

**Speech by Ambassador Toshihisa Takata at the
Opening of 2016 ASPAC-FIDIC, “A Shift in Global Focus”
May 9th 2016, Queenstown**

- Mayor Vanessa van Uden, Queenstown

Phil Twyford, MP for Te Atati (Labour)

FIDIC : President Jae-Wan Lee

FIDIC ASPAC: Chairman Liu Luobing

ACENZ: President Keryn Kliskey

ACENZ: CEO Kieran Shaw

Distinguished Participants

Ladies and Gentlemen

- I thank you very much for this opportunity to be invited and to make a welcome speech at the 2016 annual conference of the ASPAC, Asia Pacific regional group of the time-honoured FIDIC. It is indeed a great honour for me.
- Consulting Engineers are important actors for economic growth through the provision of quality consulting services to the improvement of social infrastructure. You are playing a vital role in the enhancement of welfare of the people of the world. The Asia-Pacific region is now achieving the most dynamic economic growth in the world. The role and responsibility of the ASPAC in maintaining and even accelerating this growth is very large. Let me take this opportunity to express my sincere respect to your profession as consulting engineers and hope that the FIDIC-ASPAC 2016 Conference will be a successful and fruitful one.

- In fact, this trip of mine to Queenstown is already a fourth one in this year. It is difficult for me to make a welcome speech under the theme of “A Shift in Global Focus”. But it is even more difficult to decline the invitation and to give up a chance to come and visit Queenstown. Therefore, I am here and speaking in front of you. As a resident of NZ and a frequent visitor to Queenstown I join Mayor van Uden in welcoming you to Queenstown. I will speak on “quality infrastructure” this morning. Queenstown is indeed full of high quality infrastructure of tourism. Please enjoy beautiful Queenstown in one of the most beautiful seasons.
- I am a complete stranger in the field of consulting engineering. So please excuse me If I speak, I’m sure I will speak what is too familiar to you or what is irrelevant to the conference theme. But layman’s view is sometimes useful for professionals. I will speak as a layman and as a Japanese diplomat who has lived in England, Sri Lanka, Belgium, the Republic of Korea, Thailand, Kenya and New Zealand, and of course Japan. In some of those countries, I was involved in development cooperation projects.
- The Asia-Pacific region to which member associations of the ASPAC belong to is witnessing a very dynamic economic growth. The centre of gravity of the world economy is shifting to the Asia-Pacific region. It is estimated that the demand for infrastructure is as huge as one trillion USD every year. This is the infrastructure investment required for this region to continue to grow.
- The future prospect of the growth in the Asia Pacific region is not 100% rosy or dominated by optimism. If we fail to meet the ever-increasing demand of energy without increasing the burden to the world environment, the growth will inevitably be stopped. The Asia-Pacific region is rapidly heading toward an ageing society. We need to maintain the productivity of the society as a whole and maintain the quality of individual people’s lives.
- In order to meet these challenges, the shift is required in infrastructure investment to “higher quality, while maintaining or increasing quantity at the same time”. I am not saying “quality rather than quantity”. I am saying “both

quality and quantity”. I am in fact, rather optimistic about realizing this because I consider that one very important elements of quality infrastructure is low life-cycle-cost and that higher quality infrastructure will enable us to spare some money and invest it in some other projects.

- As for quality of infrastructure, I think that the general public or ordinary people judge the quality from three perspectives: First as hardware, or structure, facility, system; Second in relation to money/cost; and thirdly in relation to humans or a community.
- First as hardware, it is the most important premise that it serves the intended or planned objectives. This can be called conformity to the objectives or performance. The higher the performance level is, the better. Performance in a broad sense of the word, such concepts as manageability, convenience, and credibility are included. And of course, we must not forget that “safety” is essential.
- From this viewpoint, I consider that Shinkansen or Japanese bullet train system is a very high quality transport infrastructure. Please allow me for citing the infrastructure in Japan or with which the Japanese Government is involved because I have relatively detailed knowledge of only those infrastructure.
- The total length of Shinkansen under operation at the moment is about 2,630 km. The first Shinkansen line which started operation in 1964 and which connects the distance of 500km between Tokyo (the largest city in Japan) and Osaka (the 2nd) has transported a total of 5.6 billion people to date (420 thousand per day) and has run 2 billion kilometres (500 thousand times round the earth). And it had the magnificent record of “Passengers’ fatal accident Zero” for more than 50 years. Punctuality of Shinkansen is also famous, average delay time is less than a minute. A friend of mine, foreign businessman, once remarked to me “I always adjust my watch when my Shinkansen train starts moving”.

At the time of “Great Japan Earthquake” in 2011, several trains were running in the quake-hit areas. But all the trains stopped safely, thanks to

the system which detected the very first sign of the earthquake and automatically applied brakes. The record of “Fatal passenger accident Zero” was broken last year. A man committed a suicide by fire with gasoline and a lady nearby got involved and was killed. But this incident at the same time has proved the Shinkansen’s high fireproof capability, which is one of the important elements of safety.

- NZ and Japan share many things in common. One example of such commonality is the earthquake. I wish to express on behalf of the people of Japan and on my own behalf our sincere thanks to your kind condolences for the victims of the recent (and it is still continuing) earthquakes in Kumamoto and warm encouragement for us. We really appreciate it.
- Shinkansen also has a very good record in terms of finance. The World Bank approved a loan of 80 million USD to the Shinkansen project in 1961 with the condition of 5.75% interest rate and 20 years of repayment period. The loan was fully repaid in 1981 without any disruption of the repayment of interests and principals.
- The Shinkansen is in operation in Taiwan now. The Taiwan bullet train system connects the distance of 345km between Taipei and Kaohsiung in 96 minutes. I am happy to note that the Taiwan bullet train has well established its reputation of convenience, reliability, safety and punctuality since its start in 2007.
- Now let me turn to “quality infrastructure” from the viewpoint of money and cost. The core question here is whether the life-cycle-cost is high or low. Many factors are involved, starting from the construction cost, to operational cost, maintenance and repair cost as well. Durability is also important. But not only that, you also have to take into consideration various environmental and other social costs incurred from even during construction period. All these costs must be made as low as possible.
- Now at Mombasa Port which is a gateway to the entire East Africa and is the sole international trading port of Kenya, construction and expansion of container terminals and improvements of loading and unloading machinery

is underway. The Strengthening of the ground which can sustain the heavy weight of goods, machinery, trucks and others is the first work to do. The use of corrosion-proof technology and materials is essential to make the port durable. I guess that these things are elementary steps to reduce the life cycle cost of the project.

On the other hand, it is not at all easy to calculate or predict a cost. For example, as an official of the Government of Japan and as an individual citizen, I consider Japan needs nuclear power generation, at least in short and mid-term timeframe. I am fully aware at the same time that the cost for the society as a whole is astronomical in case of the worst case scenario. What is the reasonable cost to be calculated is perhaps one of the most difficult questions you face.

- Thirdly, quality infrastructure must be of high quality from the viewpoint of humans and communities. This is a matter of fact when we consider that infrastructure building is demanded to increase living standard and welfare of the people. However, humans are very complicated creatures and so are the human societies. There must be very many factors which have to be taken into consideration when pursuing quality infrastructure. Creation of employment, technology transfer, human resources development, affinity with customs and culture of the community, and harmony with environment and landscape, and so on, are major factors, but not limited to these. It is important to respect local culture and customs. It is also welcomed at times to adopt innovative ideas or methods to positively influence local culture and customs, if it is not imposed against the will of the local people.
- I wish to share with you an interesting example, although this may exceed the scope of responsibility of consulting engineers. The case in my mind is “Delhi Metro construction project” in India. The Delhi Metro is now used by 2.5 million people every day (Just for comparison, London Tube is used by 3 million and Tokyo Metro by 7 million). The following ideas have been put into practice and actively pursued during construction and operational period of the project. First, the management drove home to the workers that they must gather on time in the morning, thus penetrate the importance of observing the delivery date. Second, the concept of “safety First” was

emphasized, work areas were clearly surrounded by fences, and wearing helmets and safety shoes, keeping every material and tool in order, was made a duty of the workers. Third, the habit of making a queue or joining a queue was introduced by marking lines on platforms and by guidance of station attendants. Fourth, dumping trash in the station is strictly prohibited and the clean image of Delhi Metro is established. Fifth, the introduction of ladies only coach has enabled ladies to use often crowded public transport without fear. What do you think of this? I think that this example is certainly a contribution to a local community.

- I have explained “quality infrastructure” from the three perspectives of hardware, money/cost, and humans/communities. It is a matter of course that we seek higher quality in each and every perspective. There often arises contradictions or competing situation among those three perspectives or among those goals. I am hastened to say that the general public including myself will look to you and expect to have a quality advice as to what is the optimum balance and best mix and how we can achieve that.
- As I have a few more minutes, I wish to introduce to you another example of what I believe “quality infrastructure”. “Quality Infrastructure” is not necessarily confined to a large-scale project which utilizes advanced technology and materials. I consider that what I called in Kenya 3A (Triple A) projects are also examples of “quality infrastructure”. 3As are initials of Appropriate (technology), Affordable (cost), and Available (materials and labour). Let me show you a concrete example.

In rural villages of Kenya, it so often happens that pregnant women cannot go to clinic at the delivery or farmers cannot bring their harvested products to market because the condition of the certain sections of roads, which are just 50 or 100 meters long (short!), is very bad and not accessible or passable by car. Lives of a baby and a mother are put in jeopardy and a farmer’s income will be lost. What can we do for this?. One of the solutions is the “Donou technology”, Japanese traditional technology. Donou is a Japanese word for sand bags. By building the foundation of a road using

sand bags and applying compaction to those, you can easily make a road which is solid, easy-to-maintain, and serves a need of villagers perfectly.

Necessary materials are soil (or sand) and bags. Labour is provided by villagers. A Japanese NGO named Core (Community Road Empowerment), which is an expert NGO of Donou, has helped various rural communities to make or to repair roads of a total length of more than 120km in Asia and Africa. According to the CORE, it costs only 5 dollars to make a road of 1m long (that is 500 dollars for 100m). With this amount of money, the CORE can help the villagers gain safety, incentives, confidence, and access to income. I consider that “Donou” is indeed an example of high quality infrastructure.

Japanese local and tradition technology such as “Donou” is utilized in Africa. There must be many other local and traditional technologies in many places in the world which can be utilized elsewhere. It occurred to me that this is a shift to “glocalism”. It is not a simple globalization nor is a shift to localism, or a return to localism either. It is a shift to glocalism in that local, traditional wisdom has global, universal applicability.

My time is up.

I thank you once again for inviting me to ASPAC-FIDIC 2016 annual meeting.

I wish to express once again my deep respect to your profession as consulting engineers.

I sincerely wish your deliberations of today and tomorrow will be fruitful.

Thank you very much.