## Recommendation from INTERPRAEVNT International Symposium 2014 28 November 2014, Nara, Japan

INTERPRAERVENT International Symposium 2014 was held on 25-28 November in Nara Prefecture with the participation of approximately 290 persons of engineers, researchers and government officials in the field of Sabo (sediment disaster risk reduction) from 25 countries. Under the main topic "Natural Disaster Mitigation to establish Society with Resilience", the programme included Keynote speech, Oral/Poster sessions, Panel discussion, Study tour and other activities.

Through these activities it was recognized that sediment disasters\* had been occurring frequently all over the world causing a huge number of casualties and hindering the social and economic development of countries, and would become more frequent and intensified in the future as a result of poorly planned and managed urban development on steep slopes and climate change, and would also become huge in scale such as deep catastrophic landslides or landslide dams.

2015 is an important year for Disaster Risk Reduction when the 3rd World Conference on Disaster Risk Reduction and Summit on Sustainable Development will be held to discuss/adopt a new framework and development targets respectively for the coming decades after 2015. INTERPRAERVENT 2014 discussed ways to promote sediment disaster risk reduction in linkage with these international initiatives.

Based on these outcomes of the Symposium, recognizing anew our roles and responsibilities and urging further promotion of exchange of experiences/knowledge world-wide for the effective development of technologies and their application, it is recommend toward the world as follows:

\* Hydrological geo-hazards such as debris flows, landslides and slope failures

## 1. Acceleration of technology development

Technology development should be accelerated with focus, in particular, on following areas:

- (1) Technology to detect high risk area of deep catastrophic landslides and landslide dams
- (2) Technology to monitor and observe high risk area of deep catastrophic landslides and landslide dams and to estimate the time of occurrence and affected area
- (3) Technology to mitigate damages caused by landslide dam outburst floods
- (4) Technology on design and construction of Sabo facilities with resilience which can maintain their basic function against disasters exceeding the design magnitude due to climate change
- (5) Technology for early reconstruction and recovery after major disasters
- (6) Technology to effectively undertake non-structural approaches such as land-use planning/regulation based on risk assessment, early warning systems, disaster education/training, etc.

- 2. Promotion of sediment disaster risk reduction in linkage with international development agenda for post-2015
- (1) It is important that the risk of sediment disasters and importance of countermeasures should be recognized fully by all concerned in each country and countermeasures should accordingly be included expressly in the post-2015 national action plan.
- (2) Further, it is also important that the risk of sediment disasters and importance of countermeasures should be recognized well at the highest level of the world and should accordingly be reflected properly in the post 2015 development goals (SDGs).