

Architectural Approaches to a Sustainable Community with Floating Housing Units Adapting to Climate Change and Sea Level Rise in Vietnam

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Abstract : Climate change and sea level rise is one of the greatest challenges facing human beings in the 21st century. Because of sea level rise, several low-lying coastal areas around the globe are at risk of being completely submerged, disappearing under water. Particularly in Viet Nam, the rise in sea level is predicted to result in more frequent and even permanently inundated coastal plains. As a result, land reserving fund of coastal cities is going to be narrowed in near future, while construction ground is becoming increasingly limited due to a rapid growth in population. Faced with this reality, the solutions are being discussed not only in tradition view such as accommodation is raised or moved to higher areas, or "living with the water", but also forwards to "living on the water". Therefore, the concept of a sustainable floating community with floating houses based on the precious value of long term historical tradition of water dwellings in Viet Nam would be a sustainable solution for adaptation of climate change and sea level rise in the coastal areas. The sustainable floating community is comprised of sustainability in four components: architecture, environment, socio-economic and living quality. This research paper is focused on sustainability in architectural component of floating community. Through detailed architectural analysis of current floating houses and floating communities in Viet Nam, this research not only accumulates precious values of traditional architecture that need to be preserved and developed in the proposed concept, but also illustrates its weaknesses that need to address for optimal design of the future sustainable floating communities. Based on these studies the research would provide guidelines with appropriate architectural solutions for the concept of sustainable floating community with floating housing units that are adapted to climate change and sea level rise in Viet Nam.

Keywords : guidelines, sustainable floating community, floating houses, Vietnam

Conference Title : ICSAUD 2016 : International Conference on Sustainable Architecture and Urban Design

Conference Location : Istanbul, Türkiye

Conference Dates : February 15-16, 2016