Opening remarks by Mr. Takayoshi Seiki, JSPS

Hello and welcome.
Distinguished ladies and gentlemen

Thank you joining us in this forum. I am Takayoshi Seiki. I am Executive Director of Japan Society of the Promotion of Science. I feel truly honored to have the opportunity to offer some opening remarks on behalf of JSPS, the sponsor of this JENESYS Science Forum.

Looking back at the history of this forum, in 2007 the second round of East Asia Summit was held in the Philippines. On that occasion, then prime minister Shinzo Abe, announced an exchange project for inviting to Japan about 6,000 youths each year from countries participating in the summit. The project was called the "Japan-East Asia network of Exchange Programme", in short, JENESYS Programme. Under it, various projects have been carried out. Among them, JSPS was entrusted by the ASEAN secretariat to implement a project to support exchange of young researchers, as a part of the JENESYS Programme. Through this project, we have mainly invited young researchers from Asian countries, who will advance the next generation of research and development in these countries. Ultimately, the project's aim is to strengthen Japan's cooperative relationship with Asian nations.

Two years have already passed since JSPS began this exchange project in 2008. During that period many universities and research institutions have taken part in the project. They have created their own original projects, through which many young researchers have visited our country. The project participants have been energetic young researchers and graduate students, who will go on to play pivotal roles in scientific exchange between their countries and Japan in the near future. I'm certain that the networks created by the researchers participating in these exchanges will contribute significantly to advancement of scientific collaboration between Japan and Asian countries, most especially ASEAN nations.

At this JENESYS Science Forum, presentations will be made on the fruits of our projects over the past two years, with an eye to sperring on the future direction of academic exchange between Japan and ASEAN nations. And we will also examine the progress of the program carried out over the past two years. Many of you here today

have played a significant role in implementing these projects. We will be very pleased if this forum can provide a platform for you to consider the most effective paradigms for cooperation among East Asian nations. So, I look forward to an active exchange of views during this forum.

I would like to close my remarks by expressing our sincere gratitude to Ms. Linda Lee from the ASEAN secretariat. She is the assistant director overseeing the education, youth, training division in the social, cultural community development department. And also I would like to extedn our appreciation to　Prof. Takashi Shiraishi, member of the Council for the Science and Technology Policy for kindly accepting our invitation to ive a keynote speech speech despite his very busy schedule. Our thanks also to Mr. Yoshinori Fujiyama, head of the Regional Policy Division to the Asia Pacific Bureau of Ministry of Foreign Affairs, and Mr. Katsuhisa Sagisaka, from the Ministry of Education, Culture, Science and Technology, and to all the professors and assistant professors who have taken part as instructors in this JENESYS programme.

This concludes my remarks. Thank you very much.

Congratulatory Address by Mr. Yoshinori Fujiyama, Director of Regional Policy Division, Asian and Oceania Bureau, Ministry of Foreign Affairs.

Thank you very much for your kind introduction.

I am Yoshinori Fujiyama, from the Asian and Oceania Bureau of Ministry of Foreign Affairs. At the opening of this forum, I'd like to take a few minutes to talk about a common vision for this region that we can create through the exchange of young peopel under the JENESYS Programme. Mr. Seiki has already touched upon the program's background and objectives. The vision I'd like to talk about should provide the basis for a strong sense of connectivity within the East Asian region, one that promotes ever-greater friendship ad mutual understanding. I believe that the JENESYS Exchange Program for East Asian Young Researchers is contributing significantly to realizing such a regional vision.

Attending this forum are people who have participated on the fronlines of JENESYS projects and who have advanced research in the related fields. I expect that you will engage in a candid discussion of both the program's accomplishments and challenges in a way that will illuminate future directions.

I look forward to this forum being successful in achieving its lofty goals, especially in enhancing support for young researchers.

Thank you very much.

Congratulatory Address by Mr. Katsuhisa Sagisaka, Director of Science and Technology Affairs, Science and Technology Policy Bureau, Ministry of Education, Culture, Sport, Science and Technology

Good afternoon.

Thank you for your generous introduction. I am Katsuhisa Sagisaka from the Ministry of Education, Culture, Sport, Science and Technology. I am in charge of international exchange in the Ministry's Science and Technology Policy Bureau.

First of all, I would like to express my sincere gratitude for being invited to speak in front of such distinguished participants at this wonderful forum.

As you know, last year saw a change in Japan' government administration. The new administration has introduced the concept of the East Asia community, and it proactively pursuing a policy of Asian diplomacy. Our ministry is currently studing various concrete schemes for advancing exchange in areas of education, culture, sports, and science and technology. Among these, we consider it relatively easy to form cooperative leadership in this domain.

On 18 June, the cabinet established a New Growth Strategy for Japan. In it is contained a component for building an "East Asia Science and Innovation Area, abbreviated E-ASIA. Under it, international joint research and human-research develpment is to be advanced in ways that will contribute to solving common problems within the region. Considration is also being given to establishing a joint fund for financing these pursuits. Currently, the Cabinet, Ministry of Foreing Affairs and other related ministries are working together on ways to carry out this initiative.

In addition, under the vobernment's New Growth Strategy, we are seeking to establish a project to be tentatively named the "Top-Level Brain Circulation System." It will work to create an accomodating research and living environment hubs, cutting-edge jonit-research facilities, and enhanced research-support systems. The JENESYS Exchange Program for East Asia Young Researchers will play an instrumental role in advancing this New Growth Strategy.

In today's forum, the results obtained through this program will be reported and

verified. Your finding will be used in paving future avenues for promoting Southeast Asian cooperation and advancing exchange among young researchers withing the region. They will also be used by the Japanese government in formulating policies for pormoting cooperation between Japan and its Asian partners.

Finally, I would like to express my gratitude to JSPS for sponsoring this symposium and to all of you who have worked so hard in preparing this event.

I close my remarks with a strong wish for ever-closer international cooperation among our contries in the Southeast Asian region.

Thank you.

Keynote Address 1
“Significance of the JENESYS Program”
Ms. Linda Lee, Education, Youth and Training Division of the ASEAN Social, Cultural and Community Department, ASEAN secretariat

Good afternoon everyone.

Mr. Takayoshi Seiki,
Prof. Takashi Shiraishi,
Mr. Fujiyama and Mr. Sagisaka,

Thank you all, especially the organizer JSPS, for inviting the ASEAN Secretariat to speak at this forum, titled ‘The JENESYS Science Forum’, and address this distinguished gathering. It is an honor to be here. I’d like to convey the regrets of the Deputy Secretary-General for ASEAN Socio-Cultural Community, Dato’ Misran Karmain, who is unable to attend this forum because of a prior engagement. He sends you his best regards.

Ladies and gentlemen,

Japan is one of the ASEAN's most important economic partners. In fact, Japan is ASEAN’s largest trading partner. Japan is also a major contributor to development cooperation activities in ASEAN.

Japan continues to support ASEAN integration and community building efforts. Only last week, Japan’s Ambassador to ASEAN, H.E. Takio Yamada, presented his letter of credential to the Secretary-General of ASEAN, H.E. Dr Surin Pitsuwan. Among the ten dialogue partners of ASEAN, Mr. Yamada is the first dedicated Ambassador to ASEAN who is based in Jakarta. This underlines the importance and the strength of the relations between ASEAN and Japan.

Both ASEAN and Japan have placed emphasis on people-to-people contacts and cultural exchanges, particularly among the youth and intellectuals. The view is to foster a sense of togetherness, mutual respect, of understanding of each other’s traditions and values.

You have heard about the wonderful initiative by H.E.Mr. Shinzo Abe back in 2007, and as result of that JENESYS was born. You would have known that the programme was launched in November 2007. And in this context, we in ASEAN 580 people of us, we would like to thank to Japan for initiating the very important programme.

JENESYS creates the space and opportunities for our young people to connect through various activities. We have home stays, study visits to institutions, seminars, workshops, research collaboration, scholarships etc.

In this increasingly integrated and interdependent world, the JENESYS programme can also be seen as investing in our future through our youths by–

Joining hands to build our community – East Asian community;
Enhancing mutual respect and understanding;
Networking among our young people;
Engaging our youths actively;
Sharing a sense of responsibility for our future;
Youth leaders' exchanges; and,
Strengthening existing bonds of regional solidarity

Just as JENESYS seeks to connect our youths, in ASEAN we are seeking to deepen and widen connectivity in the region and also with our partners through what we call the Master Plan on Connectivity. This Master Plan of Connectivity was mentioned in the last ASEAN summit, the 16th ASEAN summit. And one of the three key elements of the Master Plan is people-to-people connectivity, the other two being physical connectivity as well as institutional connectivity. So, these are the three keys that we have identified. One of them is people-to-people. And we seek to promote people-to-people connectivity through education, culture and tourism. The Master Plan is expected to be presented to the ASEAN Leaders later this year, when they meet in Ha Noi, Vietnam.

Ladies and gentlemen,

As you know among the various activities under JENESYS is the exchange programme for East Asian Young Researchers which the JSPS has been implementing for the past two years. The exchange is aimed at promoting East Asian regional cooperation through the exchange of outstanding young researchers.

In this regard, I wish to share with you a related initiative that was launched by the Secretary-General of ASEAN, Dr Surin. As recent as 2009, ASEAN as a grouping started sending its students/young researchers to take part in the annual scientific conference called the Meeting of Nobel Laureates in Lindau, Germany. In 2009 we dispatched a group of five students. This year, we ware able to dispatch ten of our brightest minds to Lindau. There, they took part in the 60th Nobel Laureates' meeting that was dedicated to the three science disciplines of chemistry, physics and medicine/physiology. They interacted and connected with some 60 Nobel Laureates as well as 650 young scientists from all over the world. The feedback from the participants was extremely positive; inspiring what they said, once-in-a-lifetime experience was how participants described it.

Drawing from this, I wish to pose a question to this forum: besides the ongoing exchange that JSPS is promoting, what other ways can we, ASEAN and Japan, bring our young researchers/scientists together? Japan is one of the leading nations in the fields of scientific research and technology. Japan has received the most science Nobel prizes in Asia. There is much that ASEAN young students and young researchers can learn from Japan.

You may also know that ASEAN is building a community for the purpose of ensuring durable peace, stability and shared prosperity in the region. We have three blueprints for three communities – the political-security community, economic community as well as socio-cultural community. And these blueprints have concrete actions to promote the establishment of the ASEAN Community by 2015.

I wish to draw your attention to the the ASEAN Socio-Cultural Community blueprint. Here the education sector contributes to developing human resources to enhance the well-being and livelihood of the peoples of ASEAN. Among other things, under the concrete actions we want to promote education networking in various levels of educational institutions. We wish to continue university networking as well. We also wish to enhance and support student and staff exchanges as well as professional interactions including creating research clusters among ASEAN institutions of higher learning. We also wish to seek to strengthen collaboration with other regional and institutional educational organizations to enhance the quality of education in the region.

More than ten years ago, a network of universities known as the ASEAN University Network or what is known then as AUN was set up. Today, the network has grown, bringing together 22 leading universities in ASEAN. For example in Singapore, National University of Singapore, Nanyang Technological University, Singapore and so on. Individually and collectively, the universities have engaged with other universities both within and outside the ASEAN region. The question I have for the forum today is, as a network, how can these universities link up or work more closely with you on activities and programs to promote collaboration between our region and among EAS countries?

In this increasingly globalised world, our collective actions and activities will not only impact our region but benefit those around us as well. We should publicize and I think, publicize very widely the good work done together. For example, what JSPS and what your universities are doing with the ASEAN universities, the sort of projects that you have come up with. How do we publicize those so that they are more widely known not only in our region but outside our region as well.

Through JENESYS, we can work together towards solving problems together, we can face challenges together and we can bring long lasting benefits to the region.

And with this note I'd like to say, thank you once again for inviting the ASEAN Secretariat to this very distinguished gathering. Arigato. Thank you.

Keynote Address 2
"For the Promotion of Academic Exchange with Asian Countries"
Prof. Takashi Shiraishi, Member of council for Science and Technology Policy

Thank you for your kind introduction. I am Takashi Shiraishi.

First of all, I'd like to express my gratitude for your invitation to participate in this JENESYS Science Forum.

Rather than talk about individual policies such as JENESYS Programme, today I'd like to focus upon Japan's policies for science and technology, in which individual programs are important components. I'll touch upon what the thinking is in Japan about the linkage between diplomacy and science and technology and about the concept of an East Asian community.

I'd like to start by touching briefly upon the kind of policy initiatives that are being taken in Japan. Last September, a new government administration was born. A lot of attention and fuss was directed at the new prime minister Yukio Hatoyama's diplomacy policies. However, one critical element of those policies went unvisited by the mass media. That was the great emphasis he had placed on pursuing a concept of an East Asian community. On June 2nd, Mr. Hatoyama announced his resignation as prime minister; however, the day before his office had released a report on the East Asian community concept. This was probably Japan's first effort to build a highly comprehensive East Asian community, encompassing, if I remember correctly, such areas as economic policy, currency and financial policy, human security, including non-traditional security, science and technology, and culture.

Now, under an initiative by the new prime minister Naoto Kan, a New Growth Strategy was formed and adopted by the Cabinet in June. As Mr. Sagisaka mentioned, science and technology are incorporated within this New Growth Strategy, particularly as related to a system for circulating the best brains and pursuing the concept of an East Asian Science and Innovation Area. In this respect, I believe we have entered a new phase of cooperation within the East Asian community, especially in areas of science, technology and education. Given this perspective, a meeting of the Council for Science and Technology was held in February. I am a member of the CSTP. It compiled a report on S&T diplomacy. Now, the Ministry of Education and Science is preparing a report

based on a discussion advanced in its working group on East Asian exchange. I would like to discuss the basic concepts permeating these two reports and the kinds of policy initiatives proposed.

Starting with the CSTP's task force report issued in February, it considers the relationship between Japan, Asia and the global community projected out to the year 2020. There two important points that I'd like to address in this regard. In envisioning the world a decade into the future, the task force looked at ways Japan can create desirable scenarios. Regarding the first point, highly populated countries such as China and India are emerging as major economic powers and growing at a rapid speed. As a consequence, there will be changes in the distribution of wealth both regionally and globally and, of course, in the balance of power as well. Multipolarization within the global order is much discussed. However, the question is how many poles will emerge. In any case, the distribution of wealth and power is projected to change dramatically over the next ten years. That is the point.

The second is that Japan will during the decade from 2010 to 2020 lose a quarter of its population between 20 and 40 years old. In addition, no matter how much effort is made by the government and private sector, even if we were to spend 4% of its GDP on science and technology, Japan's S&T investment would be only 18% of overall global S&T investment. Inevitably, however, Japan's S&T investment will fall below 16%. So, not matter how hard we work at it, Japan's relative weight both in terms of personnel and investment will decline within the world arena.

As a third point, which is related to the first, countries such as China, India, Korea and Singapore no longer require Japan's technological support. In fields of science and technology and in higher education, these are countries that both compete and collaborate with Japan. This will become more pronounced over the next ten years. Up till now, it has been the basic concept of Japan's policy regarding science and technology and education in Asia that Japan is an advanced country and other countries such as ASEANs are developing countries. However, within the next ten years this era will surely come to an end. Even now, Singapore has already overtaken Japan in the competitiveness of its science and technology as measured by the number of research papers cited. What this means is that in the next decade Japan will have to not only compete but also collaborate more with East Asian countries.

Amidst this milieu, what is important when it comes to Japan's S&T policy? The report points out two major factors. First, in ten years the population of Japan's young scientific researchers will decrease by 25%. That will mean that Japan cannot maintain the competitiveness of its S&T system with just Japanese researchers alone. We will need to move ahead briskly in inviting many excellent researchers from other countries to Japan. That brings me back to what I was saying earlier about a system to facilitate the circulation of the world's best brains. This is a critical component of Japan's New Growth Strategy. While internationalizing Japan's existing research infrastructure, including its international research hubs and cutting-edge joint research facilities, it will be necessary to better prepare an environment for receiving overseas researchers and excellent students who will become tomorrow's researchers. That environment must be able to accommodate the families of researchers, as many of them will not come to Japan unaccompanied. That will include providing for their children's education and family's medical needs. It will be vital for Japan to create this kind of an internationally competitive environment. Nonetheless, during last fall's government budget-trimming sessions, a decision was made that it was not necessary to go this far in providing an accommodating environment, so the budget for it was reduced. The stance that the committee took was extremely inward looking, with one member asking why it was necessary for Japan to be a frontrunner in science and technology. This didn't surprise me in that the committee comprised politicians; however, if Japan's S&T system should lose its international competitiveness ten years down the road, it will clearly be the politicians who must take responsibility. Japan's S&T policy is just that important; it is not a time to be putting on a facade for public consumption. I believe we must push it forward, not matter how powerful the forces of opposition.

As I mentioned before, a proposal has been made to establish an East Asian Science and Innovation Area. At an informal meeting of foreign ministers held in Vietnam in July, we came very close to making an agreement on this initiative. If the ASEAN+6 summit goes well, we will ask the prime minister to present this proposal and start taking steps towards its implementation. If the usual formal approach were used to establish the East Asia Science and Innovation Area, it would take considerable time and of course a great deal of money. Doing so formally may even take several years. This would not be desirable, as we in the Council would at least want to concurrently carry out one or two concrete projects at an early stage. Off hand, these projects might include research on such critical areas as disaster prevention or disaster mitigation, new strains of influenza, or a wider range of infectious diseases. Another option might be what has

been a socially sensitive topic in Japan—research related to food security, as I've seen advanced in such fora as the Economic Research Institute foe ASEAN and East Asia (ERIA), under the ASEAN Secretariat. For example, using existing biotechnology, we could handcraft improved rice strains adapted to each region's climate and soil conditions. The rice variety IR36 has exerted a large impact on the green revolution. Other such varieties could also be created. If there is a demand for it, GMO research could be advance, starting with feasible challenges.

It has been recently reported in newspapers that China, Vietnam and India are building nuclear power plants, and that there will be a rapid proliferation of them around 2020. I believe that there are many things that Japan could do to improve nuclear power safety within the region, including human resource development, as a part of its effort to build an East Asian community. These are the proposals being made by the CSTP. The things I've addressed so far are incorporated in the concept of East Asian community compiled by the Prime Minister's Office and in the government's New Growth Strategy.

Now, I'd like to turn back to the working group on East Asian exchange, established by the Ministry of Education and Science. It just so happened that I chaired this working group. I'd like to highlight some of its main points. Whereas the approach taken by the CSTP projects out to 2020, this MEXT working group focuses on indentifying current issues and considering what can be done to solve them. More than the East Asia community, our concern was focused on Japan. For example, the way Japanese young people have become inward, rather than outward, looking. The number of Japanese graduate school students going overseas to study has decreased significantly over the past seven or eight years. This is worrisome when we think about Japan's future. Inevitably, Japan will increasingly merge itself into the East Asia community. This necessitates fostering people who can play active roles in both the region and wider global society across a full range of areas including economics, manufacturing, finance, education, and science and technology. Concomitantly, Japan will need to become a more open country, embedding itself deeper in East Asia and the wider world community.

There are many suggestions in the working group's report on what can be done to move forward. But, I feel I can summarize them in three important points. The first is that we'll need to create a high quality of exchange between universities. Universities in

Japan, Korea, and Southeast Asian countries will need to assure that the quality of their inter-university exchanges are of a high caliber. Including the transferability of credits, it's important that we take steps in that direction. Let's not just conduct student and researcher exchanges, but let's make those exchanges ones of the very highest standard. The second point concerns East Asia. We'll need to get to know each other much better. This places added importance on expanding East Asian studies. Third is that up to now when we've talk about university exchange programs, our focus has been on college students, especially graduate students. However, given the region's industrial development trends, exchanges between technical colleges should also be a high priority. Currently in Japan, it would, however, be difficult to conduct such exchanges. Nevertheless, there are many people in the world who are interested in Japan's areas of strength in fashion, cooking, *anime*, and various other cultural industries. But, it is difficult for them to come and stay in Japan to study these fields. So, I believe this to be an important focal point for supporting future exchange.

Also proposed in the MEXT's report is the creation of an East Asia Science Innovation Area to respond to common challenges in the region. Its substance is what I described earlier.

As my time is running out, I'd like to summarize. Both of the reports I've discussed place pointed focus on the exchange of young people. In a sense, this is only natural as there can be no future without the participation of the next generations. What's necessary now is for Japanese youth to become actively engaged in the global arena, and for the youth of ASEANs to come to Japan to pursue their dreams. For that purpose, we will need to create a widely open Japan. Concurrently, we will need to advance exchange between Japan and East Asia. At the core of these exchanges, there must be young people. The exchanges we envision will place emphasis on science and technology, while on a somewhat expanded technical level, they will advance Japan's initiative to create an East Asian community, particularly in areas of science and technology, education and culture.

Thank you very much.