “Community” here refers to the local government and local communities. Japan has been supporting this project with its ODA. Kyushu University is cooperating in this project in the improvement of research capabilities, and a consultant company is supporting the “soft aspects” of the project, such as coordination with the university and the community. This is known as a project jointly conducted by a university and a consultanting firm. The firm takes care of the management of this project by, for example, helping with contracts between the recipient country and the counterpart university and the Japanese side. In this way, consultants can compensate for the weak points of Japanese universities, including handling of contracts. This project has attracted attention in the area of ODA because of this implementation style.

The example regarding the networking of institutions of higher education was the project on the ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net), which is in its second two-year phase after the initial five-year phase. This aims at establishing a broad network to support educational exchanges for capacity-building of educators and joint research activities. Krisada Visavateeranon, an associate professor at Chulalongkorn University in Thailand, lamented that, “ASEAN countries have had active economic exchanges in trade and investment to promote economic integration, but unfortunately, educational exchanges, which are more basic, have fallen behind.” I believe that this project to build human networks by establishing research networks of 19 ASEAN universities and 11 Japanese universities (30 universities in total) plays a significant role in Japan’s policies on Asia, as I believe building global human networks contributes to the security of Japan.

Finally, vocational training projects, which used to consist merely of providing training in vocational skills, have expanded the scope of their activities to include life-long education, education of children and special education. At the same time, they have incorporated more “soft” aspects into these projects. Full-scale training

for vocational skills has been autonomously conducted by newly industrialized ASEAN countries, such as Singapore, Thailand and Malaysia. For example, in preparation for the “Thai-Nichi Institute of Technology,” which will open in 2007 in Bangkok, Thailand, former exchange students to Japan are playing a major role in making the university a center of “monozukuri (manufacturing products).”

The third scheme of Japan’s educational cooperation, yen credit, is a form of loan assistance, basically offered to developing countries that are able to repay them. Yen loans are provided for various cooperation projects, such as building primary, middle and high schools, building and expanding universities and improving research facilities at universities. In addition to building primary and middle schools, large yen loans are provided to improve laboratory and research facilities at high schools and universities and to provide experiment equipment. Among recent projects, the “Senior Secondary Education Project” in Uzbekistan is a well-known example of a yen loan, which provided science experiment equipment and other teaching materials and tractors to 50 agricultural high schools. This project also invited principal-level school administrators from Uzbekistan to Japan for training.

Another initiative of yen-loan assistance, unique to Japan, is “exchange student loans.” Japan has so far offered 59.1 billion yen in exchange student loans to Indonesia, Thailand, Malaysia and other countries. More than 100 students come to Japan at a time as exchange students sponsored by their governments. In some cases students can study in countries outside Japan, using this loan.

Now I would like to discuss the nature of Japan’s educational cooperation. When we consider the present situation of educational cooperation, we can, roughly identify, six characteristics of Japan’s educational cooperation.

First, since 1990, basic education has become an important sector of cooperation.

Secondly, Japan’s cooperation in basic education has focused on science and mathematics education, in which Japan is relatively strong. It has been said that in the case of the educational cooperation in science and mathematics by dispatching JOCVs the weak language ability of Japanese participants is not a major issue. It is also said that science and mathematics education is a good choice because recipient countries are less apprehensive about foreign interference in their education.

Thirdly, Japan’s basic education projects are primarily conducted in Africa, while those of higher education and vocational training tend to be concentrated in Asia.

Fourth, many of the players in basic education projects are JOCVs and other volunteers (48%). On the other hand, this means that not many experts of educational cooperation have been developed.

Fifth, “hard-type” cooperation, such as simply building schools, is still prominent among Japanese projects.

Sixth, funds for educational cooperation (grant aid, yen loans) are not integrated but scattered in different agencies. As cooperation plans are isolated from each other, they cannot produce an integrated impact, indicating that Japan does not have a coherent policy for educational cooperation and that ODA is implemented through different channels.

I would now like to touch upon two major challenges for Japan’s educational cooperation.

First, the MEXT has started the “Cooperation Bases System” for international educational cooperation in order to accumulate information on the Japanese educational system and the experiences and know-how of cooperation, analyze them and apply them in actual practice. This system also strives to develop a system to

marshal “knowledge of universities.” The expertise accumulated in this intellectual infrastructure in Japan must be made available and used for cooperation projects of JICA and JBIC. I believe this is imperative in order to implement the projects of ODA in an integrated manner. The basic policy of the ODA Charter includes a section called “utilization of Japan’s experience and expertise.” This aims at personalizing Japan’s ODA. Not all countries, however, can utilize Japanese expertise or institutions. Therefore, as a premise for our basic policies, we must study the stage of development and educational standards of the recipient countries and the historical influence of developed countries in order to make our educational cooperation relevant and adapt it to local situations. We must accumulate sufficient know-how for this.

There is another important challenge related to this. As I said in the section on the characteristics of Japan’s educational cooperation, in order to implement full-scale educational cooperation, we must have a grand design for educational cooperation from an all-Japan perspective, integrate policies and implementation of educational cooperation, including financial assistance and technical cooperation, and present to the world a coherent picture on Japan’s educational cooperation. For this purpose, there must be a clearly recognized “control tower” that directs things, from the policy-making to implementation, in an integrated manner. We must make accelerated efforts to establish a system to do this.

Before closing, I would like to mention six points related to the future direction of Japan’s educational cooperation.

First, regarding the ODA budget, it is divided into two major categories: the general accounting budget and the yen loan budget, the latter based on government loans and investment. The budget of the JICA-based educational cooperation depends on the general accounting budget, which is very tight because of the ongoing financial reconstruction.

The educational needs of recipient countries, however, are extremely diverse and nearly unlimited. In this situation, educational cooperation must seriously “select and concentrate” activities in priority areas. Regarding basic education, I think Japan must focus on science and mathematics education and expand its activities both qualitatively and quantitatively in this area, because Japan has a great deal of experience and some relative advantage in science and mathematics education.

In the past, science and mathematics education was one of the methods by which JOCV carried out its activities, and in a way, it was considered a supplementary part of cooperation. In the future, however, I believe it will be necessary to make science and mathematics education a central part of the cooperation in basic education. In Japan we must establish intensive and strategic training systems to develop and pool human resources or experts on cooperation for everything from designing institutions for science and mathematics education in recipient countries to in-service training of teachers. To support the people who work for science and mathematics education in recipient countries, it is also necessary to make a system to provide long-term intellectual support as a follow-up to training.

Secondly, I also believe that Japan’s cooperation in higher education must be considered an important aspect of Japanese policies in Asia. Especially, in the context of envisioning the future economic integration of East Asia, in which ASEAN will play a key role, we must redress the economic and social divide and disparities between the old and new ASEAN members. If not, the economic integration of East Asia will never be realized. So far, free trade agreements (FTA) and economic partnership agreements (EPA) are preceding economic integration, but the fundamental solution to this divide depends on how we develop excellent human resources

in education and in policy-making in the less developed countries. In this regard, Japan's cooperation in higher education must play a more important role. Today, a high priority is placed on human development in engineering and technology, and although this will continue to be important, a system must be established to provide cooperation in the humanities as well to strengthen legal and other systems that are the foundation of modern states.

Thirdly, we must not forget the great impact that cooperation in higher education will have on Japan as well, namely on internationalization and greater autonomy of our universities. I recently visited Chulalongkorn University, one of the oldest universities in Thailand, and the Bangdung Institute of Technology in Indonesia. People at these universities said that the AUN/SEED-Net, supported by Japan, is becoming a key factor in the promotion of internationalization at these universities. This tendency is quite apparent in Japan too. Through this network and collaboration of universities in Asia, we understand that Japanese graduate schools will also be able to improve their education, which will, in turn, contribute to the autonomy of these universities. In this regard, the networking of Japanese universities with other Asian universities, not only in engineering and technology but also in the humanities and social sciences, will contribute greatly to further development of higher education in Japan.

Fourth, as you know, universities have three major roles: education, research and social services. In many cases in the past, these roles did not come together but functioned separately. Among the ongoing projects of educational cooperation in higher education by ODA, is a project that tries to integrate these three roles: the "University-Industry-Community Links" at Gadjah Mada University, a core university in Central Java of Indonesia, which I have already mentioned. "Community" here refers to local governments and local communities. This is significant because in developing countries, not enough efforts are made to develop rural areas. As a result, there is a strong tendency for people to move out of rural areas into the biggest cities and even to foreign countries. Consequently, rural areas are becoming even more impoverished. The core university in this region is playing a central role in leading the "university-industry" collaboration, utilizing the research capacity of the university to contribute to the industrial and social development of the region and modernize the local industries. It also provides opportunities for students, as a part of their education, to live in local communities, such as rural villages, for a certain period of time to discuss ideas with local people to improve their living conditions. Today, good governance, democratization and decentralization have become important themes in providing assistance to developing countries. The "University-Industry-Community Links" is attracting a lot of attention as a new type of ODA to address these issues.

Fifth, the ODA (yen loans) section of JBIC will be integrated into JICA in 2008. What they expect most from this reform is the effect brought about by the integration of technical cooperation, grant aid and yen loans. This means that these three cooperation schemes will be taken into consideration from the start in formulating implementation plans for country assistance projects. In educational cooperation too, it will be possible to employ different combinations of methods such as building schools, establishing educational administration and institutions, improving school management and basic education, and supporting pre-service training at higher education. It is expected that the integration will bring about these positive effects.

Finally, as you know, the G8 summit and the Fourth Tokyo International Conference on African Development (TICAD IV) will be held in Japan in 2008. The development of Africa will be an important agenda item at the G8 summit as it was at the Gleneagles Summit held in Britain in 2005. On these occasions,

the Japanese government must make clear its basic policies and implementation policies for the development of Africa. In stating its policies, I would like the Japanese government to particularly clarify its basic policies and implementation policies of educational cooperation for Africa. In order to do so, I propose that the Japanese government study new initiatives by promoting collaboration among experts of all relevant sectors in Japan, including policy makers, experts on Japanese educational cooperation for Africa and experts on Africa from implementing agencies and by inviting experts on education from Africa so that various experiences can be shared by all parties.

In this regard, I have high hopes for the Japan Education Forum. As it contributes to deepening international relations, JEF can build an intellectual bridge between Japan and the world.

Today I have offered some frank personal remarks. I have always believed that education can unite us with the people of the world and build human networks between Japan and the world and that it is through these networks that Japan can build a strong foundation for the future. Thank you for giving me this opportunity to express my honest opinions.

【Keynote Speech】

“International Educational Cooperation and the Expectation for Japan’s Contribution”

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“International Educational Cooperation and the Expectation for Japan’s Contribution”

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Introduction

Your Excellencies, Distinguished Participants:

It is a humbling experience for me to receive such a great honor by being invited to deliver the keynote address on this illustrious occasion of the Fourth Japan Education Forum. This Forum captures and highlights the spirit of the efforts that the Japanese government, educational institutions, policymakers, and scholars have made to contribute to creating a world of improved and dignified living conditions for all through adequate education.

Allow me to first express the profound gratitude of the people of the Developing World, particularly the Africans, to those who, guided by a strong belief in the real possibilities for a better world, spearheaded the Japan Education Forum and have sustained it to its fourth year.

Many parts of the world, especially in East Asia and the Pacific, South Asia, Central and South America and the Caribbean, are characterized by populations afflicted with all kinds of adversities, from malnourished and sick children with hopeless looks to the frail and old whose life journeys seem to have been nothing but a burden, to young and prematurely-aged women who permanently encounter hardship. More than anywhere else in the world, the continent of Africa has the most countries and consistently the highest proportion of the populations, that live in such an abject poverty that it challenges our own being and sense of shared humanity.

In the first three years of the Forum’s annual meetings, distinguished personalities delivered keynote addresses that have been thought provoking and exhorted governments, institutions, and various actors of industrial and developing countries to take concrete actions toward greater effectiveness in resolving the educational problems. The issues they addressed under broad themes of post-conflict reconstruction, gender equity, and educational development can be covered under the main theme of my address “International Educational Cooperation and the Expectation for Japan’s Contribution.” I address other dimensions that can complement the previous talks with the understanding that the JEF’s approach is cumulative. That is a process of building on what has been thought of and achieved to move forward.

In making my modest contribution to the reflection, I would like to start by referring to an expression in Baoulé—part of the Akan/Twi language spoken in Ghana and Côte d’Ivoire—spoken in Côte d’Ivoire: “Kaflè”. This expression is used when addressing a highly esteemed individual, personality, or audience to implore for forgiveness in advance, in case while expressing even well intentioned ideas, the speaker unintentionally offends anyone in the audience. Even when the speaker thinks that his/her ideas are clear in the mind, they may not come clearly enough when they are translated in spoken words. Therefore, to the Japanese government and representatives of various institutions, the distinguished participants, colleagues, friends, and compatriots, I say: “Kaflè.”

A little more than eight years ago, in 1998, I was privileged to be invited to participate in the Forum on International Cooperation in Education under the theme of “International Cooperation in Education for the

21st Century: Africa and Japan" that was organized by the Center for the Study of International Cooperation in Education (CICE) of Hiroshima University and the Japanese International Cooperation Agency. I indicated then that it was a timely meeting where our minds were in harmony in fostering a more comfortable and peaceful living experience that can give meaning to life for everyone.

Since my participation in the 1998 Forum, I have been struck by the quiet yet passionate resolve from the Japanese side to continue to explore and search for effective ways to expand educational access as a means of promoting and sustaining social progress. The Tokyo International Conference on African Development (TICAD), the Basic Education for Growth Initiative (BEGIN), the Japan Education Forum (JEF), the Africa-Asia University Dialogue for Basic Education Development of CICE in collaboration with JICA, UNESCO and UNU, the works of the Center for Research on International Cooperation in Educational Development of the University of Tsukuba, and the creation of academic units such as the recently formed Center for African Studies at Waseda University, among other initiatives, constitute eloquent indicators of the burgeoning activities that are organized to facilitate the exchange of ideas through processes of critical thinking and the search for practical and relevant solutions to major educational problems in the developing world.

Mr. Chairman, I have had the privilege of observing the genuine commitment of many of you who have been playing leading roles in this collective effort: yourself/Professor Masafumi Nagao and the other colleagues at CICE, especially the current Director, Professor Akira Ninomiya, who was also Director at the time of the 1998 Forum and is now Vice-President for International Relations of Hiroshima University—, Professor Shinji Ishii who is a former CICE Director and current Vice President of Hiroshima University, Professor Norihiro Kuroda, Professor Nobuhide Sawamura, Professor Kazuo Kuroda now at Waseda University.

With the title of my address "Educational Cooperation between Japan and Developing Countries," I articulate my remarks under four headings. In the first section, I briefly review salient aspects of the achievement in the educational cooperation between Japan and developing countries. The focus of the second section is the old and new challenges. The third section addresses possibilities and expectations for Japan's contribution within the wider international context. The fourth section, which is followed by a brief conclusion, deals with the responsibility from developing countries, especially Africa and Japan's role in creating the space for increased reflection and action.

1. Achievement in the Educational Cooperation between Japan and Developing Countries

1. 1. Evolution of Japanese Involvement

Among the resolutions that were adopted by the General Assembly of the United Nations during its 16th Session, it is worth mentioning Resolution 1710 (XVI) on the "United Nations Development Decade" and resolutions 1717 (XVI) and 1718 (XVI) on "African Educational Development" and "Economic Development of Africa", respectively. The Decade of Development of the 1960s was characterized by high hopes and expectations for the advancement of the people in African and other countries that were hitherto under colonial control and/or were poverty-stricken. New nation-states in the making and their citizens pinned their faith in the development capacity of education.

That period was less than ten years after the Asia-Africa Bandung Conference of April 1955 that contributed to prepare the ground for the cooperation between Japan and African countries. However, it is only since the 1970s, after Japan's spectacular economic development process and after the 1970 proposal of

the UN General Assembly stipulating that industrial/"donor countries" should allocate 0.7% of their Gross National Product (GNP) to ODA, that African countries started to benefit from Japanese assistance toward development. In spite of some signs of possible decline, for years since then, statistics showed steady growth as summarized in the Second TICAD (TICAD II) as it is stated:

> *"Japan believes in sub-Saharan African countries' potential and capability and continues to commit herself to supporting them fully. This commitment is clearly demonstrated by Japan's ODA to sub-Saharan Africa which amounts to $1.0-1.3 billion each year. … To ensure nation-wide primary school enrollment, Japan has built thousands of classrooms in those countries. Since 1991, 15 billion yen were offered to construct badly needed classrooms (example: totaling 788 classrooms in Senegal)."*
>
> <http://www.mofa.go.jp/region/africa/ticad2/ticad22.html>.

Each TICAD since 1993 has brought new dimensions in this cooperation either through the NEPAD or the MDGs.

1.2. The Global Framework of International Assistance and Japanese Evolving Approach

The global context of international bilateral and multilateral assistance to Africa in the 1980s and 1990s was characterized by donor-driven definitions and assumptions of areas of critical concerns and priorities. The Japanese specific assistance has been reflected in various areas of education, particularly building good-quality schools, providing projects for textbooks, equipment and training for its utilization, and teacher training. These areas are part of software aid that was intended to deal with the quality of human resources. There was a sense that Japan had identified basic education as a niche for assistance. Thus, while the Japanese intervention through technical assistance or grants to the building of basic education responded to objective needs, in the case of African countries there was a dilemma, from the African side, regarding how to interpret the choice by Japan to focus on basic education. Indeed, it was when the infamous Structural Adjustment Programs (SAPs) of the World Bank, which also focused on basic education and under-funded higher education, was in full force.

It is most significant that from the African perspective at the time, international organizations such as the World Bank could be rightly considered as extensions or proxies of the old colonial system and its imperial domination. Such institutions were silencing the voices of the Africans, and making decisions on behalf of the Africans but not necessarily in their best interests.

In this context, the gradual emergence of distinctive character in the Japanese assistance and call for "collaboration toward Greater Autonomy" has been welcome. This has constituted a basis for trust. Besides the impressive statistics in terms of financial and material contribution, schools built, teachers trained, and curricular programs developed, this guiding ethos for cooperation between Japan and Africa is one of the major achievements of the late 20th Century.

Furthermore, with the announcement of the BEGIN, Japan began communicating more effectively the rationale behind its focus on basic education as it made the case for the critical areas of access to education of increasing quality, and improved management. This effort is guided by the philosophy of promoting ownership and commitment on the side of developing countries as one of the key parameters in the equation of responsible and dignified cooperation.

2. The Old and New Challenges

2. 1. Old Constraints

By and large, for about two decades following their respective independence, African states motivated by the popular and international demands for nation-building achieved commendable results in expanding access to basic and secondary academic as well as technical or vocational education; they were also building from scratch universities, both with their own resources and with external assistance. However, they faced initial constraints on both the supply and demand sides of education as well as in institutions outside the educational systems.

Due to a multiplicity of factors, many of the initial obstacles have persisted. In many countries, certain educational and societal factors have made it difficult to enroll more children beyond a threshold reached a long time ago. These thresholds concern both general enrollments and the representations of specific social categories, especially the female population. In many countries, for instance, the enrollment rates for more than a decade stagnated at 60 or 70 percent and the proportion of girls in elementary and secondary schools has remained lamentably low, at 40 % and 30 % respectively. In spite of definitive scientific findings about the determining impact of early childhood development on future emotional development and cognitive achievement that in turn influence life-long socio-economic attainment, there has been only marginal progress in setting up functional preschool programs. Even where statistics show some slight increase, the children from the socially disadvantaged population segments that are in the most need of such programs are less likely to have access to them, while the families that are already better off can afford to give an even greater initial advantage to their offspring. Hence the millions of young people are still out of school throughout Africa and around the world feeding the persistently large proportions of illiterate adults. This constitutes a major link in the cycle of poverty and an indisputable hindrance to any efforts towards sustainable development.

The old constraints are also due to the nature of the philosophy of education, which has not structurally changed yet despite the reforms.

2.2. Enduring and New Challenges

Mobilization to achieve educational goals including universal free primary education in Africa is not new. Indeed, at the 1961 Addis Ababa Conference on the educational needs of Africa, the main resolutions that were enthusiastically adopted by the African Ministers and their representatives indicated specific targets for increased enrollment at the secondary and post-secondary levels and universal free and compulsory primary schooling was considered a duty and reachable goal by 1980.

Although the disillusion vis-à-vis the socio-economic performance of education started with growing unemployment and the economic crisis in the 1980s, the lack of financial resources was considered the major obstacle to the further expansion of the educational systems even in countries which have not yet reached half the school-age population. However, from the state side, the lack of resources was not the only cause of stagnation or lack of progress in enrollment. Then and now, the priorities of political leaders have constituted a powerful direct determinant of the insufficient provision of school facilities and quality education, which in turn influences the families' incentive to enroll their children and the students' motivation to remain in school.

In the 1980s, African countries could be grouped into three categories with three different trends:

continued improvement, stagnation and decline. In a UNESCO document, it appeared that among forty-four countries on which enrollment data were available, these three trends were represented by improvement in 18 countries (1 to 30 points), stagnation in 9 countries and decline in 17 countries (1 to 65 points) respectively, for the period of 1980 to 1988. On the whole, while the average increase in the enrollment rates was 7.4 per cent from 1970 to 1980, it dropped to 2.5 per cent for the period of 1980 to 1988 (UNESCO, Strategies, 1991:6). The rate of increase in the primary level during the decade of the 1980s appeared lower than the average population growth rate. This was an ironical trend since African countries had precisely targeted to reach universal enrollment by then. Hence, when the New Millennium started, the situation had not changed decisively.

Given this background, it can be said that the Dakar World Education Forum of April 2000 and the UN Millennium Development Goals (MDGs) were a reaffirmation of earlier global commitments when the participants made their first global pledge of the New Millennium by deciding to achieve the target of Education for All (EFA) by the year 2015.

The UN Declaration of Millennium Development Goals (MDGs) is a reminiscence of the Development Decade of the 1960s. That was a time when education was expected to do much for individuals and society at large and received popular support as also projected in human capital theory. There is a need to remember the past to critically examine current trends in assessing the likelihood of reaching the 2015 MDGs, including the attainment of the goal of universal basic education that is in only about eight more years.

In his foreword to the 2006 MDGs Report, the Under Secretary-General for Economic and Social Affairs José Antonio Ocampo acknowledged: “the challenges the Goals represent are staggering” although “there are clear signs of hope.”

3. Possibilities and Expectations for Japan’s Contribution within the Wider International Context

3.1. Possibilities and Expectations for Japan’s Contribution

Japan has emerged as a giant in the international economic and educational assistance. As a sovereign world power, it freely decides its policies based on its domestic and foreign priorities and considerations. For instance, for many years it was not an active participant of the DAE (Donors to African Education, now Association for the Development of Education in Africa-ADEA) that was formed in the 1990s. Major “donors” had been serving as the coordinators of one of the different working groups that were formed. Japan joined ADEA only recently, when the Working Group on Mathematics and Science Education (WGMSE) was formed in November 2004, with the expectation that it would contribute to improve mathematics and science education in Africa. Thus, this working group is led by Kenya's Ministry of Education, Science and Technology and the Japan International Cooperation Agency (JICA) and coordinated by The Centre for Mathematics and Science Education in Africa (CEMASTEA) that is based in Nairobi.

As is illustrated by Japan’s later participation in ADEA, it does not automatically join other “donors.” However, in the global context Japan is a member-state, a decision-maker in, and bound by agreements of, major international organizations such as the World Bank, UNESCO, and special groups such as the G8 that it is a member of.

What role could/can Japan play in its own rights and as a member of major global agencies? Certainly, the Africans do not consider history as destiny. However, recent history or the dynamics of the

history in the making indicate that it will take considerable and sustained efforts to definitively change the nature of the relations between the African countries and the West, specifically the former colonial powers and beneficiaries of the century-old past slave societies. This is where the specific relations between Japan and Africa as continent can bring positive leadership, as their overall relationship has not been tinted by a long history of exploitation and domination of nation-states of the West and global proxies.

Regarding the Education for All/Fast Track Initiative (EFA/FTI), the G8 president serves as one co-chair of the FTI. Thus, when Japan becomes the President of the G8, it will be in a position to play a decisive role in assessing fairly and objectively the necessary and concrete committed support from the "donors" (nations and organizations) to realistically make progress towards the 2015 goal of universal and free basic education.

3.2. Sector Approach to Education: Inevitable Interdependence

It is necessary to address education in developing countries as a sector and pay more attention to the inter-dependence of the levels from pre-school and basic/primary education to secondary education whether it is considered as terminal or a link between the basic and the next level of tertiary/higher education levels. The link between what has been traditionally classified as academic, vocational and technical education, at the secondary and post-secondary levels, must be consistently acknowledged in the conceptualization, design and implementation of policies of education for sustainable development.

In searching in the Dakar Declaration, it appears that the expressions "higher education", "tertiary education", and "university" are not mentioned even once. This raises some fundamental and practical questions. For instance, where and at what level are the teachers of the basic education expected to be educated? Will basic education be self-reliant, autonomous, and capable of producing its own teachers?

By now, we should have learned enough to consider the education systems and needs of developing countries holistically. Celebratory anticipation of the development power vested in higher education in the 1960s and 1970s was followed by SAPs' prescriptions for under-funding higher education in the 1980s and 1990s. At the turn of the Century, higher education was rediscovered, as articulated by the 2000 UNESCO-World Bank joint report of the Taskforce on Higher Education and Society entitled Higher Education in Developing Countries: Peril and Promise. Some have asked: How real and genuine is the commitment of institutions such as the World Bank to support again the development of higher education?

It is worth recalling that, in developing countries, too, there is a need for knowledge production, management, and dissemination that is even crucial for the development of basic education. In Africa, some have referred "the book famine" to capture the situation where books, journals and other print materials have been lacking, leading to little contribution to knowledge production.

> *"The level of academic research in Africa... remains weak. In 1995, the region was responsible for just 5,839 published academic papers (South Asia produced 15,995 published papers, and Latin America and the Caribbean 14,426). Only the Middle and North Africa produced fewer papers than Sub-Saharan Africa, yet the former's total had doubled since 1981, while Sub-Saharan Africa's had risen by one third."* (Bloom, Canning, and Chan, 2005:6).

As I have argued elsewhere, the comparison is questionable as the authors do not factor in demographic considerations and use raw numbers instead of per capita intellectual production. However, it is a

fact that African scholars have been functioning in dire conditions that have led to limited intellectual output. In order for a policy of education to be informed by scientific research, it is necessary to consider the dynamic interaction between the lower and higher levels of the educational systems.

4. Responsibility from Developing Countries and Japan's Role in Providing the Space for Reflection and Action

4.1. Real Commitment from the Developing Countries: Focus on Africa

Africans have realized by now that, as a little elementary school girl once said: being independent "means you have to learn to solve your problems" even if you might need help. Thus, Africans will not move forward either by trying to apply recipes borrowed from even well meaning development partners. They cannot realistically attempt to duplicate Japan's or any other nation's experience of the march toward development. However, they can learn and make better use of certain forms of assistance, namely the Japanese.

The areas of the Japanese leadership include financial contributions as well as educational and philosophical guidance for making sufficient investment in progress. Indeed, Japan's urge for, and philosophy of, ownership and concrete commitment by developing countries is articulated in education FTI, for instance.

Commitment in this case implies also consistency and perseverance for the cause of education and society.

4.2. Peace as the Basis for Global Commitment

Excellencies, Distinguished participants:

Allow me to refer briefly to the World Academy of Art and Science. Its activities, as defined by its founding members, focus on the "social consequences and policy implications of knowledge." Indeed:

> *"The idea of founding an international association for exploring major concerns of humanity in a nongovernmental context grew out of many conversations that took place among leading scientists and intellectuals in the years following World War II. Prominent among this group were people such as Albert Einstein and Robert Oppenheimer who had played a part in the development of the atomic bomb and were deeply concerned about how it and other scientific advances might be used - or misused."* (http://www.worldacademy.org/origins.htm).

Japan can play a role in guiding the world to the peaceful use of knowledge to improve human conditions. This includes knowledge produced in the humanities, social sciences, mathematics, and physical and biological sciences.

This may sound like it is outside our sphere of concern of quality education, better management of education, better-trained teachers, to achieve the MDGs in 2015. But in fact the question of peace is crucial in attaining universal basic education and having a new citizenry that can use acquired knowledge (be it to read direction or instructions to take or administer medicine, to read or write poetry, to analyze social institutions or political systems, or to work in the field of quantum physics). If peace and good will are not at the center of policy and educational activities, it will not be easy to achieve even basic education.

Many armed conflicts tend to set back education by destroying gains. There are many encouraging cases of countries that were wrecked by wars but rebuilt. Mozambique has been often cited recently. However, the MDGs can be achieved only if there is a situation of peace in the entire continent. Armed conflicts bring

negative rates of growth and constitute an obstacle to any progress. For one thing, there is chaos as the general populations, including the educational staff and school-age populations, flee the battle areas and suffer the destructions of the infrastructures; also, inevitably, scarce resources are diverted from social programs such as education to support conflict, while diseases continue to inflict devastation and at the same time natural resources are being drawn from Africa to serve as inputs for further economic advancement of industrial countries. Instead of purchasing guns are acquired; children are recruited and forced to use such instruments and instructed to participate in the senseless destruction instead of being in school.

Given the recent and artificial nature of the borders between African countries and considering the political factors of the conflicts, combat in Africa often spills over borders, engulfing sets of countries and entire sub-regions.

Promoting peace is indispensable if MDGs must be achieved and the foundation for sustainable development built. Leaders of developing countries, more specifically African countries, and civil society, have to be serious about their responsibility as part of their commitment toward the MDGs.

Obviously, not all the conflicts in Africa have their origins and actors only internally. However, if there is an internal resolve, the external actors will not be successful in exploiting internal contradictions to achieve their political and/or economic goals of control of resources. Peace education has to promote gender and social equity and human political rights.

Japan can play a role in providing space for reflection and supporting activities toward the transformation of the content of education toward the goal of achieving education for all and sustainable development. Education for peace can be a sure way to sustain universal basic education once it is achieved and progress in the secondary and higher education levels.

Education for peace can be an area where, while the African countries must take their responsibilities, Japan can play a role in contributing to provide a space for reflection and articulation of new curriculum. African institutions, with the relevant Japanese support, can also offer spaces for needed critical and innovative reflections for action.

The "Africa-Asia University Dialogue for Basic Education Development" Project that was spearheaded by CICE is a good model as it aims at immediate educational objectives such as conducting "research conducive to the development of basic education in their respective countries" and long-run educational and broader societal goals as it stated in its implementation plan:

> *"African researchers and educational administrators participating in this Project will enhance their skills and knowledge in education for all through the exchange of ideas with Asian universities and research institutions and from the planning and conduct of research in basic education for all. Through networking, a space will be created for African experts to dialogue among themselves and with Asian experts on the fundamental issues."*

It includes research and reflection meetings and brings together the voices of the Africans with the contribution of partners from other developing countries. This also illustrates the necessary link between basic and higher education.

We could together explore a variety of bottom-up approaches in developing partnership between African institutions and the Japanese ones. It would also be a relevant and timely contribution to increase the support to African spaces for reflections and knowledge production.

Conclusion

In conclusion, Excellencies, Distinguished participants, Mr. Chairman:

Hard-won lessons from the past constitute a real springboard towards the achievement of a better future. Notwithstanding delicate and contentious issues of national sovereignty, and the responsibility of African and other developing nations, Japan has a unique position, to play an even more diverse role as a leader. This leadership includes providing not only much needed financial supports, but facilitating the creation and dynamically functioning spaces for the mobilization of local resources and knowledge to become more and more key factors of educational development and social progress.

The synergy between the levels of the education systems and between education and other sectors such as the economy, health, nutrition, and peace, requires systematic consideration.

Human dignity is not a zero-sum commodity. In fact, referring to the African ethos of Ubuntu, our collective humanity is diminished when some live in dehumanizing conditions and enhanced when all members of local and global communities have dignified life experiences. It is possible, together, to imagine, to create, and to nurture a world of peace, justice, and dignified collective humanity.

I thank you for your patience and kind attention.

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【Questions and Answers with Keynote Speakers】

Masafumi Nagao（Hiroshima University, Japan）

We would now like to open the floor for questions and comments from the audience. So that many people can participate in the discussion, could you please confine your statement to three minutes per person. However, prior to that, we have right before us Dr. Hans van Ginkel, the Rector of the United Nations University. The Rector has been supporting us in our endeavors so I would like to invite him to say a few words.

Hans van Ginkel (Rector, United Nations University

Thank you very much Mr. Chair. First, I would like to thank both speakers. Mr. Araki for giving such an insightful overview and especially Dr. Assié-Lumumba. Let me first congratulate the initiatives of JEF for establishing this forum. I think it is very important too for further developing strategies and policies. I think it is very useful for the government of Japan as well as educational institutions to be involved in this type of activities for the benefit of the African people and all other developing countries. The second point that I would like to highlight is that both speakers have been stressing the integration of the educational column. We see over-focusing on primary education, but I always try to emphasize that education is a pyramid, or a triangle with basic education at the base, followed by secondary and finally higher education at the top. However, if it is not balanced, at the end of the day even the base where basic education is located is going to suffer. So I'm happy that the former president of Tokyo University and myself have had the privilege to share our opinions already in 1998, in Harare, and have made the resolution that there can be no EFA group unless you keep in mind the overall organization of the educational pyramid. It is a difficult message especially for organizations such as the World Bank and UNESCO. Two years after the World Conference on Higher Education was organized, at UNESCO the point was very much made as to the importance of the role of Higher Education but it is kind of forgotten every time and often I get the feeling that still in the global community and in the multilateral organizations, it is rather more lip service than really done. I was invited to speak as to this link developing education and health and to make the point but there is some sort of self censorship in the international organizations, regardless of strong support in that meeting, and the whole issue was ignored in the

report. So I think we have to make the point again and again so I am happy that with Japan going in this direction and helping Africa to help itself as the stated goal of many and you have already mentioned the project on Africa-Asia university dialogue for basic education development. UNU is trying to establish innovative centers for Africa which center on questions such as: 'can you help them to work where they are', 'can you strengthen some local capacity to help them but also spread education for all where there are only a few centers of excellence,' 'how do you spread all of these activities?' So that is my question. Maybe it would be in particular for Dr. Assie-Lumumba, but what do you think would be the best strategy to strengthen the capacity on the ground?

Masafumi Nagao（Hiroshima University, Japan）

Thank you very much. I would now like to open the floor for questions.

Question 1

Seiji Utsumi (Osaka University)

I thank you very much for two very wonderful keynote speeches. In Mr. Araki's presentation the direction of Japan for the future was explained as having math education as a focus. In the primary education field Japan has provided support because of the humanitarian relationship where no single child is left out of school in order to achieve EFA public support and I think that is why it is being promoted. There are still some indigenous populations, poor people, especially girls that should be made a priority in the consideration. Of course 2015 is the target year so we shouldn't forget the importance of humanitarian consideration. I would also ask for additional comments on what you thought of each other's speech which is something I would also like to hear.

Question 2

Muzibur Rahman Howalder (Embassy of Bangladesh, Tokyo)

I would like to give thanks to both of the keynote speakers for their very valuable presentations based on their own experiences. Actually I'd like to make some comments that might be helpful for the discussion by reporting on the experience in my own country with basic education. The focus is on the interface with poverty reduction and basic education and these two go hand in hand for the developing countries. Also, thank you so much that you have added a very good point that we must include peace. If we put together these three components that become very important for the decision makers to think about how to solve these problems. Basic education can be successful and there is a considerable level of success in Bangladesh at the primary level just in making the MDG's. If we at the same time make better presentation from grass-root level, we can see that boys and girls from poor families didn't have food before going to school. They need food first, and then they go to school. Another example is micro-credit, which is very useful to alleviate poverty as well as to contribute to the peace of society. At the same time you see gains in basic education. Also we thank the Japanese government and other international organizations for coming forward too with financial packages. So my point is the integration of these factors holistically and at the same time the link with the higher education for the training of the teachers who will be making these efforts. That is also needed.

Question 3

Mary Goretti Nakabugo (Makerere University, Uganda, CICE Visiting Professor)

I thank both presenters for the highly scholarly addresses. I am only concerned about Japan's interest to focus her international cooperation in education on mathematics and science alone. I think this should be expanded to include cooperation on cross-cutting global issues such as HIV/AIDS and sustainable development. We should not only just cooperate in areas where Japan has strengths but also in fields where she can learn from counterparts in developing countries. The world is facing global problems, and my idea of development is that global problems need global efforts. We need to broaden our understanding of cooperation to include the concept of mutual partnership and not merely technical assistance.

Question 4

Terumasa Akio (Minsai Centre Japan)

I'd like to ask what you see on the role of NGOs and civil society in Japan and to know what is your expectation and hope through working with NGOs?

Question 5

Kalafunja Osaki (University of Dar es Salaam, Tanzania & Naruto University of Education Visiting Professor)

You have both spoken very well about the need for Japan to continue to support Africa and at all levels from basic to higher education. In the presentation by Mr. Araki it illustrates very well how to accept the access quality and management. Naruto University of Education, a Japanese university, already has a good relationship and can develop not only a variety of resources but joint research improving the curriculum of schools and linking science and math with the quality of education for a place like Africa. The technology there has no link with Africa now and needs to make progress in raising future technologies not only how to explain science concepts in English but to link the application to society should be the main focus not how to teach the languages. I don't want to mention the languages of English, French, and Spanish as promoting no link with the growth of the children at home, but that with the experience in Japanese and technology more so than the indigenous language so some of the university professors can know how to improve curriculum development. We look forward to JICA.

Response from two keynote speakers

Assié-Lumumba (Cornell University)

I thank you gratefully for your questions. Mr. Rector, I am pleased that you agree with some of the issues that we addressed and you ask the question as to what more strategic actions can be taken. Africa is the second largest continent so it is difficult to say "this is the single most important issue" as there can be some common difficulties and challenges but also many variations. One thing that I have personally learned through my own research and activities is to listen to the people and to observe the local realities. There is so much to be learned by studying carefully with humility so that we know the cases and do not assume that we know. I learned so much when I worked briefly in Mali by visiting the rural areas. What I learned from the site visits I could not have learned sitting in my office and so how I really want to respond is by saying that listening and observing

for a better understanding is the key thing, the idea. The idea is that we need to have the local inputs. Even if people don't speak French, English or Portuguese that doesn't mean that they can't have an idea, the knowledge, and know-how to interpret the needs into policy. And the role of higher education becomes a key by capturing all of these ideas that the people voiced and translating them into elements that can be used in formulating the right policy. First more consistently we need to know enough about the local realities and national complexities within the regional differences in order to be able to reflect them in national policies. We need to address educational systems instead of focusing on only basic or secondary education. When I was a Visiting Professor at Hiroshima University a few years ago, Dr. Yumiko Yokozeki of JICA made a presentation to this effect when she referred to the secondary level as "orphan" as the focus is often on either basic education or higher education. We cannot focus only on basic education and higher education and assume that nothing happens in between at the secondary level. So we need to really consistently keep in mind that it is an educational system. The second question was on what I think of Mr. Araki's presentation. What more can I say? I also referred to the same issues in my speech. What is striking is that there have been changes in the Japanese approach as I mentioned earlier, from the focus on basic education and building solid schools to connecting more different levels of educational systems. So I think the Japanese have been listening. More and more the reflection is on education as a system even when they still focus-on basic education, they now take more into account the fact that we need to involve universities. We need to do the research on levels of the systems for informed policies. This is what I think in terms of a progress being made. That it is in the right direction by having a system approach as opposed to specific level approach.

As to the situation in Bangladesh, I can't agree more that we cannot separate all these dimensions. Let us take for example, health, which we were talking about last night. A hungry child can't learn. You can provide children with the best teachers, books, facilities, etc. But if the child is hungry there is no way he or she can learn. If the child is sick there is no way she or he can go to school. I thank, Her Excellency the Ambassador of my country for being here to hear all these issues which are so critical in making the education system more effective. So I fully agree that poverty must be addressed, as well as health and peace. I cannot repeat it enough-- integration of all the levels of the educational system and critical sectors of society is the key.

The fourth question is related to the issue of HIV/AIDS and social issues. By moving philosophically from assistance to cooperation and we will be doing what you are referring to. When we are talking about cooperation, it is no longer one-sided and there is not the undignified relationship of recipients and donors, and of the beggar and the one who gives. That's what we want to get away from, because we think Africa has something to offer. I am, as a historian, fascinated by the past experiences and achievements of the African people and societies. Without taking much of your time, let me give you some examples here. In the 19th century, the Europeans were talking about 'the dark continent' and 'civilizing mission' colonization was justified. Meanwhile, when Germany lost World War I, what did they do? The victorious Allies did not force Germany to take what was called "the white man's burden". Instead, they took away the German colonies. It means that they had something to gain by colonizing Africa instead of presenting colonization as motivated by altruism. These examples tell us that we have to be truthful in terms of the 'relationship' that we establish. Africa is not just receiving and Africa is not only a land for minerals to be provided. There are ideas and things that we can learn

from each other about our global world, this global village. Thus, we need to move forward to cooperation not assistance.

As for expectation from civil societies, 'civil societies' have been agitating in Africa, and it is a sensitive issue. Given the origin and nature of the nation-state in Africa, there has not been much room for civil societies and people to participate in. Civil society participation here also refers to how industrial countries create their own space for civil society to do the right thing or develop a cooperation agenda that respects the spirit of contribution to provide a real uplift of the world. NGOs can play a role to remind their respective government of where needs are and to support or nurture programs that can reach these needs. They don't need to see any more the images of poverty and desperation that we see on television if through cooperation people's needs are met. Finally, to my colleague from Dar es Salaam: I do agree with you. Indeed, by simply traveling here you have learned so much that you now realize even more the differences and commonalities and the importance of creating networks that will make a difference.

Mitsuya Araki (The International Development Journal Co. Ltd.)

From the Bangladesh Embassy there was a question asking about the relationship to basic education. What approach I believe that the government does in a civil society and what the NGOs can do is a division of roles between the two. The Japanese government right now with respect to Africa is focusing on the development of rural areas to develop food production and at the same time what kind of education can be provided for the children, to those, living in those areas. Mechanisms as well as an education system promote rural development in rural areas with education development as a package to be provided. Studies towards the objectives now being done including basic education are the way that it should be considered. I think it is possible to approach the poor people in that region from a comprehensive point of view. There is a private foundation in Myanmar which has now built 100 schools and there was a ceremony to celebrate the 100th school, to which I was invited. So to teach and at the same time to make an environment in which there is assistance for the local community, can make the children go to school by providing a way to make their living. Money to hire faculty for the schools so they can provide a sufficient salary for teachers to make a living and many ways to sell their cultural products in the market. There are many ways to build schools which have been tried in the private sector so the government sector can do the same.

In regards to Africa another idea that can be considered besides math and science education which has been the focus is education cooperation. The level of science and math is different from country to country and region to region, but education cooperation is something uniform. The way educational cooperation is performed should be different according to the level of development of the region. So how should I put it? I think education cooperation is not something which only provides knowledge to the children. We have talked about peace cooperation and what it means to be a human being. What is peace? Basic education must teach peace and basic education is closely linked to ODA and thus should pay more attention to that focus.

In respect to higher education in estimating countries the situation is different; there are some that need more primary or other countries more secondary education or other countries higher education so depending on the country the focus might be different. Some countries could do so therefore the plan should be more detailed depending on the country and we should take this into consideration. This should be a policy for ODA which is

now based more on country based that in their education cooperation there should be a link with economic development and that is the direction we should be heading.

Question 6

Jean-Christian Obame (Ambassador of Gabon to Japan)

I was able to learn a lot from the keynote speeches. I would like to go back to the content of the speeches but what is necessary is the combination of the elements. That is fundamental and by doing so we can create a consistent system of education in my opinion. It must be established within a strategy of why do we need to educate young people? There should be a specific goal so that we can achieve that and without education there is no economic development. One thing Mr. Araki didn't mention is that in Japan there is large scale reform going on with the universities moving from universities to industries which has been established. So what we are hoping for very much particularly in Africa is that our university should not be merely an education institute but also to create jobs for those who work in the industry so we have to be an institute which allows for the students to get a job after graduation. So I hope I can have some comments from the speakers as to how universities should serve as a strong bridge to industry in the business communities. To reduce poverty universities and business communities in the economic field should be linked and the role has been to adopt research conducted at the university and with corporate research which is also conducted in the universities we should have a similar direction in Africa as well.

Mitsuya Araki (The International Development Journal Co. Ltd.)

Let me give you one specific example. In national universities in Mongolia there are so called Japanese centers which are teaching Japanese management techniques through ODA. At the University of Mongolia, the Rector told me that at the universities, education research and a contribution to society are the roles to be played and by the establishment of the Japanese center jobs can be created for people in Mongolia and that is one way to contribute to society. Together with the alumni society members I had many opportunities to meet with them to discuss improvements in the system to enhance productivity such as techniques which are being taught to many young entrepreneurs who come to the center to study such a system. The management of their companies increased from 10 to 100 by now and in ten years could achieve closer to 1,000 or 10,000 so jobs are being created through this system. When I say Japanese ODA, this is assistance to countries moving towards marketing economies so assistance which can think of job creation as providing to the university as well as among ASEAN nations to be a magnet for engineering networking. Engineering universities can conduct collaborative research with Japanese research institutions and receive industrial patents. Then universities and local communities can benefit. Universities in Indonesia as well should not be merely for research but conductive to the development of the country, while they should be academic in nature. Such research activities are important so the direction just mentioned is the right way to go forward.

【Dialogue Sessions】

“Improving the quality of education: Japanese approaches in support of EFA and MDG goals”

【Session 1】

“Positive contributions made by Japan’s educational cooperation -in the areas of school management, teacher training, mathematics and science education and educational administration”

Moderator:

Joseph P. Riley

Speakers:

Shigekazu Takemura

Shaaban Hamed Ali Ibrahim

Moderator

Joseph P. Riley

National Institute of Education, Nanyang Technological University, Republic of Singapore

Dr. Joseph Riley is a faculty member of the National Institute of Education, Nanyang Technological University, Singapore. He is Emeritus Professor of Science Education at the University of Georgia, USA. He holds a Ph.D. in Science Education from the University of Colorado. As science education consultant to the World Bank, Asian Development Bank and the U.S. Agency for International Development, he has evaluated science education programs in Egypt, Indonesia and the Philippines. He was a Fulbright Scholar to the Philippines (1982-83) where he was assigned to the Ministry of education to assist in the evaluation of their national science curriculum. He served for two years as a Peace Corps Volunteer science teacher in the Philippines (1965-67).

Speakers

Shigekazu Takemura

Professor Emeritus, Hiroshima University

Dr. Takemura holds a Ph.D. in education from Hiroshima University. He is president emeritus of the Japan Curriculum Research and Development Association, and professor of the global core university in science education of the UNESCO-UNITWIN Chairs program. He has worked for the promotion of modernization of education as a senior specialist for curriculum at the former Ministry of Education (now MEXT). He has served as a member of the human resource department of the Council for Science and Technology Policy, and a board member and president of the World Council for Curriculum and Instruction (WCCI), headquartered in the United States. As a technical adviser for a JICA project, SMASSE, he established a mathematics and science teacher training system in Kenya and introduced the system to other countries in Africa. He has received many awards from JICA, UNESCO and the Japan Society for Science Education.

Shaaban Hamed Ali Ibrahim

Assistant Professor in Science Education, National Center for Educational research and Development, Arab Republic of Egypt

Dr. Shaaban Hamed Ali Ibrahim holds a Ph.D. in Science education from Tanta University, Arab Republic of Egypt. He has devoted himself to science education in Egypt conducting many studies and researches. He has served as Assistant professor in Science Education and Chief of Preparing Teaching Materials Division in Improving Curriculum Researches Department since 1997. Having participated in a number of training programs inside and outside of his own country, he has functioned as a coordinator of the Egyptian team in JICA's Education Projects in Egypt (1997-2000 & 2003-2006) and collaborated with Hokkaido University of Education in Japan.

【Moderator's Opening Remark】

Joseph P. Riley

National Institute of Education, Nanyang Technological University, Republic of Singapore

Thank you. We will follow the same format as this morning. Our two presenters will make their 15 minute presentations and after that I will take questions from the floor and then if time is available we will take time for more of those questions.

Peter Smith, the Assistant Director-General for Education at UNESCO writing in the journal Embassy describes the 2000 World Education Forum in Dakar, Senegal, on EFA as the most ambitious educational promise ever made and that promise is to provide learning opportunities to every man, woman and child before the year 2015. To provide this analogy, if you wanted to build a dream house you would hire the most famous architect to draw up the plans. But it would remain a paper fantasy unless you hired workers to make the dream into a reality. Today we have with us two such professionals who have spent their careers in making educational dreams a reality. Working on different projects in different countries they will provide us with their insights and confirm important aspects as partners in the process.

【Speaker Presentation】

“Japan’s Education Cooperation: Outcomes of Past Projects”

Shigekazu Takemura

Professor Emeritus, Hiroshima University,
Scientific Advisor for the former JICA-SMASSE

Good afternoon. My name is Shigekazu Takemura. When I was asked to participate in this session as a panelist, I read the program and was surprised to find that Dr. Riley was to be the moderator. Dr. Riley and I have worked together on research on education for many years. I have visited him in Georgia, and he has visited us in Japan. As soon as I saw him this time, he asked, “How’s your wife?” In this session, you will probably hear the kind of casual conversation we have in coffee shops. I met Dr. Ali Ibrahim in Kenya. He knew a lot about Kenya and told us various things about Egypt as well. As I said, I’m going to speak frankly as I usually do. I may get off the subject, so Dr. Riley, please keep me on track.

In Kenya, about a year ago, there were 61 trainers at the national level trained under the project called “Strengthening of Mathematics and Science in Secondary Education” (SMASSE). The number has increased, and I believe there are about 80 staff members now. There were no teacher-training facilities in Kenya eight years ago, but since the project was launched, one main training center and 103 local teacher-training centers have been established. Now every year, about 1,000 people who have been trained at the main center are able to provide training in local provinces. In this way, the project has been producing steady results.

It is important for all the trainers to understand the objective of education and have a common view on how they would like to raise children and what kind of teachers they want their trainees to become. We must have a common goal. We must create an educational movement by clarifying our goals and promoting new education through the united efforts of government, schools and teachers. Unless teachers stand in solidarity, they cannot substantially change the society or the state. Am I right? Based on this philosophy, we have been promoting international educational cooperation.

1. Understanding the philosophy of international cooperation : Human development focusing on people and human security

- ✧ **Total development of IQ, EQ and SQ**
- ✧ **Development of critical thinking, rational judgment and scientific and logical thinking**
- ✧ **Love for humanity, democracy, justice, human rights, peace, security morals**
- ✧ **Improvement of health and hygiene, better food, clothing and shelter**
- ✧ **Prevention of environmental destruction, restoration of ecosystems and preservation of the beautiful and livable earth**

✧ **Total development of IQ, EQ and SQ**

Total development of IQ, EQ and SQ means education that aims at well-balanced intellectual, moral and physical development. It aims at the total development of all three dimensions of human beings: intelligent, emotional (heart) and social (people's ability to get along with others).

✧ **Development of critical thinking, rational judgment and scientific and logical thinking**

The essence of science and mathematics education is to cultivate critical thinking, rational judgment and scientific and logical thinking, which are extremely important for human beings.

Scientific thinking has not been deeply rooted in Japanese society. For many years Japanese people were less accustomed than Westerners to using scientific thinking or making judgments based on facts or evidence. When they are in the position of making decisions, Japanese people consider other people's feelings and pay a great deal of attention to maintaining good human relationships. They hesitate to criticize others severely, pointing out problems and showing evidence that indicates mistakes. In modern society, however, it is important to think logically based on evidence in order to express your opinions and draw conclusions. In modern society, we must first clarify our points and show our conclusions before making proposals or reports. In order to support our viewpoints, we show items of evidence 1, 2 and 3 and explain them logically. Then, we state our conclusion once again. This approach has not yet taken root among Japanese people.

I hear that in the reading literacy section of the PISA international survey, Japanese students ranked 15th or 16th in the world. This poor result is due to the way writing and social studies are usually taught in Japan. Japanese students are usually taught to describe events in chronological order, as if telling stories, and how their sympathetic feeling is elicited by these events. In writing classes, students just write, "Then…, then…, then…" in a narrative style. The reading comprehension of Japanese people will never improve if we continue this. The traditional Japanese way of thinking is emotion-oriented, based on the so-called "introduction, development, turn and conclusion." This is contrary to the Western way of thinking and reading, which is necessary for adults.

Scientific approaches are different from emotional approaches. Hypotheses are verified inductively through experience, and laws and concepts are identified. In scientific approaches, the conclusion is clearly stated deductively at first and then explained with supporting items of evidence 1, 2, 3, and so on. Finally, based on these evidential facts, the conclusion is once again presented without any ambiguities. This approach is persuasive. In Japan, neither scientific approaches for explaining ideas nor logical writing is adequately taught. This is why Japanese students have performed poorly in international tests. I visited Kenya and discussed how scientific approaches are necessary in our lives. Everyone agreed with me in Kenya.

✧ **Love for humanity, democracy, justice, human rights, peace, morals for security**

Education develops love for humanity, democracy, justice, human rights, peace and morals for security. Moral education is not limited to religion but is part of in every subject in school. Morals are learned in our daily lives by loving each other, working and studying together and discussing various things with others. If a ruler dominates people and deprives citizens of peaceful lives, then it is not a good society. Many countries in Africa have been ruled by dictators. Africa needs democratic societies that protect and maintain the importance of justice and human rights.

At schools, in classrooms or in groups, if there is an oppressive leader, everyone keeps silent when the boss

says something. We must not create such a situation in a classroom. It is important to create an environment in which everyone can exercise leadership in his or her area of strength. It is important to have justice so that people can say that what is right is right. Girls in Africa must not remain silent. The consideration of gender is important in the promotion of a good environment.

Furthermore, everything must be based on peace. World peace must be called for. Security is also important. In any society that has a wide gap between the rich and the poor, there are many people who do not have enough to eat. They live in a bad environment where illness prevails. There are many places in Africa, where people cannot live in a safe environment. In developing countries, there are many diseases and a lot of crime. We must include in the curricula how to overcome these difficulties.

- ✧ **Improvement of health and hygiene, better food, clothing and shelter**

It is also important to improve health and hygiene, food, clothing and shelter. I would like to ask the audience here if you have ever lived, or spent even a week or two, in a real rural area in Africa. There is no good drinking water. The water is not clean at all. There is no electricity either. When you go to the toilet, there are mosquitoes and 20, 30 or even 100 flies. I used such toilets many times. People use their hands to eat. I often had meals with African people, and I used my hands too. Because of the poor hygiene, I usually had terrible diarrhea when I got back to Nairobi. I was hospitalized many times and given intravenous injections. Children die from various diseases. There aren't any good hospitals in rural areas. How would you feel if you were their mothers or fathers? Have you ever seen these mothers' tears? I have, and I cried with them too. If you haven't been there, you do not know what education is really necessary. If you stay in big cities to ponder education, you cannot provide good education. We have included lessons on various pathogens and the prevention of diseases in biology curricula in Kenya. If there are people who have only desk theories, nothing will improve. It is often said that universities are ivory towers. People in universities do not know the reality. They are good at developing plans and have knowledge, but they must listen to people firsthand. "On-site" activities are extremely important.

We must emphasize securing clothes, food and shelter. In arid areas, it is difficult to harvest food, especially in the dry season. We must teach what plants are suitable for planting and farming in these areas. In biology lessons, we can teach what good vegetables we can farm. By linking biology lessons and agriculture, we can teach children how to grow vegetables that are new to them. Then, people will buy these vegetables. Western people in big cities will buy them. There are many such new ideas. Since the weather is mild, they can grow various vegetables. Through these activities, new industries may be created.

- ✧ **Prevention of environmental destruction, restoration of ecosystems and preservation of the beautiful and livable earth**

The prevention of environmental destruction, restoration of ecosystems and preservation of the beautiful and livable earth are also important.

Trees are cut down for firewood one after another. They are cut down to build houses. Are they not? The Philippines had a similar situation when I visited the country many years ago. As Japanese people paid a lot of money to buy trees, the area was denuded and flooded. The fields that once had rich soil were barren, and nothing would grow there. It was a serious situation. People in Asia told me that Japanese society had developed

by sacrificing the people in developing countries. Japanese people are ignorant of the world.

The earth is the only planet that has living things. As we do not have any other earth, we must preserve the natural environment of our earth. Kenya's assistant minister for environment promoted a movement to plant trees and was awarded the Nobel Peace Prize. I was really happy to hear that news. The powerful initiative that came from her heart has resulted in an extraordinary movement that gets things done. Science teaches ecological balance in nature. The movement to create forests, which are essential for the earth, is extremely important.

2. Understanding the philosophy of international cooperation : Human development that brings about innovation and enables us to respond to change

- ✧ **Fostering of the desire to explore the unknown and development of creative intelligence**
- ✧ **Production of new knowledge and application of knowledge**
- ✧ **Development of human resources and a workforce that can respond to the rapidly changing competitive society**
- ✧ **New agricultural, fishery and forest production, new industrial production and development of new medical treatments and pharmaceutical products**
- ✧ **Development of knowledge and the ability to live in the ICT society**
- ✧ **Development of scientific technology and promotion of economic and social prosperity through globalization**

Next, let me discuss human development that brings about innovation and enables us to respond to changes. In order to study science, we must explore the unknown and build creative intelligence. The production of new knowledge and application of knowledge are also important. The development of human resources and a workforce that can respond to the rapidly changing competitive society is also extremely important. New agricultural, fishery and forest production, new industrial production and the development of new medical treatments and pharmaceutical products are also imperative.

We were engaged in a project to strengthen mathematics and science in secondary education in Kenya, but there is a strong demand in African countries to support primary education. In Kenya too, there is a strong demand for supporting primary education. Therefore we are now planning to start training projects for primary education based on the principle of "Education for All." We have planned a program, and we are now conducting a trial. We will introduce training that covers primary, middle and high-school education in an integrated manner so that primary education will ensure the basic scholastic abilities on which educational content will advance systematically to achieve the goals mentioned above.

In secondary education, teaching contents must be closely linked with industry and made relevant to peoples' lives and society. In this way, we must develop curricula. This is really important. Children must learn knowledge, skills and manners. Then they have a better chance of finding a job.

Mobile phones are spreading very rapidly throughout Kenya. Teachers in secondary schools have mobile phones. Some principals own cars, too. In Kenya, 97 to 98% of cars running are made in Japan. They always talk about Japan. In big cities that have electricity, there are many electric appliances, including televisions. Everywhere, people talk about Japan. Japanese students ranked high in the IEA's international science and

mathematics study. The leaders of Kenya know this. Against this social background, people in Kenya say that cooperation with Japan will probably produce good results. Japanese JOCVs started their activities in East Africa, and to date, more than 1,500 people have been dispatched as science and mathematics teachers. The educators in East Africa highly evaluate their contributions. They would like to advance by having a close relationship with Japan. People in Africa eagerly hope that their children will be able to do new things, learning skills in new industries, new technologies and agricultural innovations. They have great expectations of international educational cooperation. We must try to meet their expectations. Together with African people, we must discuss what can be done and how it can be done, and we must put our plans into action. For example, computers have already been introduced to some middle and high schools for ICT education. Knowledge and capacity-building for the ICT society, scientific and technological development promoted by globalization, and the acceleration of economic and social prosperity are taking place. You will see. These trends will be further accelerated and become widespread in the society.

I visited Vietnam when the war ended there. I visited China as a UNESCO expert when Japanese people were not yet allowed to enter. China was making a major effort to improve science and mathematics education. We conducted training for top science teachers. I served as an educational advisor in Shanghai. Look at the remarkable economic growth China has made. The economic growth rate is 8 to 9%. The economic growth rate of Vietnam is also high at 5 to 6 or 7%. Human resources are supporting this growth. Human development is the key. People change the world. People change society. This leads to the social development and improvement of people's lives.

When I ask children in Kenya what they want to be when they grow up, they say they want to be engineers of science and technology, doctors or computer engineers. These jobs pay well. High salary is their incentive. Both teachers and students know what kind of knowledge they need in science and mathematics and what skills are important. Training for physics teachers includes electronics, too.

On the other hand, Japanese children are not good. They are completely different from children abroad. They are apathetic. Many children say that technology brings chaos to our society and has caused pollution and that technology does not contribute much to social development. When an international study on education was carried out, many children responded that way. The number of children who have a negative image of science and technology was extremely high in Japan. As for the percentage of students who think science is useful, Japan ranked near the bottom. It's a shame. Japanese society has told children that science and technology is 3K - "kitanai" (dirty), "kitsui" (difficult) and "kiken" (dangerous) - and disillusioned them. High school and university students are also losing interest in science. This is a grim situation. I believe Japanese mass media are partly responsible for this. Therefore Japanese companies have tried to improve the situation. There is no more 3K.

Japan must survive by creative scientific innovation because we have no natural resources. People in Kenya face a similar situation. They don't have a lot of underground resources to help them develop a strong economy. They have only human resources. They have a rich natural environment, but they don't know how to utilize it. If people have knowledge of science and technology and if they have skills, they can do something. I believe if a society has rich human resources, it will prosper.

India is now rapidly growing. So is China. Their growth rates are remarkable. Many Japanese companies are now doing business in these countries. Major Japanese companies are going to China and India one after

another. They are transferring their business to low labor-cost countries. These countries have huge demands due to the growing number of people with purchasing power. The global economy is shifting toward developing countries. In 15 to 20 years, what we witness in Asia today may occur in Africa too. People in Africa are working to develop human resources, hoping that Africa will develop like Asia. They have big dreams. Let us all support their dreams from Japan, too, through international educational cooperation.

3. Partnership with international cooperation agencies and related organizations

- ✧ **Partnership with UNDP, UNICEF, UNESCO, World Bank and African Development Bank**
- ✧ **Collaboration with ADEA, NEPAD, etc.**
- ✧ **Providing information at international conferences**

I would now like to discuss partnership with international cooperation agencies and organizations such as UNDP, UNICEF, UNESCO, the World Bank and the African Development Bank. When I started working for international educational cooperation in Kenya, I went to the World Bank and the U.K. Department for International Development (DFID) and asked them to entrust Japan with the educational cooperation for the training of science and mathematics teachers. They said, “JICA would be an appropriate organization. Japan is good at science and mathematics education, so you should do it.” I was very happy to hear that. They said if Japan needed their support, they could support Japan through partnership. The African Development Bank has begun introducing these boxes to primary schools because there is no experimental or observation equipment. We are to give training using these boxes. We have been collaborating with the Association of the Development of Education in Africa (ADEA) and the New Partnership for Africa’s Development (NEPAD). ADEA is an organization of ministers of education of African countries that promotes the development of Africa through education. NEPAD is composed of presidents of African countries and aims at promoting various fields, including science and technology, in order to develop Africa. Science education is included in the activities of both ADEA and NEPAD. At their conferences, they said that the main donor of science and mathematics education was JICA. We were very glad to hear this, and we were really encouraged. The members of these organizations participate in the meetings of SMASSE. The secretary general kindly gave a special lecture at the national-level training of SMASSE. Thanks to their collaboration, we can successfully carry out our teacher-training projects. We can keep on working, encouraged by them. They want JICA to continue its efforts, and they are willing to work with ownership and make the projects sustainable.

Supported by these people, the “child-centered class,” a main theme of SMASSE, is rapidly spreading among African countries. More than 30 countries are now participating in the network. Kenya has established the Centre for Mathematics, Science and Technology Education in Africa (CEMASTEA) at Karen in Nairobi. Every year, leaders of science and mathematics education visit this center from various countries in Africa and stay for five weeks to receive training. They draw up training plans, action plans and study and learn how to conduct “lesson studies.” The child-centered class is becoming more and more popular in Africa. We will carry out monitoring evaluations of these activities in 2007. We hold an annual African conference on science and mathematics education in different locations. The purpose of this conference is to study how to promote mutual cooperation and collaboration. The people of Kenya also participate in different international conferences and academic conferences and report on the achievements of child-centered method.

4. Understanding the comprehensive and strategic structure of educational development

- ✧ **Educational system, educational policies, educational finance**
- ✧ **Guidance administration, school facilities, school administration, class management, teacher quality**
- ✧ **Pre-service and in-service teacher training**
- ✧ **Curriculum standards, curriculum structure and its implementation, examination and qualification systems**
- ✧ **Textbooks, teaching materials, consumables, water, electricity, plants, animals**
- ✧ **Teaching methods, educational evaluation**
- ✧ **Community, homes, students**

In implementing projects, we must understand the comprehensive and strategic structure of educational development. At first, I was a physics expert, but it was no good if I just taught physics. I studied the educational system, educational policies and educational finance. I had three years to conduct preliminary studies. I visited Kenya every year. Four people from Kenya visited Hiroshima, too. The vice minister of education and the president of the college where the training was conducted also visited Japan. I studied guidance administration, school facilities and equipment, school administration and management, class management, teacher quality, pre-service teacher training, in-service teacher training, curriculum standards, structure and implementation, examination and qualification systems and more. I studied textbooks, teaching materials, consumables, water, electricity, plants and animals. I carried out a comprehensive study including teaching methods, community, homes and the aptitudes of students, too.

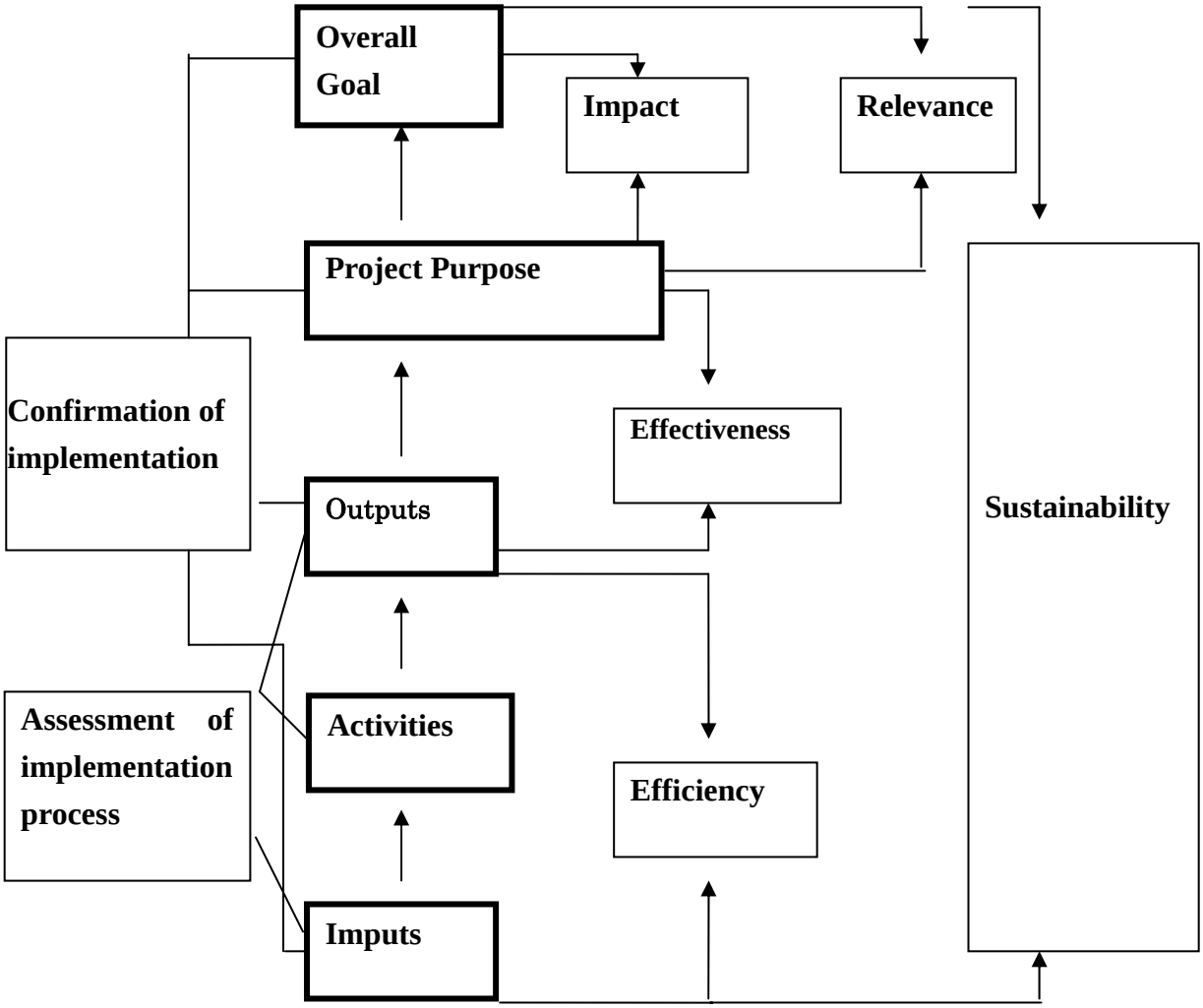
Then I asked, “What would you like to do?” At first, people in Kenya misunderstood my question and told me what they would like us to do. They said they needed experimental equipment, new dormitories, new schools, free textbooks and so on. Then I made my question more specific and asked, “What do you want to do as teachers?” They said, “We want opportunities to study.” “If you ask me what we can do as teachers, we need a teacher training system as we don’t have any system now.” “We don’t have any means to study for ourselves.” This is why we decided on a project to establish a system for teacher training. In each province, we selected a big school with a dormitory and made it a center for teachers to study together effectively. They saved part of the tuition paid by parents to pay for the training. This is an example of ownership that contributes to the sustainability of the project.

This film shows an example of a child-centered class. Bernoulli's principle was the theme of this lesson. Children were asked what would happen when they blew on a piece of paper. Children usually think the paper will go down when they blow on it because of the air current, but when we actually carry out the experiment, the paper goes above the strong current of the air. We carried out this experiment. When the air flows rapidly, the pressure drops, the surrounding air is pushed in the direction of the flow, and the paper is attracted toward the strong airflow. Using this simple experiment, we can also teach children why water comes out as mist through spray bottles and the principle of pesticide spray cans as well. We can explain that the upper side of an airplane wing is made round so that the air on the upper surface goes faster. Therefore the wing goes up, and the airplane can fly. Helicopters can fly because of this principle. We can make bamboo helicopters too. We can use various models to carry out experiments, but we can carry out many child-centered lessons by using a very simple experiment like this. This is just one example of a child-centered class.

5. Project planning, implementation, evaluation and improvement

- ✧ **Completing PDM**
- ✧ **Implementation, monitoring and evaluation system**

(Office of Evaluation and Post Project Monitoring, Planning and Evaluation Department of JICA, *Practical Evaluation Methodology*, p. 92)



This shows how a project is planned, implemented, evaluated and improved. We say “plan, do, see, improve.” Any project must follow this principle: planning, implementation, evaluation and improvement. This means that when we carry out training, we always conduct monitoring for further improvement. When we teach in classrooms, we plan lessons, implement them, evaluate them and improve the lessons. We also teach children to learn how to plan the schedule of their studies, carry out the plan, evaluate and try to improve their ways of studying. “Plan, do, see, improve” can be practiced by everyone including boards of education, training projects, schools, teachers and children.

The project design matrix (PDM) of SMASSE is made by the people of Kenya. We work with them, but they are the main actors. The overall goal, project purposes, outputs, activities and inputs are clarified from the

viewpoint of how viable they are. For inputs, outputs and activities, we must assess the implementation processes. For inputs, outputs and the project purposes, we must confirm implementation processes, as well. We must also study the efficiency of the inputs, activities and outputs, effectiveness of the outputs and the project purposes as well as the impact and relevance of the project purposes and the overall goal. At the same time, we must constantly monitor and evaluate sustainability from the beginning of the projects to the end, including inputs, activities, outputs, project purposes and the overall goal, so that we can continuously improve the project. The PDM is the bible of our project. This is made to improve the quality of the project and to assure accountability and assume responsibility for the society. Every month, we check these aspects, and repeat the cycle of “plan, do, see and improve.” The staff members in Kenya always keep this in mind and put it into practice. I would like to say that SMASSE is a project for change. Every day, we are trying to improve the project, particularly its quality. I would like to close my explanation of the project by emphasizing this point. Thank you for your kind attention.

【Speaker Presentation】

“Improving Science and Mathematics Education at Egyptian Primary Schools (A case study for enhancing the problem-solving abilities in Education Field of developing countries in cooperation with Japan)”

Shaaban Hamed Ali Ibrahim

Assistant professor Science Education National Center for Educational Research and Development (NCERD), Egypt

Ⅰ. Introduction:

As a result of considerable efforts and investment in the education sector since the early 1980s, Egypt has attained its goal to enhance quantitative performance. In recent years, however, its agenda has shifted to further improvement in quality as well as efficiency. In particular, the traditional didactic teaching method, which focused on memorization and the teacher-centered classes, has often been criticized by experts in education.

From 1997 to 2000, the Japan International cooperation Agency (JICA) implemented a project and made guidebooks of science and mathematics for primary education, in cooperation with the National Center for Education Research and Development (NCERD) and Hokkaido University of Education (HUE). These guidebooks were one of the tangible outputs of the project and were highly appreciated by the Egyptian authorities.

The system of primary education in Egypt originally consisted of 5 years when the first project (1997 – 2000) was implemented. The Ministry of Education of Egypt, in order to improve basic education in the country, has decided to commit to a larger-scale reform, namely, the introduction of a 6-year education system into primary schools. This new system has been applied to students in the fourth grade who had entered school in September, 2002. In order to link the increase in teaching hours to qualitative improvement in science education, new methods through introducing the guidebooks have been envisaged to accomplish very important functions.

Therefore, JICA, in collaboration with NECRD and HUE, implemented the second project (2003-2006) from April 2003 up to March 2006. In our observation, the new guidebooks and teaching method have provided children with proper process of thinking and reaching at answers by themselves; they could have deeper understanding of concepts, rules and solutions in science and mathematics. Also, it would help the children in Egyptian primary education to acquire a “methodology“ of science & mathematics while they are enjoying lessons. Eventually, changes in science & mathematics education from teacher-centered to student–centered approach could further encourage children’s interests in science.

Challenges in science and mathematics education in primary schools in Egypt

Improving science and mathematics education has been perceived as an important issue in many national educational policies all over the world. Its necessity is strongly recognized in Egypt as well. Teaching science and mathematics in Egyptian primary schools, however, has faced many problems which prevent them from improving their quality. Such problems might be traced to a teaching culture in science & mathematics at the classroom level in Egypt: teacher-centered institution style. This culture, as we could observe, led to some relevant problems that are mutually related, as follows:

-Lack of tolerance among teachers and parents: when students get interested and active by their class activities, they often make some noise, which is sometimes good for encouraging them to learn spontaneously. In this culture, however, many parents believe that such noise would deter their learning process. Therefore, any noise, even if they are out of intellectual curiosity, cannot be accepted.

-Passivity of students in learning: Classes are dominated by teachers, and knowledge is just transferred from teachers to students who just sit and listen passively.

-Memorization-dominated learning process: The “cramming system” of education is a prevalent problem facing primary schools in Egypt, which depends upon memorization-only learning process.

The problems of relatively low quality of science and mathematics education in primary schools in the country are mainly determined by the three following factors:

A. Teachers’ quality

There are many primary school teachers in Egypt who received little opportunities to obtain university education during their periods of youth. Therefore, the training they receive does not appear to produce widely recognized satisfactory results along with other various limitations. This situation has prevented improving competency among individuals and organizations in primary education in Egypt.

B. Teaching materials and educational method

At present, the Ministry of Education has published guidebooks for science teachers. However, these guidebooks have not yet been made available to every teacher. In addition to that, both the teaching materials contained in the guidebooks and the contents on educational methods are essentially the same as those found in the textbooks that have already been used. Consequently, the format as well as details of science and math lessons in primary schools in Egypt is usually determined by the textbooks, while the guidebooks do not have substantial functions in offering new and unique educational methods.

In science and mathematics textbooks in Egypt, there are many descriptions related to the definitions of conceptual knowledge and individual knowledge concerning science, and consequently, these textbooks are well suited to absorbing considerable information in a compact yet accurate manner. However, according to an inspection survey, primary schools in Egypt generally provide “definition-first style” lessons along with a descriptive style of the textbooks. This style, providing students with definitions at first, could halt their thinking process and they would entirely rely on their memory in acquiring knowledge. Lack of training in

critical thinking, as a research on misconception in the country shows, resulted in prevalent phenomenon of misunderstanding on life among schoolchildren in Egypt.

According to an inspection survey, there were very few lessons in which scientific experiments, that proved to be effective in helping students acquire scientific concepts, were conducted. Furthermore, the experiments conducted were not considered to have noticeable educational effects for the amount of efforts required for conducting these experiments. Meanwhile, according to a survey on thoughts of science and math teachers concerning styles as well as purposes of activities and experiments, science teachers at primary schools in Egypt placed a great deal of importance on effects by the experiments, but they had no understanding on the teaching methods to use for effective utilization of experiments for hypothetical verification.

C. Educational facilities and teaching environment

Science and mathematics teachers in Egypt mentioned insufficient facilities and limits of time as the primary factors hindering them from carrying out experiments during the lesson. According to an inspection of primary schools in Egypt, some schools with older buildings had no science lab, while others had labs that were too old to be used. There were some cases in which experimental tools, essential for scientific experiments, were not under the charge of the science teacher themselves, but were rather kept in tool lockers securely locked by the school administration. Therefore, it appeared that the daily use of scientific tools/equipment by teachers was considerably limited.

Policies and measures undertaken to address the problems

In Egypt, primary education indicators have made remarkable progress. Especially, quantitative aspects in the primary level improved during the 1990's. The Government of Egypt still places a high priority on education in its national development plan. Yet, qualitative aspects of primary education have not been fully addressed. The guidebooks as product for cooperation between Japan and Egypt were prepared to improve the quality of science and mathematics Education in primary schools on the assumption that the following necessary conditions be fulfilled:

(1) Increase the total number of lesson hours for science and mathematics practice activities;
(2) Review quantitative limit on the amount of curriculum for science and mathematics;
(3) Use the guidebooks for training current science and mathematics teachers.
(4) Utilize them as a practical and functional lesson guide.
(5) Provide schools with modern science laboratories and teaching materials & equipment

Ⅱ. The role of international cooperation in Improvement of Science and Mathematics Education in Primary Schools in Egypt: (Experiences with Japan)

JICA has implemented the project for the improvement of science and mathematics education in primary schools in Egypt since 1997 in cooperation with HUE (Hokkaido University of Education), MOE (Ministry of Education in Egypt) and NCERD (National Center of Educational Research and Development), with completion of the first phase of the project at 2000 and followed by the second phase from 2003 to 2006.

Since 2003, in close consultation with experts dispatched from HUE and Hokkaido Board of Education, Japan, the methods adopted in the guidebooks had been implemented and practiced in the four Experimental Language Schools in Cairo, in cooperation with the researchers of NCERD. The Undersecretary of Basic Education, the Counselors of mathematics and science of the Ministry of Education in Egypt, inspectors and teachers who participated in the educational seminars, including open classes that were performed five times during this period appreciated the methodology that was applied to the classes.

Additionally, nearly all the teachers participated in the in-service teacher training seminars executed by the project in Cairo Governorate and PPMU (Program Planning and Monitoring Unit) targets. In lesson studies and national seminars that had been organized through the two phases of the project, representatives from international donors in Egypt were invited by JICA Office in Egypt and Ministry of Education to observe the activities of the project and reflect on their efforts for improving the education in Egypt.

The international cooperation for improving science and mathematics education in primary schools between Japan and Egypt could be divided into two phases: First Phase (1997-2000) and Second Phase (2003-2006)

<First Phase of the Project (1997-2000)>

(1) Project formulation

From 1997 to 2000, the Japan International Cooperation Agency (JICA) implemented a project called the "Development of Creative Science and Mathematics Lessons in Primary Education". The mission was to prepare a teacher's lesson guidebook in order to improve science and mathematics lessons at primary schools in Egypt. The quality of lessons at schools is mainly determined by the following three primary factors; teacher's natural talents in teaching and capability, teaching materials and educational methods used, and the educational environment, including education facilities as well as the educational system itself. The quality of science and mathematics lessons cannot be determined by simply aggregating these three primary problems. It is said, as aforementioned, that a current problem facing primary schools in Egypt is the "cram system" of education, which depends upon memorization.

(2) Project design

The plan for the project was designed following the PDM (Project Design Matrix) method. The project steps were:

1) Conducting survey of science education in Egypt;
2) Transferring of a method in Japanese style lessons to Egyptian context as a strategy of science guidebooks and accordingly, training Egyptian researchers and teachers;
3) Preparing a draft guidebook plan and selection of important units;
4) Examining a draft guidebook plan and selection of important units;
5) Conducting trial experimental lessons and modifying draft plans.

Especially on the first step, we conducted a field survey concerning the level of science and math education in Egypt as well as on lessons in order to elucidate the problems on the ground in Egypt. We made a comparison of the data, which can be compared internationally, with the results from the International Survey of Science Education conducted by IEA (International Evaluation Association). In particular, for the qualitative assessment of the lessons, we made a comparison with lessons in Japan. During the field survey in four areas, Cairo, Alexandria, Tanta and Assyut governorates, we recorded, using video cameras, the class scenes where science and mathematics lessons were conducted on the ground, and made a qualitative assessment of the lessons based on a “Lesson Observation Card".

(3) Support system on the Japanese side

JICA and Hokkaido University of Education implemented a project and made guidebooks of science and mathematics in primary education, in cooperation with the National Center for Education Research and Development (NCERD) and Egyptian Ministry of Education (MOE).

(4) Project implementation process

1) Identifying the problems related to science & Mathematics education;
2) Preparation of a draft guidebook;
3) Practice of new teaching method & guidebooks;

In some training centers in the country, the Japanese experts and Egyptian researchers trained more than six hundred science and mathematics teachers to revise the guidebook through practicing.

(5) Outputs/outcomes

- The Science & mathematics outputs:
  Part 1: Outlining Science & mathematics guidebooks;
  Part 2: Guiding teachers to practice new teaching methods & guidebooks;
  Part 3: Designing experimental guides (in science guidebook, 50 science activities)

(6) Training of Egyptian experts in Japan:

More than 15 researchers and Egyptian experts were trained in Japan through the 3 years of the project.

After closing the first phase of project in March 2000, the guidebooks were translated by researchers of NCERD from English to Arabic language. Through 2001/2002 years the Egyptian researchers printed simplified copy from guidebooks and trained two thousands science & mathematics teachers from all governorates in the country with support from PPMU (Office of Donors for Educational projects in Egypt). We succeeded in spreading the culture of project's guidebooks and the new teaching method in many Egyptian primary schools and already many Egyptian science and mathematics teachers and their inspectors have raised their awareness by this. This is a sign or signal that Egypt as a developing country can solve some practical problems in primary education on their own with a support obtained from Japan.

<Second Phase of the Project (2003-2006)>

The Ministry of Education of Egypt, aiming at extending basic education from 5 stages to 6 stages, as aforementioned, has decided on a larger–scale reform, that is, the introduction of the 6-year education system into primary schools. It was beginning in April 2003 when the cooperation between National Center for Educational Research and Development (NCERD) in Egypt, Hokkaido University of Education and JICA was implemented. On 1 March 2006, we held a closing ceremony for this project.

The new teaching method in this phrase affected children as well as teachers through use of child-centered approach, which enabled them to conduct science activities by hands-on methods and teach problem solving skills. Prospective development of the guidebooks by visiting classrooms and observing the effect on children and teachers could provide useful remarks for the activities of the project including revision of the guidebooks.

(1) Project Purpose

The new teaching methods using the guidebooks in science and mathematics education took root in the selected schools and laid a solid base for further dissemination.

(2) Activities

1. Collaboration: JICA experts with the researchers of NCERD;
2. Selection of the target schools: 4 Experimental & Controls schools;
   -Provide the teachers with hands-on instruction
   -Make trial lessons by teachers of the selected schools
3. Research on the effectiveness of the new teaching methods;
4. Revision of the guidebooks through practices in classes;
5. Support in strengthening the function of the school-based units;
6. Organizing school-based training session;
   - Open classes for teachers within Cairo governorate
   - National seminars

In order to solve the problems of science and Mathematics teaching in primary Education in Egypt, we needed:

- Re-preparing the guidebooks as the new policy of the Ministry of Education (MOE) in Egypt to extend primary education from 5 stages to 6 stages
- Providing teaching plans &additional enrichment activities.
- Providing teaching materials & tools and supporting instruction in classes.
- Instructing & training by experimental techniques, problem solving method and hands-on- science activities.
- Training & evaluating through open classes system and lesson study.
- The performance of the teacher who had got the training
- Management of students groups work
- Using and creating teaching materials near at hand.
- Providing the students with oppotunities and time to inquire about scientific phenomena.

(3) Methodology

We used the open class system and Japanese lesson study technique for Improving Science Education Delivery Based Student–Centered Class in Egyptian Primary Schools. We used experimental methodology for determination the effective of the open class system and lesson study technique in Improving Science Education Egyptian Primary Schools.

We selected 4 schools as a pilot group and 4 schools as control group for testing the lessons planes, training the teachers and making open classes.

The study continued for three years from 2003 to 2006 for preparing the guidebooks and training the science teachers by using open classes system, by cooperative with Hokkaido Education of University staff and supporting by JICA and NCERD science researchers.

We visited the school weekly to make lesson study with science teachers and made workshop every month for training and twice open classes in every school in a year. The sample of students included the 4th grade students at the time of 2004 and we completed with them in 5th grade at the time of 2005 and in 6th grade in March 2006.

(4) Evaluation of students

- Practical ways of observing students: focus on their faces, eyes, behaviors, questions and comments
- Monitoring tests by science process test, attitude test, and achievement test

(5) Training and evaluating the teachers

- Recording the open class of science & mathematics lessons by video and having meetings to discuss among them before and after the open classes.
- Using observation card and questionnaires.

The impact of "open class" was evaluated by the participants and students through questionnaires and tests. The result showed that most of the participants found a clear impact from the strategy "Student-Centered Class methodology" and agreed there was a positive effect on both Egyptian teachers and students. In addition, the participants agreed that there was a positive effect on the pilot school and school based training by using Open class system. According to evaluation of the impacts by open classes that trained students in learning, general outcomes for three years from 2003 to March 2006 were positive ones. Their effects on the pupils could be seen in their eager interests and willingness to learn science.

Ⅲ. Concluding remarks

Positive points in the two phases of the project

There are many positive points as outcomes for the project as follows:

- Improvements in science and mathematics education at some Egyptian primary schools: enabling the students to explore the natural world, ask questions spontaneously, examine ideas and make discoveries in searching for understanding;
- Facilitating the teachers to conduct experiments and observations through utilizing materials at hand as the teaching and experimental tools;
- Changing the science and mathematics learning process from teacher-centered to child-centered

methodology.

- Producing and revising the guidebooks through practice. The contents of the guidebooks are to be closely examined through practical activities and revised accordingly.
- Verifying of effects on children and teachers by comparing between the experimental and control schools and visiting classroom.
- Implementing of dissemination activities such as seminars and open classes on new teaching methods.
- There are many national trainers already in Egypt who have good training in Japan and Egypt.

Negative points in the two phases of the project

However, there were some negative points that we need to take into consideration in case of further cooperation with Japan, such as:

- Differences in the philosophies between the first phase and the second phase of the project.
- JICA supported the project by providing us with the expensive teaching and training materials and tools that were in fact available in cheaper prices in Egypt. Needless to say, what Egypt needs and will need most is using the latter ones.
- Administrative cooperation between the Japanese team and Egyptian team could have been done in better-managed ways.
- The Egyptian researchers working in the project were part-time.

So What?

Based upon the lessons we had from our experiences, in the third phase of the on-going project, we need to:

1- Disseminate the guidebooks of science and mathematics in Egyptian primary education through using hands-on workshops training system and Japanese open class techniques;

2- Cultivate better teaching habits and culture of "student-centered class methodology" inside science and mathematics classrooms. In Egypt, there are more than 22,000 science and mathematics teachers in primary schools those who need to take this training to change their teaching habits.

3- Accept new teaching methods and skills as well as the way of applying the guidebooks of the project into the real contexts.

This is our mission and task in the future.

【Dialogue between Speakers and Participants】

Joseph P. Riley（National Institute of Education, Nanyang Technological University, Republic of Singapore）
I would like to conduct the questioning the same as this morning and thus now open the floor for questions.

Question 1

Masami Isoda (University of Tsukuba)

Within Japan's MEXT there is support to dispatch teachers in Honduras. JICA has programs in mathematics education. I'd like to ask you a question about the JOCVs. There were talks about Japanese contribution with experts in the developing countries. The JOCV plays a very important role so if there is any interaction between the two. I'd like to hear your comments about it in some countries.

Question 2

Pamela St. Leger (Centre for Program Evaluation, The University of Melbourn; Visiting Professor Dept. of Learning Sciences, Hiroshima University)

I have three questions. First to Dr. Takemura, I would be interested in his comments on the kind of vocational education that he might see as useful in the situation he described in Kenya. Next, to Professor, I would like to know how the schools were selected for the project--both the control and the pilot schools. And thirdly what does he see as the key to changing teacher practice because from what we saw on the screen and his words there seems to be quite a leap from what was practiced before to what is now being done.

Question 3

Khalil Hassan (Embassy of the Kingdom of Bahrain)

I am very impressed with your presentations and of moving to problem solving while at the same time concentrating on the process of thinking and developing the intelligence. Now I would like to ask how these issues combine with emotional intelligence. How are we going to develop comprehensive education which encompasses emotional intelligence within a world where there is quite a lot of violence?

Response from the speakers

Shigekazu Takemura (Professor Emeritus, Hiroshima University, Japan)

Currently there are JOCVs in Tanzania, Ugandan, Kenya, Malawi and other east Africa and in fact 1,500-1,600 JOCVs have been dispatched since these programs were started. They arrive in Kenya and we provide them the new recruits training. They have many opportunities to have contact with the people in local districts. What was very impressive to me was that there was a group of mathematics JOCVs who were to give an exam on mathematics and they measured at a detailed level the math ability of the students in Kenya. This was very useful for our project because they collected an overwhelming amount of data. There was also a result presentation by Japanese JOCVs that I witnessed where they were receiving overwhelming applause. The

JOCVs were practicing teaching in a district. When we went to a district we participated in their meeting with Kenyan officials. The JOCVs had training themselves and we were invited. They can hear from the people in the field first hand raw data so from that they can tell about the nature, religion, characteristics of the people, and the social circumstances in which they live. Therefore we can understand the parents and children with the help of the JOCVs. After their meeting I invited to go to a nearby restaurant with them and urge them to think about their situation in respective school while eating and drinking, they share opinions and feelings. Some are affected with malaria which is linked to their environment. I can provide them with precaution support and JOCVs are protecting against malaria.

Shaaban Hamed Ali Ibrahim (Assistant Professor, National Center for Educational Research and Development, Arab Republic of Egypt)

I would like to respond to the question of how the schools were selected and the key to changing our practice. In African countries there are some core problems in the education field but in Egypt there is a somewhat different situation and already the side has changed. In Egypt we have professionals and Ph.D.'s and Master degree holders and also we do not have bad teachers. Thus we have improvement in our curriculum already but our problem is we cannot transfer this inside to the classrooms of our schools. For this reason, we need to attach this system inside our classrooms to change the habits--this is our mission in this project. As for the second question about how we selected the schools, it was through a physical way in that those in the same society position from the families of the children of the same economic position if in rural or rich area, we selected for that and we selected just to apply our scenario and guidebooks to know the effect. To make the classes in the schools we invited a lot of teachers to come to meet naturally to change the culture of teaching.

Shigekazu Takemura (Professor Emeritus, Hiroshima University, Japan)

I think the second question addressed to me was to comment on what hands-on practice the teachers engage in and how this provides a vocational framework. Now for teachers to change, what has to happen to practice and the teachers is that they have to develop the hands-on skill experience successfully. Taking an example, it is an electronics workshop in physics training. Without that hands-on skill experience, they can't change. The teachers go to attend the training workshop for hands-on skill development and practice. I say this training gives the excellent and effective experience. That is the joy to teach for teachers and the joy to learn for students. When this becomes visible, the students change in science handcraft skill and the teachers change in teaching style. When the teachers and students change what else changes? It's the joy of having taken action that cultivates the next action in further science handcraft or industrial arts and I'm convinced that this works.

Shaaban Hamed Ali Ibrahim (Assistant Professor, National Center for Educational Research and Development, Arab Republic of Egypt)

Egyptian rights are such that I want to know if it is correct or not. We cannot teach this to the student in the classroom except only by invitation. That which is good government for this is that children work in groups and give their opinions and there is more discussion and the teacher has an open mind to discuss and to speak. I think that the teacher will come to understand what is the meaning of democracy and what are rights. This is my view.

Shigekazu Takemura (Professor Emeritus, Hiroshima University)

The third question is related to how to teach problem solving and develop emotional aspects.

Problem solving is a scientific approach. Students want to find out what comes out in natural phenomena and to predict and explain why. Process of problem solving is the consequences of their inquiry. Then they do the experiments and they find out only one prediction is right and this brings out the conclusion. The evidence is stated one and two and three and science conception has to be explained objectively in science lesson. It is also that way when you try to draw a conclusion there has to be consistency and that is what is compelling. In our language education, we don't teach people how to present in a clear way. In science we do this. This is something we do in Africa to introduce logical problem solving. You acquire problem solving skills and a critical thinking approach to vent and to take a comprehensive scientific approach. Students develop curiosity, respect for evidence, willingness to critically evaluate ideas, working cooperatively and predisposition to apply knowledge in problem solving. Then they give an evaluation their inquiry process and are able to act and behave in a scientific manner.

The next point is very difficult--to love nature. This is a Japanese concept that you come into contact with nature and you begin to understand the scheme of things and you understand this is the mechanism of nature and that you have to protect it and be in harmony with nature. You breathe in air when you go into the forest and your mind is at peace. We are biological creatures and you have to observe your presence as a being in nature. This is the way nature is and the insects and flowers all are your friends and we live through photosynthesis and you remove things by being in harmony. To love this is the kind of virtue we are teaching--to appreciate the beauty of things this is what we have always thought is important and this is what we are trying to teach. Kenyan says God create nature. We study the God world: Creatures

Question 4

Takeshi Miyazaki (JICA)

When we teach science in the middle school there are teachers specializing in that role for Japanese teachers. But in the case of the primary school teachers, they are not specialized in only math and science but also other subjects. So when you train the teachers you would need to teach student-centered teaching methods. How to teach math and science is important but can it be applied to other subjects? How often is that done? For instance are there student centered methods used only for science and math and very teacher centered methodology still prevailing in other subjects or is the student center methodology applied to other subjects?

Question 5

Taeko Takayanagi (CICE, Hiroshima University)

First I'd like to mention that I was very interested in listening to the speeches and thank you. Mine is a very elementary question. First, both of you talked about child centered lessons centered on children to promote creativity among the children. In many countries after they finish primary or middle school the students must pass a test where they memorize what they have learned or they cannot continue to the next level of education. So a nationwide is performed. Do you have such a test in your countries and if so instead of memorization how would such a nationwide test be related to the project that you are implementing? And if there are such tests, are they such that the educational ministry takes into account your approach so that they would change the national

exam or not? And secondly, after students finish primary school or when they have such knowledge of math and science as you provide is it true that by acquiring these additional skills it is easier for them to get employment? In addition, would there be any kind of follow up skill development project so that they can apply their knowledge better? In order to have that kind of project for the study of science and mathematics is it better to teach the basics at the lower level or what is the best direction in which to apply these principles?

Question 6

Hideo Ikeda (Hiroshima University)

I have a brief question. The Kenya project was 5 years plus it went over another 5 years in order to hand over the project. So what is now the timing for the handing over of the project? And with Dr. Ibrahim's project it was a three year project and then there was a gap followed by another three years. Is that a more successful and efficient pattern?

Question 7

Norihiro Kuroda (Hiroshima University)

As a summarizing question, my question links the discussion in the morning where Mr. Araki was talking about the direction of Japanese cooperation to focus more on science and mathematics which relates to the presentations by Dr. Takemura and Dr. Ibrahim. You are both involved in math and science projects. However, there might be other unique things that only Japan can provide. Maybe it is true that any county could provide it. So, I wonder what you think. Is it something unique to Japan or something that any country can provide? Is there an advantage to work with Japan in math and science education or is the philosophy as good as a team that any country could provide? Or do you believe only Japan can provide this?

Response from the speakers

Shigekazu Takemura (Professor Emeritus, Hiroshima University, Japan)

I will answer the questions one by one. Regarding the question 4, if this can be transferred to other subjects or not. Math and science are problem solving so in that sense we can apply this to social subjects as well. In terms of problem solving, in social studies we have a responsibility as a group to study together for solving a problem and come up with a conclusion with a group.

As for the question 5 on the issue of graduation qualification or certification exams, in the case of Kenya there is an exam in order to be recorded as a graduate and 4 or 5 % of the children are selected to take a chance to go into the university and so this is an exam to select only a few. But we are trying to develop the different achievement tests for guidelines for improving lessons regardless of this. For our educational survey there is a survey using Bloom's taxonomy, which includes information, comprehension, application and high order thinking (analysis, synthesis, evaluation). There are four stages and we survey the level of achievement and get normal distribution of the result and we can see what is not working well and see what can be enhanced to certain skills and ability for teachers, taking example not engaged enough in group activities and not enough in high order thinking. We create such a survey for teachers and principals for their teaching and management, and for students for attitude change and incorporate teacher factors to make sure of the high achievement level of

the course of study.

As for the question 6, what to do with the follow up and next step, this is a very important issue. We are preparing the next step to train primary school teachers. Education for all is very important. There are a lot of diseases so in biology the study of bacteria, malaria, or typhoid and what causes such diseases and how to prevent such diseases takes place. So it is easier for someone to get a job in that field or to advance to higher education and get employed in that field. Thus we respond to the needs of the people. Regarding Professor Ikeda's questions, people are now very enthusiastic about focusing on primary not only secondary education and a new manual is being developed with the final decision to be decided by JICA and Kenya.

Next, question 7 in regards to what is Japan's expertise. Japanese experts are very good at research on lesson studies: plan, do, see, and improve in classroom practice. On the contrary, America often calls a theoretical paper session. For the Japanese, they have research group activity to make improvements of our lessons in classrooms and this is an area where Japan excels. I want to meet math and science teachers in Singapore--so Dr. Riley in a way is my competitor, but I am hoping we can compare the academic level in Singapore and Kenya to see which is better.

Shaaban Hamed Ali Ibrahim (Assistant Professor, National Center for Educational Research and Development, Arab Republic of Egypt)

I think Dr. Takemura covered all of the answers but I will speak from the Egyptian side. We needed to have a second phase in the project due to the change in the learning system from 5 to 6 years. So we needed to again make the guidebooks and alter that content. Why we use at the primary level and not in middle or secondary schools is because our teachers in primary school from years ago were prepared in high school to be teachers and not in university so their skills are not completely developed or they have little information about teaching. So they need more training but teachers in middle and secondary schools are prepared for teaching in college so we think they are not so bad. We now have a lot of projects in science and mathematics that work. This kind of knowledge in the fields of mathematics and science is very important at this time to make improvements in our country. We have a lot of projects in the first three years centered on hands-on science activities with JICA projects. There are so many that I didn't have enough time to speak about it.

Joseph P. Riley（National Institute of Education, Nanyang Technological University, Republic of Singapore）

And what about national exams in Egypt? Do they exist and are they in conflict with your project?

Shaaban Hamed Ali Ibrahim (Assistant Professor, National Center for Educational Research and Development, Arab Republic of Egypt)

Now the examinations place our country in a really bad position. Because Egypt needs to bring up many countries in our Middle East other than Egypt so it has made a bad situation for our government so we need to improve our situation.

Joseph P. Riley（National Institute of Education, Nanyang Technological University, Republic of Singapore）

Someone mentioned the question about Japanese expertise and I just want to say that the credibility of the communicator is such that when Japan speaks about science and math, the world does listen—even Singapore

listens.

Shaaban Hamed Ali Ibrahim (Assistant Professor, National Center for Educational Research and Development, Arab Republic of Egypt)

To add a final comment, in our student study for higher education of those preparing for either an MA or Ph.D. they named it “the Japanese approach” using our philosophy in our project. This has had a good effect in Egypt now for information psychology and the use of a hands-on approach is something in which Japan excels.

Question 8

Mary Goretti Nakabugo (Makerere University, CICE Visiting Professor)

I have a general question. To date one of the challenges we have is that most of the projects are on a really small scale as in Egypt which is involved in only 8 schools -- 4 experimental and 4 control schools. I have been doing research trying to convince policy makers that the outcomes of these projects are really worthwhile. But how do you disseminate them to the entire system? Or is the problem to convince sustainability? You are looking to JICA alone and what evidence do you present to the policy makers to convince them?

Response from the speakers

Shigekazu Takemura (Professor Emeritus, Hiroshima University, Japan)

This question 8 is what I have done. First of all we have to convince the Minister of Education. You have to come to Japan and observe and see how we do things. But the important thing is you have to know is that there are strong needs for teachers in which to be trained. In Kenya there are lots of requests and that gives the validity and the reference. In the pilot action progress stage, another point is that I was on television many times and I did a lot of media appearances and had newspaper articles written so people would know what we are doing. The government did inputs and the parents were willing to pay for Inset. At the same time, we had principal training workshop and we went to another principal gatherings and meetings for adding more information. At that time, our project was pilot trial cycle. The pilot was about one tenth so principals said why it was. That only one tenth was privileged and the principals said they wanted to expand the training for all districts, then Kenya government decided expand trainings for all district science and math teachers, today we have 103 teacher training centers in Kenya. The government and district training centers say the ownership is ours. Then there is sustainability in teacher training system.

Joseph P. Riley（National Institute of Education, Nanyang Technological University, Republic of Singapore）

I’d like to take this opportunity to thank our speakers once again for their intellectual and emotional presentation of their topics.

【Dialogue Sessions:】

“Improving the quality of education: Japanese approaches in support of EFA and MDG goals”

【Session 2】

“Possible future directions for Japan’s educational cooperation- focus on early childhood care and education”

Moderator

Nicholas Burnett

Speakers

Takashi Hamano

Ramatoulaye Diop Sabaly

Moderator

Nicholas Burnett

Director, EFA Global Monitoring Report, UNESCO

Nicholas Burnett, an economist with extensive experience in the fields of education and human development, has been Director of the *Education for All Global Monitoring Report* since October 2004. After working for the British Government Economic service and as a professor and journalist, he held several positions in the World Bank from 1983 to 2000, including in the Education Group and as sector manager for human development in Africa. Holder of an undergraduate degree from Oxford, of the Henry Fellowship at Harvard and of post-graduate degrees from the John Hopkins University School of Advanced International Studies, he is the author of many publications and articles in education and economics. Mr. Burnett ran his own consulting company from 2001-04 which specialized in human development and strategic management and helped to establish the Roma Education Fund.

Speakers

Takashi Hamano

Associate Professor, Ochanomizu University

Prof. Hamano holds an MA in education from Nagoya University. He served as research associate at Tokyo Institute of Technology, Associate Professor at Musashino University, and CICE at Hiroshima University. His area of specialization is sociology of education. He has been in the current position since October 2004. He is also a head of the early childhood department at the Center for Women's education and Development, Ochanomizu University and leader of the cooperation Bases System project on early childhood care and education.

Ramatoulaye Diop Sabaly

Director, Preschool Education directorate, Ministry of Education, Republic of Senegal

Ms. Sabaly is a graduate of Higher Normal School of Dakar. After working as a Head of a kindergarten, she served as departmental inspector for preschool education in Greater Dakar area, regional preschool education counselor, supervisor and coordinator for elementary schools and preschools and head of the preschool education division in the Ministry of Education. She assumed the present position in 2002. She has taken part in many training and study projects of international organizations such as the World Bank, UNESCO and UNICEF. She has been an active participant in both domestic and international networks such as Association of Women Educators for the Promotion of Families and Francophone African Childhood Network, and also serves as a coordinator of the Multisectoral Committee on Childhood Development (10-year Plan for Education and Training).

【Moderator's Opening Remark】

Nicholas Burnett
Director, EFA Global Monitoring Report, UNESCO

As was just mentioned I am in charge of the team that is responsible for producing a report on EFA. But this year we have a special theme which is early childhood care and education so I thought as an introduction I would try to frame the discussion with four or five of our findings and reinforce them further.

The first finding is that these programs have huge benefits compared to cost. For economists they are almost a dream-- the returns on benefit cost ratios are as high as 17 to 1. But despite these very high returns, these huge benefits around the world, those who are most likely to be enrolled in these programs are not those who would benefit from them the most. The children who would benefit from these programs the most are not enrolled.

The second key finding is the key determinant is not whether you have nice materials but it has to do with the nature of the interaction between the child and the adult. The key point is that one of the most important things is the selection, training, support and remuneration of the adults who look after these children.

The third thing is the pattern of these programs around the world is roughly divided into two categories by age of the children. For those under three, programs focus mainly on care. For those age three and above, the programs become much more educational and indeed become pre-school in developing countries. Latin America is only region where more than half of the counties have more than one program for the under three. In all the regions, the enrollment rate is below 50%, among the Arab States 12-13% and among sub-Saharan African countries 10-12%. These regional averages pose a huge enrollment question and this links to who benefits.

The fourth point is that spending is generally very low compared to other levels of education. Indeed spending is very low but when we also include spending categorized under health as well as education, it is a bit higher than shown in the figures we have seen – and the same is true for the aid numbers. Even so, the aid numbers are very low an**d** the number of donors who participate in these programs is also very low or any significant involvement is very low. So I hope that from the presentations that we hear today we will learn why it is that donors have so far participated so little and what the potential is for Japan to participate more than it has in the past. What is it in Japan's domestic experience that is of relevance to the rest of the world? Developing countries must have elements of transfer of experience as well as transfer of money. Especially there are challenges to developing programs in resource poor countries such as Senegal.

【Speaker Presentation】

“Japan’s Potential Cooperation in ECCD (ECD)”

Takashi Hamano
Associate Professor, Ochanomizu University

1. Introduction

I am Takashi Hamano from Ochanomizu University. It is a great honor to be invited to this wonderful forum today to give a presentation on the theme of Japan’s Potential Cooperation in ECCD (ECD).

There are many terms related to the development of preschool children, such as ECD, ECCE and ECCD. Each has a different emphasis on childhood development, but they all focus on early childhood before school age. I would like to use the term, ECD, in this presentation.

The outline of my presentation is as follows:

First, I would like to discuss why ECD is important. Second, I will review the current situation of the international cooperation in ECD. Then, I will introduce Japan’s past cooperation in ECD and issues of international cooperation in ECD. Finally, I would like to discuss the possible future directions for Japan’s cooperation, which is the main theme of this session.

2. Why is ECD important?

Since the 1990s, early childhood has been recognized as an important area of international educational cooperation, particularly preschool education and support for early childhood development. The “World Declaration of Education for All” (the Jomtien Declaration) regards early childhood care and preschool education as a part of basic education, which reflects the fact that the importance of ECD has gained recognition. This is based on the philosophy that expanding preschool education enhances children’s readiness to learn and improves access to and the quality of the primary and secondary education that follow ECD.

The “Dakar Framework for Action” adopted in 2000 has six goals. The first goal, which aims at expanding and improving early childhood education, is stated as: “Expanding and improving comprehensive early childhood care and education (ECCE), especially for the most vulnerable and disadvantaged children.”

The theme of UNESCO’s *EFA Global Monitoring Report 2007* was “Early Childhood Care and Education (ECCE).” From these examples, we can see that early childhood education will be an increasingly important area of international educational cooperation.

So what are the positive effects of ECD? Let me summarize what has been discussed: 1) ECD has a high profitability, 2) ECD is an effective measure to achieve the development goals of poverty reduction and universal basic education, 3) ECD reduces repetition of grades and dropping out of primary and middle school, 4) ECD stimulates the physical, intellectual and emotional development of children, 5) ECD strengthens ties between homes and the local community, 6) ECD facilitates mothers’ employment, 7) ECD promotes girls’ education and 8) ECD contributes to economic growth.

In this way, many studies support the importance of the benefits of ECD and indicate its necessity, but ECD

has not been widely practiced in developing countries. ECD activities are conducted mainly in cities; in rural areas and among the poor, we see even fewer activities. There are not enough ECD professionals such as kindergarten or nursery school teachers. There are not enough teaching materials, either. The biggest issue is lack of funds. Governments are not providing sufficient financial support for ECD.

3. International cooperation in ECD

Although the importance of international cooperation in ECD has often been pointed out, donors have not given high priority to this area, and not many projects have been implemented. Compared with primary, secondary and higher education, there are only a very limited number of ECD projects with very small budgets. Not many bilateral cooperation projects are implemented for ECD, and the few bilateral cooperation projects are mostly implemented in collaboration with international organizations.

Why has ECD been given a lower priority by donors although its importance has often been pointed out? I think there are four reasons:

First, developing countries have not yet given a high priority to ECD. As cooperation projects are conducted jointly by donors and developing countries, unless developing countries are willing, donors cannot go ahead with these projects. Second, as is the case of the Millennium Development Goals (MDGs), the highest priority is given to achieving universal primary education both nationally and internationally. Third, the international community has little experience in ECD projects and has not established effective methods of cooperation. People understand the importance of ECD, but they don't know how to support it. Fourth, the actual situation of ECD has not been clearly understood, either. This means that the actual situation has not been fully studied. Since there has not been enough research conducted to clarify the situation, we have not been able to identify effective methods of cooperation in this field.

Under these circumstances, the World Bank, UNICEF and NGOs have implemented more ECD projects than other donors. While UNESCO has been conducting mainly policy-support activities such as policy analyses and developing educational programs, the World Bank, UNICEF and NGOs were mainly conducting field projects in developing countries.

The main activities of these projects include teacher-training, development of teaching materials, awareness campaigns, construction of facilities, capacity-building, monitoring and evaluation. Many ECD projects are conducted as a part of larger programs (for basic education, healthcare, maternal and child health, nutrition improvement, etc.) rather than as independent programs. Therefore, it is important for these projects to collaborate closely with different sectors in addition to the educational sector and with relevant sub-sectors within the educational sector.

4. Japan's past cooperation in ECD

What kind of cooperation has been implemented in this field with Japan's ODA? For example, Japan has dispatched Japan Overseas Cooperation Volunteers (JOCVs), provided technical cooperation, received trainees from developing countries and established the Cooperation Bases System for universities.

(1) Dispatch of Japan Overseas Cooperation Volunteers

First of all, we must mention the dispatch of volunteers. In 1967, the first JOCVs, the two nursery school teachers, were dispatched to India. Since then, a total of 487 JOCVs have been dispatched in the field of ECD to

47 countries and have supported early childhood development.

(2) Technical cooperation

An example of technical cooperation is the project of children's centers in Senegal called "Case des Tout-Petits" (CTP). In two regions in Senegal, these centers are providing child-care, meetings for mothers, teacher training and other activities. An important task is to formulate a master plan for ECD by developing these centers.

(3) Cooperation Bases System

The objective of the "Cooperation Bases System" is to provide an intellectual base to support international educational cooperation in Japan. The project was launched in 2003, when the Ministry of Education, Culture, Sports, Science and Technology (MEXT) established a cooperation base for ECD at Ochanomizu University and compiled the "Early Childhood Education Handbook" to give an outline of the achievements of ECD in Japan. This handbook is used for various training projects and for activities of ECD in developing countries by JOCVs and other relevant stakeholders.

(4) Receiving trainees

In 2006, Japan invited various people including kindergarten directors and administrative officials from five countries in Central and West Africa (Burkina Faso, Senegal, Nigel, Mali and Cameroon) for ECD training. Japan has provided a comprehensive support for ECD to these countries by, for example, promoting the sharing of information among kindergartens and nursery schools, the ministries of education in charge of formulating national policies, teacher training colleges and universities and other relevant parties in Central and West Africa.

(5) Projects with an NGO through grass-roots technical cooperation

From 2003 to 2005, JICA and an NGO jointly conducted a "project for improving ECD by introducing picture books to Sri Lanka." In order to improve the quality of early childhood education in Sri Lanka, people involved in child-care, such as parents, nursery school teachers and schoolteachers, focused on the educational effects of picture books and implemented this project, which aims at improving the professional skills of early childhood education using picture books. This project carried out lectures on picture books, exhibitions and practical training to develop human resources capable of creating picture books for ECD.

(6) ECCE supported by the UNESCO/Japan Fund-in-Trust for EFA

Japan has also supported ECD in the Asia-Pacific region through the UNESCO Fund-in-Trust for the promotion of EFA. Examples of this cooperation are:

- Promoting inclusive, child-friendly and stimulating early childhood care and education programs in selected countries in the Asia Pacific region (2003, $51,980)
- Promoting effective policies and strategies for inclusive and integrated ECCE programs in selected countries in the Asia Pacific region (2005, $57,630)

5. Issues of international cooperation in ECD

The issues of international cooperation in ECD can be summarized in the following five points:

First, quantitative expansion and qualitative improvement of ECD and correction of disparities. Not many children are receiving early childhood education in developing countries. Statistical indicators such as school enrollment ratios show that only a few people who are rich and live in urban areas have access to early childhood education. Generally speaking, early childhood education is a "luxury" in developing countries. The

quality of early childhood education is not adequate, either, in terms of teacher training and teaching materials. Among the issues of ECD, quantitative and qualitative improvement is most important in addition to the issue of how to expand facilities for early childhood education into rural and poor areas, as they tend to be concentrated in cities.

Second, coordination among different sectors. Projects on ECD are not just the concern of the educational sector but involve many other sectors. In addition to the educational sector, ECD is closely related to various other sectors, including healthcare, nutrition, family, population, gender and village development. Since there are numerous ministries and stakeholders involved, coordination is difficult in many cases. For example, in Senegal, where Ms. Sabaly, who is seated next to me, comes from, there are two ministries related to ECD: the Ministry of Education and l'Agence Nationale de la Case des Tout-Petits. It has been reported that coordination between the two government bodies is rather difficult. In some countries, this is an area where complicated political interests exist.

This does not mean, however, that there is only a negative side to this. If many sectors are involved in a project, it also means that the project may have a greater propagating effect. In any case, it is important for international cooperation projects to know how best to deal with these issues in order to have as many benefits as possible.

Third, we must make sure we set appropriate targets for our projects. In the case of a project for ECD, if the target is inappropriate, the project may exacerbate social inequality. As I have already mentioned, in many countries, only children from wealthy families have access to ECD today. In this situation, supporting ECD may widen the gap between social classes instead of narrowing it. If we are targeting ECD that wealthy families have access to, we must consider how our activities can reach the children of poor families. If the importance of ECD is not well understood by administrative organizations and relevant parties, workshops and training for administrative officials may be effective to raise their awareness. In any case, international cooperation projects for ECD must carefully study the target populations.

Fourth, we must secure education for disadvantaged children. As I said, ECD may result in making rich people richer, depending on how we choose target populations, but if we set appropriate targets, these projects are an extremely effective investment to address poverty. If we can appropriately secure education for disadvantaged children, we can expect that this will not only improve the educational situation but also have profound effects in alleviating poverty and improving health.

Fifth, we must ensure sustainability. Like any project, international projects end after their terms expire. Therefore the success of a project depends on how the developing country can continue and develop the initiatives and efforts started by the project. This means not only the continuation of organizations but also financial sustainability. Another important task for ensuring sustainability is to find the best way to promote the participation of local people and their organizations.

6. Japan's potential future cooperation

When we look back on the history of Japan's ECD, we can see that Japan has been promoting the propagation of preschool education for many years. The enrollment ratio of kindergartens and nursery schools increased rapidly in the 1970s, and today almost all five-year-old children attend either kindergarten or nursery school. The first kindergarten in Japan was established in 1876, so Japan has a history of 130 years of practicing

ECD.

Of course, even though Japan has a long tradition of ECD, this was developed within the contexts of Japanese culture and history, and therefore not all Japanese ECD can be applied to developing countries as it is. As Japan is homogeneous in terms of language and culture, it was easier for Japan to disseminate education, and as Japan has never been colonized by any country, Japan was able to freely choose foreign models of ECD. By adopting Frederich Froebel's early childhood education together with the "child-centered approach" of the United States, Japan was able to create its own early childhood education.

The knowledge of ECD that Japan has accumulated cannot all be adopted as a model by developing countries, but I believe that people in developing countries can learn quite a lot from Japan's practices, such as "child-centered nursery education." Kindergartens in developing countries are, in a sense, "small schools," and what they teach at kindergarten is mainly for preparation for elementary school, such as reading, writing and arithmetic. On the other hand, Japanese kindergartens tend to be based on a child-centered approach, which promotes children's development through autonomous play and interaction with the environment. At first glance, children seem to play a lot and not study much at Japanese kindergartens, but this is a high-level ECD that tries to offer learning experiences through play. According to some research that compares the academic performance of children who started learning reading and writing at an early stage of kindergarten and of those who did not start learning them so early, the former show good results when they first enter elementary school, while the latter gradually catch up with them. Of course, I do not mean to suggest that the Japanese ECD is better than that of developing countries, but I think these Japanese practices of ECD may provide some ideas for people from developing countries and that they can learn some lessons from our past experience.

I took up the example of a "child-centered approach for nursery school education" as a possible area of cooperation, but there are many other areas in which Japan can make contributions using its expertise such as ECD for disadvantaged children, dissemination of education to rural and remote areas, health guidance, drawing up of political frameworks, collaboration between kindergartens and nursery schools (collaboration between education and social welfare), pre-service training of child-care professionals and teachers, functions of kindergartens attached to universities, collection and management of statistical data on education, and designing curricula, monitoring and evaluation. What is important is to have a good understanding of the actual situation and needs of developing countries in order to implement appropriate cooperation projects.

7. Conclusion

As I mentioned earlier, Japan received trainees from five countries in the Central and West Africa. Until just three days ago, I was participating in a workshop held in Senegal as a post program of this training. The trainees who had visited Japan reported on their various endeavors at their workplaces to make use of what they had learned in the training. There were also active discussions on child-centered nursery school education and health education at kindergartens. I would like to tell you about one of the most impressive scenes at the workshop. The trainees who had visited Japan and other relevant people in the field of ECD in Senegal participated in this workshop. A local administrative official raised a question, saying, "I am afraid that child-centered ECD can result in leaving children to do as they like." Then, a trainee who had visited Japan said, "The Japanese child-centered education does not mean that. It emphasizes children's autonomy and learning through play and interaction with their environment," as she had learned in Japan. The official strongly criticized this, saying,

“Why do you bring up what is done in Japan here? Senegal has its own child-centered philosophy, which is different from that of Japan.”

I mentioned earlier that people in developing countries can learn quite a lot from Japan’s practice of ECD, but there are people, like this official in Senegal, who say that “Japan is Japan, and Senegal is Senegal,” and do not like to accept foreign practices. Of course, each country can develop its own child-centered philosophy, and there is no such thing as correct answers to ECD, but I hope that, if people see the practices of foreign countries and find something that might work in their own countries, they will be courageous and flexible enough to modify foreign practices and try them in their own countries by adapting the practices into their local contexts. On the other hand, the donors of cooperation must carry out research on the actual situation in order to have a good understanding of the recipients’ needs. It is desirable that such research be conducted jointly by Japan and developing countries.

Developing countries have different situations, but one thing is quite different from Japan. Japanese curricula are flexible, and regarding the actual activities in classrooms, teachers can decide many things at their own discretion. On the other hand, developing countries have clearly stated curricula, and teachers must adhere to them. Therefore, we must promote mutual dialogue in order to understand what kind of education is really desirable.

【Speaker Presentation】

“Early Childhood Development in Senegal”

Ramatoulaye Diop Sabaly
Director, Preschool Education Directorate, Ministry of Education,
Republic of Senegal

The early childhood development policy can be implemented through the management of a series of parameters that make up a political, economic and social environment aimed at projecting a dynamic vision.

1. The importance of the target population

The population encompassing children between 0 and 6 years of age is approximately 2,045,415. The 0-3 years segment contains 1,153,708. The total rural population is estimated at 1,307,370 children. This age segment represents around 23% of the total population (Mics II).

Providing an adequate response to the needs of the most vulnerable 23% of the population requires democracy, equality and social justice.

2. Diagnosis of early childcare

2.1 Access Diagnosis:

The number of early childcare structures was estimated as 1,050 in 2005, including all categories (Department of Educational Planning and Reform, DPRE), with a pre-school education level of 7.6 % (Document on National Policy for the Integrated Development of Early Childhood, PNDIPE, October 2005), not including structures such as the "daaras" and Koranic schools which, in certain mostly rural zones, are the only childcare structures available. In terms of early childcare, the private sector has a key role, with 73% of all structures. 72% of all establishments are situated in the large cities (Dakar, Thiès, Ziguinchor).

The attendance level for DIPE structures is still too low, especially for the 0-3 age band (1.2%). The vast majority of children remain at home, being looked after by a member of the family or an employee. Children within this age band, left behind by parents who move further away from the family due to professional reasons, are often involved in activities that do not stimulate their growth and learning.

The special, integrating education carried out during early childhood is not sufficiently taken on board by the national education system, due to the insufficient resources allocated to the sub-sector (less than 1% of the total budget for education).

2.2 Diagnosis of quality:

In terms of existing preschool structures, staff who trained at the National School for Preschool Teachers (ENEP), the Teacher Training Schools (EFI) and the Private Catholic Teachers Training Schools are insufficient in number.

Furthermore, the majority of nursery schools hire staffs that have no professional training in terms of looking after young children.

The objective of ensuring that the young child blossoms through a holistic approach is not well integrated, as the range of areas that make up the child's personality are not sufficiently taken into account by the various measures in place. Only the area of education is privileged with the introduction of early school learning to satisfy parental expectations.

In terms of curriculum, the absence of harmonised programmes and teaching media, as well as the lack of adapted teaching support, are responsible for counter-performance and other disparities seen in class practice, leading to educational content within nursery schools not being sufficiently adapted to socio-cultural realities.

Those children who do not attend preschool establishments are sent to "daaras" and Koranic schools, where they are looked after by staff who have often not received the correct training for this age sector.

The lack of logistic and human resources in the IDEN (Departmental Education Inspectorates) affects the quality of training; the question of polyvalence is not sufficiently taken on board when it comes to the initial training of both teachers and inspectors alike.

A lack of synergy in the various interventions by ministers involved in the issue does not facilitate harmonious childcare, in terms of education, health, nutrition and protection.

Furthermore, the absence of information and sensitisation strategies on the strategic nature of childcare is an obstacle to development in the sub-sector.

Staff members working in classic structures have not yet benefited from training on innovation and transversal programmes within the framework of continual training, and are therefore not fit to implement the new policy in its entirety.

In sanitary and nutritional terms, the needs of children are not correctly covered. This leads to malnutrition, diarrhoea, parasitic infections... meaning that their psycho-motor development is delayed and their psycho-cognitive development disturbed.

On the psycho-social level, badly-treated children are exposed to begging and vagrancy, and are therefore affected by exploitation by adults.

2.3 Diagnostic of management:

The management of DIPE structures, all categories included is based on participatory and community-focused steps. In this respect, management committees or parent associations are implemented. Nevertheless, it is necessary to provide them with training in order for them to fully develop their role.

Institutional difficulties are seen on the central level, just as on the decentralised level, in terms of DIPE's structure and staff management.

Financial undertakings in staff terms poses real difficulties for the local communities, and runs the risk of compromising the chances of continuing these initiatives, due to a lack of logistic resources being made available to the sub-sector. This is seen in a lack of educational facilities and equipment. Unfavourable arbitration

The evaluation of the various models of early childcare has still not been fully undertaken, leading to a lack of clearly defined, shared and validated policies in the sector, as well as an absence of synergy in terms of the various interventions from the sectors (Ministries) involved...

The new option of recognising private schools will allow them to benefit from grants aimed at improving the way in which they are run.

3. The new vision

The new vision for early childcare is a clearly affirmed political commitment, a new step which represents a response to various worries and preoccupations.

It aims to: implement an appropriate educational and protective structure for young children, which will create conditions in which they can learn and blossom successfully without losing any cultural aspects; promote the child's harmonious development through a healthy, balanced diet and regular health checkups; and favour the emergence of a community environment that is favourable to the defence of children's rights.

- social (the population is of considerable size, almost ¼ of the total population and highly vulnerable)
- cultural (refocusing educational content on our values and evaluating cultural heritage)
- scientific ("everything is to play for before the age of 6")
- development (preparation of a better child profile).

The early childhood development policy is orientated around the following strategic lines:

- Early childcare being promoted to the level of State priority
- Democratisation of the sub-sector
- Widening the target to children aged between 0 and 3 years
- The implementation of the holistic and integrated approach to satisfy children's rights.
- Inscription of the DPE in the sustainable development programme (DSRP)
- Participatory steps/a community and partner-based approach

4. Development strategies for the sub-sector

The sub-sector development strategy is focusing on:

- promoting a research-action programme on the development of alternative early childcare structures in view of the slight recovery in preschool education levels.
- improving quality of education through the development of a curriculum that is adapted to socio-cultural realities, sustained training of those in the sub-sector, and the implementation of appropriate teaching equipment and support.
- reinforcing social mobilisation (IEC) to favour, on the one hand, global participation (the private sector, the population, civil society, etc.) and, on the other, an efficient partnership focused on learning, protection and development in early childhood.
- the implementation of an efficient coordination, monitoring and supervision system, thus guaranteeing compliance with the respective quality standards.
- the development of programmes adapted to different contexts, allowing for the choice of simple, low-cost formulae
- research-action and in-depth study into African teaching to better transmit positive traditional values;
- the implementation of a support programme for young children to provide nutritional and health input.

4.1 Access:

This is a question of diversifying educational provisions by creating and adapting private and community-based initiatives and reinforcing State actions.

- Acceleration of the construction programme for spaces for young children
- Rehabilitation of nursery schools
- Defence and social mobilisation in favour of young children
- Equipping DIPE's centres in terms of property and open-air play areas
- Support of the private initiative for simplifying opening processes: favouring the opening of nursery schools while respecting safety and teaching regulations
- Support of the development of the community initiative: reinforcing the organisational capacity of the population, adapting the OCBs (Base community organisations), training and funding operators and promoters
- Recruiting staff from the community itself
- Increasing mobilisation among the local population, the community, the private sector and development partners
- Reducing disparities and discrimination, and promoting Education for All.

4.2 Quality:

Improvements in the quality of early childcare will be carried out through:

- the development of a curriculum that is adapted to socio-cultural realities,
- staff training
- the implementation of appropriate teaching equipment and support,
- sustained staff training

- the effective practice of the holistic and integrated approach (education, health, nutrition).
- The care of children with special educational needs and AIDS orphans
- The implementation of a reliable evaluation system
- Collective training, monitoring/evaluation
- Monitoring of experimentation models and stabilisation of the most successful of these
- Improvements in the educational environment of children
- Promotion of parental education
- Promotion of integrating teaching

4.3 Management

Improved management of the sub-sector will only be successful if effective monitoring/support management mechanisms are implemented, and if all those participating are involved from the base up. This will involve:

- The implementation of management institutions and bodies
- The creation of pilot instruments (policy documentation, DIPE reference framework…)
- The implementation of an efficient coordination, monitoring and supervision system
- The implementation of a partnership framework
- The reinforcement of the institutional capacities of the DEPS and the decentralised structures
- Support for decentralised management of the DIPE centres
- Support for private promoters, community operators and families
- Reinforcement of institutional management and the creation of synergy between the various parties involved

5. Perspectives

5.1 Access

- To reach 30% of pre-school education by 2010
- To carry out construction programmes in 28,000 cases
- Rehabilitation of nursery schools
- Replacement of temporary shelters housing community centres
- Construction of a nursery school in each town
- The pursuit of efforts to equip the DIPE centres
- The implementation of a device to incite action from the private sector.

5.2 Quality

- To train all staff from childcare structures on the holistic and integrated approach (teachers, monitors, leaders…)
- To provide all DIPE centres with sufficient and adapted teaching materials
- To improve the levels of collective training in terms of the recruitment of inspectors
- To draw up support documents: teaching guides
- To ensure efficient monitoring and supervision
- To reinforce the abilities of parents, the primary educators

- To ensure that children are adequately monitored in terms of health, nutrition and intelligence

5.3 Management

- To increase the resources dedicated to early childhood
- To reinforce the institutional capacities of the decentralised services
- To fund community operators and private promoters
- To train and support community efforts in recruitment and training of staff in the DIPE centres

6. The Japan Experience

The period in Japan was enriching and very well-organised. It also had a deep impact on my way of working. My stay there gave me a new, more realistic and more efficient vision of improvements in the quality of welcome structures in early childhood.

I was able to familiarise myself with a new care system for young children where the various sections (staff training, space layout and equipment, teaching-learning methods and administrative management) work together perfectly.

The creative imagination of the Japanese could be transferred to Senegal which has lots of non-exploited resources that simple commitment and personal organisation could make the most of, thus improving the status of early childhood structures.

I was highly impressed by the rigour and love of a job well done shown by the staff in general.

This is why, since my return, I have carried out activities to build on what I learned during my period there; these are:

- designing support guides for teachers and families alike, aimed at improving practices,
- encouraging private promoters to better invest in the care of children aged between 0 and 2 years.

【Dialogue between Speakers and Participants】

Nicholas Burnett（Director, EFA Global Monitoring Report, UNESCO）

Thank you both very much and especially for keeping very well to time, which always makes a moderator's job easier. I would like to take the first round of questions and comments and to remind you to please try to keep your question reasonably short. We'll conduct the questioning the same way as this morning and thus now open the floor for questions.

Question 1

Myagmar Ariuntuya (The Institute for the Study of Global Issues, The Graduate School of Social Sciences, Hitotsubashi University)

First to Prof. Hamano, it was mentioned that international cooperation related to ECC is very low in the four points raised in the introduction. On these four points to start off with, there is very little interest in the developing countries regarding ECD. The MDGs are recognized very highly but the MDGs do not relate to ECD. So against this backdrop, Japan hopes to extend cooperation in order to improve and that is to be welcomed, but what made Japan decide to focus on ECD? That is my basic question.

The second question is to Ms. Sabaly and perhaps this deviates from the content but what do you think is necessary in order for Senegal to go forward? Perhaps because of the fact you have been trained in Japan, this is a factor, but ECD is not only in Japan as was found in Hamano's presentation. The World Bank and other international aid assistance of different kinds are extended to ECD in Senegal. So what other experiences besides Japan have taken place and what are your views on this? And from the side of Senegal with a multiple number of entities what consolidated efforts can be made? What is the form of cooperation needed?

Question 2

Takeshi Miyazaki (JICA)

If you are to move forward through ODA you have to have the understanding of the people and to convince the Japanese. In the case of primary school increased enrollment these are quite desirable interventions. In the case of ECC, the number is increasing but is not really compelling. When it comes to grades that is even more unclear in the enrollment rate in primary school. Perhaps if you can find something that is quantifiable it would be more convincing. Mr. Burnett says that the cost benefit ratio is 1 to 17 in the US which is fine in and of itself. But in the developing countries such as Senegal do the results go up? Can you demonstrate using numbers as evidence? That would be effective so if you have evidence in numbers I'd like to ask that of both speakers.

Question 3

Kalafunja Osaki (University of Dar es Salaam Tanzania, Naruto University of Education Visiting Professor)

It is true that very little work has been done in ECD but is shows that children who have been through these programs perform better in permanent education. I have confidence in this but I can't quote studies. However I can find out from the available literature. The problem is to convince the governments to put money into the programs. My question has to do with the type of childhood programs. There are different types of curriculum

in play school. There is a catechism now and there are many conflicts among some parents whether their children should go to religious or Montessori schools. What experience do you have in Japan and other countries like Senegal? The second question is about teacher training when the adult is a truly important person. When a child is young in Tanzania only 1 out of 35 is actually trained to be a pre-school teacher as it is for little babies. But I think we know from the experience of others that this is not so and I think it is needed to examine not only what curriculum is important but also what is the best way to train the teachers.

Question 4

Kazuo Kuroda (Waseda University)

The benefits of ECD have been shown from the 90s and indeed I support expanding ECD but on the other hand public funds would need to be used to expand ECD. Because the enrollment in ECD is very low, the use of public funds tends to go to the more affluent section of the population. The population which is the most impoverished is where we want to deliver ECD and how we go about doing that is something we have to tackle. Current enrollment is very low so how do we go about doing this?

Response from the speakers

Takashi Hamano (Associate Professor, Ochanomizu University, Japan)

Thank you for your questions. As to the first about why is it that Japan is placing importance in this area. The session today is about the future direction of Japan's educational cooperation and until now there has been a focus placed on science and mathematics but what we are discussing is are there other possibilities when we look towards the future? One example is ECD and while there is a clear policy for ODA on which it places importance, there is no clear section so it's not necessarily right to say Japan will focus on this in the future. Rather looking back on what we have done in the past and looking at Dakar, it is stated clearly in EFA Goal 1. ECD has been clearly indicated so Japan has been committed to that and this is an area where no assistance has been given before so we are going one step forward.

Next, as for how to get the support of the public. Compared to science and math of which, you can measure outcomes through paper examinations, with ECD you cannot make an examination using paper so it is very difficult to measure the results. So as for the questionnaire mentioned the performance of a child after going into primary school or rate of dropouts we would only look from that point and there are few. There are lots of studies that have been done and after going into the primary school the positive effects of ECD are particularly true for the poor class or disadvantaged people. Researchers have clarified there are good effects as has Mr. Burnett also pointed out some of the good results.

With respect to the curriculum, one feature in Japan is that I think this is a major difference between childcare in Japan and developing countries. That is the degree of freedom in the case of the staff providing child care. In the case of Japan, MEXT provides a framework and major subjects are indicated but how to teach them is left to the discretion of each kindergarten or each staff member. So ECD is very diverse in Japan and

looking at ECD in Japan many kindergartens are private schools so they are even more diverse. And the scope of selection for the parents is broadened because of the different needs for child care and different responses to these different needs.

The last question is about the affluent class people and how to solve the funding problems where school enrollment is low. This is a very important issue—proper targeting. This is what I mean. One way of thinking is that in the case of programs against poverty, as in the PRSPs, there are many programs of that nature. For instance in Vietnam public education covers some villages and communes covered by other programs selected. You can ensure the funding flow to the poor people and position yourself in that one way of thinking.

Ramatoulaye Diop Sabaly (Director, Preschool Education Directorate, Ministry of Education, Republic of Senegal)

Thank you very much. I also would like to answer some of the questions. First of all in regards to what kind of organization we have. One of the donors is the World Bank in the education field and a very important player. In 2001, we had Phase 1 and the emphasis was considered very important. The placing of this importance was due to the inter-department meetings and hence government support was given to conduct a variety of government programs. The team has been set up across various sectors and while this is very small and only simple educational materials are used, we tried to ensure good quality of preschooling. Also we have UNICEF helping us and they are also developing staff members hired among the residents in the community. The time was not sufficient but also among the members in the community with the support of UNICEF they have developed Health programs and our CCEP center has been established which also has been providing for young children with special needs. There is also a need for child protection. When it comes to the pre-school rate of enrollment thanks to these corporations the enrollment rate increased in Senegal. We do not have the overall statistics, in fact, we do not have an appropriate measuring at all. But when you look at the children graduating form the ECD centers we did conduct follow up and those who received ECD were better at social studies, math, languages, and they were very dexterous and could use tools very well compared to those who did not receive ECD. They are much more open compared to non-ECD children. Japanese children have 11 centers for ECD and you can conduct education from the 1st year of kindergarten to the primary education level. Still some of the children might not have all of the opportunities. Preschool abilities must be acquired but still there is no focus on primary education.

Nicholas Burnett (Director, EFA Global Monitoring Report, UNESCO°）

We have heard some reasons as to why donors might not be so involved. Two other reasons are that first, responsibility for ECCE tend to be spread across many different areas such as health and education so it is difficult for donors to figure out who is in charge when countries express interest in developing this sector. Second, different cultures have different philosophies on the role of very young children and state involvement in this sphere so donors get nervous about getting into that area. I don’t think they are arguments you can’t deal with but they have to be recognized.

Question 5

Khalil Hassan (Embassy of Kingdom of Bahrain)

I would like to go back to the past age and look at child care. That age is a very important and critical age for developing the brain and mind. My question is, is it important to look at the thinking process and development before? I don't know if I misunderstood but it is the purpose to feed the baby and keep him physically or does this actually let the mind develop in the proper way of thinking processes?

Question 6

Taiji Hotta (Hiroshima University)

As for the non formal education, this area of ECD is not my specialty, so I have a question to ask of you. How do you teach mothers how to deal with their children? It is important even in non formal education are there any collaboration programs so they can work together? In Japan particularly newborns and up to 1 to 2 years of age, there is a space provided where mothers can bring their children. What do you think of such a system?

Response from the speakers

Ramatoulaye Diop Sabaly (Director, Preschool Education Directorate, Ministry of Education, Republic of Senegal)

In Senegal so far in the mothers' culture, it is not a process that is familiar to them to give their children under three to institutions. Very young children should not be trusted in the hands of anyone else and they are considered better off in the hands of the mother. This is the present way of thinking. But recently, mothers are going out of the house working on the farms or doing business so there is a new demand and they want to place the children in the care of someone whom they feel they can trust and in a place where the children will be safe. So they are collecting some mothers together in the Department of Family Development in the Ministry of Education and taking the lead using a certain amount of their budget so there is system created to take care of children. So the very young can be placed in institutions but that is only when the mothers feel the staff can be trusted. We also want to create institutions where they are trusted so mothers and children can spend time together with a trained staff. I think there is the initiative at the primary or preschool stage at the age of three when infant care which is given then becomes after the age of three a large degree of education.

Takashi Hamano (Associate Professor, Ochanomizu University, Japan)

As for preschool education in Japan, there are nursery schools we could see differences between Japan and many developing countries. In many developing countries there are very few institutions which care for children ages 0-3 in terms of access and training of staff. In Japan those who care for 0-3 year olds are given expert and specialized training and there are qualification systems in place. A JOCV person has pointed out to me that this is the largest difference—the expert staffs are available for children at the age of 0 in Japan whereas the staff in developing countries is neighborhood mothers or a group of mothers. In Japan, on the other hand, mothers in general do not help each other. There are no mother groups in Japan and a trainee from a developing country

was surprised at the degree to which the mothers do not associate with each other. He found this to be shocking. He said that in his country one mother could ask other mothers in the neighborhood to take care of her kids while she goes shopping. In a process of the government assistance to child-raising which has been ongoing in Japan, we have created an artificial environment to care for the children, and therein might lay those differences in care for children ages 0-3 between Japan and many developing countries. How we conduct non formal education and ECD. This is to a large degree found in more informal organizations rather than public institutions. There is more of this and what I mean is that of mothers forming a group or a family group. One form of information is ECD and the implementing agency could be an NGO or a local NGO. My last comment would be up until now there was a question as to why the donors have not contributed and we have been thinking about this but actually ODA can learn much from the track record the NGOs have accumulated through their knowledge and experience.

Nicholas Burnett（Director, EFA Global Monitoring Report, UNESCO）

Thank you very much. I won't attempt to summarize but would like to make four points. First, ECD does in fact cover a wide range of programs and we need to be quite careful when we use the phrase as it means different things in different contexts. Second, even when you do specify, almost all of the types of programs show very high benefits compared to the cost but that is just the economics of it. There is also the question of financing and several people are raising that concern that these are good investments but someone still has to pay for it. The Dakar goal calls for an expansion to the poorest and disadvantaged children stressing that the benefits of ECCE programs are so much greater for them but they are also the ones least likely to be involved in them. Finally, it has been seen from some of this discussion, that this is a sensitive area between donors and needs to be handled with considerable care. However it is now under-supported and under-funded by many if not all donors.

Once again, we'd all like to thank our two presenters.