*Chloroxylon swietenia* is a deciduous tree (Local name: Billu). It is commonly found in tropical dry deciduous forests in India and is listed as ‘Vulnerable’ on IUCN Red List. It is a valuable timber species and is locally harvested for fuelwood, brickmaking, making agricultural tools and fodder use. Trees may have lower growth when their branches are harvested. Trees are capable of resprouting from the base when their main stem is lost (i.e., due to harvesting). Recruitment of trees is from seedlings currently does not happen because frequent fires kill seedlings.

Scientific question: How does harvesting influence the demography and population growth rate of *Chloroxylon swietenia*?

Metadata:

Tag- individual trees were given a unique number so that they could be followed through time

Stage2009- the stage of the individual in 2009. Trees or sprouts. Trees are individuals with a woody stems. Sprouts are individuals that have resprouted from the base of the tree, typically after harvesting or fire damage.

Stage2016- the stage of the individual in 2016. The same individuals were found in 2016. They were either Trees, sprouts or dead.

Size 2009- the size of each tree was measured in 2009. This is the diameter of the stem. Sprouts were not measured.

Size 2016- the size of each tree was measured again in 2016. This is the diameter of the stem. Sprouts and dead individuals were not measured.

Harvest- this column documents whether or not individuals experienced harvesting by people between 2009 and 2016. Harvesting can take two forms: main stem harvesting in which the main stem is removed, forcing the plant to resprout from the base and branch harvesting in which subbranches are cut but the main stem is intact.

Please present:

1. A short overview of *Chloroxylon swietenia,* including a life cycle graph.
2. Hypotheses
3. Your methods (modelling approach)