

Krittayaporn Charoenpol, Major 2013: Assessment on Land Use of Phanom Dong Rak Mountain Range. Doctor of Philosophy (Soil Science), Major Field: Soil Science, Department of Soil Science. Thesis Advisor: Professor Irb Kheoruenromne, Ph.D. 115 pages.

The assessment on land use of Phanom Dong Rak Mountain Range was designed to evaluate the change of land use at the border area in the Phanom Dong Rak mountain range as affected by the border conflict between Thailand and Cambodia over Phra Viharn Temple. Methods of study included land use classification from satellite images in 2001, 2006, and 2011 by using visual interpretation from imagine software, and land use change analysis by using post classification comparison method. The study area had been divided into 3 zones: Zone I, Zone II and Zone III, for land use change comparison in each period.

Results of the study revealed that in Zone I of Thailand territory, the whole area was situated in Phanom Dong Rak Wildlife Sanctuary outside the disputed area. The dry evergreen forest had increased in 2011 due to Thailand's policies on forest conservation and restoration. However, there were some areas that could not be controlled by authorities, therefore, the mixed deciduous forest had been reduced in 2011 because of deforestation by villagers. In Zone I of Cambodia territory, the natural forests tended to decrease. More villages and military construction had been built in 2011. New roads had been built near the Thai-Cambodia border. The political factors affected land use of this area. In Zone II of Thailand territory, the natural forests in Phra Viharn National Park and Phanom Dong Rak Wildlife Sanctuary had increased in 2011 due to the government policies on forest conservation and restoration. The areas surrounding Phra Viharn Temple in Thailand were invaded by the road built to the temple by Cambodia in 2006 and 2011. The factors affecting land uses were political factors. There had been an expansion of villages since 2001 in the area in vicinity of the Phra Viharn National Park and Phanom Dong Rak Wildlife Sanctuary outside the disputed area. Villagers had adopted their land uses to economic plantations for higher income. Hence socio-economic factors affected land use of this area. In Zone II of Cambodia territory, the natural forests had decreased tremendously by being converted to villages and military construction. Roads had been built near the border connecting the road to Phra Viharn Temple. The changes were driven by political factors. In Zone III of Thailand territory, the natural forests in Phra Viharn National Park had increased in 2011 due to the government policies. Regarding the area outside the national park, villages and building have increased in 2006 and 2011. The villagers had adopted their land uses to economic plantations for higher income. The socio-economic factors affected land use of this area. In Zone III of Cambodia territory, the natural forests had decreased tremendously in 2006 and 2011. The villages and military construction have been increasing significantly since 2001. Roads were also built to run to the Thai-Cambodian border. The changes were driven by political factors. Land use change in the study area was mostly induced by Cambodian's international politics aiming at a sole occupation of the area at the Thai-Cambodian border surrounding the disputed area.

---

Student's signature

---

Thesis Advisor's signature

