

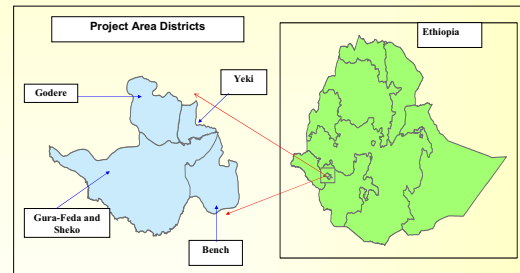


Forest Cover Change and Socioeconomic Drivers in Southwest Ethiopia

Introduction

The landscape is subject to different changes both at the local and global level due to different socioeconomic and political processes. These changes become, in the majority of the cases, perceivable through the change in land cover.

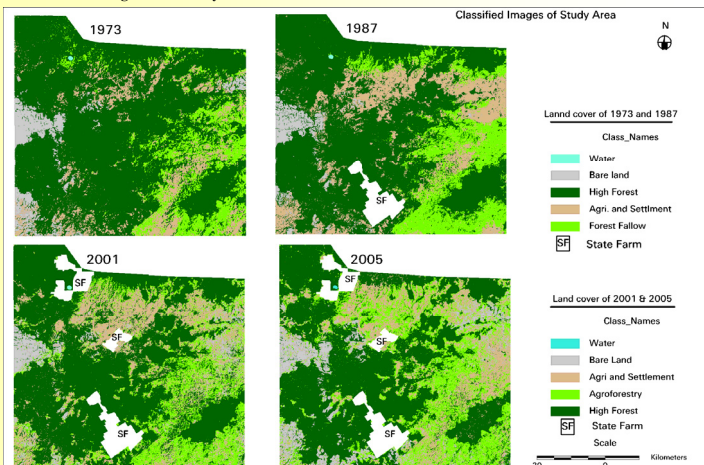
This study attempted to examine the forest cover change, between the years 1973 and 2005, in southwest Ethiopia that covers an area of ca. 3940 Km², using Landsat satellite images from different epochs. In addition, the local farming systems were analyzed to understand the proximate and driving causes of forest cover change.



Theory and methodology

General Systems theory and farming systems theory were used to guide the socioeconomic part of the study. Furthermore, remote sensing techniques were applied to quantify the forest cover change. Landsat images of 1973, 1987, 2001 and 2005 were analyzed using ERDAS Imagine 9.1 and ArcGIS 9.0 software to know the forest cover changes during the different periods. Semi-structured interviews and face to face structured interviews were conducted in the three case study villages representing the different farming systems of the study area. Government policy documents, reports and land policies of different regimes were also reviewed.

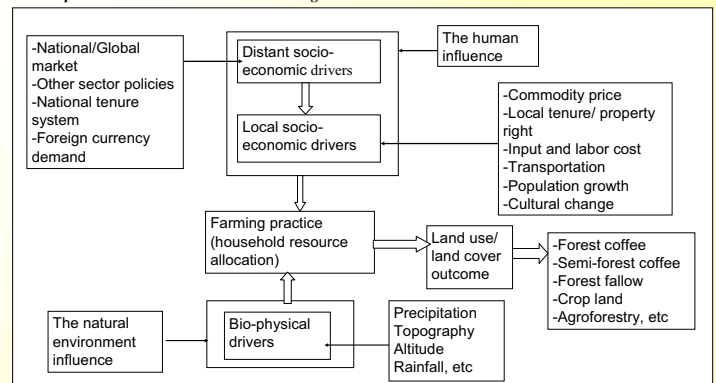
Classified images of the study area



Major findings

1. The high forest cover of the study area dwindled from 71% to 48% between the years 1973 and 2005;
2. Of the total forest loss, 90127 ha or 30% is due to direct government land use conversion while 70% is due to local community farming system practice;
3. Since the year 2001, the high forest of the study area is receiving high pressure from smallholders' intensive coffee management rather than expansion of agricultural land;
4. Government coffee plantations, allocation of forest land for large-scale private coffee plantations, local communities' crop field expansion and smallholder forest coffee intensive management are identified as the proximate causes of the forest cover change;
5. Lack of clear land use plan, change in farming system, lack of operational regulation for forest coffee management and poor institutional support for proper land administration at local level are identified as the drivers of the forest cover change.

Conceptual frameworks of forest cover change



Source: own drawing

Conclusion and Recommendations

The forest cover change is related to local community farming system changes and government rural development interventions.

The forest land is converted to other land uses by the local community and government during different regimes. Thus a general land use plan for the region and legally binding land use plans at village level could contribute in limiting such arbitrary decisions.

The forest coffee system is rapidly changing due to intensive management in response to lack of a clear operational management plan. Participatory forest management would be an option to develop an operational management plan and to secure tenure system.