Figure 1. Stages in IWRM planning and implementation (Source: UNDESA, 2014)

For the most effective management of water resources, it is important to secure community backing and participation. This requires a series of nine components: 1) Intent and teamwork from members of the local community; 2) sense of ownership in the local community; 3) understanding of the important issues; 4) able leadership; 5) suitable size of water resources for size of community; 6) knowledge support from government institutions; 7) rules and regulations for community organisations; 8) community representatives involved in planning, implementation and evaluation of policy; 9) model for continuous community participation. (Becu, N., Perez, P., Walker, A., Barreteau, O. and Le Page, 2003)

Northeastern Thailand (Isan) is a region with many different types of water resource but there is little education about the methods of water resource management available to local communities. In past initiatives, the primarily agricultural society has been educated in methods of irrigation but little knowledge of holistic water management or IWRM on the basis of local participation has been taught. For these reasons, the researchers were keen to investigate water resource management in Isan and disseminate knowledge of internationally accepted methods to the local communities.

2. RESEARCH METHODOLOGY

The aims of this qualitative investigation are: 1) to study the history of water resource management in Southern Isan; 2) to study the current conditions and problems with water resource management in Southern Isan; and 3) to develop a cultural ecosystem management model for water resources in the communities of Southern Isan. Data for this investigation was gathered from December 2013 using documentary research and field study. The research model was based on guidelines outlined by Nisa Chuto. (Chuto, N., 2008) The research area was selected purposively according to two main criteria: 1) the community was over 100 years old with over 200 homes and had developed over time, while original resources remained in a good condition; 2) there was an ecosystem management policy in place, including management of water resources. The three provinces chosen for further investigation were Chaiyaphum, Nakhon Ratchasima and Buriram. The individual communities are detailed in table 1. Research