

Tibetan Land Use and Change near Mt. Khawa Karpo, eastern Himalayas. (Oral Presentation)

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Introduction

Studies on Tibetan land use have concentrated on yak herding. However, in the eastern Himalayas, agriculture and non-timber products are equally as important. Land use change is multi-faceted and very rapid in Tibet.

Objectives

To quantitatively compare and contrast land use and change in Tibetan villages at high elevations (>3000m) and lower elevations (<2500m), and villages near and distant from roads.

Methods

Field data was gathered by multi-disciplinary, multi-ethnic teams that trekked to six villages. GIS mapping was carried out on 1m² satellite images using GPS units and palm pilots. PRA mapping was incorporated in the GIS and also used to evaluate repeat photography for change in land use over the last century. Ethnobotanical vouchers were collected. Data were compared statistically with non-parametric Mann Whitney and Kruskal Wallis tests.

Results

High villages crop both high and lower fields resulting in larger agricultural areas/household, greater crop diversity/household, and both more traditional crops (barley, buckwheat, turnip) and more new world crops (maize, potatoes). Villages near roads and at lower elevations grew more cash crops (grapes) and more wheat. High villages also had more ready access to non-timber products and pastures. Change was widespread and diverse, but overall Tibetans have maintained their natural resource base and traditional livelihoods, especially in higher villages.

Conclusion

Verticality is evidenced. Traditional ecological knowledge informs many aspects of Tibetan land use. There are trade-offs between higher villages having access to land and other natural resources, and lower villages with roads having access to markets and agricultural and infrastructural inputs. Government policy is a powerful force of change as is global warming.

Keywords: GIS, PRA, TEK, global warming, farming systems, livelihoods. non-timber products

Selected References

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