Water Supply and JICA’s Role in Eastern Indonesia (1)

1.1 Billion People are Still Difficult to Get Water Supply

By Sukriansyah Sultan Latief

Do we know that the needs of water supply and drinking water in the world will be increasing 30% by the year of 2025 meaning reaches 5,235 km³ per year, compared to year of 2000 which was only 3973 km³. Asia, due to its rapid population growth, consumes 60% of water consumption of the world. Fifteen journalists of printing, online media, and television from 11 countries has been gathering in Tokyo from November 6-20, 2010 attended program of JICA Public Relation Campaign 2010. We discuss and observe directly water treatment plant and sewerage system that can be managed for good business. Mr. Koichi Sato, Deputy of Water Supply and Infrastructure Division, Ministry of Economy, Trade and Industry of Japan (METI), explained that increase of water consumption is not only caused by increase of world population, but also change of life style such as needs to wash vehicle or wash clothes with washing machine. “Needs of world’s water supply is increased therefore business to provide water supply will be vital in the future. Advanced and developing countries should develop access of water supply,” says Mr. Sato. It is explained that in the year 2000 around 70% of water consumption was dominated by agriculture sector, 20% for industry and 10% for daily needs. However, the proportion always changes. Water needs for industry and domestic use will increase more than a half by 2025.

Therefore, Sato said water supply in developing countries should be increased as anticipation to the greater demand. Unfortunately, this sector is considered by private company as less profit business. Water sector is still managed traditionally by state owned enterprises because water is one of public services. However, there are several countries has joined with private companies to implement Public Private Partnership (PPP) scheme, by providing concession and investment assurance.
According to Mr. Katsuyoshi Sudo, Director of Global Environment Department of JICA, there are still 1.1 billion people who are difficult to get water in this world like in Africa. Millions of women and children spend hours in a day only to get water. This condition has stolen their opportunity for working and going school. Apart from that contaminated water and unhygienic sewerage system has caused various diseases from diarrhea to blindness. It is very ironic, according to Mr. Sudo, because only 30% of world water reserves of 1.3 billion km³ have been utilized for daily use. The remaining of 70% is still in hollow earth in the form of ice and glacier. This is one of reasons, why JICA commits to contribute in management and provision of water supply, which is still regarded as one of biggest challenging issues in the recent world. How does JICA play its role? Let us see the profile of JICA and Japan’s development assistance.

To deepen partnership with developing countries and contribute to international stability, Japan has provided Official Development Assistance (ODA) to developing countries for more than half a century. In 1974 Japan established Japan International Cooperation Agency (JICA) as official government agency to provide bilateral technical cooperation.

On October 1, 2008, Japan’s ODA in general and JICA in specific faced an important milestone: three forms of assistance previously administered by separate agencies -Technical Cooperation (JICA), Concessionary Loans or ODA Loans (Japan Bank for international Cooperation/JBIC) and part of the grant aid (Ministry of Foreign Affairs/MOFA)- have started to be seamlessly managed by a single entity, “new” JICA. The idea behind is to enable Government of Japan to provide high quality international cooperation to meet the needs of people living in developing countries.

The new JICA, as the world’s largest bilateral aid agency, works in over 150 countries and regions and has some 100 overseas offices, is now able to provide technical assistance, concessional loans and grant aid in a harmonized manner, covering areas from infrastructure to grassroots projects. Apart from that multilateral ODA is channeled through international organizations such as United Nations agencies.
Its activities have been praised highly for their success in promoting sustainable economic growth for many countries in Asia and across the globe. JICA has also forged close relationships with the governments of industrialized countries and international aid organizations aimed at achieving the MDGs and resolving global issues such as climate change.

JICA Indonesia Office was established in 1969 and is one of the oldest and largest among some one hundred JICA overseas offices around the world. In its presentation in the “Seminar on 50 Years Japanese ODA to Indonesia” held in Jakarta 29 June 2009, Badan Perencanaan Pembangunan Nasional (Bappenas; National Development Planning Agency) asserted that Japan is the biggest development partner to Indonesia and evaluated that Japanese ODA, which was extended even before the 1st Five Year Development Plan, has contributed to Indonesia’s development particularly to support increasing financial needs of Indonesia’s development and to support deepening and expanding development programs. As of 31 March 2010, total cumulative of the ongoing Japanese ODA was US$ 43.89 billions and there are 50 ongoing projects in various ministries and agencies financed by ODA Yen Loan Project. Japanese ODA also has supported the development achievements of Indonesian Government and people. Indonesia’s self-sufficiency in rice was directly and indirectly contributed by the Japanese ODA through dam and irrigation development projects. And increasing Foreign Direct Investment is partly or largely supported by transportation and other infrastructure projects financed by ODA Yen Loan and grants. Japanese ODA also supports human resources development in Indonesia. JICA has extended extensive assistance of maternal and child health in 1980s and now almost 60% pregnant women and children under five have their health record in the form of ownership of Mother and Child Health book. Through technical assistance and grant, PT. Bio Farma is producing 100% national needs of polio and measles vaccine and 30% and 10 % international needs respectively on polio and measles vaccine. Around 38,000 Indonesian students, researchers, and government officials studied in Japan and participated in trainings held by JICA and other institutions. And a large number of ODA scholarships and JICA trainings alumni hold high and middle level of government positions.

JICA has become more field oriented, working more closely with partner governments, international donor organizations, private enterprises and above all, local people and communities providing greater hope for the future. On 1 April 2006, JICA established JICA Makassar Field Office (JICA MFO) in Makassar in order to develop cooperation with Eastern Indonesia with a focus on Mamminasata Metropolitan Area. JICA MFO, which is currently under Mr. Nakagawa Kazuo, is managing several technical cooperation such as in Mamminasata Area (improvement of water service and urban management), local industry development through creation of “SulSel brand”, PRIMA Kesehatan and PRIMA Pendidikan in the framework of supporting national and provincial programs in the sectors, and Marketing through “SulSel brand”, and Sulawesi Capacity Development Project with a focus on community and collaboration mechanism capacity building.

Government of Japan provides ODA to Indonesia based on Indonesian Government’s Mid-Term Development Plan and the provision of maximum assistance to the Indonesian Government’s self-reliant efforts. In the meeting with the journalists in JICA Tokyo, Mr. Sudo said JICA provides fund in form of loan and grant to support developing countries to provide water supply. How about Mammninasata?
Water Supply and JICA’s Role in Eastern Indonesia (2)

Learning from Yokohama for Mamminasata

By Sukriansyah Sultan Latief

Just imagine; when you are thirsty, you do not need to look for boiled water or to buy drinking water in a bottle or a galloon. And we who live in Makassar City, Maros District, Sungguminasa/Gowa District and Takalar District (Mamminasata), would just turn the water tap provided by PDAM and then drink from the tap. How easy our life would be: cheaper and healthier. But when it can be realized? You should not wait for a long time. In some parts of Mamminasata area within 1-2 years or at the latest by 2015, people can enjoy drinking water directly from the tap. However, it requires good willingness, hard working and smart attitude, and also pray from all stakeholders. Drinking safe water easily and freely can be enjoyed only when we go overseas. In some countries, we can get safe drinking water everywhere including in airport. Many hotels do not provide mineral water in bottle as complementary, because we can drink directly from the water tap. Therefore, glasses are always available near it.

When I came to Japan, I stayed in Shinjuku Washington Hotel in Tokyo, Pracede Hotel in Nagoya, and Toko City Hotel Umeda in Kyoto, mineral water in bottle was not available. There was only two empty glasses written “pure and drinkable”. Where does safe tap water come from? The answer is local Waterworks Bureau. In the meeting at Kosuzume Water Purification Plant Yokohama Waterworks Bureau, it was explained that at the beginning Yokohama faced difficulties in water supply. In 1885, Yokohama was a small village with only 87 households. But this city has been growing fast and number of population has been increased. Then, Yokohama is expanded with land reclamation. This has been resulted in unmet drinking water demand and undrinkable well water due to high content of salt.
Thus, Governor of Kanagawa Prefecture requested support from HS Palmer, an engineer from England to prepare construction of modern water canal to secure water from upper course of Sagami River. The construction was started and completed in September 1887. But service to community was officially started on October 17, 1887. Since then and 123 years after that, Yokohama Waterworks Bureau has served 3,681,279 people of Yokohama. Since 1988, service coverage has reached 100%. In 2009 Non-Revenue Water (NRW) was only 5.4%. Just compare it with average NRW in Mamminasata which reaches 32.85% with following details: Makassar 45.43%, Maros 37%, Gowa 21.07% and Takalar 27.91%. The average of NRW in Mamminasata is. Actually, according to Mr. Zulkarnain Kitta, Head of Mamminasata Technical Unit of Provincial Spatial Planning and Settlement Office of South Sulawesi who the writer met before joining the Program in Japan, maximum tolerable NRW should only be 20%. It means NRW in Mamminasata should be largely reduced. It seems NRW in Jakarta is higher than Mamminasata namely 49% and nationally average NRW is around 37%.

How Yokohama Waterworks Bureau can reduce the NRW? In Japan, especially Yokohama, there is nobody do illegal connection of Waterworks Bureau’s water. If there is leakage, it is because of leakage in pipe. In Indonesia, based on data from Ministry of Public Works, leakage caused by water stolen reaches 80% and only 20% because of leakage in pipe or damaged network connection. Head of Water Supply Supervisory Support System Board (BPP SPAM), Ministry of Public Works, Mr. Rahmat Kamadi, said that main cause of water stealing is uneven service coverage and low awareness of PDAMs to do fixing works.

How about in Mamminasata? Only we the consumer of PDAM water in Mamminasata know the best answer. Is the water daily consumed us “halal”? Is it not from illegal connection? Are we in among the 80% of consumer which partly get water from illegal connection?

In order to reduce NRW in Indonesia including in Mamminasata, water should be controlled from illegal/unregistered connection and PDAMs should repair broken water meter. It needs huge commitment and hard working from PDAM staffs as one strong team to prevent water stealing. Water
stealer should be processes legally in court, at least for giving lesson not to steal water. This issue is almost similar with illegal connection in electricity. The different is that the risk of water stealing is lower than that of in electricity. And therefore the prevalence is bigger in the water issue.

In order to reduce the leakage or NRW, leakage detector for tap water (acoustic rod and electric leak detector) which is now used in Indonesia including Mamminasata is needed. However it is not main solution for us in Indonesia. It is different with Yokohama which mostly faces underground leakage and therefore leakage detector is still important.

According to Mr. Ken Yokoyama, 5.4% of NRW in Yokohama is equivalent with 64,139 m$^3$/day or with water tariff of 2.24 USD/m$^3$ it equals with loss of 143,700 USD/day. Why we should learn from Japan? Because one of the lowest NRW in the world is Yokohama. If we compare it with Los Angeles (9%), London (26%), Bangkok (33%), Ho Chi Minh (39%), Beijing (22%), Mumbai (20%), and Karo (21%). “Annual water leakage in Yokohama is equivalent with a price of one Toyota Corolla,” explains Mr. Ken, who ever visited Makassar in a series of PDAM tasks. The question is if in Yokohama its NRW is equal with Toyota Corolla Car, how about in Mamminasa?
Water Supply and JICA’s Role in Eastern Indonesia (3):

Turn the Tap and Drink the Water

By Sukriansyah Sultan Latief

It is never an easy way to realize a hope that people can drink clean and safe water directly from the PDAMs’ tap (in Mamminasata area), but it is also not impossible. A lot of things need to be done, as explained in yesterday’s article.

What can be learned from Japan in the issues of water supply and sewerage is not only about Non-revenue Water (NRW) reduction. The more important point is how to produce clean and safe drinking water. Yokohama Waterworks Bureau shows how a water management system, established in 1887, has been maintaining and developing.

Water sources for Yokohama is not only from Sagami River but also from other 4 sources namely Doshi, Banyu, Sakawa and Kanagawa rivers with total capacity 1955,700 m3/day. This amount is enough to meet the demand of Yokohama with service coverage 100%. As comparison, in 2009 overall, the water coverage in Mamminasata only reached 44,10%, with following details: Makassar reached 72 % from a total population of 1,262,680; Maros 18.07% from a total population of 307,945; Gowa 12.87% from a total population of 587,722 and Takalar 7.62% from a total population of 242,755. In order to meet the MDGs target of 80% of water service coverage in urban area, Mamminasata has to improve infrastructure and capacity building in water service and reach total production capacity of 500litter/second.

In the interview with Director of Takalar District Water Supply Enterprise (PDAM), Mr. Syamsul Kamar Timung, conducted before the writer joining the Program, he explained that during the counterpart training in Japan he has learned interesting thing that raw water from the rivers is not directly treated with modern and safe method, but firstly it should be kept in the sedimentation basin.
He also informed that now Takalar has owned a quality control laboratory with equipment provision from the Project.

In Yokohama, in order to ensure that water can reach consumers without contaminated with any pollution, quality of water is kept monitoring and should pass 50 set standard, including free form non-corrosive water pipe.

According Mr. Syamsul, one of big problems to realize direct drinking from the tap is the widespread existence of corrosive water pipe. Apart from that according to Zulkarnain Kitia, Head, of Technical Unit of Provincial Spatial Planning and Settlement Office, good management towards healthy enterprise is particularly crucial to PDAM in Mamminasata. Therefore, billing and collection system, water tariff calculation and arrangement and financial management are critically important issues and should be solved professionally. Most of the PDAM still apply water tariff far below production cost. “Water tariff should meets principle of cost recovery and affordability principle” mentioned Mr. Zulkarnain referring to Government Regulation 16/2005 and Decree of Ministry of Home Affairs 23/2006.

Most of PDAMS are suffering from unhealthy financial condition and according to Mr. Zulkarnain, in South Sulawesi only Enrekang and Bantaeng performance are healthy. In Indonesia unhealthy PDAMs category refers to, among others: relatively high water lost, unreturned investment, inability of water authorities to supply 24 hour a day and even some areas suffer of no-water at certain days, not-drinking-water quality (dirty), limitation to expand water supply service and relative high water tariff.

The weak management and financial system of PDAM in providing water service is the reason behind technical cooperation with JICA on water supply in Mamminasata. JICA’s cooperation is expected to play a role (to contribute) particularly in improving capacity building of PDAM staffs in Mamminasata and related parties in Mamminasata Metropolitan Development Cooperation Board (MMDCB). The Project is not intended to support hardware part like provision of grant for buildings,
facilities and equipments but more on capacity improvement of operation, maintenance and control of PDAM. Project’s activities are in line with national plans such as PDAM management rehabilitation (Ministry of Public Works) and policy of new investment and of loan subsidy to PDAMs (Ministry of Finance).

The overall goal of the Project is to improve the capacity and quality of water supply services by PDAMs in Mamminasata Metropolitan Area through followings activities: strengthening inter-regional cooperation and coordination mechanisms among PDAMs, improving financial administration and technical capacity in expanding water supply service, and strengthening technical capacity in water quality management.

In this Technical Cooperation Project, started last year until year of 2012, JICA dispatches a team consisting of at least 11 experts ranging from water supply management, capacity building, water supply utilities management, NRW reduction, leak detection technology, financial management, customer relations, water treatment facilities, and inter organizational coordination. Apart from that it also includes a series of trainings in Japan. For example: for Mamminasata area, a 16 day training for counterpart for top level management (directors of PDAMs) and a training for 8 middle management level. Normally the trainings are conducted in JICA Chubu International Centre, Nagoya. Here, most of the trainings are held for various waterworks bureau from developing countries like Ethiopia, the Philippine, Sri Lanka, Tanzania, Turkey, Jordan, Vietnam, Bolivia, Bangladesh, Egypt and Kenya.

In an interview at JICA Chubu Center with Mr. Yuji Honda, one of Japanese expert team members on water supply utilities management, an interesting thing revealed regarding human resources in PDAM. Mr. Honda explained that it is unfortunate that some of some capable and trained PDAMs staffs have stepped down and resigned from PDAM which can result in the slow down of the improvement efforts in PDAMs in Indonesia. Mr. Honda hesitated to explain the reason of it but he also did not show disapproval when Fajar said one of the reasons might be salary.
How about the realization of drink water directly from the tap in Mamminasata area? Mr. Honda is sure that it can be realized within one or two years. Now, how about PDAMs in Mamminsata, is it achievable?
Water Supply and JICA’s Role in Eastern Indonesia (4)

Metaweater and Hitachi (Enterprises), Who Want to Join PPP?

By Sukriansyah Sultan Latief

One of the strategies to support Drinking Water Provision System (SPAM) is to mobilize financial resources from financial institution, private companies and community as well. How does the model look like?

SPAM strategy is believed can fill the gap between water investment needs and financing allocation. The problems lie in the lack of political will, of participation of community and private sector including domestic and foreign investors.

What factors that likely account for that?

Head of Makassar Commerce Chamber, Mr Amirullah Abbas, who is also director of PT Andatu Lestari a mining company, has some answers for those, which may not be a comprehensive answer but at least can explain to us why only small number of investors are interesting in business plan of companies.

First, drinking water business in PDAMs is not well socialized to community, moreover investors. Therefore, business sector do not know well about what kind of benefits can be gained from this sector. Rather, assumption on the unhealthy PDAMs performance is more widespread.

Second, no certainty guarantee to the business communities on management and ownership of this business so that they are difficult to calculate the return of investment.

Explanations of Mr. Amirullah may be right, taking into consideration the recent new movement in water business using Public Private Partnership (PPP) model. This scheme has been emphasized in
the improvement program of SPAM in the framework to realize MDGs target of 2015. In the meeting between Vice President of Indonesia, Mr. Boediono, and chairman of Nippon Keidanren, Mr, Hiromasa Yonekura several days ago in Japan, this scheme was suggested again as one means to finance large scale infrastructure projects.

According to Mr. Yonekura, various big projects in Indonesia will become easier to be materialized if financial supports from big institution like JICA or JBIC are in place. He hoped that Vice President will discuss with JBIC and JICA for them to support projects of Japanese businesses sector in Indonesia and he is sure that PPP scheme is one of the financing solutions for those projects. “This is because infrastructures (project) need big investment” says Mr. Yonekura, as quoted from the official website of VP.

The VP, Mr. Boediono agrees with Mr. Yonekura on PPP scheme and said that Government of Indonesia is recently improving the efforts to accelerate the PPP scheme projects. GoI has assigned National Investment Coordination Board (BKPM) as focal point for integrated service for PPP. “We are now reviewing some related regulations”, says Mr. Boediono.

One favorable note is that most of the Japanese investors show interest doing business in Indonesia includes big projects in Indonesia. They also believe that Indonesia will have greater prospect and role in the international economic. Security which has been a big exacerbating factor now is regarded as constructive. “Several years ago, Japanese businessman worried about security in Indonesia, but as economic growth shows good result, stability and security also improves” says Mr. Yonekura.

Drinking water business has become one of the target sectors of Japanese investor. In the meeting between the writer together with journalist from 11 countries and Japanese enterprises mediated by JICA, it was exposed that at least two big companies in Japan who are also as water treatment companies namely Metawater Co. Ltd and Hitachi Plant Technologies Ltd. showed interest to do
business in Indonesia. Both of them have listed Indonesia and other developing counties in Asia and Middle East as target of expansion of their business.

Metawater, for example, is targeting be partner of PDAMS in Indonesia for operational and management or collaboration with other private sectors to do PPP scheme. According to General Manager of International Business Division of Metawater, Mr. Shigeru Hatsumata, Indonesia has a big market in water business due to its huge demands in water supply. “We have already opened branch offices in Hanoi and Ho Chi Minh for expanding our business to Indonesia and India” explains Mr. Hatsumata.

Metawater is public enterprises located in Tokyo and was established in 1 April 2008 with 1,750 staffs. It produces various high-tech water treatment equipments such as water distillation for desert areas, sea water treatment and dam water treatment. Apart from construction of water installation, the company also offers cooperation for equipment maintenance, operational and control of water quality. The company, which is a merging company between NGK Water Environment Systems Ltd. and Fuji Electric Water Environmental System Co. Ltd in 2007, implements mega projects in USA, Canada, Germany, China, Korea, Australia and Vietnam.

Hitachi is also planning to expand its business to some developing countries. Apart from produce high tech equipment for water treatment in desert and oceanic area, it also develops equipments for sewerage and recycled water treatment for high rise building. According to General Manager for Overseas Technical Department of Hitachi, Mr. Satotu Ohashi, at the moment the company is managing 46 projects in 18 counties like Jordania, Pakistan, Nepal, Laos, Dominica, Equador, Indonesia. Hitachi is open for collaboration with local companies in each country.

The offers from Metawater and Hitachi have been disseminated and Government of Indonesia has opened opportunity for investment in this sector, how about PDAM and local investors? Mr.
Amirullah said “We, local companies, are ready to collaborate”. Offers have been responded. Go Ahead!