

Green Access Discussion Paper

DP-2015-006

The Past, Present, and Future of the Environmental
Impact Assessment System in Japan
-Tokyo's Experience and MOE's Initiative-

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2015/3/3

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**International Workshop on "Participation Principle Indicators
under the Environmental Law: Towards Establishing
International Collaboration in Pursuit of Environmental Justice"
at 9th-10th March 2015**

Organizers: **GREEN ACCESS PROJECT II** "Review of Legal Indicators for the Participation Principle in Environmental Matters - Promotion of an International Cooperation towards Strengthening the Environmental Democracy" (JSPS Grant-in-Aid), **OSAKA UNIVERSITY, PROJECT TIGER** "Policy decision-making and public participation on energy, chemicals and water management: an international comparative study" (Global Initiative Program), and **MITSUI & CO., LTD., ENVIRONMENT FUND** – Project "Proposing an Asian Version of the Aarhus Convention – Constitution of an International Cooperation for Implementing the Environmental Justice"

GREEN ACCESS PROJECT II

Osaka University

The Past, Present, and Future of the Environmental Impact Assessment System in Japan —Tokyo's Experience and MOE's Initiative—

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Preface

Article 20 of the Basic Environment Act, enacted in 1993 (Act No. 91 of 1993), established provisions concerning environmental impact assessment. This environmental impact assessment plays a very important role as a tool for building a sustainable society. However, environmental impact assessment to date has tended to be understood as a regulatory method for preventing environmental pollution, because Japan experienced dreadful pollution in the past and has expected environmental impact assessment to be effective as a method for preventing any recurrence of such pollution.

For that reason, when the Basic Environment Act was established and when it was revised, there were repeated disputes over the issue of regarding environmental impact assessment, in principle, as a method for preventing pollution. For one, it is because in the disputes over the role of an environmental impact assessment system in Japan, attention was mainly directed to the social effects of this system from the very beginning. It is also apparent from the fact that expectations and concerns were expressed in various fields regarding what institutional benefits can be brought by implementing this system or, on the contrary, what level of social loss or confusion may be brought about by implementing this system.

Given that 21 years have passed since the Basic Environment Act was established, in addition to giving an overview of the past, present, and future of environmental impact assessment, I would mainly like to introduce here the issues considered in the current revision.

My brief presentation today is divided into four parts. First, as an introduction, I am going to overview the Environmental Assessment System in Japan. Second, I would like you to learn two cases experienced by Tokyo Metropolitan Government. Well, our capital city, Tokyo, has been working on environmental issues on voluntary basis over two decades, no matter if the ordinance stipulates or not. And the two cases you are going to know, are just two among many. Next, the Ministry of Environment has also taken various kinds of initiatives. I am

going to introduce you the SEA Introduction Guidelines which was notified by the Ministry back in 2007. Lastly, I am going to raise some Challenges Ahead for further discussions in your groups today in this workshop.

1. Tokyo amended its EIA Ordinance over 10 years ago, 2002

The amendment was to make it possible to conduct systematic consideration for environmental impacts at early planning stage. It was back in 1993 when they first established a Committee for Examining Holistic Environmental Assessment System. And it was the year 2000 when they started to try such holistic system by applying an environmental evaluation before the final approval of their programs and projects. These attempts were totally on their own initiative. They spent budget and human resources of their own. And they accumulated experiences and lessons from them more than other cities like Yokohama, Osaka or Nagoya did. The Ministry of Environment notified SEA Introduction Guidelines in 2007. 5 years after Tokyo's amendment of its Ordinance. Then, they amended EIA Law. In the amended law, they are introducing primary consideration of environmental assessment at early project stage. You now can design your projects with more flexibility by this amendment. But, they are only project level. Not program or planning level consideration. It means that it has not fully reflected SEA Guidelines 2007.

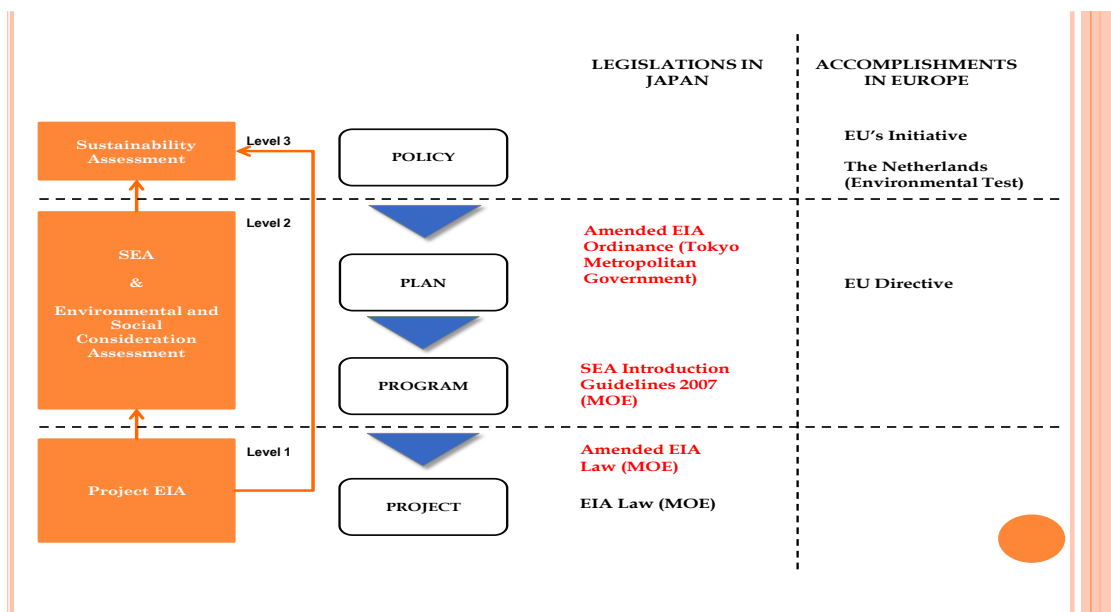
Let me show you a figure which shows Japan's environmental assessment system at a glance.

2. Japan's environmental assessment system

Let me go from the bottom to the top. At the bottom is project level EIA. Let's say "Level 1". Project EIA is stipulated by the EIA Law, and the Ministry enforced its amendment in 2013.

The difference between former EIA Law and the Amended Law is, now you are requested to propose several alternatives for project location and project size. And you can change project design before the final approval stage, in order to avoid and reduce adverse impact.

For example, when you construct a road, you are responsible to prepare several routes from the starting point to the ending point, and then choose the best one. Layout and structure will also be proposed after location and size is fixed.



At the level 2 of this figure, SEA Introduction Guidelines is placed. The Amended EIA Law remains at project level, and it does not reflect all of what SEA Guidelines indicate.

As you can see, Tokyo goes ahead of the country. The planning stage systematic environmental consideration is officially introduced in the Amended Ordinance. For formulation of large-area multiple development plan over 30 ha, you are requested to examine location, size, target area, target population, land use plan from very early stage of planning. And for project plans, you will compare and evaluate alternatives from environmental aspects from early stage. There are two issues you have to keep in your mind when you follow the Amended EIA Ordinance of Tokyo.

One is to predict and evaluate environmental impact with quantitative data. They are ambient air, offensive odor, noise and vibration, water pollution, soil contamination, ground, geographic and topographic condition, water cycle, ecosystem, shade, electromagnetic interference, wind environment, landscape, historical sites and cultural properties, contact with nature, waste, greenhouse gas. Another one is to evaluate qualitatively. Tokyo's Environmental Basic Plan is going to be taken into consideration as the framework. And you will assess to what extent you can achieve environmental goals in the plan which you are going to implement. And you can include social and economic evaluation for the overall evaluation of alternatives.

The most right side of this figure shows the accomplishments in Europe. They are

far ahead of Japan. EU Directive reaches the planning stage environmental assessment. And the Netherlands implements environmental test. That is at the level 3, called “sustainability assessment.

3. Innovative actions taken by Tokyo Metropolitan Government

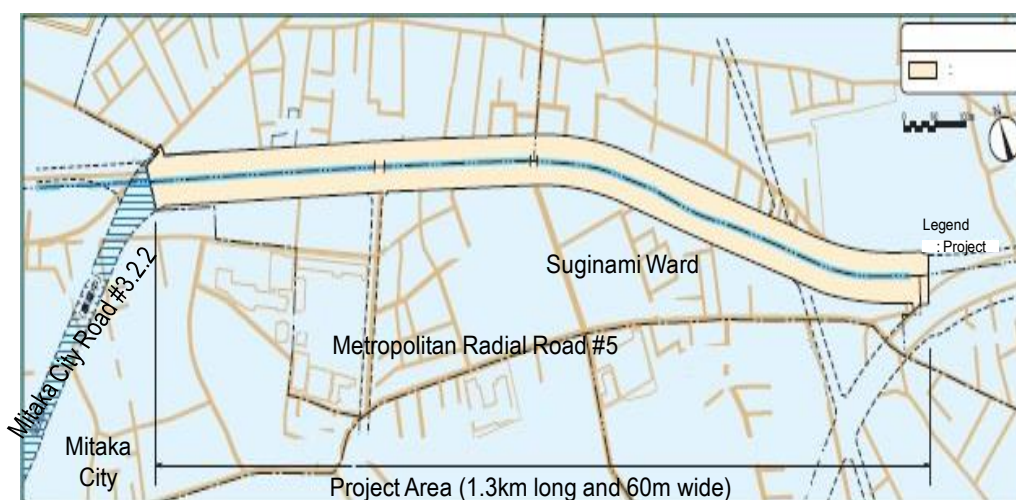
The first case is the Systematic Consideration for Environmental Impacts on the Metropolitan Radial Road Number 5.

Please have a look at the map at the bottom of this slide. There is a road on the left side of the map extending from southwest to northeast is the Mitaka City Road Number 3.2.2. It is 6,570 meter long, and 30 meter wide. The road at the center which crosses with Mitaka City Road is the Metropolitan Radial Road Number 5. 1 kilometer of the Mitaka Road and 1.3 kilometer of the Radial Road Number 5 had not been developed for long time. And it caused heavy traffic jam in the surrounding area. In 2000 and 2004, for 500 meters each, Tokyo approved the project implementation for the Mitaka Road.

As for the Radial Road No.5, Tokyo decided to introduce holistic environmental assessment system on its own initiative. They decided to disclose project information at the planning stage, and collect public comments.

Case 1: Systematic Consideration for Environmental Impacts on Radial Road #5

- The City Road in Mitaka City #3.2.2 (6,570m of with 30m wide) connects to the Metropolitan Radial Road #5 in Suginami Ward.
- 1 km of the Mitaka Road #3.2.2 and 1.3 km of the Radial Road #5 had not been developed, which caused heavy traffic jam in the surrounding area.



They proposed 3 alternative plans, A, B and C. And compared each other. Plan A was to keep the width as 50 meters as it was, to reserve Tama River Waterworks and green space, and to conserve surrounding environment by building green embankments on the pedestrian road. Plan B was to enlarge the width up to 60 meters, to improve the green space of Tama River waterworks, and to conserve the surrounding environment by creating 10-meter wide buffer zones and green embankments. Plan C was to make the width from 50 meters to 46 meters, to put Tama River Waterworks underground, to preserve green space, to create green embankment on the pedestrian road.

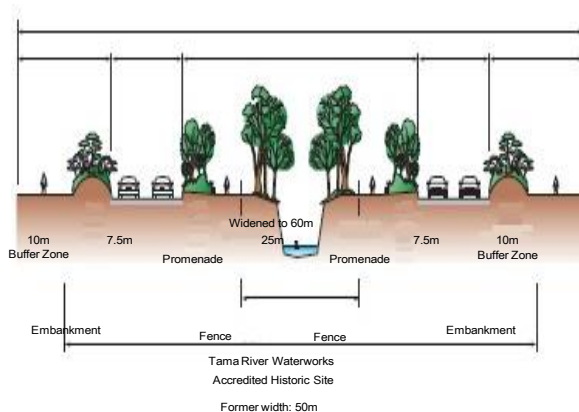
As the road is located in Mitaka City and Suginami Ward, Mitaka and Suginami Ward requested environmental, social and economic considerations.

They requested Tokyo to consider water quality of Tama River Waterworks, ambient air, noise and vibration, flora and fauna, historical and cultural sites, information disclosure and public participation. They strongly requested Tokyo not to do any harm to the local community. Such considerations on social and economic aspects had not actually been taken in Japan in the past. This Metropolitan Road is one of such very rare cases.

The figure shows the plan they finally adopted. The Plan B is the basis of it.

Tokyo modified the plan based on the Urban Planning Law, and submitted the project EIA based on the EIA Ordinance in April 2004. Tokyo then approved the plan in 2005.

- Tokyo approved the project implementation for the Mitaka Road #3.2.2 in 2000 and 2004.
- Tokyo introduced a systematic consideration for environmental impacts at early stage to the Radial Road #5 on its own initiative.
 - Three alternative plans were proposed for comparison.
 - Mitaka City and Suginami Ward requested environmental and socioeconomic consideration for water quality of Tama River Waterworks, air ambience, noise and vibration, flora and fauna, historical and cultural sites, information disclosure and public participation.



- Tokyo modified the project design to widen the road from 50m to 60m for environmental preservation.
- Tokyo then conducted EIA and approved the project in 2005.

4. The Environmental Assessment for 2020 Olympic and Paralympics Games

As you may be aware of, Japan will co-host the Summer Games for the second time. First time was in 1965, 55 years ago. Olympic Games now need various kinds of resources. United States gave up the 1976 Winter Games in Denver as Environment organizations strongly opposed to it. And then Austria hosted it in Innsbruck. It was just 20 years ago, in 1994, when the Olympic Charter included "environment" in its chapters first time in its history.

To the candidate cities for 2020 Games, Madrid, Istanbul and Tokyo, the IOC requested a lot. One of them was to implement an environmental assessment on all the infrastructure for the Games. At that stage, nobody knew which city would be chosen as the site for the Games. But all three candidate cities were obliged to submit EIA report to the IOC. The IOC requested the cities to stay coherent with the local legal framework. And to conduct the Olympic Games Impact Survey after the Games are over.

That means Tokyo was supposed to fulfill the Amended EIA Ordinance and do more. Tokyo actually raised its hand for 2016 Games. But it was not selected.

In addition to EIA, Tokyo this time decided to implement an IEE on voluntary basis. They created three pillars for evaluate comprehensively. That is, Facilities evaluation, Games evaluation and Overall Plan evaluation in both IEE and EIA. I have to mention here that Tokyo has a vision, "Tokyo 2020". And the implementation of the Olympic Games is linked with all the policy measures of Tokyo. It was intended that Olympic Games should contribute to the promotion of environmental measures of Tokyo. There are 18 environmental items for evaluation.

They are ambient air, water quality, soil, odor, growing condition of living creature, water cycle, noise and vibration, shade, landscape, contact with nature, conformity of passers-by's space, historical sites and cultural properties, water use, waste, eco-material, greenhouse gas and energy.

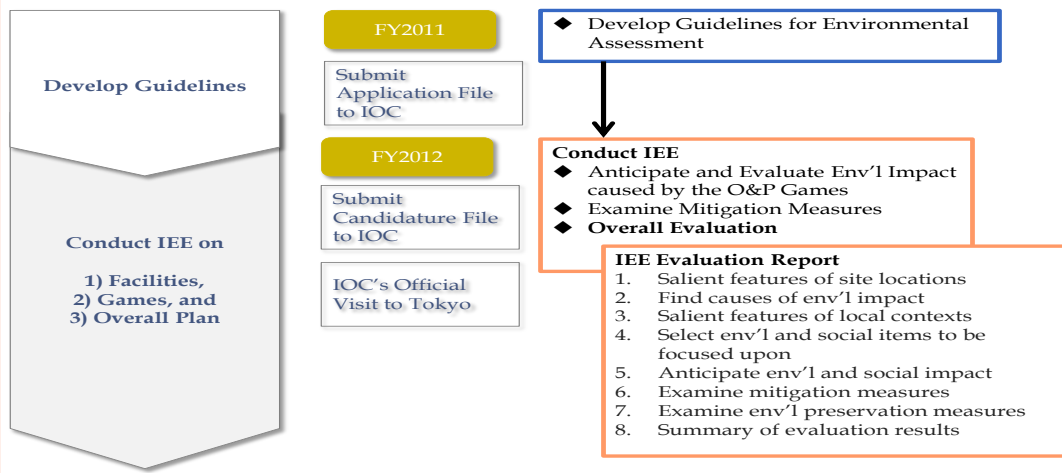
In addition to 18 items for environmental evaluation, 17 items for socioeconomic evaluation are included as mandatory.

They are land use, community severance, resettlement, sports activities, cultural activities, volunteer, community, awareness toward environment, safety, hygiene, disaster prevention, traffic, accessibility to public transportation, Traffic safety, economic impact, employment and financial feasibility of the project.

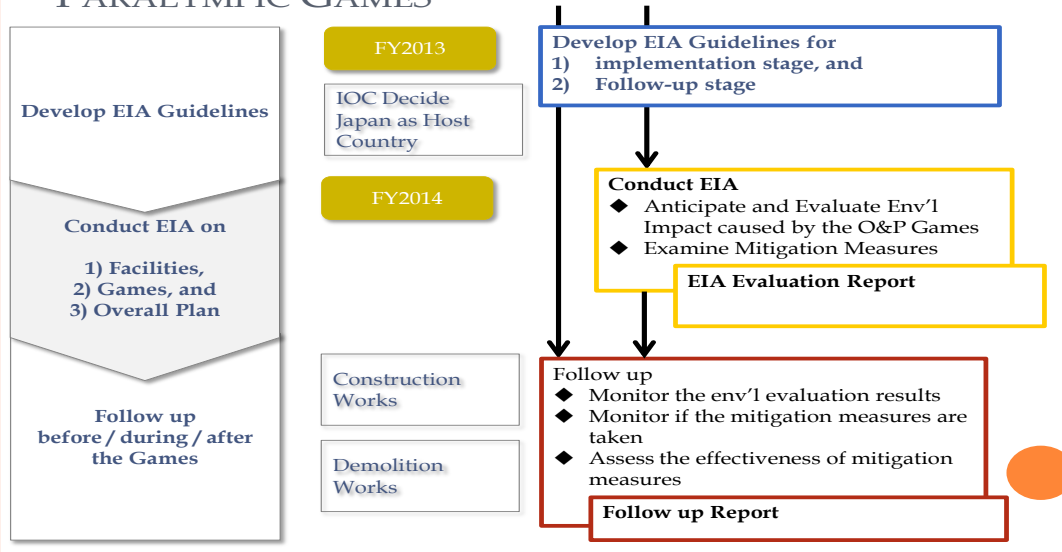
These evaluation items can be added later on, upon requirement. EIA focuses on the environmental impact at post-Olympic stage, what we call “follow-up” stage, as well as implementation stage.

Tokyo will conduct a follow-up study regarding the prediction and evaluation. If the study results are different from prediction results, They will identify the causes of such difference. If negative impact is more serious, or, if positive impact is less than expected, they may re-examine mitigation measures and add some more.

OVERALL FLOW OF ENVIRONMENTAL ASSESSMENT FOR TOKYO 2020 OLYMPIC AND PARALYMPIC GAMES



OVERALL FLOW OF ENVIRONMENTAL ASSESSMENT FOR TOKYO 2020 OLYMPIC AND PARALYMPIC GAMES

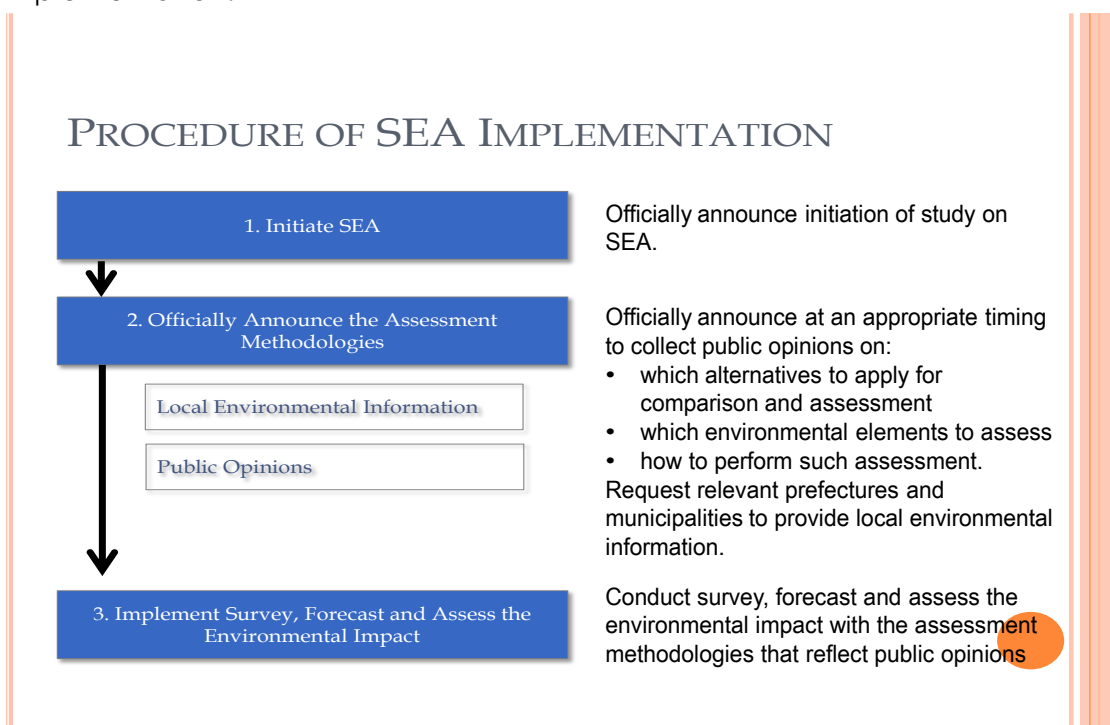


This figure, Overall Flow of Environmental Assessment for Tokyo 2020 Games, shows what I just explained.

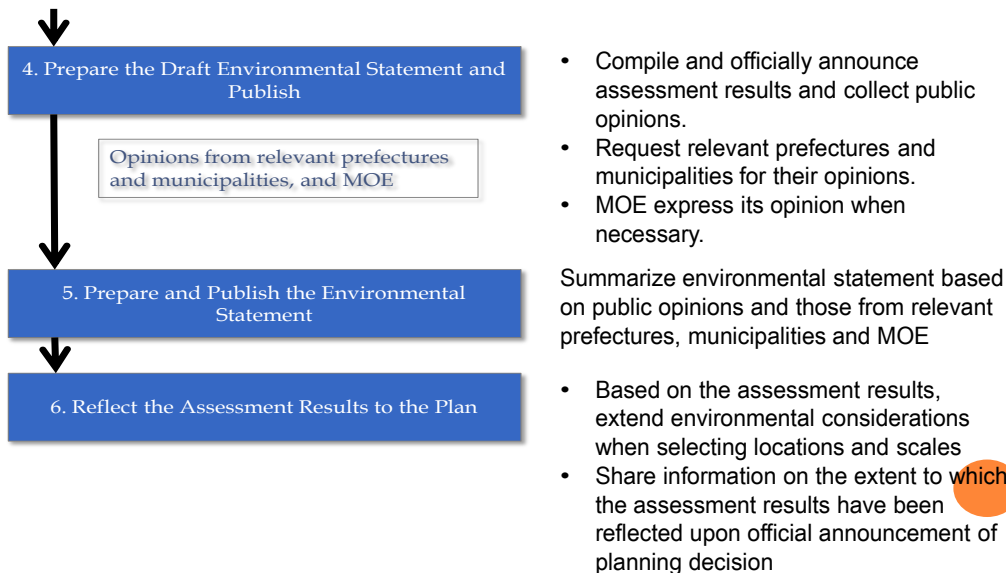
5. Guidelines on SEA Introduction

The Ministry of Environment formulated the Third Environment Basic Plan in April 2006. And the establishment of the SEA Guidelines was described in this Basic Plan. Later in the same year, they started to examine the contents of the Guidelines, and they notified it to the relevant ministries, prefectures, and the ordinance-designated cities in 2007. The Ministry of Environment promotes the Guidelines saying that introduction of SEA will make the process of environmental examination more accountable, and help implement appropriate environmental considerations in the plan. SEA Introduction Guidelines shows common implementation procedures and evaluation methodologies in the planning stage. Such as comparison and evaluation of the degree of environmental impact of all the alternatives. And conduct survey, predict and evaluate them based on the project maturity.

Each relevant ministry is encouraged to establish their own specific guidelines for SEA implementation. The flow shows you the procedure of SEA Implementation.



PROCEDURE OF SEA IMPLEMENTATION



6. Some issues which are left unfinished for Japanese Government

Strategic environmental assessment (SEA), geo-spatial planning, upstream EIA, and IEE (hereinafter upstream EIA/SEA) are processes that can identify adverse environmental impacts of individual projects at an earlier stage than EIA. Thus their findings provide more opportunities to influence basic aspects of projects such as location, size, technologies used, etc. However, there are challenges for implementing effective upstream EIA/SEA.

I would make reference to two challenges for the preparation of a meaningful upstream EIA/SEA and project EIA. One is, how to secure public involvement. The Amended EIA Law encourages public participation. But that is not participation for decision making, but participation for information collection as the public is the one who has specific environmental information at the project site. At SEA level, my opinion is public participation should mean participation in decision making. Tokyo Metropolitan Government already tried it. When they applied the holistic environmental assessment for the Metropolitan Radial Road No.5, they invited three citizens as the Council members for the qualification of EIA document.

In the EIA Council of Kawasaki City, they choose three representatives from different civic organizations. Like the case of Tokyo and Kawasaki, public

involvement in decision making process is one of important steps for SEA. Another challenge is, in addition to environmental aspect, social and economic aspects should also be taken into consideration to compare alternatives at the planning stage. Tokyo Metropolitan Government has already introduced it in the Amended Ordinance.

This is the figure you already overviewed at the beginning of my paper, about the environmental assessment system of Japan. The same figure is now with the 2 cases of Tokyo Metropolitan Government in red color. And you can now again have a look at where the SEA Guidelines is. The Metropolitan Radial Road No. 5 is placed in the Level 2. It is SEA level. With experiences like this one, Tokyo went on to the amendment of its EIA Ordinance. Upstream EIA/SEA results should be utilized at downstream EIA effectively.

In order to do so, you may want to consider how to simplify and shorten the time for each procedure of EIA. According to the Amended EIA Ordinance of Tokyo, after they develop a statement at planning stage, they are supposed to develop survey plan, draft evaluation and final evaluation at project implementation stage. It generally takes time. But you can simplify the process and shorten the period by making use of previous surveys results to develop a special statement of environmental impact. When you develop a special statement at the planning stage, then you can skip survey plan and draft evaluation if the Council approves the proposal from project proponent. That means you submit only the special statement and the final evaluation. There is one such case which Tokyo approved in the past. Tokyo's Ordinance is only applied to the plans developed by Tokyo itself. And Upstream EIA/SEA should be conducted when you are ready to examine the alternatives from social and economic aspects. If there are not sufficient feasible alternatives available in reality, you can include those which you would not implement to compare each other. If the project proponent does not find it effective to examine non-feasible alternatives, then you may want to conduct project-level EIA. In these cases, project proponent should tell why they do not think so. The final decision should be left to the Council. Such decision making process should be disclosed to the public in easy way.

If any part of SEA procedure is exempted, it must be reported and disclosed. Transparency and reliability should be secured in the process.

On the other hand, the environmental assessment for 2020 Olympic Games is placed in the Level 3 that is the sustainability assessment level. They have linked

the Olympic with Toyo's Development Plan. And they see the post-Olympic impact not only from environmental aspect, but also from social and economic aspects.

What the Japanese Government needs to consider is to upstream the Amended EIA Law to SEA level. The Amended Law still remains at project level. They need to go beyond it.

Tokyo took social and economic considerations at the planning stage of the Metropolitan Radial Road #5. This initiative also should be taken into the law.

Tokyo will co-host the 2020 Olympic and Paralympics Games. That will become a milestone for future introduction of SEA and sustainability assessment.

No other municipality in Japan or even Japan itself has conducted such advanced assessment. We will see the results after 2020. We need to keep our eyes on the progress and accomplishments of Tokyo. You can say the Olympic Games is an event, but not a mere event. It is big enough to change our society. We need to take advantage of this opportunity to improve the sustainability of whole Japanese society.

Reference

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- 5 Central Council for Environmental Pollution Control "Methods of Japan's

- Environmental Impact Assessment System." (Report) ChuKoShin No. 171 (1979)
- 6 Bill presented by the Cabinet "Bill for Environmental Impact Assessment" (Submitted to the 94th Ordinary Diet Session) (1981)
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- 9 Kawasaki City: Municipal law regarding environmental impact assessment in Kawasaki City (published on October 20th, 1980, put into effect on July 1st, 1981) (1976)
- 10 Tsuneyuki Morita "Comparative Analysis of Environmental Impact Assessment Systems in Local Governments" Kankyo Joho Kagaku 11(2), p79-86.
- 11 Ministerial ordinance issued by the Prime Minister's Office No. 37, June 12th, 1998
- 12 For details, see the report issued in July 2009 by the Environmental Impact Assessment System Integrated Study Group.
- 13 My book Comprehensive Study of the Environmental Assessment Law (Seibunsha, 2011)
- 14 The subsidies for the three areas of road maintenance, sewage treatment facility maintenance, and port maintenance will be integrally administered under the budget of the Cabinet Office instead of their respective authorities: the Ministry of Land, Infrastructure, Transport and Tourism; the Ministry of Agriculture, Forestry and Fisheries; and the Ministry of the Environment. The scheme will significantly enhance the autonomy and discretion of local authorities regarding projects: (a) an integral public funding will allow for a degree of freedom in infrastructure development at the discretion of local authorities based on the regional revitalization plan, (b) a single point of contact through the Cabinet Office significantly simplifies administrative procedures such as plan application and budget request, (c) the system allows local authorities to manage their projects within their budget according to the progress made, to reallocate funds between projects or the number of projects between different fiscal years.
- 15 Study Group on the Environmental Impact Assessment System, "Report of the Study Group on the Environmental Impact Assessment System" 2009, p 24