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Factors influencing successful implementation of Biosphere Reserves in Vietnam: Challenges, opportunities and lessons learnt

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ABSTRACT

The way biosphere reserve principles are applied in Vietnam was assessed through analysis of legal documents and an online survey with 41 managers and staff members of the Biosphere Reserve Management Boards and National Man and the Biosphere Committee. The significant growth of the biosphere reserve network in Vietnam since 2000 is indicative of strong support from the National MAB Committee and the local provincial authorities in particular. Although all biosphere reserves conform to the Biosphere Reserve conceptual model, the operation and management effectiveness of sites is hindered by the predominant practice of sectoral and top-down control that is at odds with the intent of biosphere reserve management. The relatively weak legal status of biosphere reserves within the national framework is counter balanced by their more direct management by, and support from the autonomous provincial and city authorities. Recent administrative decentralisation in Vietnam allows the local authority flexibility in interpreting the central policies and regulations so as to benefit biosphere reserve management. Future sustainability and effectiveness of the biosphere reserves will depend on the implementation of appropriate, locally-based management solutions. This will require stronger support and commitment of the provincial leaders, relevant sectoral actors and communities to ensure cross-sectoral participation and collaboration, and secure adequate resourcing of biosphere reserve management activities.

1. Introduction

Vietnam is ranked the 16th in the world for richness of its biodiversity (National Environment Protection Agency NEA 2005; WB, 2005a). However, extensive deforestation and forest degradation has led to serious decline in biodiversity. Forest cover decreased from 43% in 1943 to around 27% in 1991 (WB, 2005b; Jong et al., 2006). Additionally, intensive illegal wildlife poaching and trading (WB, 2005b; Song, 2008) brought over 300 wildlife species to the risk of extinction (National Environment Protection Agency NEA, 2005). Consequently, conservation has become a priority action in the national agenda since 1986 under the renovation "Doi Moi" policy. This is being approached largely through rapid growth of the protected area (PA) system across the country (ICEM, 2003; MONRE, 2010) with 164 terrestrial national parks (NP) and PAs, and five marine PAs being declared (MARD, 2014). Another 41 new PAs are planned for establishment by 2020 and a further 23 by 2030 and this will bring the coverage by the PA system to 9% of the total mainland area and 0.24% of the approximately 1 million km^2 of national marine area by 2020 (Gov. of Vietnam, 2014). However, most PAs in Vietnam are located in areas of high poverty and it is a great challenge to achieve the often conflicting objectives of conservation and development (ICEM, 2003; National Environment Protection Agency NEA, 2005). These parks are managed as "prohibited forest- rùng câm" without local community participation in planning and management (ICEM, 2003; Zingerli, 2005; Phuc, 2009; McElwee, 2011). As a

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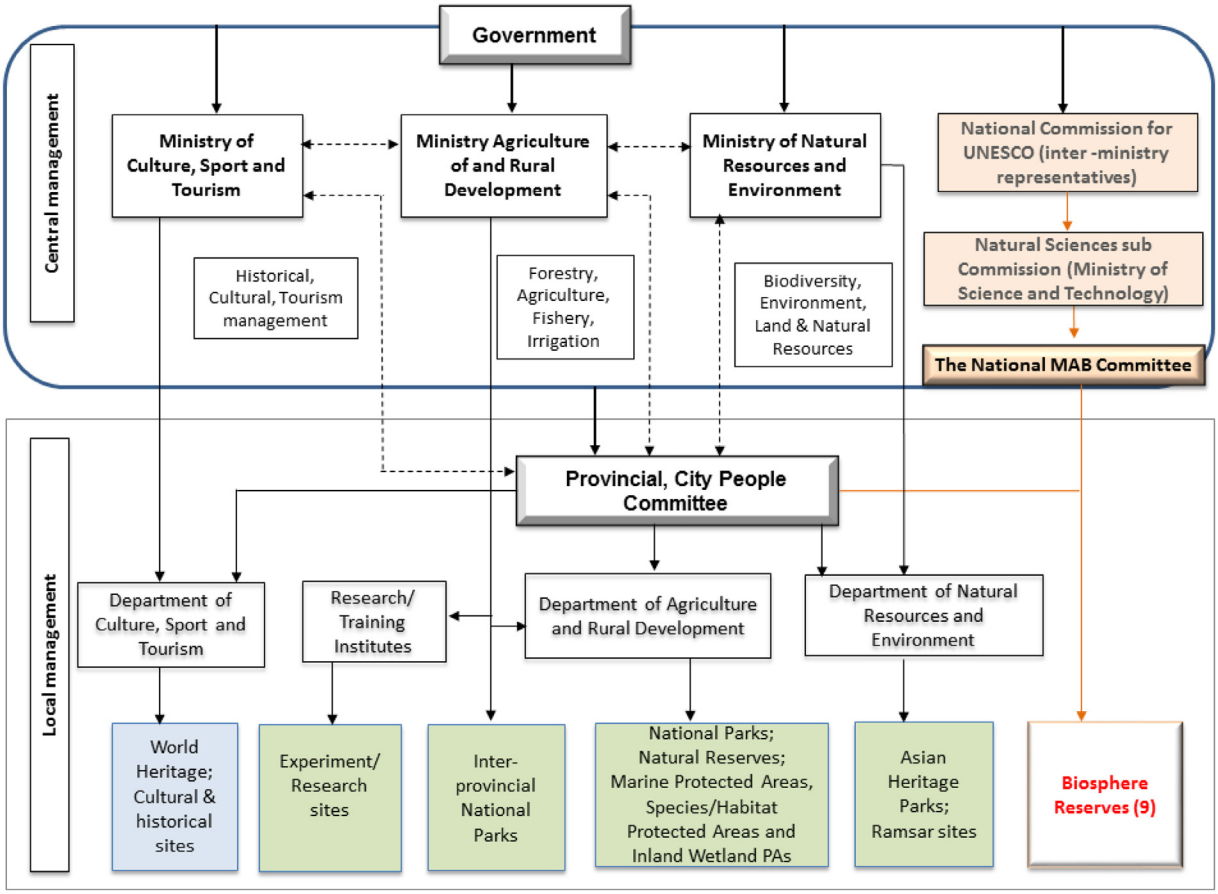

Fig. 1. Biosphere reserves in the management system of Vietnam.

result, local people, particularly poor forest dependant people often suffer from loss of income due to limitations on, or loss of access to, the PAs for livelihood and development opportunities (ICEM, 2003; McElwee, 2011; Wikle and Le, 2013). The government sought to remedy this through a benefit sharing, co-management policy between the Park authority and local communities which involved protection of natural resources while allowing some sustainable harvesting of the forest and marine products. This was initially piloted in Xuan Thuy and Bach Ma NPs in 2012 and scheduled to be implemented by all NPs and PAs by 2020 (Gov. of Vietnam, 2012). However, this co-management initiative has had little implementation (Dung et al., 2013).

Biosphere Reserves (BR) offer the promise of a broadening of the current approach to PA management for biodiversity conservation by taking into account the broader socio-economic context in which the PAs are situated. BRs are an international management approach supported by UNESCO under the Man and the Biosphere Program (MaB) launched in 1971 with the first BRs established in 1976 (Batisse, 1986). However, misunderstanding of the broader landscape concept of the BR model has led to the wrong application in practice with many PAs being designated as BRs core zone purely on the basis of their high biodiversity status and research value with little or no attention being paid to buffer and transition zones (Batisse, 1986; Ishwaran et al., 2008; Price et al., 2010). The Seville International Conference on Biosphere Reserves in 1995 was a landmark in the evolution of the BR concept and implementation with two important documents. First, the Seville Strategy (UNESCO, 1996a) set out the vision, main goals and strategic actions for the BRs at the global, regional, national and site level (UNESCO, 1996a). Secondly, the Statutory Framework of the World Network of Biosphere Reserves (WNBR) outlines a formal BR definition, functions, the criteria for designation, the nomination procedure and periodic review requirement (UNESCO, 1996b). As the Statutory Framework operates as an agreement that is not legally binding, it allows for countries to adaptively implement appropriate management approaches that fit with diverse local political and socio-economic situations to achieve three core functions of conservation, sustainable development and logistic support (Bruncknost, 2001; Ishwaran et al., 2008). However, practical implementation of the MaB concepts relies on the commitment and goodwill from participating countries and states (Brown, 2002; Ishwaran et al., 2008). It is particularly important for successful management of the BR to get the balance of conservation and development right in order to be adequately supported within the governance system of each country (Coetzer et al., 2013). As a follow up, the Madrid Action Plan for this MaB program (UNESCO, 2008) encouraged state members to include BRs in the national/sub-national legal system and to establish a framework for stakeholder collaboration in management of different zones within the BRs. Recently, the Lima Action Plan (2016–2025) for the MaB and its WNBR endorsed by 4th World Congress of BRs (UNESCO, 2016), highlighted the way BRs can support achievement of the UN Sustainable Development Goals and other international agreements.

For Vietnam, the BR model is new in both concept and practice, and was established post the Seville Strategy (Tri et al., 2013).