

4.3 Local Perspective - NT2-HPP Proximal Impact Zones

4.3.1 *Five-Year (Year 2010) Scenario*

From the viewpoint of soil quality, topography, water availability and freedom from flooding, the most attractive tracts for irrigation upgrading and (limited) expansion are the upper Nam Phao/Kata catchment and the Nyommalat, Mahaxay, Xaibouathong and Xe Bangfai District tracts of the Xe Bangfai Basin. In the latter basin, the irrigation upgrading will depend on the conversion of diesel-powered pumpsets to electricity. It could be foreseen that the promise of electric power supply from NT2-HPP could trigger the expansion of rural electrification, catchment-wide. Because of low soil fertility and high flood risk, the Hai-Hinboun Basin is less attractive from the irrigation development viewpoint. Nonetheless, the current irrigation systems, having diesel pumps and sub-standard distribution networks are not economically viable and it could be expected that the THPC contribute part of its (expanded) revenues to upgrade this situation.

It is expected that fast-growing tree plantations with community involvement will have commenced to extend out of the Nam Thon and Lower Hinboun catchments into the ex-shifting cultivation lands in the territories of villages along Route 8 between the Nam Theun crossing and Lak Xao. Considerable development of ecotourism to the various rivers, cliffs, caves and nature trails in the Theun-Kading and Hinboun Basins should have occurred. Most, if not all, of the commercial logs in the Xe Bangfai Basin will have been exploited within five years. Their replacement by fast-growing industrial plantations may have commenced. A similar situation could apply to the adjacent catchments on the Vietnam side of the border.

4.3.2 *Twenty-Year Scenario (Year 2025; Assuming Best Practices)*

Given the judicious application of a percentage of the revenues from expanded hydropower generation, it could be expected that: i) maximisation of sustainable irrigation possibilities, and ii) stabilisation of rainfed landuse on slopes would have relieved use-pressure on fragile wetlands and forested uplands and highlands. This would have been sufficient to enable secure conservation of the various nature reserves and wildlife sanctuaries located in the proximal impact zone, including the Pha Khadoung Saola Management Area, but possibly excluding the Vu Quang National Park in Vietnam. This tract may perhaps be more practicably operated as a multiple-use Buffer Zone, given the proximity of the Ho Chi Minh Highway. Plantation forestry (softwoods) and commercial production forestry (hardwoods) would have been re-vitalised and commenced to produce a sustainable source of taxation, royalty and direct revenues for Government. If all three proposed hydropower developments in the Theun-Kading Basin are realised, then up to 3,000 rural families will have been resettled onto pump-irrigated agro-forestry landholdings, following livelihoods sustainably above the poverty line.

It is expected that agriculture in the Xe Bangfai Basin would be further commercialised with production of diversified crops for an expanded market. The main local markets for agricultural products would be Thakhek and Nongbok, which would have seen a substantial growth in their populations. The neighbouring areas in Vietnam and Thailand plus more remote domestic markets such as Savannakhet and Vientiane should also have expanded. In spite of the

diversification of cash cropping, production of rain-fed and irrigated rice will still be a significant agricultural activity in the Xe Bangfai Basin.

It may be expected that much of the potential area for irrigation will have been developed through the assistance of external funding, while many of the existing irrigation schemes will have been rehabilitated and upgraded. An estimated half of the wet and dry season potential for expanding irrigation will have been achieved; this amounts to around 7,000 and 5,000 ha for the wet season and the dry season respectively. Irrigated dry season cropping will also have diversified to include crops like maize, soybean, peanuts and a number of vegetable crops, together with irrigated forage for supplementary feeding of stall-fed livestock.