

# What is the status of the forest in Village 4 and 5?

Hanneke van 't Veen, Vincent Gerald Vyamana and Moshy Salehe Mpembela

## Changes in forest biomass in Village 4 and 5

### Challenges and opportunities

Mix of biomass growth and losses spread across the hills.

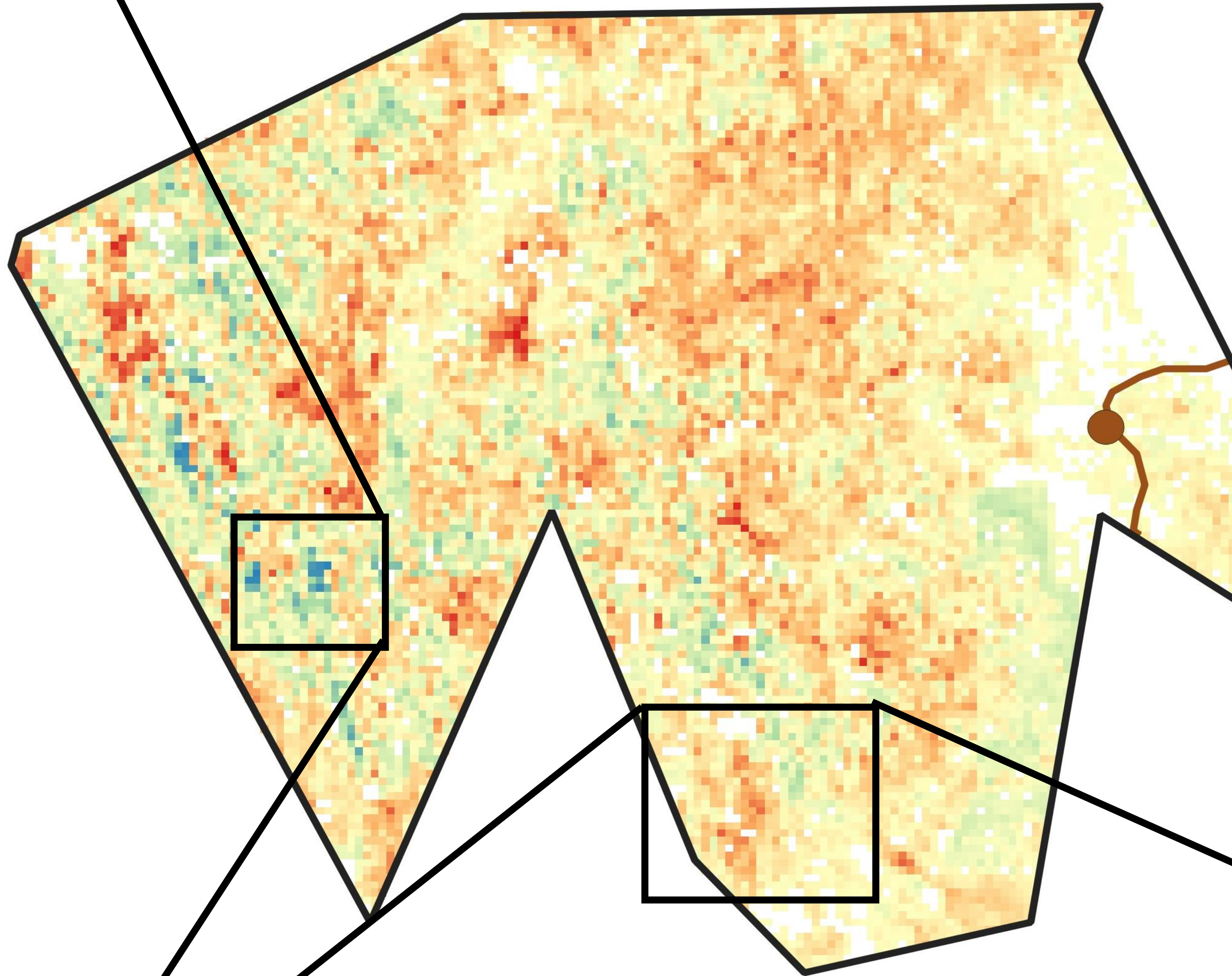


2011 – Rainy season



2015 – Rainy season

0 2.5 5 km



### Spatial patterns in biomass change

- Biomass increases in smaller areas in Kitete (3,063 ha – 23.1% of the village area) than in project villages (5,092 ha – 32.3% of the village area).
- Forest biomass recovery is found in mountainous areas.
- Forest biomass loss seems mainly related to expansion for agriculture.
- Mosaic of biomass gain and loss in Western Kitete.

### Challenge

Loss of forest biomass due to clear cutting, likely for agriculture.



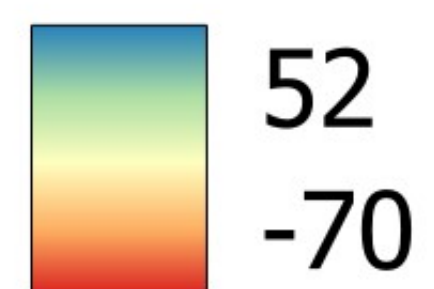
2011 – Rainy season



2015 – Rainy season

- Village boundary
- Barabara
- Kijiji

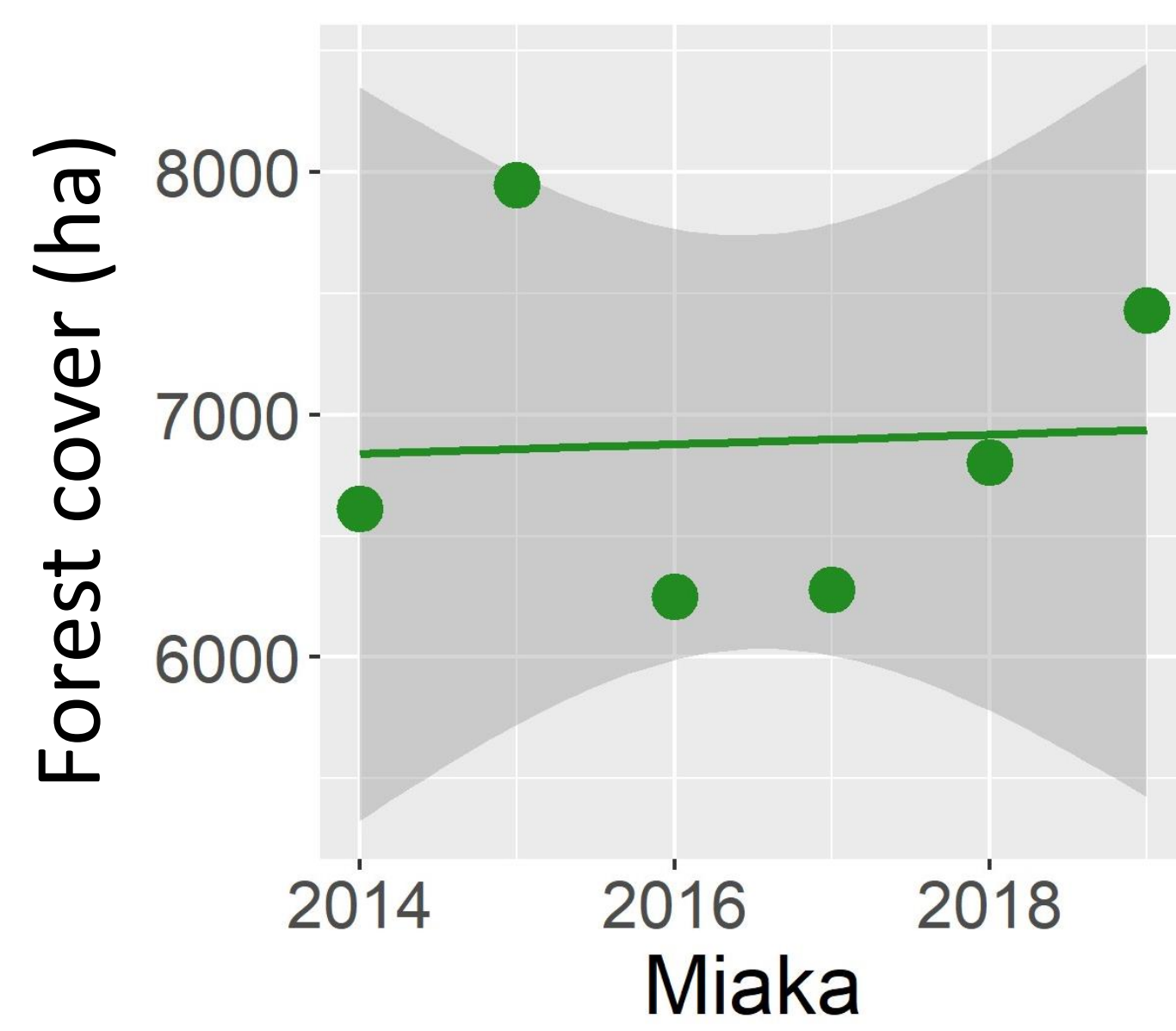
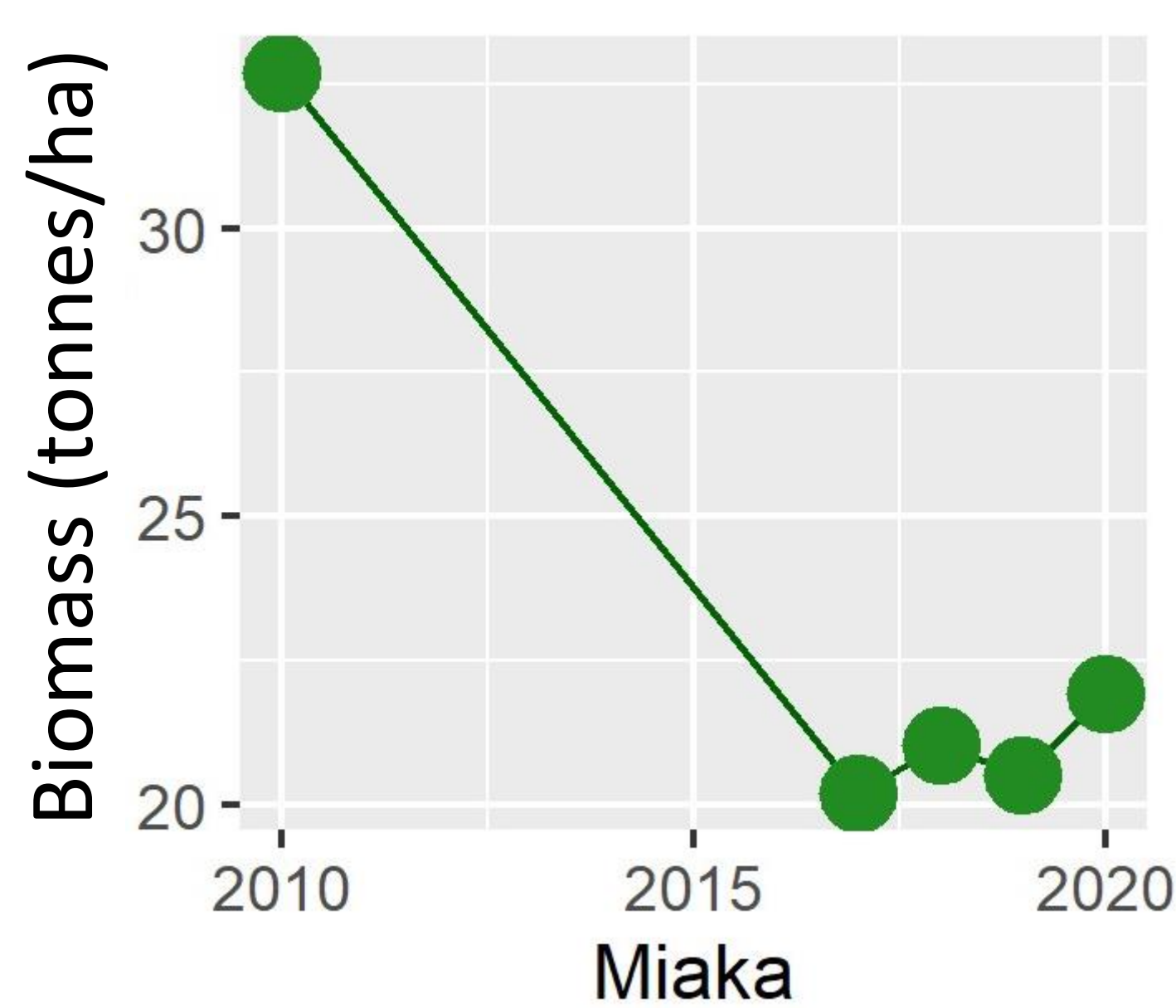
Change in biomass between 2010 and 2020 (tonnes/ha)



## The status of the forest in Village 4 and 5 compared to villages without a project

### Forest biomass stabilizes in Village 4 and 5

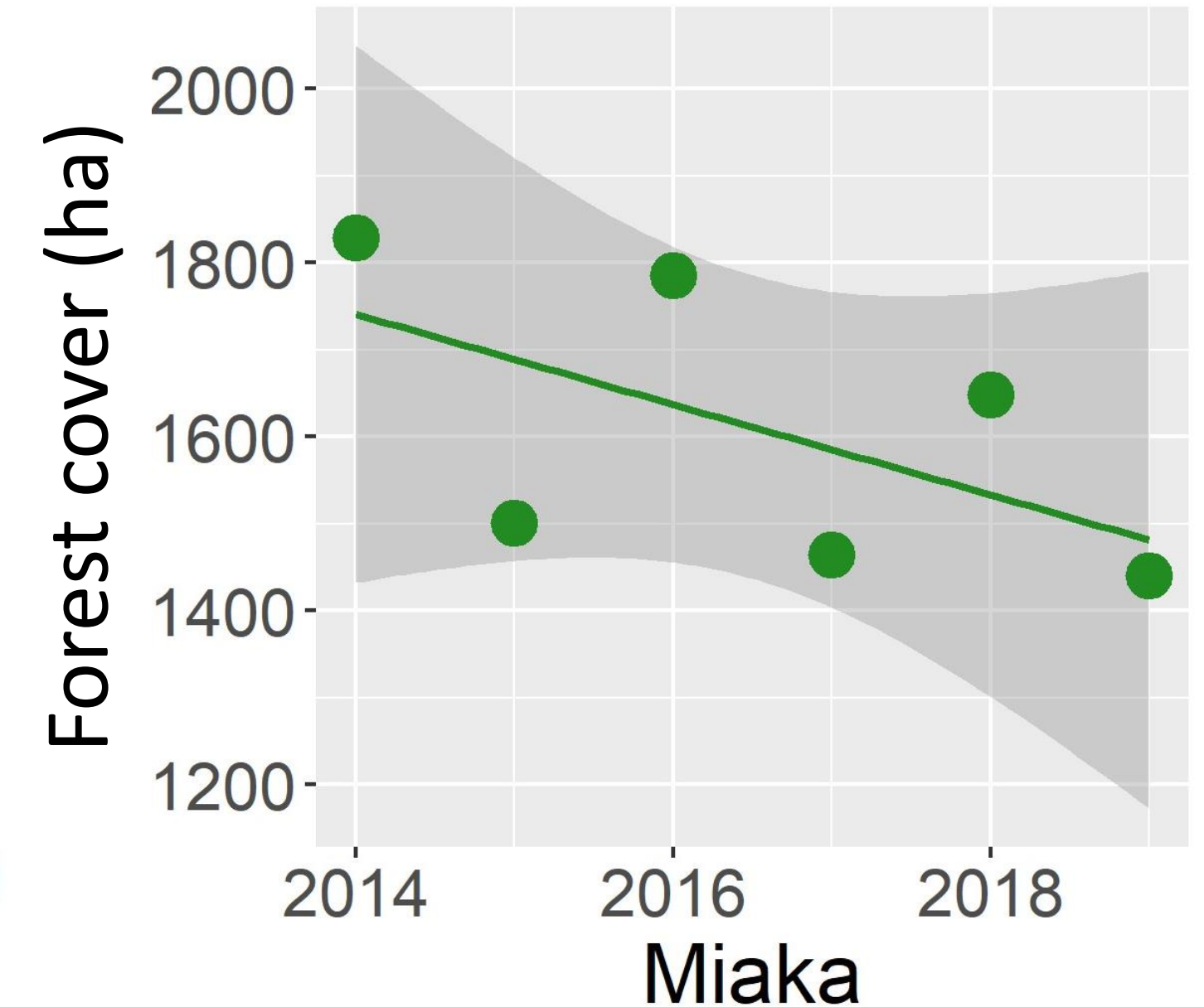
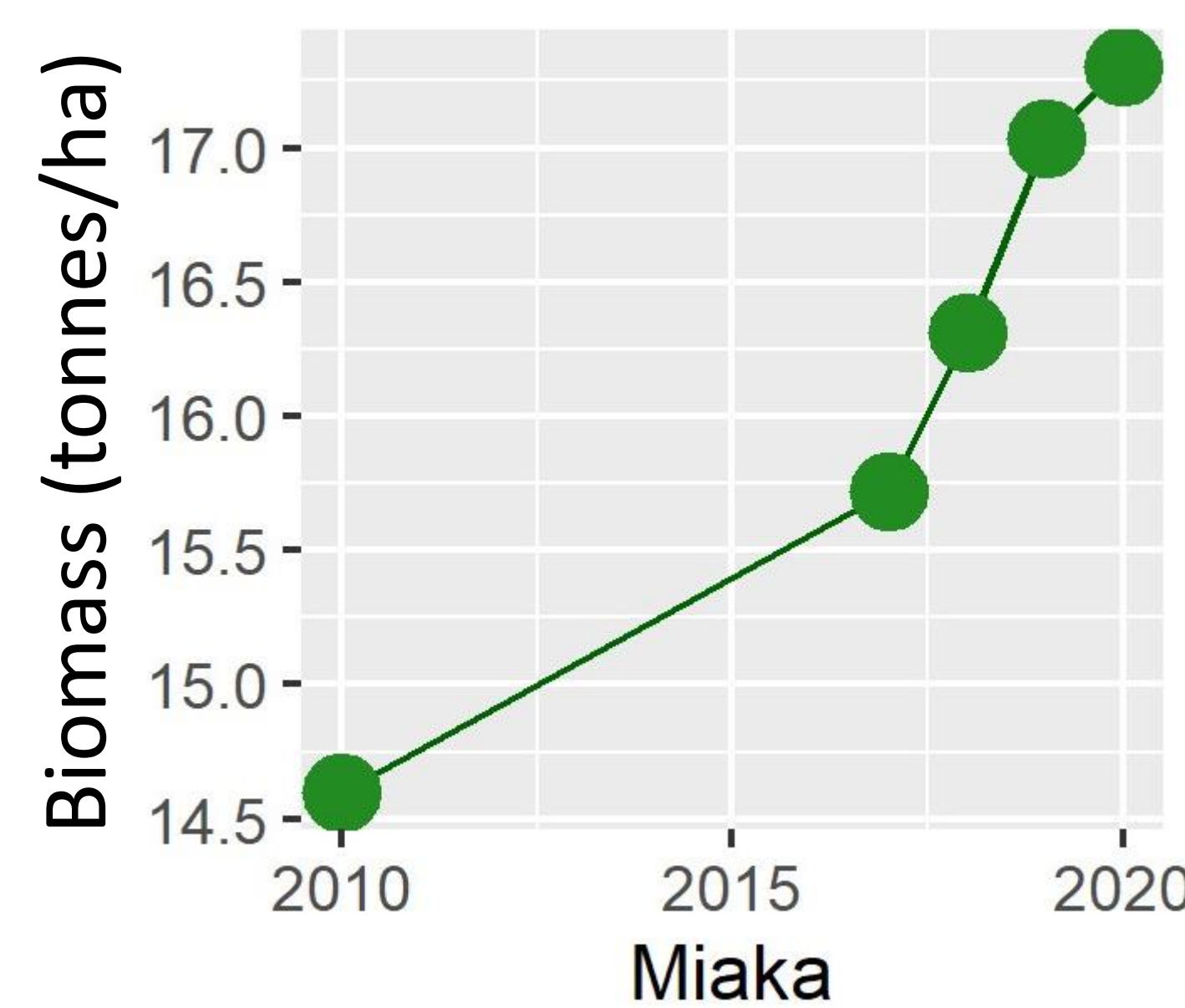
Kitete na Majambaa



- Forest biomass in the villages on average decreases  $\pm 12$  tonnes/ha and subsequently stabilizes around 20 tonnes/ha between 2010 and 2020.
- Total forest area remains stable between the years 2014 and 2019.

### Forest biomass decreases in a village with a project

Village without a project



- Forest biomass on average increases ( $\pm 3$  tonnes/ha) to above 17 tonnes/ha, although in some regions a decline in forest biomass is observed between 2010 and 2020.
- Total forest area declines slightly ( $\pm 200$  ha) between 2014 and 2019 – likely unrelated to charcoal production.