

## Could you be more obvious?

Exploring the value of argument analysis as a tool of transparency in natural resource management decisionmaking processes

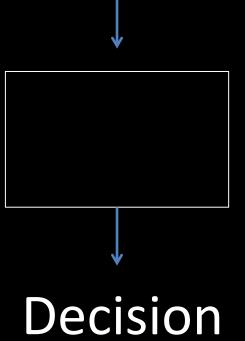
Chelsea Batavia, FES Michael P. Nelson, FES







**Decision Makers** 





**Decision Makers** 



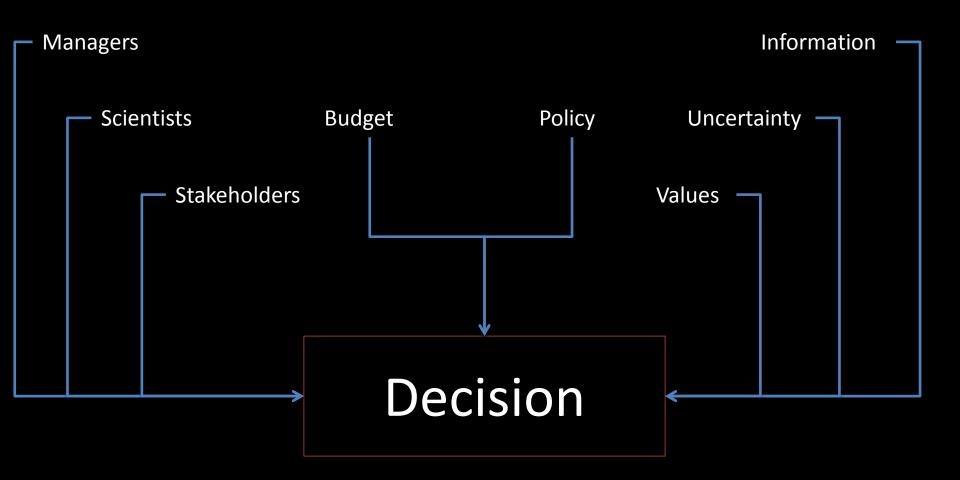


**Decision Makers** 

# Decision

Ō

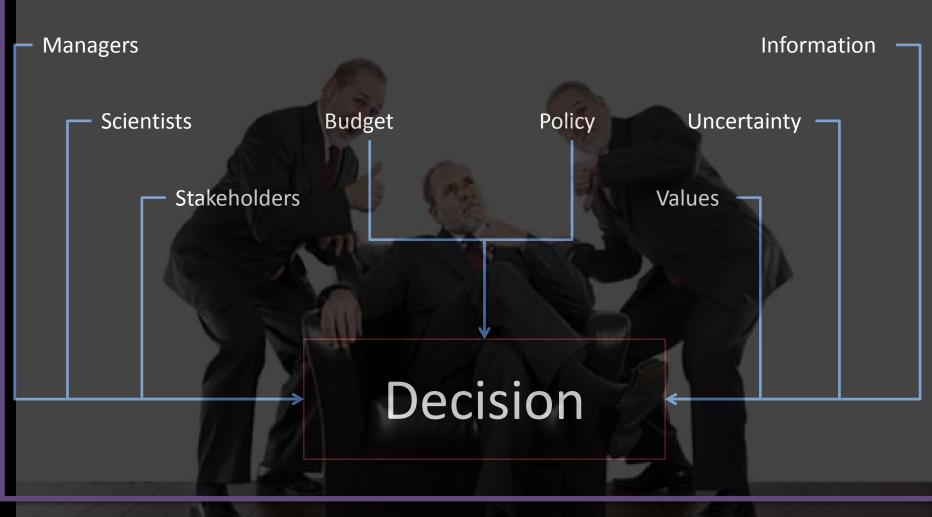






– Managers			Information —
Scientists	Budget	Policy Unce Values	ertainty –
	Decisi	on	





### ARGUMENTS



### Question: Should we cut down trees?

### **▼**

### Question: Should we cut down trees?

Con	Pro
Harms wildlife	Reduce fire hazard
Increases erosion and runoff	Revenue/jobs
Degrades scenic quality	Wood products
Kills trees	Regenerate shade- intolerant species

### Question: Should we cut down trees?

Con	Pro
Harms wildlife	Reduce fire hazard
Increases erosion and runoff	Revenue/jobs
Degrades scenic quality	Wood products
Kills trees	Regenerate shade- intolerant species





C: We should not cut down trees.



P1: Forests are beautiful.

C: We should not cut down trees.



P1: Forests are beautiful.

P2: Cutting down trees makes forests less beautiful.

C: We should not cut down trees.



- P1: Forests are beautiful.
- P2: Cutting down trees makes forests less beautiful.
- P3: We should not make forests less beautiful.
- C: We should not cut down trees.



P1: Forests are beautiful.

P2: Cutting down trees makes forests less beautiful.

- P3: We should not make forests less beautiful.
- C: We should not cut down trees.

### Is this a good argument?



	Туре	True/appropriate?	Controversial?
P1 Forests are beautiful	Aesthetic/sociologic al	Probably	Not really

	Туре	True/appropriate?	Controversial?
P1 Forests are beautiful	Aesthetic/sociologic al	Probably	Not really
P2 Cutting down trees makes forests less beautiful	Aesthetic/sociologic al	Not necessarily	Perhaps

	Туре	True/appropriate?	Controversial?
P1 Forests are beautiful	Aesthetic/sociologic al	Probably	Not really
P2 Cutting down trees makes forests less beautiful	Aesthetic/sociologic al	Not necessarily	Perhaps
P3 We should not make forests less beautiful	Normative	Not really	Only if we take it seriously

	Туре	True/appropriate?	Controversial?
P1 Forests are beautiful	Aesthetic/sociologic al	Probably	Not really
P2 Cutting down trees makes forests less beautiful	Aesthetic/sociologic al	Not necessarily	Perhaps
P3 We should not make forests less beautiful	Normative	Not really	Only if we take it seriously

Conclusion: We should not cut down trees

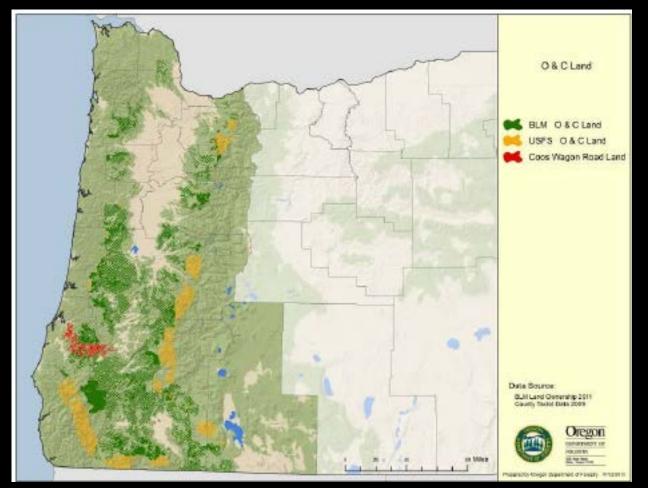


### Table of Reasons

Con	Pro
Harms wildlife	Reduce fire hazard
Increases erosion and runoff	Revenue/jobs
Degrades scenic quality	Wood products
Morally wrong	Regenerate shade- intolerant species



# Should we use ecological forestry on O&C lands?



### Tuchmann & Davis, 2013



# Should we use ecological forestry on O&C lands?

Pro	Con
Economic stability	Another version of clearcutting
Restore complex early seral	Does not create complex early seral
Old-growth conservation	Threatens old-growth
Keep public lands public	Adverse effects

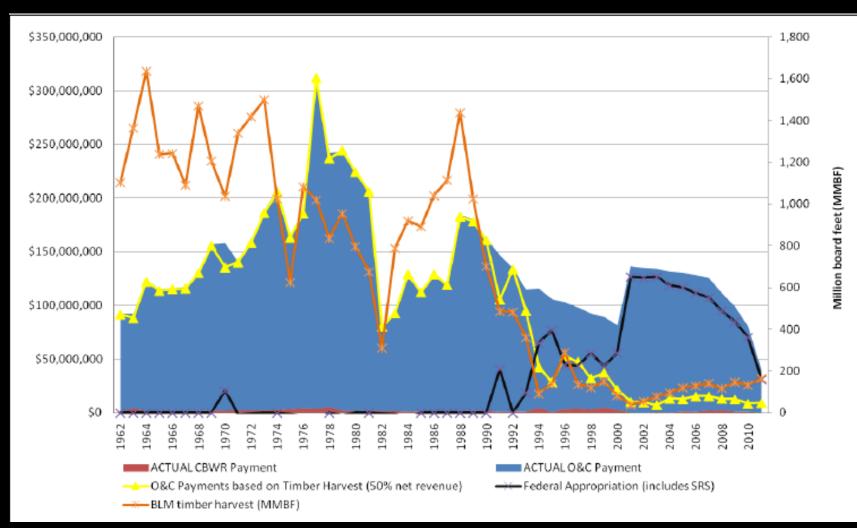


# Should we use ecological forestry on O&C lands?

Pro	Con
Economic stability	Another version of clearcutting
Restore complex early seral	Does not create complex early seral
Old-growth conservation	Threatens old-growth
Keep public lands public	Adverse effects

### Ē

# Should we use ecological forestry on O&C lands?



### Tuchmann & Davis, 2013

P2: It is unjust to deprive rural communities of economic stability.

P2: It is unjust to deprive rural communities of economic stability.

C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.

P2: It is unjust to deprive rural communities of economic stability.

C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.

P3: The injustice of depriving rural Oregon communities of economic stability by limiting timber production on O&C lands can only be made right by restoring timber production on O&C lands.

P2: It is unjust to deprive rural communities of economic stability.

C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.

P3: The injustice of depriving rural Oregon communities of economic stability by limiting timber production on O&C lands can only be made right by restoring timber production on O&C lands.

P4: We ought to right past injustices if we can.

P2: It is unjust to deprive rural communities of economic stability.

C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.

P3: The injustice of depriving rural Oregon communities of economic stability by limiting timber production on O&C lands can only be made right by restoring timber production on O&C lands.

P4: We ought to right past injustices if we can.

C2: Therefore, we ought to restore timber production on O&C lands in order to restore economic stability to rural Oregon communities.

P2: It is unjust to deprive rural communities of economic stability.

C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.

P3: The injustice of depriving rural Oregon communities of economic stability by limiting timber production on O&C lands can only be made right by restoring timber production on O&C lands.

P4: We ought to right past injustices if we can.

C2: Therefore, we ought to restore timber production on O&C lands in order to restore economic stability to rural Oregon communities.

P5: By managing the O&C lands using ecological forestry, we can increase timber production to a level that will restore economic stability to rural Oregon communities.

ľ	Ι	
Į		
	V	

P1: Prior to the NWFP, many rural Oregon	Economic	Yes	No
communities relied on timber production on O&C			
lands for economic stability.			



Type True Controversial

P1: Prior to the NWFP, many rural Oregon communities relied on timber production on O&C lands for economic stability.	Economic	Yes	No
P2: It is unjust to deprive rural communities of economic stability.	Normative/et hical	Not necessarily	Perhaps

	Туре	True	Controversial
P1: Prior to the NWFP, many rural Oregon communities relied on timber production on O&C lands for economic stability.	Economic	Yes	No
P2: It is unjust to deprive rural communities of economic stability.	Normative/et hical	Not necessarily	Perhaps

C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.



P1: Prior to the NWFP, many rural Oregon communities relied on timber production on O&C lands for economic stability.	Economic	Yes	No
P2: It is unjust to deprive rural communities of economic stability.	Normative/et hical	Not necessarily	Perhaps
C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on			

O&C lands was unjust.

P3: The injustice of depriving rural Oregon	Ethical,	Not so much	Perhaps
communities of economic stability by limiting	maybe legal		
timber production on O&C lands can only be made			
right by restoring timber production on O&C lands.			



P1: Prior to the NWFP, many rural Oregon communities relied on timber production on O&C lands for economic stability.	Economic	Yes	No	
P2: It is unjust to deprive rural communities of economic stability.	Normative/et hical	Not necessarily	Perhaps	
C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.				
P3: The injustice of depriving rural Oregon communities of economic stability by limiting timber production on O&C lands can only be made right by restoring timber production on O&C lands.	Ethical, maybe legal	Not so much	Perhaps	
P4: We ought to right past injustices if we can.	Ethical	It depends	Maybe not as much as it should be	

	Туре	True	Controversial	
P1: Prior to the NWFP, many rural Oregon communities relied on timber production on O&C lands for economic stability.	Economic	Yes	No	
P2: It is unjust to deprive rural communities of economic stability.	Normative/et hical	Not necessarily	Perhaps	
C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.				
P3: The injustice of depriving rural Oregon communities of economic stability by limiting timber production on O&C lands can only be made right by restoring timber production on O&C lands.	Ethical, maybe legal	Not so much	Perhaps	
P4: We ought to right past injustices if we can.	Ethical	It depends	Maybe not as much as it should be	
C2: Therefore, we ought to restore timber production on O&C lands in order to restore economic stability to				

C2: Therefore, we ought to restore timber production on O&C lands in order to restore economic stability to rural Oregon communities.



P1: Prior to the NWFP, many rural Oregon communities relied on timber production on O&C lands for economic stability.	Economic	Yes	No
P2: It is unjust to deprive rural communities of economic stability.	Normative/et hical	Not necessarily	Perhaps
C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.			
P3: The injustice of depriving rural Oregon communities of economic stability by limiting timber production on O&C lands can only be made right by restoring timber production on O&C lands.	Ethical, maybe legal	Not so much	Perhaps
P4: We ought to right past injustices if we can.	Ethical	It depends	Maybe not as much as it should be
C2: Therefore, we ought to restore timber production on O&C lands in order to restore economic stability to rural Oregon communities.			

P5: By managing the O&C lands using ecological	Economic/soc	Unclear	Yes
forestry, we can increase timber production to a	iological		
level that will restore economic stability to rural			
Oregon communities.			

	Туре	True	Controversial	
P1: Prior to the NWFP, many rural Oregon communities relied on timber production on O&C lands for economic stability.	Economic	Yes	No	
P2: It is unjust to deprive rural communities of economic stability.	Normative/et hical	Not necessarily	Perhaps	
C1: Therefore, depriving rural Oregon communities of economic stability by limiting timber production on O&C lands was unjust.				
P3: The injustice of depriving rural Oregon communities of economic stability by limiting timber production on O&C lands can only be made right by restoring timber production on O&C lands.	Ethical, maybe legal	Not so much	Perhaps	
P4: We ought to right past injustices if we can.	Ethical	It depends	Maybe not as much as it should be	
C2: Therefore, we ought to restore timber production on O&C lands in order to restore economic stability to rural Oregon communities.				
P5: By managing the O&C lands using ecological	Economic/soc	Unclear	Yes	

P5: By managing the O&C lands using ecological	Economic/soc	Unclear	Yes
forestry, we can increase timber production to a	iological		
level that will restore economic stability to rural			
Oregon communities.			

C3: Therefore, O&C lands should be managed using ecological forestry.



P1: Prior to the NWFP, many rural Oregon communities relied on timber production on O&C lands for economic stability.	Economic	Yes	No
P2: It is unjust to deprive rural communities of economic stability.	Normative/et hical	Not necessarily	Perhaps
P3: The injustice of depriving rural Oregon communities of economic stability by limiting timber production on O&C lands can only be made right by restoring timber production on O&C lands.	Ethical, maybe legal	Not so much	Likely
P4: We ought to right past injustices if we can.	Ethical	It depends	Maybe not as much as it should be
P5: By managing the O&C lands using ecological forestry, we can increase timber production to a level that will restore economic stability to rural Oregon communities.	Economic/soc iological	Unclear	Yes



### Discussion

The argument for restoring economic stability rests on some questionable premises



## Discussion

The argument for restoring economic stability rests on some questionable premises

If we want to evaluate this argument, we need to have a conversation about JUSTICE



## Discussion

The argument for restoring economic stability rests on some questionable premises

If we want to evaluate this argument, we need to have a conversation about JUSTICE



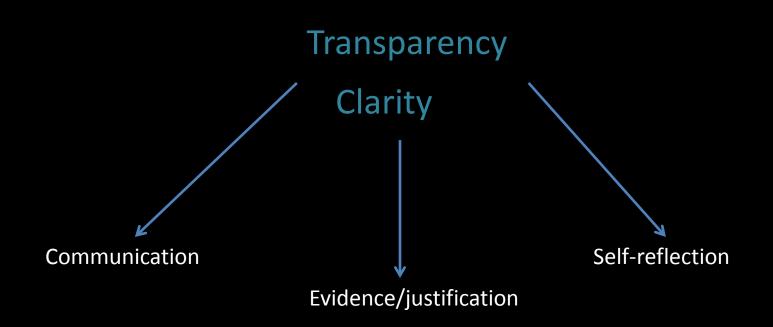


## **Argument Analysis**

Transparency Clarity Evidence/justification



# **Argument Analysis**



#### Good decision-making process!

#### Thank You!

Michael P. Nelson Klaus Puettmann John Vucetich Jeff Hatten Matt Betts Jeremy Bruskotter Cheryl Friesen Mark Harmon Norm Johnson Julia Jones Tom Spies Fred Swanson ARCS Foundation HJ Andrews LTER

#### REFERENCE

Tuchmann, E.T., & Davis, C.T. (2013). O&C lands report prepared for Oregon Governor John Kitzhaber. Retrieved from http://library.state.or.us/repository/2013/201302111127191/