

Chairperson's Summary
The 9th Annual Water Environment Partnership in Asia Meeting
IGES Head Quarter, Hayama, Kanagawa Prefecture, Japan
21st January, 2014

1. The 9th Annual Meeting of the Water Environment Partnership in Asia (WEPA) was organised on 21st January 2014 at the IGES Head Quarter in Hayama, Kanagawa Prefecture, Japan by The Ministry of the Environment, Japan. More than thirty five participants attended, including representatives from 12 Water Environment Partnership in Asia (WEPA) partner countries (*Cambodia, Indonesia, Japan, Republic of Korea, Lao PDR, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand and Viet Nam*).
2. Mr. Masaaki Kobayashi, Director-General of the Environment Management Bureau has made an opening remark at the meeting, followed by a welcome remark of Prof. Hideyuki Mori, President of the Institute for Global Environmental Strategies (IGES) to welcome all participants attending the meeting. Mr. Kobayashi stated that one of the major aims of WEPA during the 3rd phase is to contribute to the post-2015 development agenda on improving treatment of industrial and domestic wastewater. Also in 2015, 7th World Water Forum will be organized in South Korea and WEPA would like to use the opportunity of this forum to share knowledge and enhance partnership further.
3. The meeting was chaired by Dr. Mitsumasa Okada, Professor of the Open University of Japan and the WEPA Advisor. The meeting had four main agenda items together with an introduction on the 7th World Water Forum by a representative from focal point of South Korea. Main agenda items include: 1) Report on activities in 2013; 2) Activities related to industrial wastewater management in WEPA partner countries in 2013; 3) Final report of the 2nd phase of WEPA; and 4) Reflection of the 2nd phase and Future plan.

Agenda 1. Report of Activities in 2013

4. Mr. Tetsuo Kuyama, WEPA Secretariat, introduced WEPA activities in 2013 that included (i) outcomes of the 8th Annual Meeting held in February 2013 in Seam Reap, Cambodia, (ii) WEPA Technical Session at the 2nd Asia Pacific Water Summit held in May 2013 in Chiang Mai, Thailand, (iii) interviews and questionnaire surveys on industrial wastewater management, and (iv) decentralized domestic wastewater treatment workshop held in November 2013 in Jakarta, Indonesia, and (v) WEPA's plan for publications.
5. Ms. Yun Insiani, a representative from the Ministry of Environment Indonesia-The Republic of Indonesia introduced the detailed outcomes of the WEPA Workshop on "Decentralized Domestic Treatment in Indonesia" that was held in November 2013 in Jakarta, Indonesia.

6. The chairperson then asked the participants from each country for their comments on the report of activities in 2013. Following are the comments and suggestions from the participants:

Mr.Tuddao (Philippines) commented that operation and management of decentralized system is responsibility of the community in Indonesia and collection of fee is important for the sustainability. He asked Ms. Yun to explain about how fees are collected from the beneficiaries such as based on volume of wastewater (lit/day), effluent quality, parameters or else?

Ms.Yun (Indonesia) explained that there is a management organization within the community using SANIMAS that collect the fee from each household directly. The organization appoints one person to collect the fee from individual users. But the fee is minimal (3000-5000 Rp, i.e., 0.25 USD per household per month) so local government also support the O&M with additional budget.

Mr.Tuddao (Philippines) asked what could be a good mechanism to collect the fee? Who will collect and where people go to pay or whether the fee is integrated with water or electricity fee?

Ms.Yun (Indonesia) said so far, fee collection is done by directly going to each household, and it has been effective in the case of SANIMAS in Indonesia.

Dr.Thang (Vietnam) added it comments. He said although wastewater treatment only covers 30% cities in Vietnam, we have embedded wastewater fee with tap water supply fee in urban areas that are already covered by the piped water supply network. At present, wastewater fee is about 10% of the tap water fee. For the last 10 year, the fee collection has been quite satisfactory. However this does not apply to rural areas and households, who only use their own groundwater pumps. Additionally, in cities, we also collect wastewater fee even if areas were not served by wastewater treatment because we want to raise awareness of the residents.

Dr.Wijarn (Thailand) said that we should not only focus on compliance of effluent but load should be considered because low concentration effluent in large volume could easily exceed assimilation capacity of receiving rivers. Loading should be considered as comprehensive way for determining the fee structure.

Prof.Okada (WEPA Advisor) added his comments. He said that in Japan we are already considering load but it is limited to lakes and estuaries, not for river yet.

Prof.Suzuki (WEPA Advisor) asked Ms. Yun on how Indonesia came-up with the idea of 300 capita/ha as criteria for developing centralized sewer? Is there any scientific basis for the criteria?

Ms.Yun (Indonesia) responded that this criteria was recommended by consultants who prepare the plan such as JICA and others. Probably, local conditions should have been the main decision criteria.

Prof.Suzuki (WEPA Advisor) added that in case of Japan, also different criteria have been used depending on the local condition.

Agenda 2. Activity in 2013: Industrial Wastewater Management

7. Dr. Pham Ngoc Bao, WEPA Secretariat, presented some initial findings from the survey on industrial wastewater management, which was conducted by WEPA Secretariats in WEPA partner countries. He pointed out a number of challenges faced during the survey such as accessibility and availability of information, data reliability, etc. and requested WEPA partner countries for their further cooperation and proactive participation in the survey. Dr. Bao also proposed several important actions needed to address these challenges during the 3rd phase of WEPA activities.
8. Followed Dr. Bao's presentation, the chairperson then asked the participants to give their comments or opinions. Following are their comments and suggestions:

Prof. Okada (WEPA Advisor) asked why Japan was not considered in this survey?

Ms.Kataoka (WEPA Secretariat) has responded to this question. She said that this survey was meant to understand the availability and accessibility of industrial wastewater data and we initially targeted Asian countries where industrial wastewater management are quite different. Since this study is not fully completed so we intent to collect more data in future. We will definitely include Japan in the second part of this survey.

Mr.Tuddao (Philippines) commented that in case of industrial wastewater management, there are several issues on transparency and accessibility of the data. Countries could have different level of transparency because of their own policy. WEPA focal point could conduct desk work to compile those data but at the end we may not be able to disclose the data. Industrial data are often dealt with high sensitivity.

Ms.Yun (Indonesia) added that now we are preparing database of about 1800 industries and we plan to share that data with WEPA.

Prof.Okada (WEPA Advisor) asked how WEPA Secretariats are going to use or utilize all the collected information?

Dr. Bao (WEPA Secretariat) responded that WEPA Secretariat want to use all the information for comparing good and bad lessons learned and problems of all member countries. However the main purpose is not to criticize those lagging behind, rather based on the information we want to help the countries that are in urgent need to improve their industrial wastewater management.

Mr. Tuddao (Philippines) said he agreed that we can prepare an inventory for big industries but same could not be said to small industries (SMEs) which are distributed in large number and difficult to monitor. At present, we allow direct discharge of non-toxic wastewater lesser than 50 m³/day, but local government may impose additional restrictions on disposal. When we are talking about inventory we need to first determine the minimum allowable discharge, as a result, we could come up with different criteria for inventory construction.

9. In order to give an actual example of WEPA partner country on industrial wastewater management, Mr. Phengkhamla Phonvisai, Director of Legislation and Information-Pollution Control Department, MONRE (Lao PDR) give a presentation on Industrial Wastewater Management in Lao PDR. Mr. Phonvisai explained about the status of industrial wastewater inventories in Lao PDR, together with a number of challenges and obstacles on industrial wastewater management that Lao PDR has been facing. In the conclusions, he also emphasized the urgent need for formulating the collection, inventory and database management system.
10. The presentation was followed by comments and discussion among the WEPA partners. Following are detailed comments and discussion among participants:

Dr. Rathayake (Sri Lanka) said you shared about industrial classification based on the number of workers, which seems not correct to me because an industry with small number of staffs could discharge large volume of wastewater, along with toxic materials, to the environment.

Mr. Phonvisai (Lao PDR) responded that this system, according to existing laws, was introduced back in 1994. At present, the Ministry of Industry and Commerce is now revising the law for industrial wastewater considering various factors such as ASEAN process and recent approaches.

Ms. Yun (Indonesia) asked you mentioned about support to SMEs. In Indonesia we are also willing to support SMEs but so far it is only possible on pilot scale. Could you tell us about the mechanism of support?

Mr. Phonvisai (Lao PDR) responded that in Laos, at first government support such as by setting banking mechanism to provide soft loans. But these are still at planning stage.

Dr. Chirin (Cambodia) stated that industrial wastewater treatment needs to deal with both non-chemical and chemical (such as toxic compounds) constituents. We need pre-treatment of chemical waste before sending to the central treatment plants. How Lao PDR is handling chemical and non-chemical wastes?

Mr. Phonvisai (Lao PDR) responded that of course we take into account for toxic waste such as from mining sector but for local household businesses, which are not dealing with toxic compounds, we classify them under non-toxic wastes and send to same treatment facility for domestic wastewater.

Mr. Tuddao (Philippines) asked could you elaborate on tax incentive system and how much?

Mr. Phonvisai (Lao PDR) answered that this is still under planning by Ministry of Finance.

Dr. Wijarn (Thailand) commented that we also have similar system as mentioned by colleague from Cambodia. In Thailand, industries are required to do necessary pre-treatment before discharging their effluent into sewer of the central wastewater treatment system. Also we have two ministries, Industry and Natural Resources and Environment (MONRE), which monitor effluents from the industries. Ministry of Industry check the effluents from each industry while Pollution Control Department under MONRE monitors outside the boundary of industries so that no industries are discharging effluent into the environment exceeding the standard. This double monitoring sounds duplication but it has important function of check and balance between two ministries.

Mr. Malla (Nepal) commented that if we are talking about policy reform, it would be better to focus on holistic basin approach to cover both point and non-point pollution sources along with the quantity issue.

Mr. Phonvisai (Lao PDR) answered that we also try to engage local bodies to take charge of river basin control and management.

Dr. Thang (Vietnam) stated that we have been dealing with river basin approach for the last 15 year and over the last five years we have instituted commissions for our three major river basins. Provinces touching each basin are members and the commission is chaired on 2 years rotational basis by each province. But we have mixed experience with commission as full power does may not always lie with the chairman. So basins approach is both effective and not effective.

Mr. Tuddao (Philippines) added that our Clean Water Act has specified water quality management under basin approach and we are implementing towards that.

Mr. Sadahiro (NARBO/JWA) gave some information about NARBO/JWA and expressed his wish for collaboration with WEPA in the near future. He said we were established same time as WEPA. It is very important to strengthen capacity on water quality issues under river basin approach as scarcity, quality and flooding are important for NARBO activities. So holistic management of water quality is important area of NARBO activities and through that we want to strengthen institutional framework. We want to keep in close touch with WEPA.

Agenda 3. Final Report of the 2nd Phase of WEPA

11. Ms. Yatsuka Kataoka, WEPA Secretariat, shared the outline content, preparation status and main messages for upcoming Final Report of WEPA 2nd Phase that is expected to be published by March 2014. In addition, Dr. Kataoka has requested all WEPA partner countries for their inputs to the final report such as in introductory parts, in summary page and in each thematic topic part. Furthermore, she explained about WEPA's plan for

preparation of WEPA OUTLOOK 2015 from April 2014. It is expected that this outlook will be distributed to participants at the 7th World Water Forum, which will be held in April 2015 in South Korea. After her presentation, participants were asked to provide comments on proposed structure of the report. Below is the detailed comments and suggestions from participants:

Dr.Wijarn (Thailand) stated that it is good to see that the report has attempted to incorporate and organize a lot of things. The value of the report could be enhanced by setting key priorities on the most important issues that WEPA has done such as showing both good and bad practices on compliances. He suggested WEPA Secretariat to consider showing how countries are using scientific information during policy formulation. He said it seems that we cover all water quality as a single, although we can broadly identify point and non-point pollutants, and fail to address complexity as we can further scope our priorities according based on water quality types and its importance. River basin approach could be another component that the report could touch upon by not only water quality but also ecosystem issues.

Prof.Okada (WEPA Advisor) commented that recently, Japan government has also started to prioritise ecosystem aspect as a part of river basin and water quality management.

Ms.Kataoka (WEPA Secretariat) responded that the topics are chosen based on what has been already done. Still we can incorporate some aspects of river basin approach in the report but the more comprehensive information could be accommodated in the next WEPA Outlook.

Mr.Malla (Nepal) said we often forget the largest polluter, i.e., non-point source agriculture runoff, which is difficult to control without a holistic basin approach. So I recommend on prioritizing river basin issue in the next outlook.

Agenda 4. Reflection of the 2nd Phase of WEPA and Future Plan

12. In this session, Mr.Kuyama, WEPA Secretariat, shared the main activities and achievements of 2nd Phase of WEPA activities, in particular, accumulated knowledge. His presentation was followed by presentation from Prof. So Kazama (WEPA Advisor), who shared process (how?) and types (what?) of the knowledge collected or accumulated, knowledge sharing (to target audiences), and comments received from WEPA partners and policy makers. At the end of his presentation he also outlined some recommendations to improve WEPA activities based on the comments received. They are enhancing public relations of WEPA in member countries to reach to general public such as by producing information in local language and collection of local voices. He also stressed on the need to analyse accumulated knowledge with the involvement of academic society, who have expertise on specific areas but lacks clear image of the problems on practical ground. In addition to that he also shared the need for involving advisors from member countries.
13. Finally, Mr. Masahiro Yasuda, Deputy Director of Water Environment Division, Environment Management Bureau, Ministry of the Environment-Japan, shared the concept

and plan for the 3rd Phase of WEPA that will continue for the next five years (2014-2019). The Third Phase will continue to seek the broader objective of WEPA, i.e., strengthen water environment governance in Asia, by focusing on Action for Issue Solution based on the findings of the second phase which targeted Knowledge Sharing for Solution Finding, and Wastewater Management, which has been identified as a major challenge in WEPA member countries.

14. The chairperson then asked the participants for their comments on the reflection of the 2nd phase and future plan of WEPA. Following are their detailed comments and discussion:

Dr.Wijarn (Thailand) suggested that in Mr. Kuyama's presentation, the figure on septic tank coverage seems to be lower than actual figure, it should be more than that. He asked Mr. Kuyama to re-check the data, in particular, based on septic tank effluent that goes for treatment in wastewater treatment plants and those not going to wastewater treatment plants.

Dr.Chirin/Mr.Laska (Cambodia) added a small correction that the effluent standard is mentioned for 67 industries but it is the national standards for effluent discharge for all types of wastewater.

Dr.Rathayake (Sri Lanka) said that it would be better to compare wastewater coverage in terms of other criteria than only GDP such as population density.

Mr.Kuyama (WEPA Secretariat) responded that he will consider Dr Rathayake's suggestion in future

Dr.Chirin (Cambodia) said with regard to Climate Change, I suggest you to access information from Mekong River Commission (MRC) which has already accumulated a lot of monitoring data. Besides, in your presentation, you mentioned about decreasing DO in wet season which is not the case found by the regular river monitoring by the MRC.

Dr.Wijarn (Thailand) added that from Thailand experience, it could be possible as increase in TSS during wet season could result in higher consumption of DO in rivers.

Dr.Chirin (Cambodia) expressed his agree on the theoretical basis but his indication was towards some mismatch with regular monitoring data which do not points towards depleting DO in wet season.

Prof. Okada (WEPA Advisor) stated that WEPA-IGES expenses a lot of effort to collect and compile the data, so naturally there are some limitations and mistakes. He requested all WEPA member countries to help WEPA-IGES to correct data and eliminate confusions.

Prof.Okada (WEPA Advisor) asked Prof. Kazama on how to invite academic society people for different countries?

Prof. Kazama (WEPA Advisor) responded that not all researchers from all countries should be involved but we can create environment for academics to share the knowledge generated

from their research to WEPA meetings. In turn, academics could also benefit through the exposure to practical situation so that they can better plan their research to solve practical issues on ground.

Dr.Rathayake (Sri Lanka) suggested that it is really useful to involve academic society because in our case we got a lot of help from the academic society while developing our water quality standards.

Dr.Wijarn (Thailand) asked Mr. Yasuda to elaborate on the Action Program of the 3rd Phase Plan as member countries already might have multi-million dollar actions plans being implemented for a long time and we are still facing the problem. How WEPA Action Program intends to implement differently. In addition, he would like to ask about Training of Trainer and about Mr. Yasuda's reason behind industrial and/or domestic wastewater management focus? Additionally, he suggested action program to support on policy implementation.

Mr.Kuyama (WEPA Secretariat) responded to Dr. Wijarn's questions. About Action Program, it is not a new kind of program that WEPA want to propose rather we are expecting from each member countries about what kind of action plan/program will be implemented until 2019. Based on the response, we want to find out what kind of support WEPA can offer to implement the existing action plan/program based on the urgency and priority. Training of Trainers, Inventory Survey, Twinning, etc are some of the examples for potential activities but the actions will be finalized in due course. So we expect your idea and inputs to formulate future activities. So in the first year, we want to ask countries to identify such programs/plans and share us how WEPA can support constructively.

Dr.Thang (Vietnam) said it is basically a good start and we should be more strategic because the funds for WEPA are fixed. We need to follow countries own strategies first. Activities such as Training of Trainers, Inventory Preparation are also manageable, but we also need to focus on activities on policy level such as WEPA could identify good examples and develop policy models and then support countries to implements the models. However, we need to be aware about variability since River Basin model can work in Japan but may not be in Vietnam. Similar can be said on total load approach.

Mr.Kuyama (WEPA Secretariat) said WEPA will think about policy models as well.

Mr.Malla (Nepal) re-stressed the need for holistic consideration to encompass range of issues related to pollution and water environment because policy development does not only focus on particular issues (such as Industrial Wastewater) but more than that.

Prof.Okada (WEPA Advisor) expressed that he agreed with Mr. Malla's view that we need to focus on overall activities of whole policy change in the beginning and then move towards specific activities.

Other Topic: 7th World Water Forum (to be held in April 2015 in South Korea)

15. Dr. Hojeong Kim, a Research Fellow from Korea Environment Institute, introduced about the preparation process for the 7th World Water Forum (WWF) that will be held from April 12-17th, 2015 at Daegu/Gyeongbuk, in South Korea. He introduced structure and composition of the WWF and then introduced about four key processes (Thematic, Political, Regional, and Science and Technology). Then, he introduced the themes related to Water & Environment and potential Korean Collaborators for WEPA consideration.
16. Followed Dr. Kim's presentation are questions and comments from participants:

Mr.Kuyama (WEPA Secretariat) said WEPA would like to organize a session during the 7th WWF, so are there any possibilities for collaboration between WEPA and Korean Ministry and organizations? Could you explain about the channel for that?

Dr.Kim (South Korea) responded to Mr. Kuyama's question that since WWF is an international forum with its own processes to make decisions on sessions among the proposals. So far nothing has been fixed. Upcoming 2nd Stakeholder Consultation to be held on 27-28th February is a good opportunity to show interests and share proposals for session. He suggested WEPA to attend the consultation meeting. Additionally, he suggested that Mr. Kuyama may write to any of the Potential Korean Collaborators that he mentioned during his presentation.

Mr.Kuyama (WEPA Secretariat) expressed his thanks to Dr. Kim for sharing Dr. Kim's ideas and positive response. Mr. Kuyama confirmed that WEPA would like to attend the 2nd Stakeholder Consultation.

Prof.Okada (WEPA Advisor) asked what is the reason behind introducing new process on Science and Technology?

Dr.Kim (South Korea) responded that we think about the importance of science and technology, not only advanced but also simple local ones, for finding and implementing water solutions. So WWF wants to highlight the role of science and technology to solve water problems. The session will be jointly organized by Korea Water Forum and IWA.

Summary and Closing Remarks by Chairperson

17. On behalf of WEPA, Prof. Okada (WEPA Advisor) expressed his appreciation for the active participation of all participants in the workshop as well as their valuable inputs to WEPA report and 3rd Phase Plan. He said that in this meeting we discussed about activities of 2013 and heard presentation about WEPA activities on industrial wastewater management. We are facing scarcity of good data about industrial wastewater and I would like to ask for your cooperation to fill that gap by providing the missing data to IGES as soon as possible. We also reviewed the content of the final report of the 2nd Phase and received good inputs from your side. He requested all participants to support WEPA-IGES to prepare precise and useful reports. He added, in addition, we also reviewed activities of the 2nd Phase and found

that there are some misunderstandings on collected information. Once again, he asked all participants to provide the precise information to IGES. He said we also listened interesting presentation from Mr.Kim about the preparation of 7th WWF. WEPA would like to take this opportunity to share its knowledge and strengthen partnership further, if there is any possibility. He expressed his thanks to Mr.Kim for sharing this valuable information to participants.

18. Finally, Mr.Kuyama (WEPA Secretariat) expressed his sincerely thanks for active participation from all WEPA partner countries and hope for their continued supports to WEPA activities in the near future.