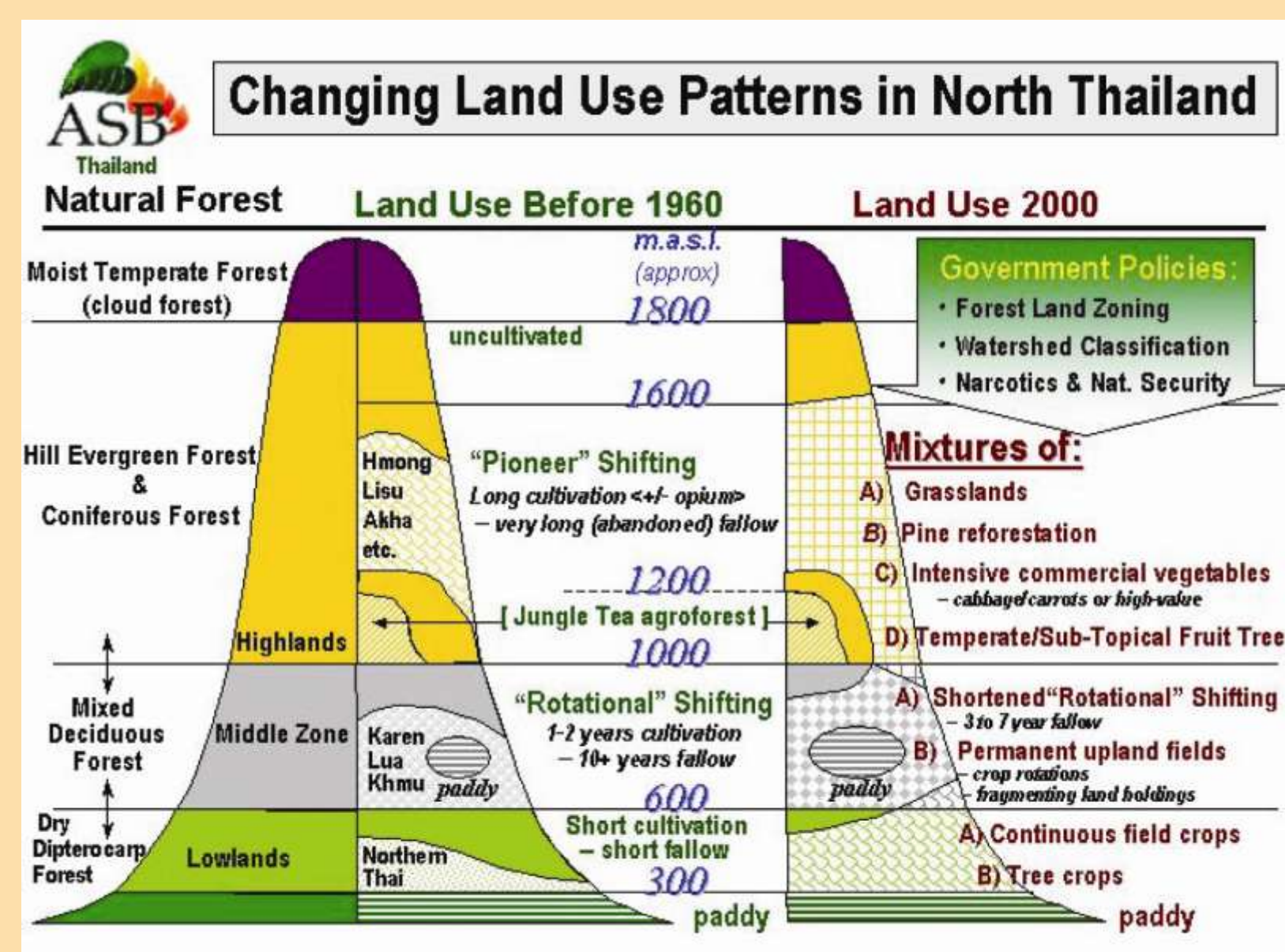


Northern Thailand

Mean Annual
Rainfall: 1,300 mm

Tree cover transitions in space and time



Generalized Patterns of Land Use Change

Impacts on Traditional Mountain Land Use

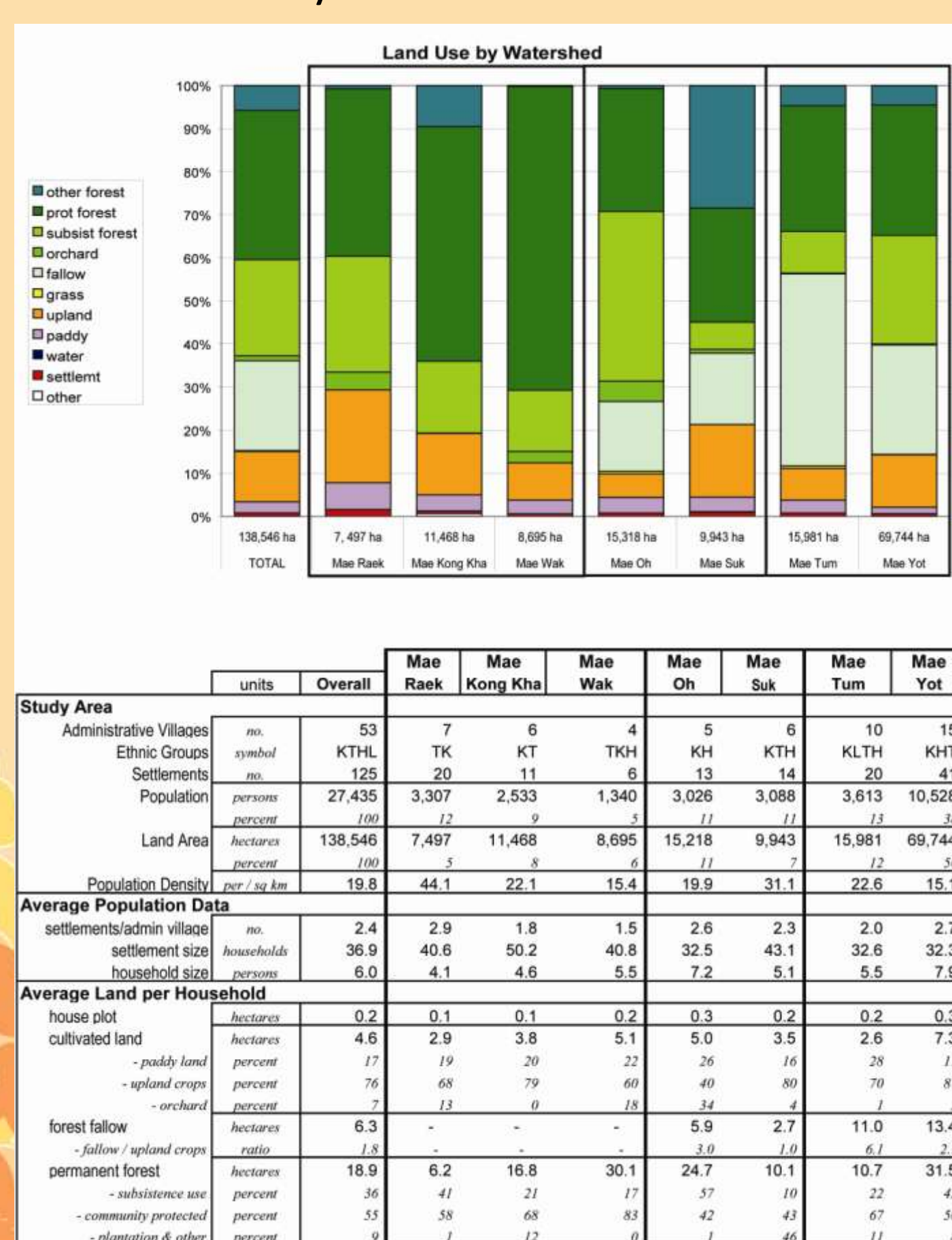
The natural ecology associated with mountain terrain in northern Thailand is generally reflected in natural forest types, which are strongly associated with altitudinal gradients. In combination with the ethnic complexity of the region, it becomes apparent that past complex patterns of traditional land use in largely forested landscapes reflected both the ecological and cultural diversity of the region. During recent decades, incentives and pressures for change have brought changing mixtures of land use, with substantial loss of more mature stages of secondary forest.

DO YOU
KNOW?

SPATIAL DISTRIBUTION of Land Use Change: Land use practices

While midland areas have systems ranging from fixed fields through short-fallow systems to those with forest fallows approaching full traditional cycles, all highland systems in this sub-basin appear to have been transformed to forms of cash cropping. The spatial distribution of changing systems provided a basis for locating more intensive studies at various nested sites within the watershed, in order to understand more clearly the historical patterns of change and the current impacts of these types of land use on both local livelihoods and environmental services.

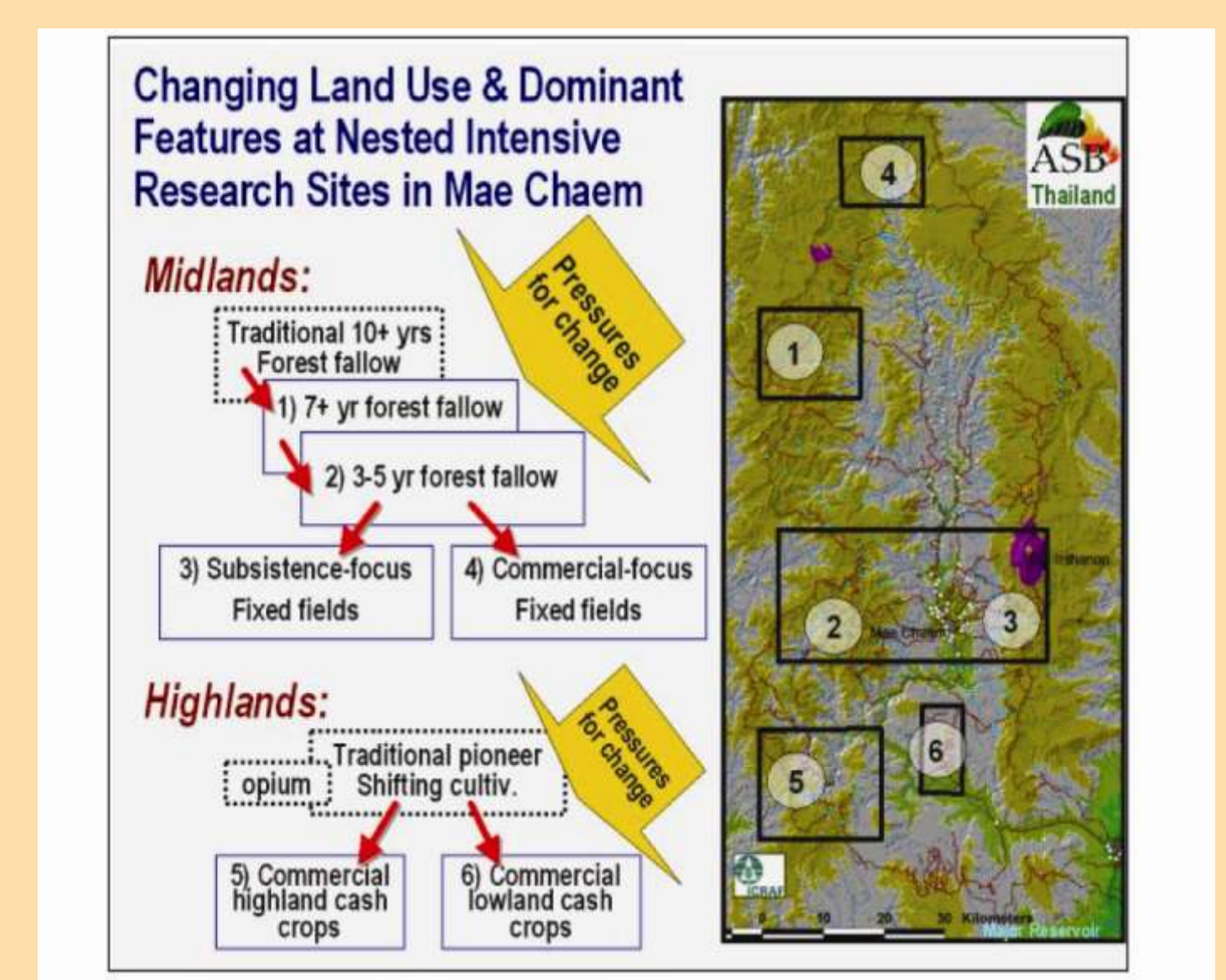
Land Use in Community Delineated Zones of Study Area Sub-Watersheds



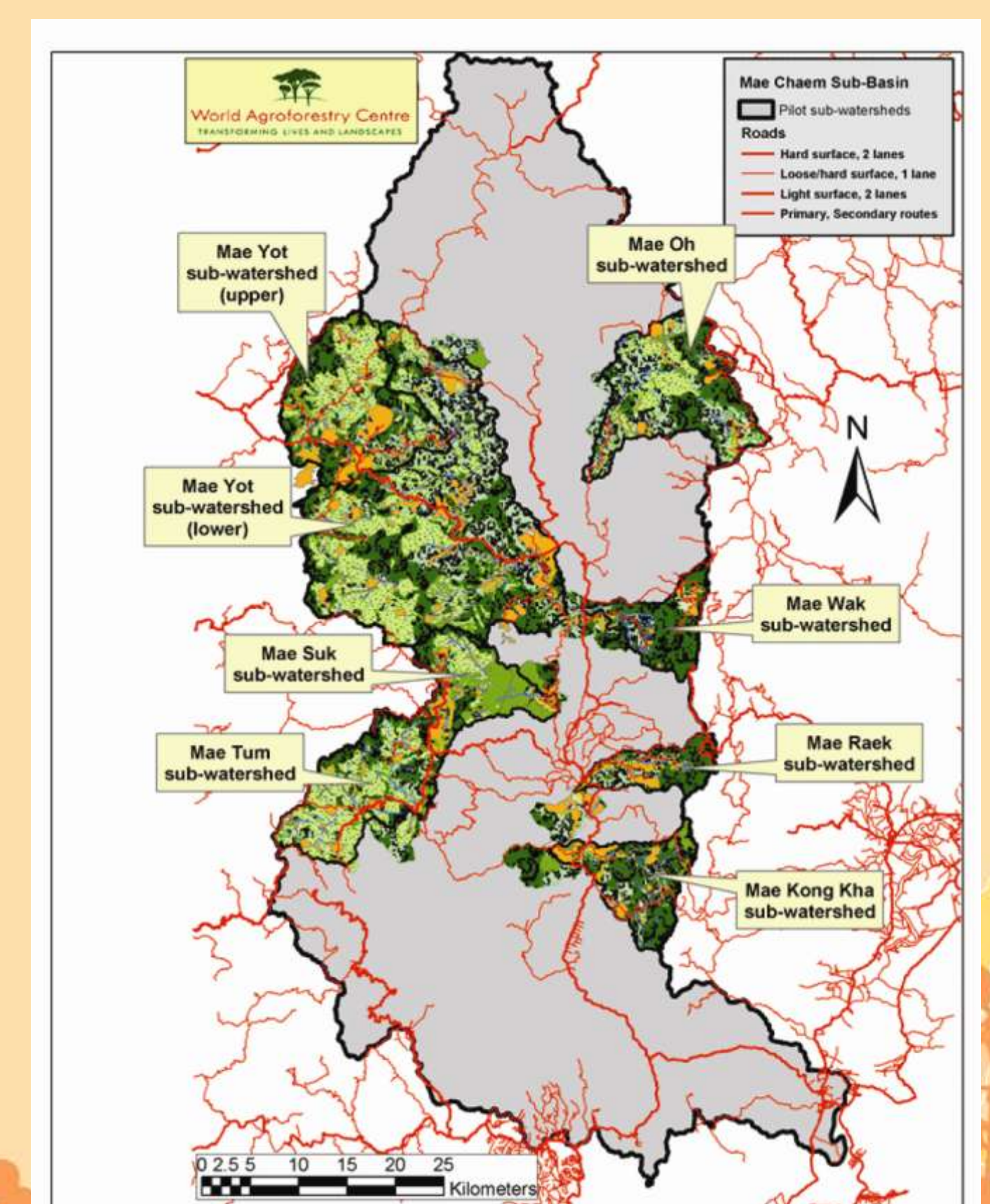
OVERVIEW

of Aggregate Land Use in Pilot Area Sub-Watersheds

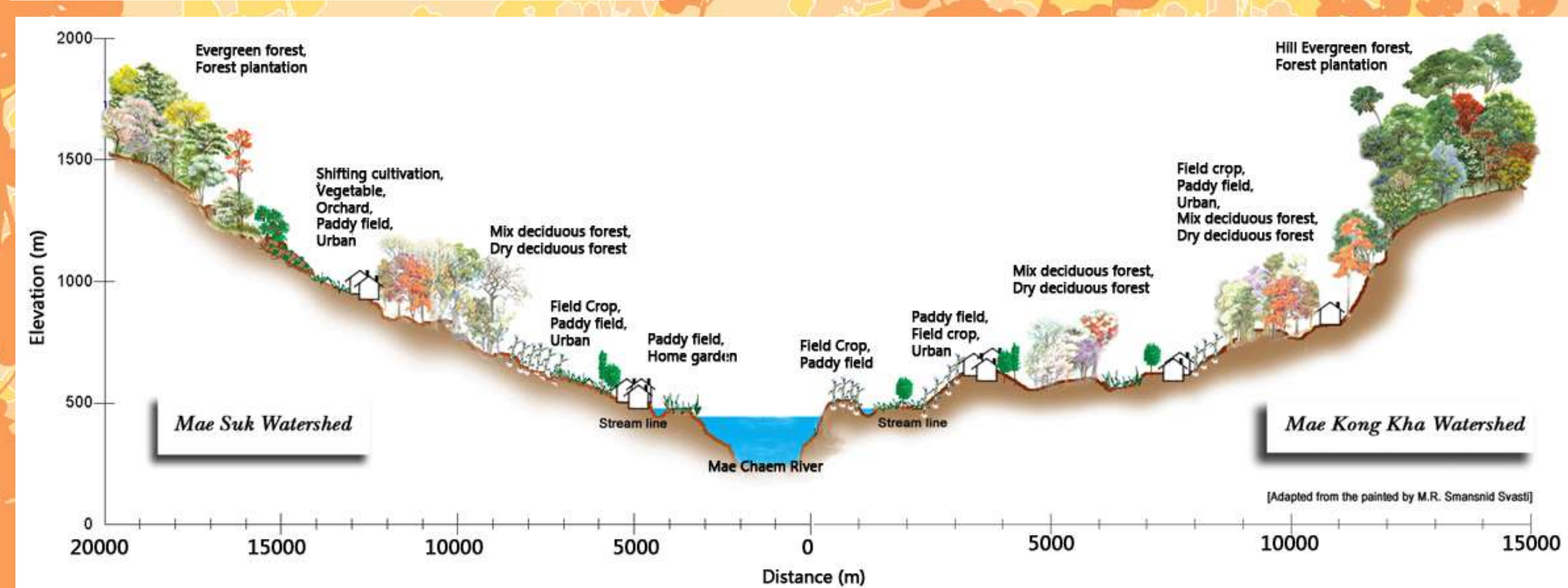
- Percentage of land area in currently cultivated upland fields appears to be inversely related to the portion of land in forest fallows, although the relationship does not appear to be very strong.
- Relationships are also not clear between relative distribution of land among aggregate categories and either population density or average area of land per household. This is the type of evidence that is typical from tables of data aggregated at this scale, even when efforts are made to improve articulation of locally-relevant land use categories such as forest fallows. Since our data is in a spatially explicit format, however, it allows us to further disaggregate distributions according to other data that are not necessarily directly observable, such as locally-defined land units and boundaries.
- Forest fallow lands are clearly one of the most contentious land use issues in upper tributary watersheds across the entire Montane Mainland Southeast Asia eco-region.



Major Land Use Patterns in Mae Chaem



Mapping of Land Use Zoning of Admin. Village & Sub-watershed Landscapes



Landscape Mosaic in Mae Chaem Watershed

- Since forest departments were first established, they have always seen these areas as degraded forest lands, whereas local communities have seen them as areas of forest regrowth that are an essential component of their agroecosystems, restoring productivity without chemical inputs from external sources.

Reference :

Thomas, David E., P. Preechapanya and P. Saiponthong. 2004. Landscape Agroforestry in Northern Thailand: Impacts of Changing Land Use in an Upper Tributary Watershed of Montane Mainland Southeast Asia. ASB-Thailand synthesis report 1996-2004. Chiang Mai: World Agroforestry Centre. 184p.

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