

## Equipment Observation Survey

Building design is consisted of not only architectural design and structural design, but also equipment design and fire safety design. When focusing to life safety and life comfortability, the latter two designs are also important. Specifically, very recently fires have frequently occurred in Dhaka and local cities in Bangladesh. Those causes were mostly the faults of electrical facilities, such as short circuit, leakage of electrical wire lines.

In order to create BSPP handbook of “Fire Safety Design”, 3 Japanese experts of equipment and fire safety conducted the inspection for confirming the current situation of buildings in Dhaka.

The survey team visited 6 buildings in Dhaka whose owners kindly permitted to survey the inside of the buildings. We felt their passion for the improvement of building against fire. We hope they also learned something through our inspection. The main targets of the survey are electrical, mechanical and fire safety facilities. Several PWD equipment engineers and DoA architects accompanied. This was the good opportunity for the engineers and architects to learn the actual issues and the ideas on equipment with the Japanese experts.

	
<p>Electrical distribution</p>	<p>Control panel</p>
	
<p>Fire extinguisher</p>	<p>Fire door (slit aside, not self-close)</p>

Photo-1 Observation Survey

The survey team held the Workshop on Building Equipment after inspection, presented existing scenario from the survey, some solutions for improving the condition as well as the flow in the context of Japan were also described briefly. The summary can be summarized as the followings.

Regarding electrical issues, unprotected wiring, unavailability of fire alarm, openings in the outer wall of the transformer etc. are pointed out. And some solutions are suggested such as installation of protective tube for wiring, attachment of thermal fire alarm etc.

For fire protection issues, lack of fire training, wooden fire door and inaccessibility of ventilation facilities in the underground parking lot etc. are pointed out considering hazardous consequences. In Bangladesh, regular fire training and regular maintenance with inspecting fire protection equipment as well as fire evacuation drill based on proper instructions after installing guiding signs are recommended. Also, replacement of wooden door with iron is suggested.

After several active discussions, the workshop concluded the following.

- Various high-grade equipment is installed but not functioned. Some inappropriate equipment is found such as sprinkler at parking space (should be not water, but foam type extinguisher)
- For equipment steps are, “To know first, to use and training second, and third to function, then at last to sustain.” And Bangladesh is facing second to third steps, need to consider how to train and function the installed equipment.
- What learned during survey and workshop will be utilized to the BSPP handbooks.

All participated engineers of PWD and architect of DoA expressed gratitude to the Japanese equipment experts.



**Photo-2 Workshop on Building Equipment**



*Md. Sohel Rahman*

*Project Manager of BSPP*

[sohelr86@yahoo.com](mailto:sohelr86@yahoo.com)

*Fumio Kaneko*

*Team Leader of JET (JICA Expert Team) for BSPP*

[kaneko@oyointer.com](mailto:kaneko@oyointer.com)