PROJECT OUTLINE

1. Title of the Project:
   NRW Reduction Technology Training and Capacity Building Project in Hanoi

2. Implementing Organizations:
   - Japanese side: TSS Tokyo Water Co., Ltd. (TSS)
   - Vietnamese side: Hanoi Water Limited Company

3. Project Term: from February 2016 to January 2019

4. Background and Necessity of the Project:
   A project of JICA Partnership Program which TSS carried out with Hanoi Water Limited Company from 2011 to 2013 received a high evaluation. Based on this result, TSS proposed a project (NRW Reduction Technology Training and Capacity Building Project in Hanoi) to JICA. This project will be a good chance of innovation for Hanoi Water Limited Company in the present conditions, such as the company hasn’t a NRW reduction team and are still preventing NRW passively, in spite of the decreasing of water resource, the rapid urbanization and the increasing of citizen’s water demand. The human resource development and the reducing the leakage volume by using comprehensive and advanced technologies are necessary for a good quality of water supply services and the securing the citizen’s water demand.
   In the 5 Years Plan (2015–2020) of Hanoi Water Limited Company, the goals are that the NRW rate be reduced to 18%, the coverage of the water supply system be 100% for inner district and 50% for suburban area. To reach the goals it is necessary for Hanoi Water Limited Company to develop the human resource. The Tokyo Water Group including TSS has many experiences, expert staffs, advanced technologies and business know-how for a good quality of water supply services such as 3% of NRW rate, and 99.9% of billed authorized consumption.
   The experiences and expertise of TSS are helpful and useful to execute the NRW Reduction Technology Training and Capacity Building Project in Hanoi.

5. Project Purpose:
   Purpose of the Project is to develop a sustainable human resource development system on NRW reduction through the procedures mentioned below;
   1) Candidates for instructors are trained through stage 1 of the Project so that they would become instructors with practical skills of NRW reduction.
   2) The trained candidates as instructors will train the next candidates for instructors through stage 2.
   3) Then they mentioned in 1) and 2) will train their staff to become skillful engineers or experts on NRW reduction.
6. **Contents and Scope of the Project:**

6.1 **Target Group:**
   a) 18 candidates for instructors in Hanoi Water Limited Company.
   b) Other 40 participants in workshops who will be trained by the candidates mentioned above a).

6.2 **Expected Outcomes:**
   a) Candidates for instructors in Hanoi Water Limited Company acquire NRW reduction expertise including skills to use and maintain leak detection equipment.
   b) Candidates for instructors in Hanoi Water Limited Company develop training materials such as textbooks, manuals and guidelines, and become instructors for staff training of NRW reduction.
   c) Candidates for instructors in Hanoi Water Limited Company conduct workshops on NRW reduction and they play a role of presenters and/or instructors at the workshops.
   d) A sustainable system of human resource development on NRW reduction is established in Hanoi Water Limited Company.
   e) The awareness of Japanese products and technologies are promoted at the workshops.

6.3 **Main Activities:**
   a) Classroom lectures for candidates of instructors in Hanoi Water Limited Company to acquire expertise of NRW management
   b) Practical training on sites for candidates of instructors in Hanoi Water Limited Company to acquire practical methods and skills of leakage detection
   c) Training at training field in a third country if possible for candidates of instructors in Hanoi Water Limited Company to acquire basic and practical methods of NRW reduction using training facilities
   d) Training in Japan for candidates of instructors in Hanoi Water Limited Company to acquire advanced technology and knowledge of products on water supply related to NRW reduction
   e) Training and workshop conducted by candidates of instructors in Hanoi Water Limited Company to verify or certify their progress
   f) Development of training materials (training textbooks, slides, manuals, guidelines)
   g) Promotion of Japanese products and technologies on water supply at workshops

6.4 **Schedule of training courses**
   The term and schedule of training courses will be coordinated between Hanoi Water Limited Company and TSS. The plan will be considered with followings:
   Training for 18 candidates: 6 times of training in Hanoi, 1 time in a third country if possible, 2 time in Japan.
   Training for 40 participants: 18 candidates will conduct training for other 40 participants through the workshop in the third year in Hanoi under supervising of TSS experts.
   The curriculum, also, would be decided by mutual agreement with Hanoi Water Limited
Company and TSS.

7. Management organization for implementing project:
   The Project will be conducted by Hanoi Water Limited Company and TSS. For implementing the Project, Hanoi Water Limited Company will designate Cooperation and Development Department which will coordinate with TSS as representative of Hanoi Water Limited Company, and also cooperate with the other departments of Hanoi Limited Company for conducting and managing the training courses.