

Possibility of model application to the forest fire management

- using LandNEP and PnET models

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Ecosystem model

■ Advantage

- Test ecosystem response to various disturbance or management
- Low cost & No destruction
- Understand process and flow within ecosystem

■ Disadvantage

- Need a lot of information for running
- Take time to prepare parameters

What do we want to do?

- Predict the range of fuel loading under various disturbances
 - Fire
 - Natural tree death
 - Disease
 - Thinning
 - Harvesting

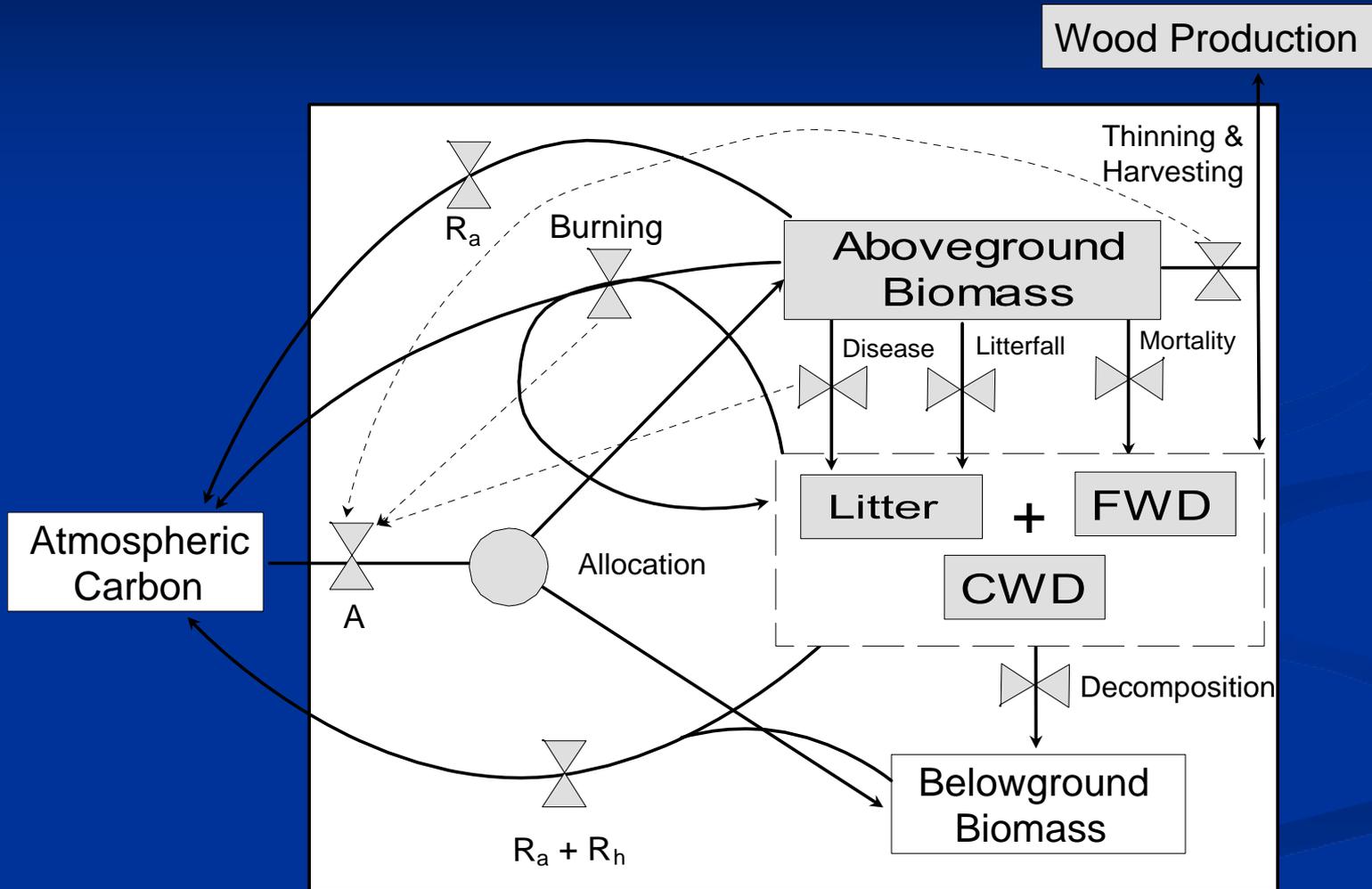
Black Box



Initial condition



Conceptual Diagram



Forest Ecosystem

PnET & LandNEP

- PnET-II is developed by Aber et al. (1995)
 - Calculate carbon and water flow in the ecosystem
 - PnET model
- LandNEP is developed by Euskirchen et al. (2002)
 - We borrowed the growth pattern of ecosystem

Developed Fuel Model

- Hardwood
- Red Pine
- Jack Pine

Thank you!

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Any Questions?
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