



*Public Perceptions of Using Woody Biomass for  
Bioenergy Products in the West*

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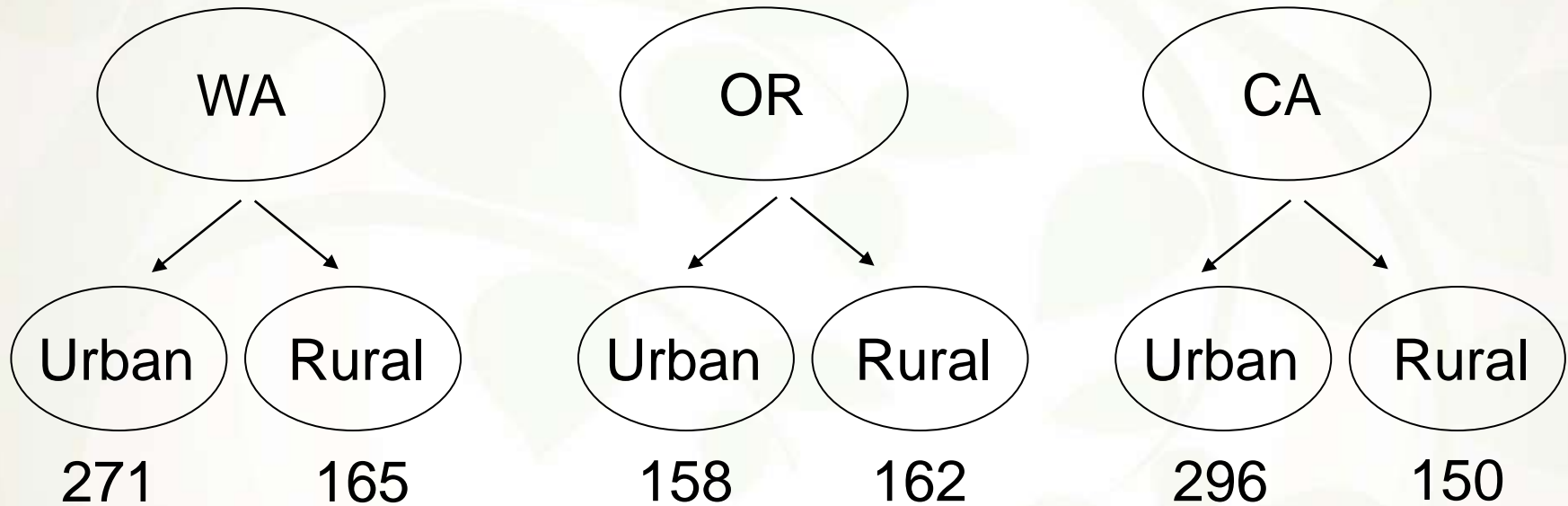
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# Study Objectives

- Understand public perceptions and attitudes towards forest management and the use of woody biomass for bio-based products
- Understand the key issues and values of stakeholders
- Identify differences in perceptions based on:
  - Urban versus rural
  - Regional (states)
  - Socio-economic demographics

# Survey Methodology

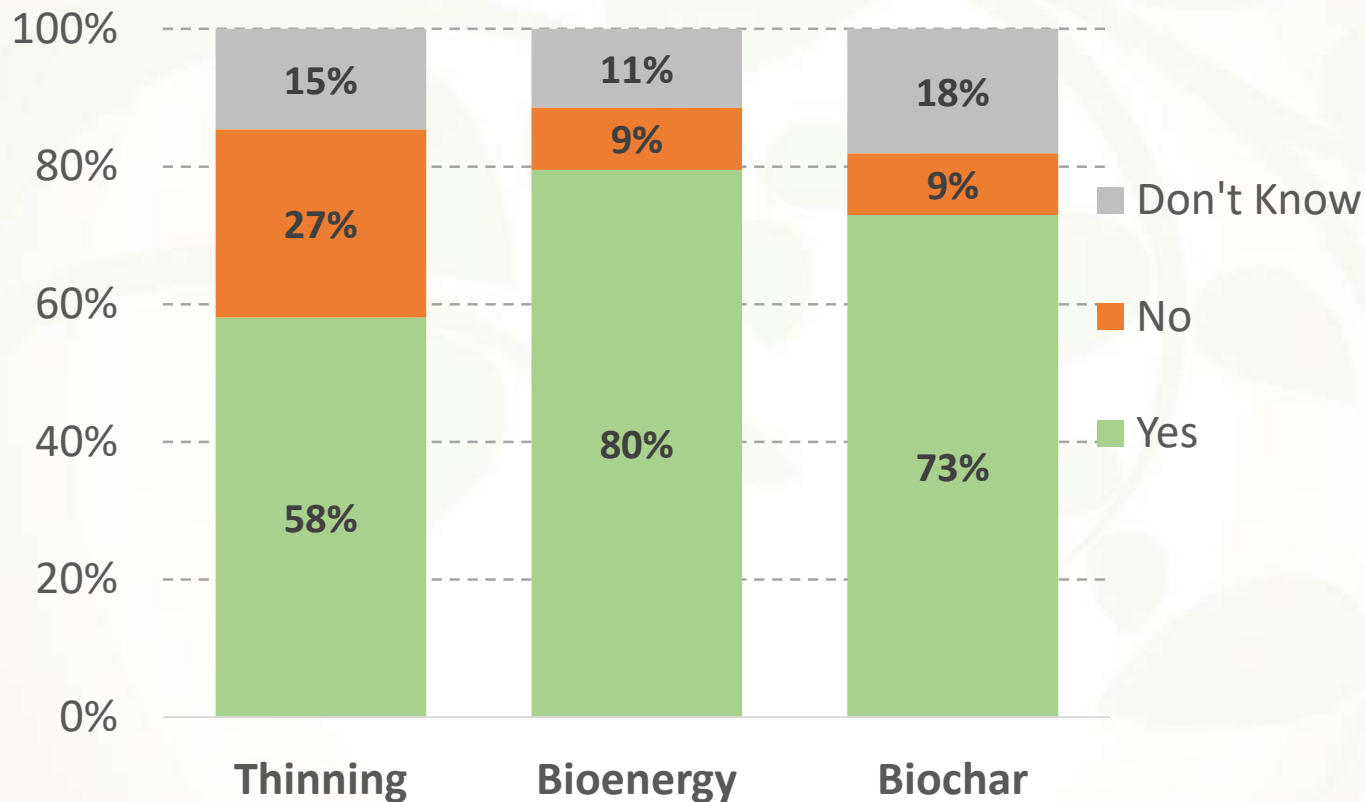
- A stratified random sampling method was used based on zip codes to ensure adequate representation of rural participants



- A total of 1,202 responses were obtained

# Results

*Overall support for thinning and the use of forest residuals for bioenergy products and biochar:*

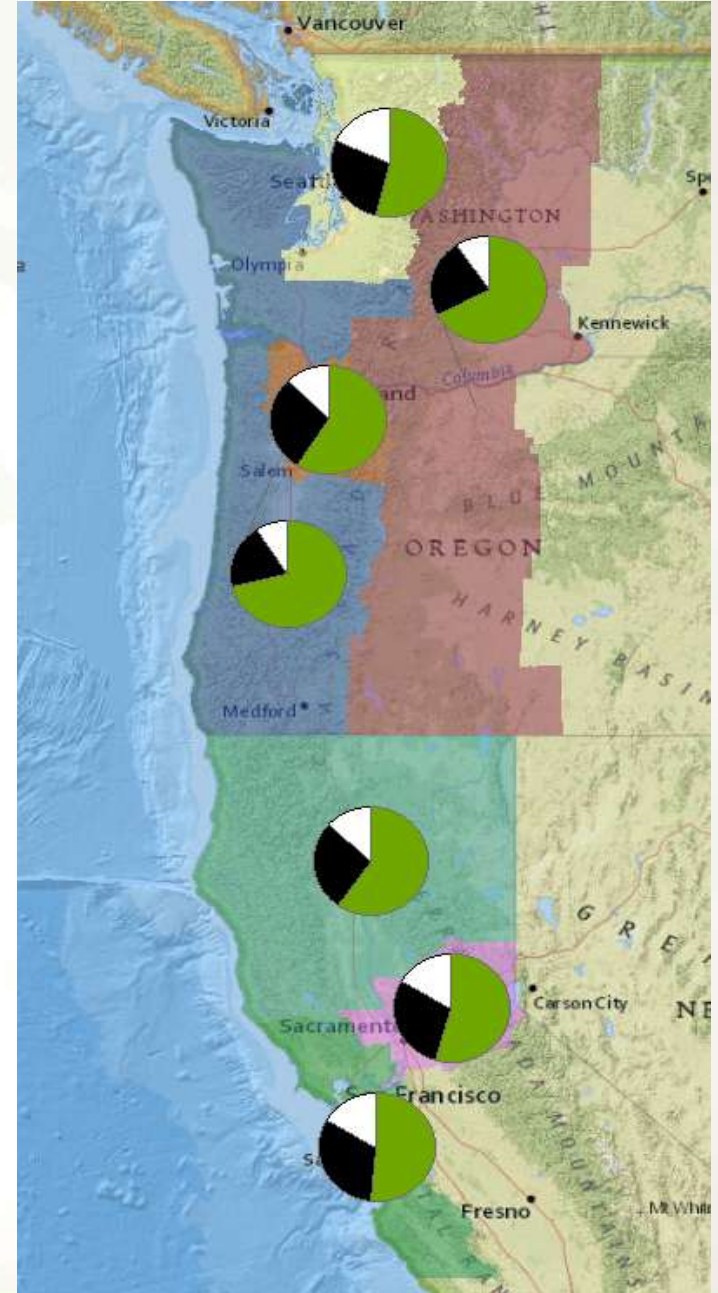


*Support for thinning was significantly lower than was support for using forest residuals to produce bio-energy products and biochar.*

# Results

## *Support for forest thinning:*

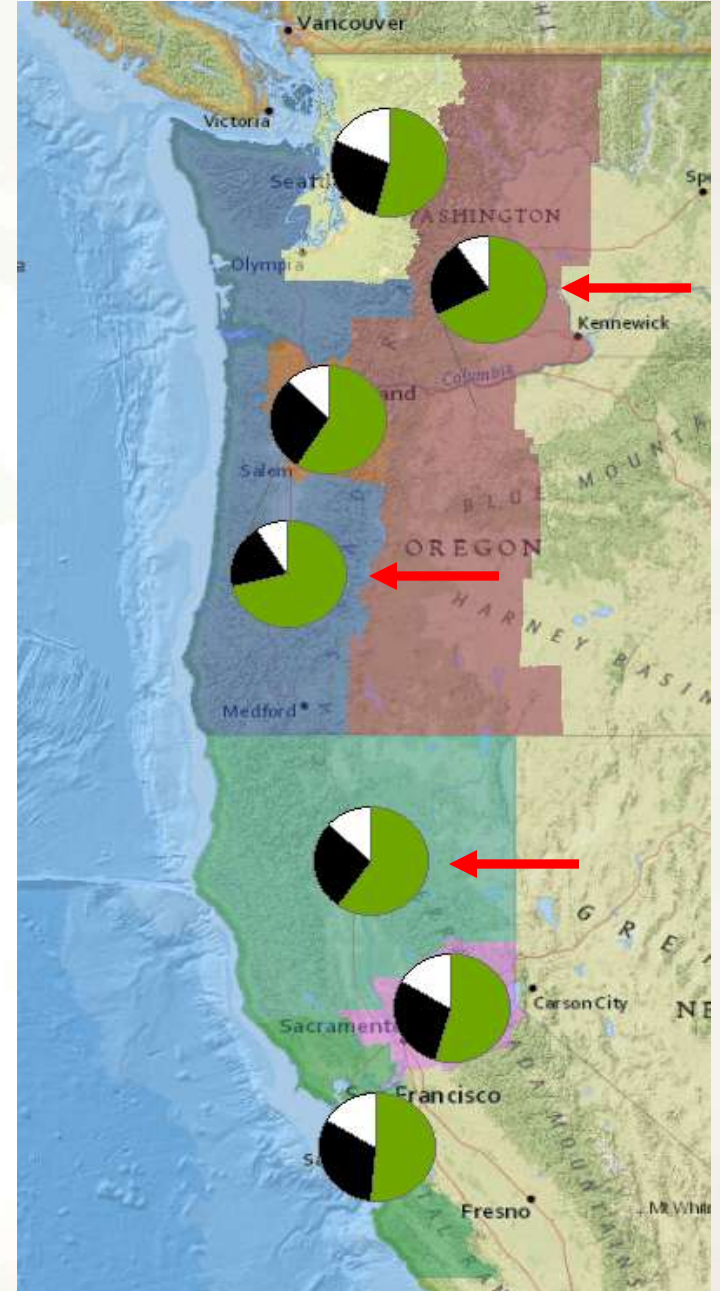
- There is strong support for thinning in every state
- Rural residents are more supportive of forest thinning than are urban residents



# Results

## *Support for forest thinning:*

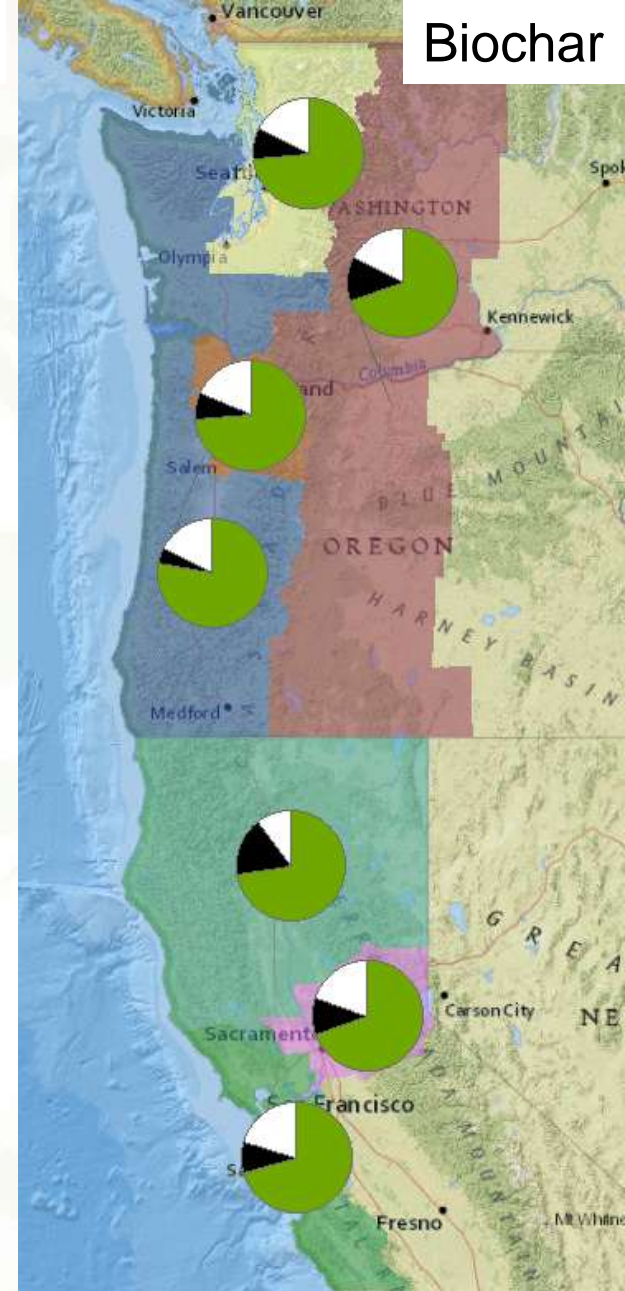
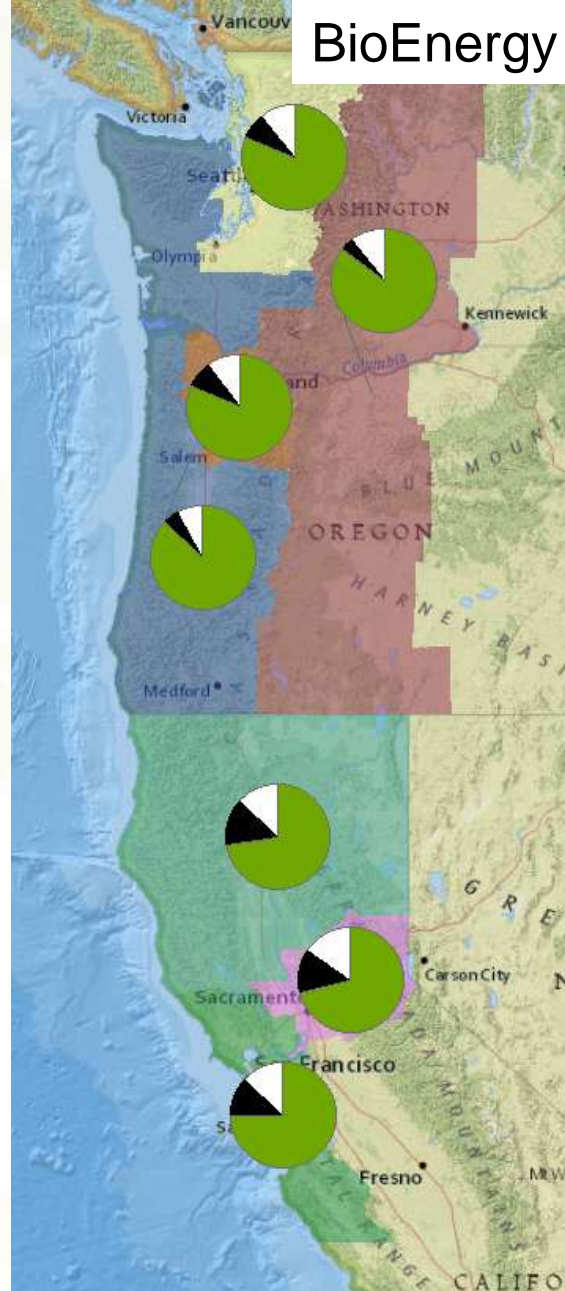
- There is strong support for thinning in every state
- Rural residents are more supportive of forest thinning than are urban residents



# Results

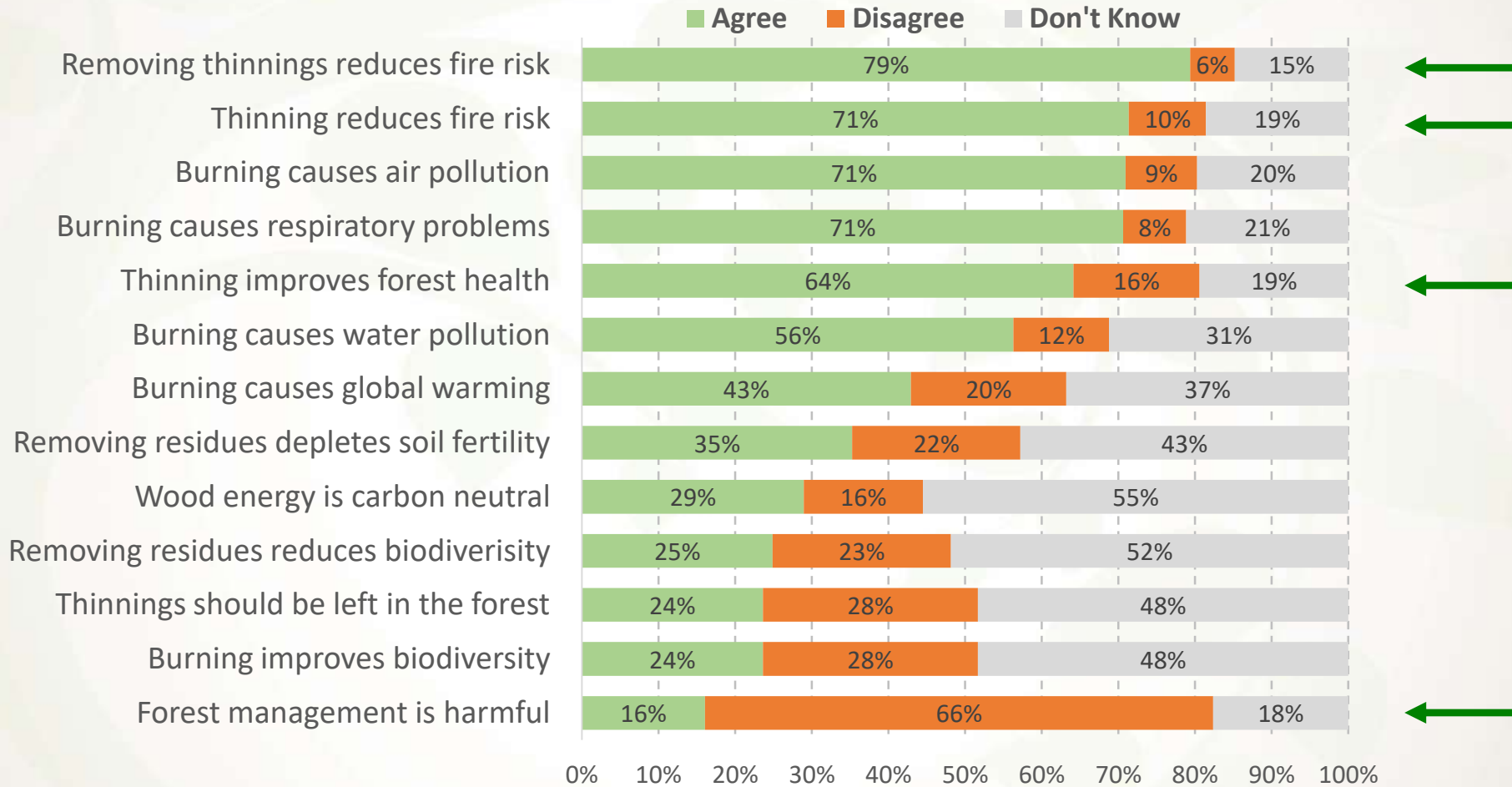
*Support for BioEnergy and Biochar products from forest residuals:*

- The vast majority of respondents support the production of bioenergy and biochar products
- Little difference between rural and urban respondents
- CA respondents are somewhat less supportive than respondents in WA or OR



# Results

## Perceptions of environmental impacts:

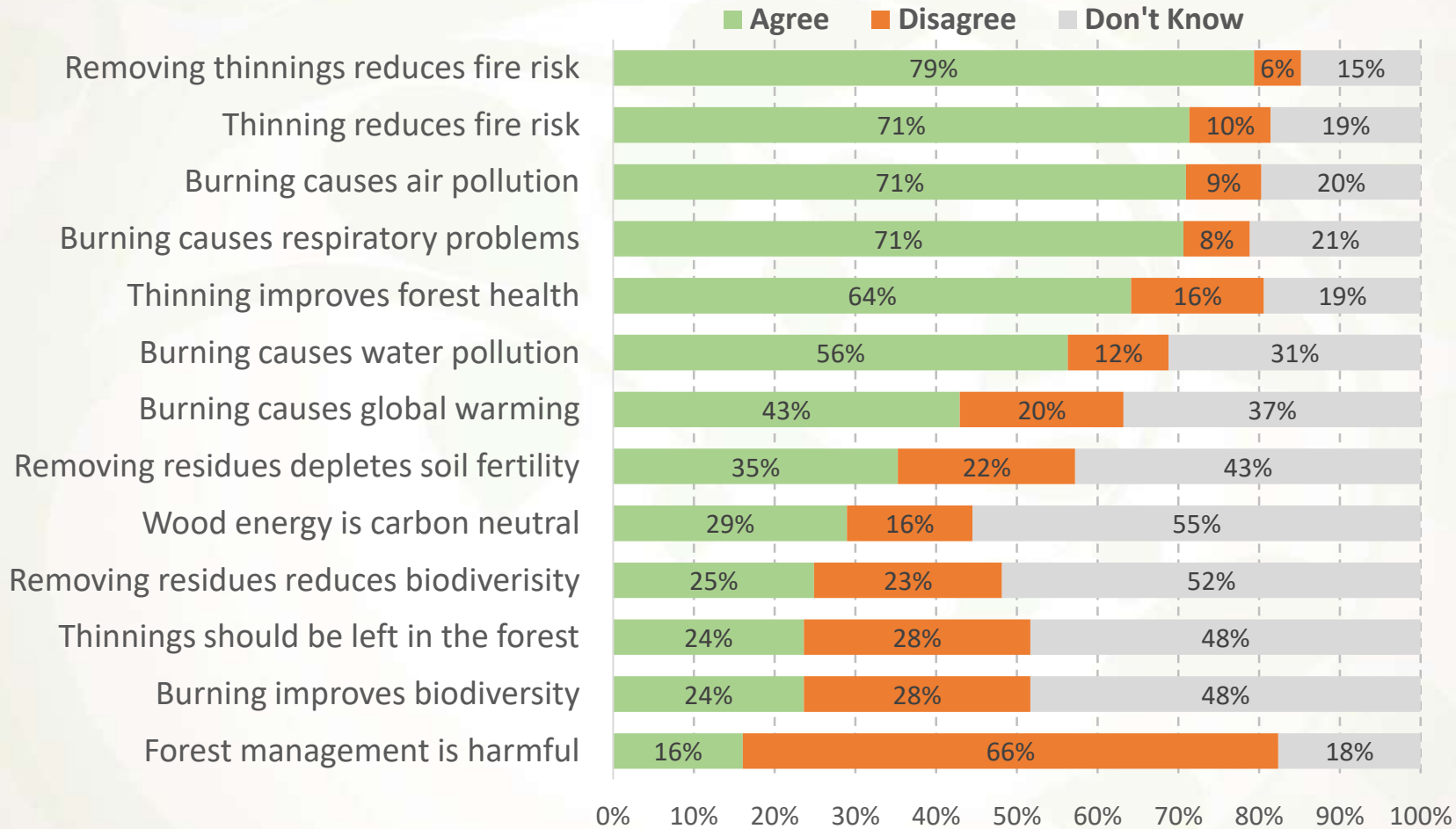


*Thinning is generally perceived to reduce fire risk and improve forest health...*



# Results

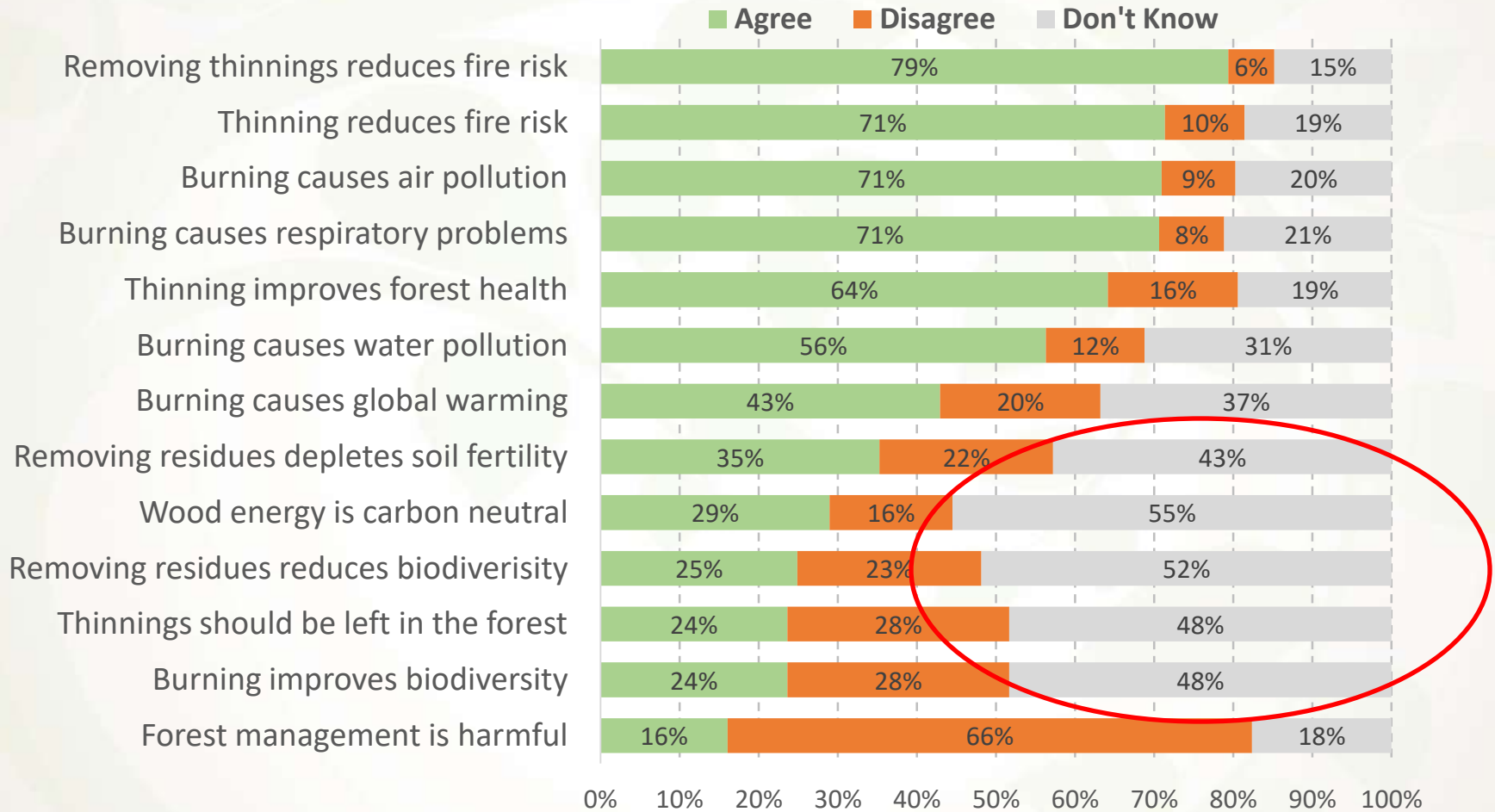
## Perceptions of environmental impacts:



*...while slash pile burning is perceived to cause problems...*

# Results

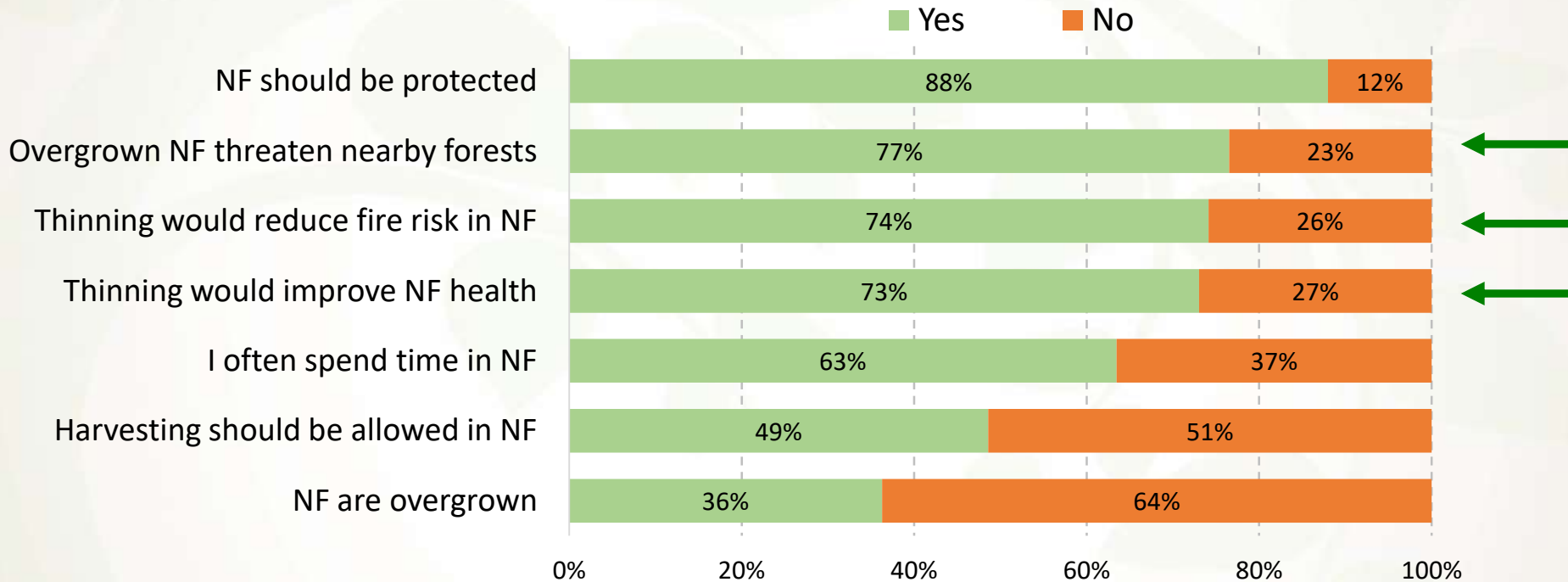
## Perceptions of environmental impacts:



*...BUT there are a number of issues where respondents lack knowledge.*

# Results

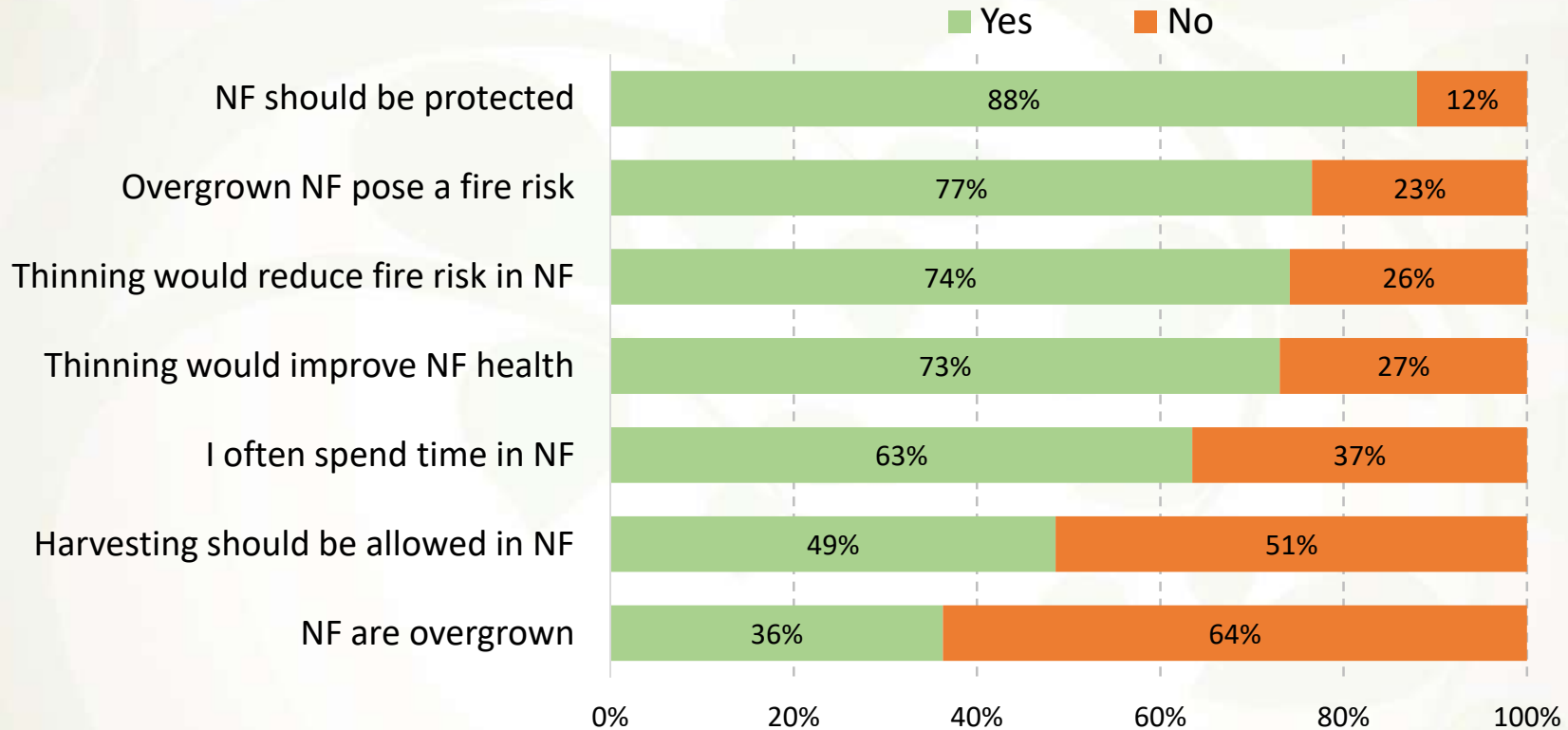
## *Perceptions about National Forests and thinning:*



*General perception that thinning would reduce fire risk and improve NF health...*

# Results

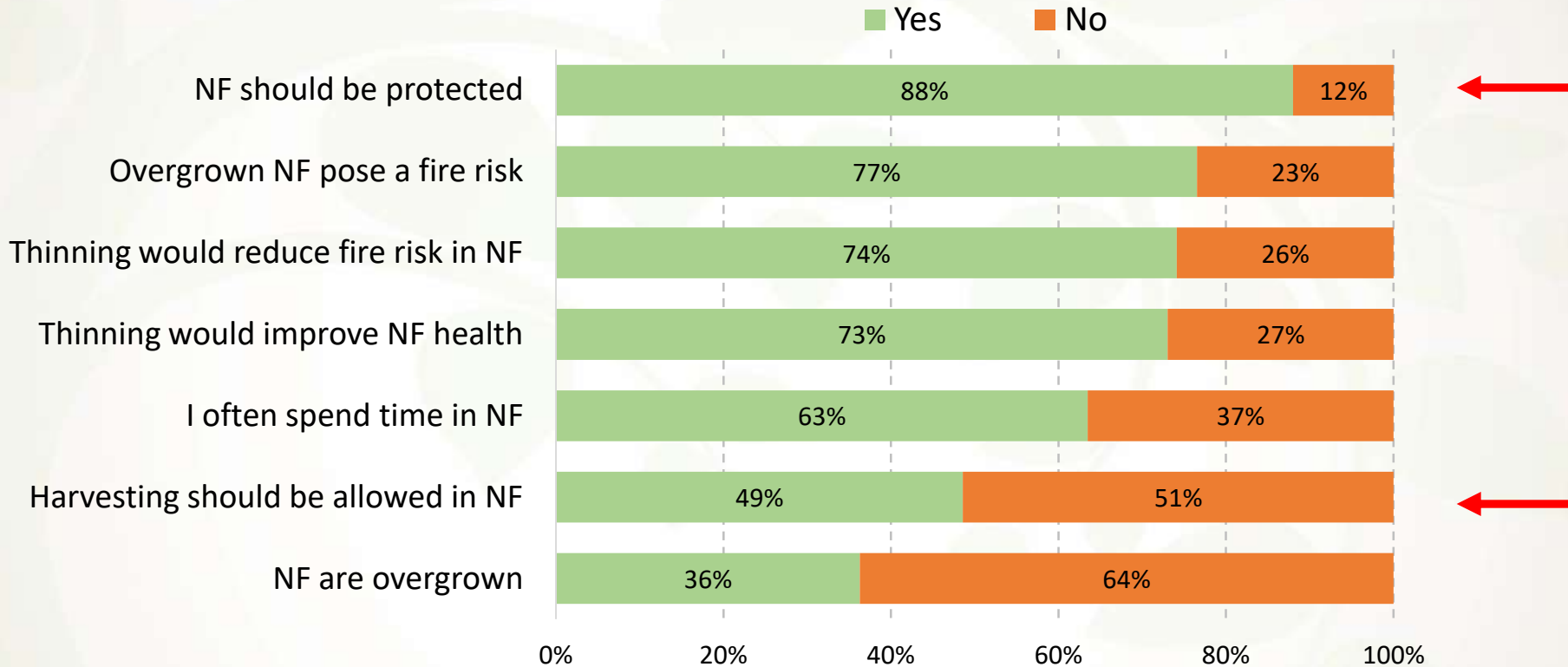
## Perceptions about National Forests and thinning:



*...but much less recognition that NF are overgrown and in need of thinning...*

# Results

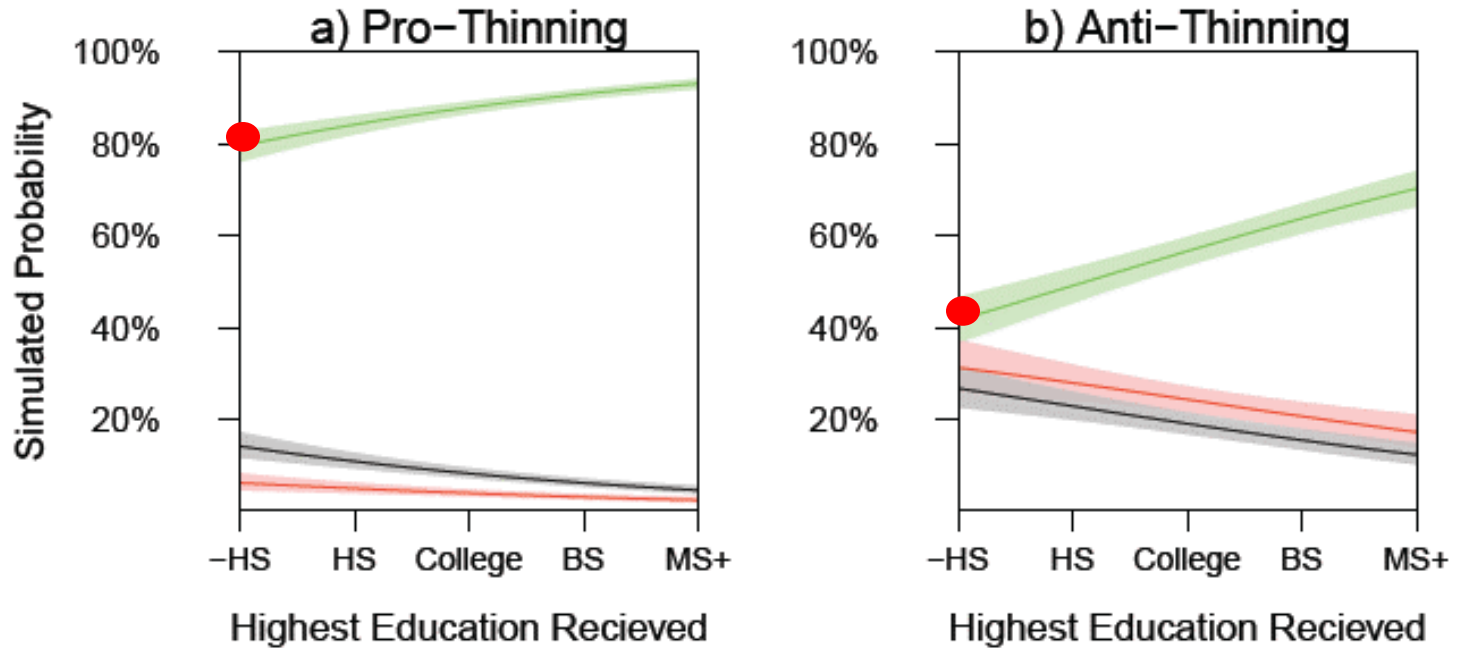
## *Perceptions about National Forests and thinning:*



*...and some relationship between harvesting within NF's and protection of NF's...*

# Results

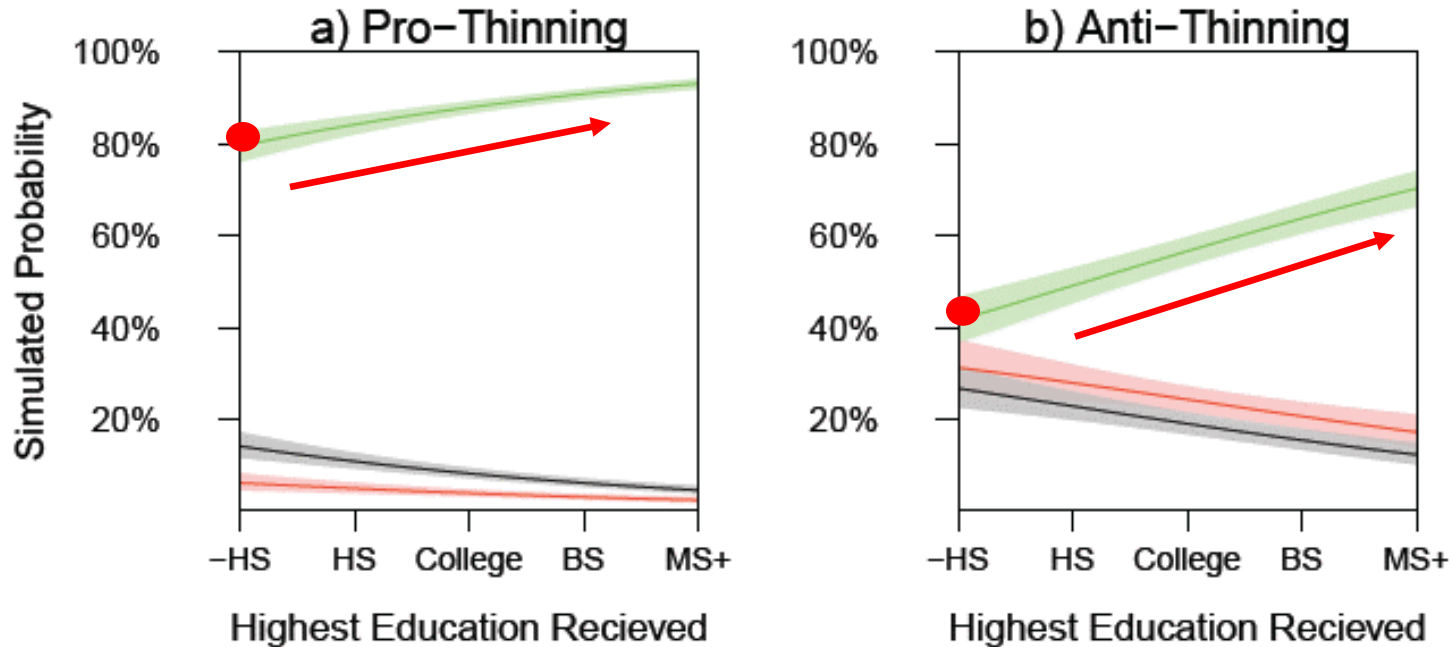
*How does education influence support for using forest residuals for bio-products?*



*Respondents self-identified as being pro-thinning or anti-thinning*

# Results

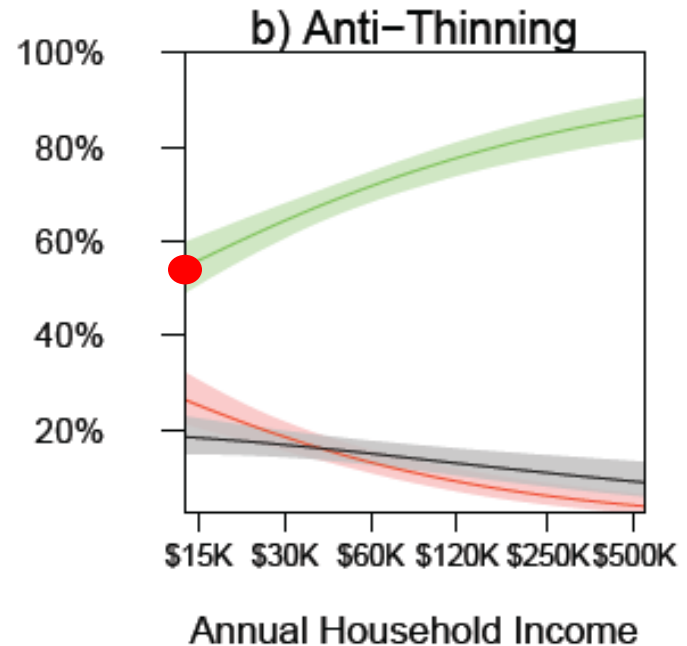
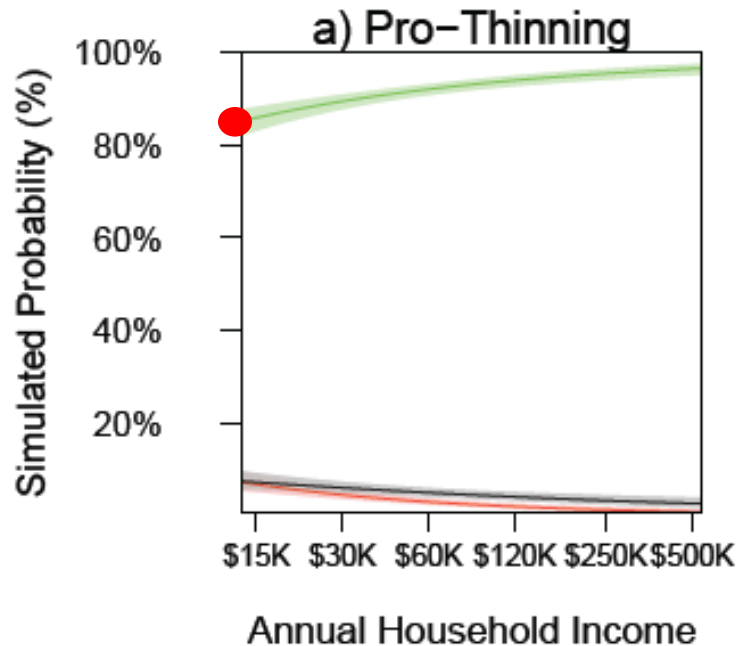
*How does education influence support for using forest residuals for bio-products?*



- *Support for using forest residuals is positively and significantly correlated with level of education*
- *Positive impact of education is stronger with respondents who are anti-thinning*

# Results

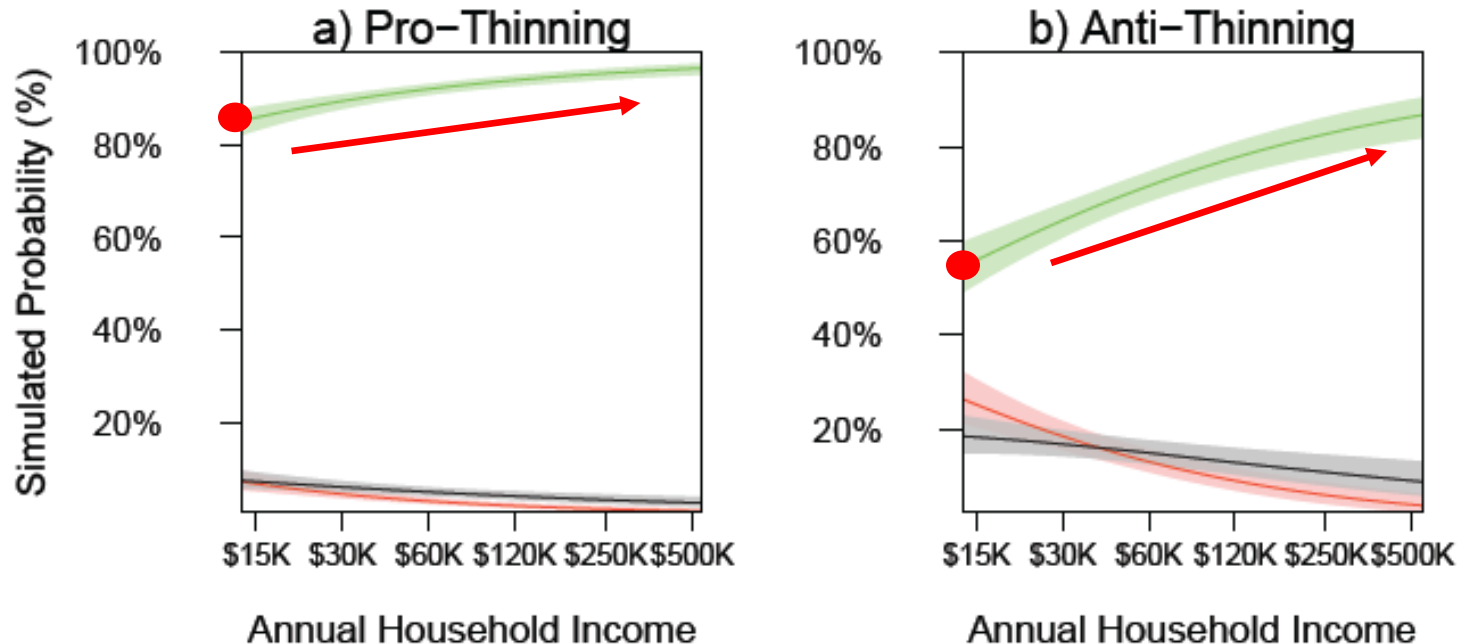
*How does household income influence support for using forest residuals for bio-products?*





# Results

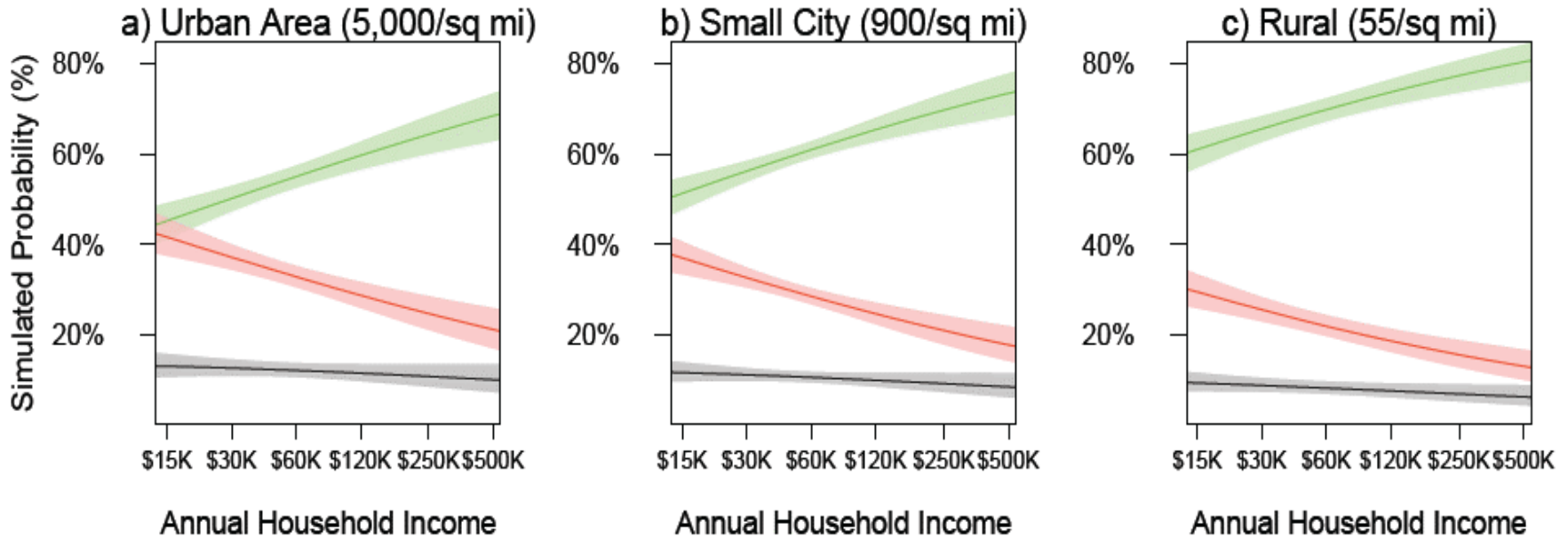
*How does household income influence support for using forest residuals for bio-products?*



- *Support for using forest residuals is positively and significantly correlated with household income*
- *Impact of household income is stronger with respondents who are anti-thinning*

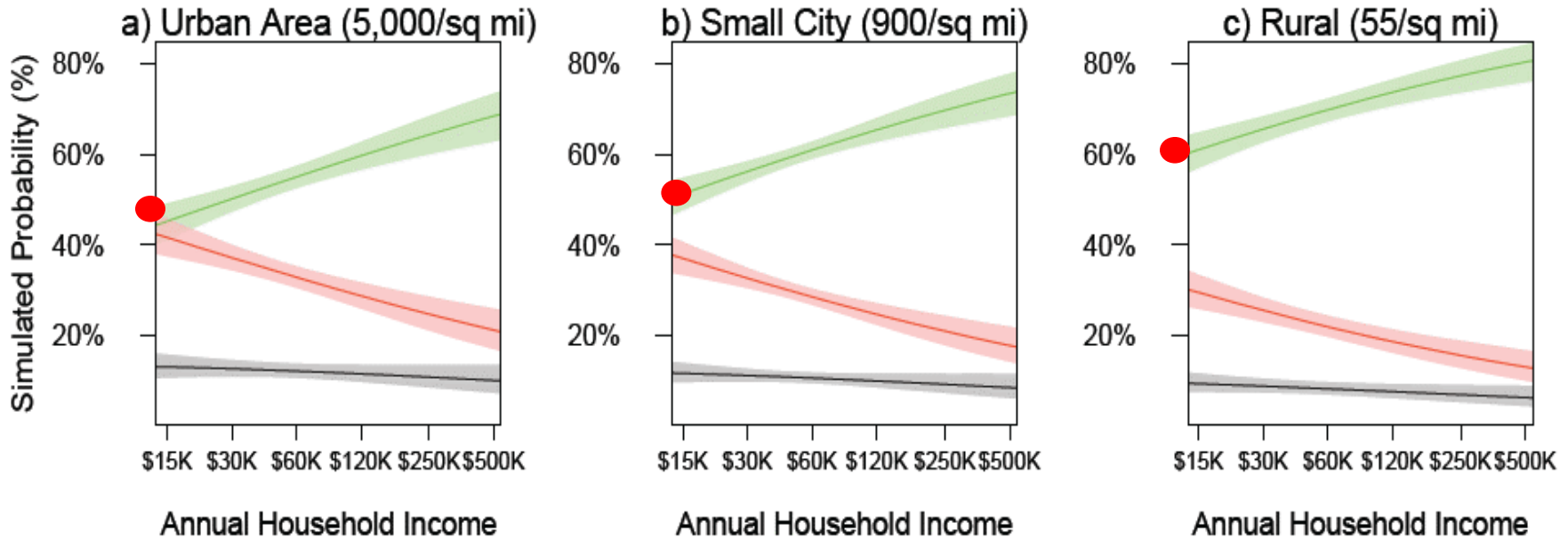
# Results

*How does geographic location influence support for using forest residuals for bio-products?*



# Results

*How does geographic location influence support for using forest residuals for bio-products?*



- *Support for using forest residuals is inversely and significantly related to population density*
- *Irrespective of geographic location, support for using forest residuals remains positively and significantly correlated with household income*

# Conclusions

- Public perceptions of using forest residuals for bio-energy products are generally positive regarding both forest health and economic development
- Many people don't know about many issues related to the impact of using forest residuals on forest health, so communication and education is important to ensuring support
- Thinning is widely recognized as being an effective strategy for improving forest health in NF's, although there is little recognition of the overstocking problem
- Both income and education positively influence the support for using forest residuals in the production of bio-energy products and biochar
- Support for using forest residuals in the production of bio-energy products and biochar is substantially higher in rural areas than in urban areas, so communication and education should be targeted to urban residents

# Next Steps

- Deeper dive into the data to explore differences and similarities between perceptions based on geographic location (urban vs. rural).
- Develop final set of recommendations
- Publication of research results

# Acknowledgement

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*Thank you for your attention.*

*Questions?*

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