

Evaluation of Maintenance of Post-Fire Forest Cover in National Forests

Sponsor: USDA Forest Service

Principal Investigator Temesgen Hailemariam

\$74,000

Fire in California's wildlands has become a critical problem in recent years. Increasingly, forests in California are experiencing large high-severity fires. The scale of these fires creates numerous problems. The costs of fighting fires has increased. In recent years, it has become evident that there is also a risk to the health and well-being of the people of California as seen in loss of life associated with wildfires.

Much focus has been given to the resource damage that arises from fires. However, less attention has been given to the long-term effects on forest cover. Under historic conditions fires in California often burned with low-mid severity producing conditions where either there was little loss in forest cover or where areas burned with high severity, the scale was such that natural regeneration was possible. The result of largescale high-severity fires is that many acres are now unable to regenerate naturally because of the lack of a nearby seed source. In such instances, if forest cover is to be re-established in a timely manner, artificial regeneration is often needed. Yet in recent years, the success of the US Forest Service in artificial regeneration has subsided. When large areas are burned the need for regeneration can overwhelm the agencies capacity and this shortcoming is exacerbated by a lack of effective control of competing vegetation in areas that are planted. The lack of competing vegetation control can lead to failed plantations reverting to a brush field conditions. Thus, the problem that this presents is the possibility that we are witnessing that conversion from forest to brush cover for large areas in California's National Forests.