

# INVEST MANAGED TIMBER PRODUCTION

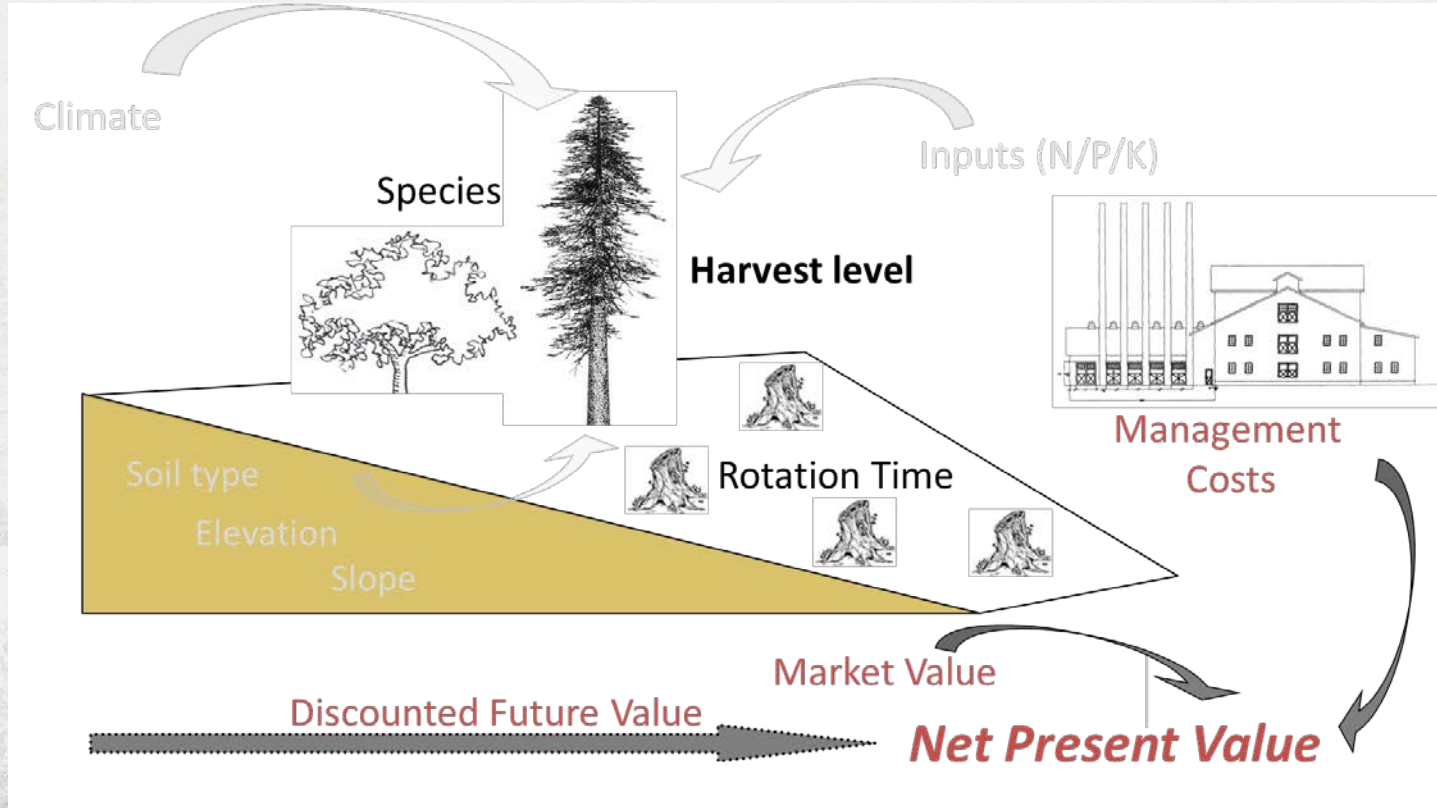


# InVEST TIMBER PRODUCTION MODEL

- Estimates the amount of legally harvested timber from managed plantations or natural forests.
- Provides optional economic valuation of timber.
- Helps explore the net benefit of timber production and its tradeoff with other forest ecosystem services.



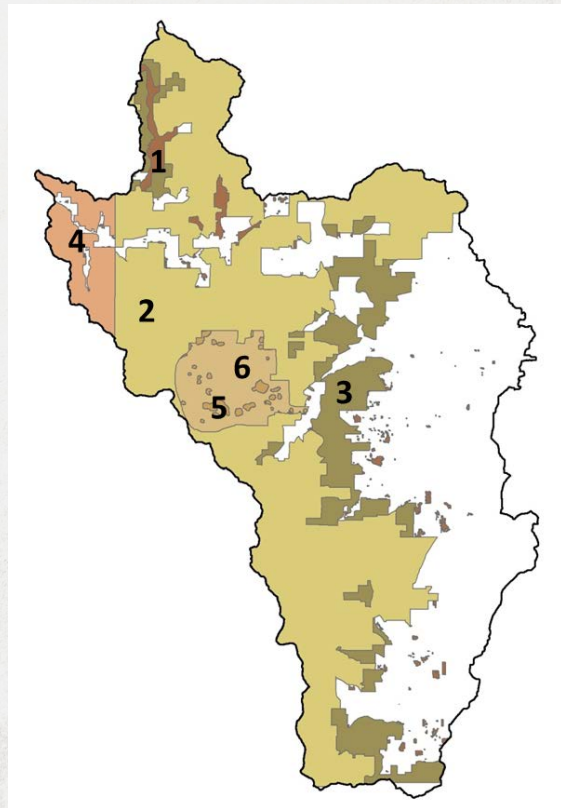
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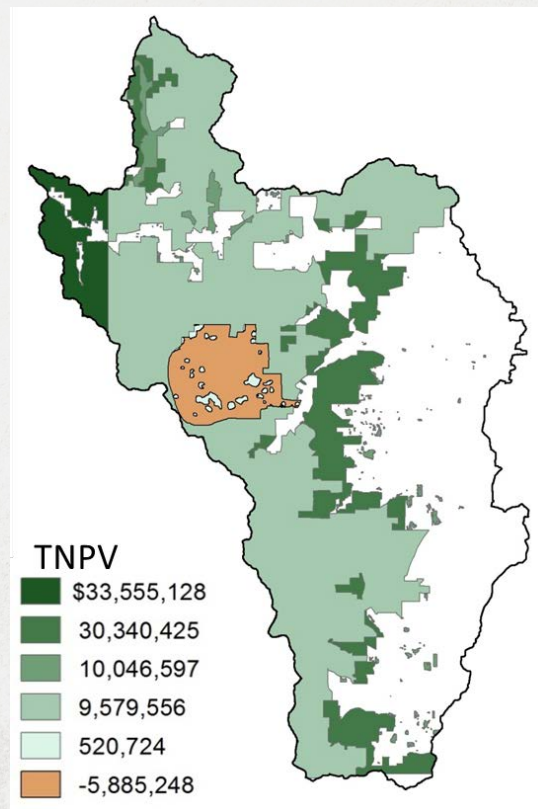
# MODEL INPUTS

- Timber management zones (GIS vectors)
- Production parameters for each zone:
  - Total area (ha)
  - Proportion of area harvested (%)
  - Frequency of harvest (yr)
  - Mass of wood harvested (weight/ha)
  - Marketplace value (currency/weight)
  - Biomass conversion and expansion factor
  - Number of years modeled
- Economic parameters [optional for valuation]:
  - Annualized maintenance cost (currency/ha)
  - Harvest cost (currency/weight)
  - Market discount rate



# MODEL OUTPUTS

- For each timber management zone:
  - Total net present value of timber production (currency)
  - Total biomass of harvested wood (metric ton)
  - Total volume of harvested wood (m<sup>3</sup>)





# **LIMITATIONS**

- Not a profit maximization tool
- Assumes inputs remain constant over user-defined time period:
  - Percentage of forest harvested
  - Mass of timber harvested
  - Frequency of harvest
  - Harvest-related prices and costs
  - Discount rate