## **COMPLETION REPORT**

The Conservation of Historic Town and Disaster Risk Reduction: Lessons Learned from the Japanese 'Denkenchiku' System to Improve Disaster Preparedness by Local Communities in Thailand

Nattasit Srinurak Researcher Head of UDE Center Chiang Mai University

In Asia culture, most of the historic area is a living settlement. According to the development of the UNESCO's world heritage convention, since Burra charter adopted in 1979 and periodically updated to practice the heritage management under ICOMOS and UNESCO member countries. The management that focuses on the factors affecting the heritage properties is increasing.

In disaster prevention, Thailand has the authority to perform the disaster-related as Department of Disaster Prevention and Mitigation under the Ministry of Interior. The national agency that distributes a duty according to the provincial office. The centralization of this authority is, somehow, necessary to rapid response according to the higher level of disaster. Even this resource and determination are highly efficient in disaster response time, though it may lack a lot of opportunity for local knowledge as input resources during disaster preparedness processes. Overlooked local administration authority may cause the lostness of cumulative knowledge that copes with the future disaster.

Heritage conservation with disaster prevention measure. As Denkenchiku, in Japan, it combines with national regulation and committees, it presents an opportunity for the local historic area to be preserved along with local knowledge coping with its contextual disaster. The ideology of Denken contains regulated historic areas to enact and imply with modern disaster prevention that historic buildings must follow the law. To determine as a historic building in Denken area, the historic building (old, renovated or new) will ease the regulation of disaster prevention in term of material/ setback/ void, etc. but it must increase the measurement of disaster prevention more than a typical building, for example from this study, to use some fire distinguish infrastructure to control the fire spreading from the historic building, the contingency evacuation plan in the area.

In Hizen-Hama, it contains two areas of preservation consist of a fishermen village and commercial streetscape. Street network is complicated and narrow as well as Chiang Mai's. They have the regulation and practice of disaster prevention to strengthen the historic building's tolerance as modern buildings. Moreover, the supportive measure such as community surveillance group or tax subsidies of new buildings, these Denken measurements is the best practice to support the main subject of conservation in sustainable senses.

Chiang Mai as a world heritage nomination preparation process, in nomination guideline of world heritage convention, suggested the site to clarify the threat of heritage in various aspects. The direct and indirect impact of new development only controlled and regulated by zoning ordinance at the national and local levels. The overlay zoning with `Denken` concept is highly proper for regulated in Chiang Mai especially in the intense historic area that needed to protect streetscape (Main Axis of Chiang Mai historic city that links mountain and city together). The detail of Repair, Enhancement, and Disaster prevention will be the priority of preparation and conform to the operational guidelines proposed system by UNESCO.

## Publication of the Results of Research Project:

Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.)

Date, Venue and Conference are still under consideration due the postponement of conferences caused by COVID19, Title: Survive through the heritage: Reinvention of historic city`s water element to support community-based disaster risk management., Presenter: Nattasit Srinurak, Janjira Sukwai, Nobuo Mishima

Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.)

Book (Publisher and Date of the Book, Title and Author of the Book, etc.)

Publisher: Social Research Institute, Date: under reviewing process, Title: The conservation of historic town and disaster risk reduction, Author: Nattasit Srinurak, Janjira Sukwai.