

Grazing in the Burdekin

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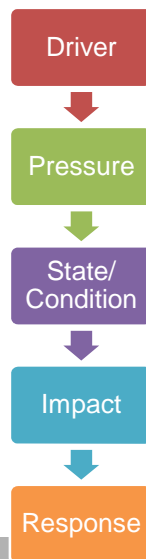
A case study to investigate BN modelling for State
of Environment Reporting



Queensland University of Technology

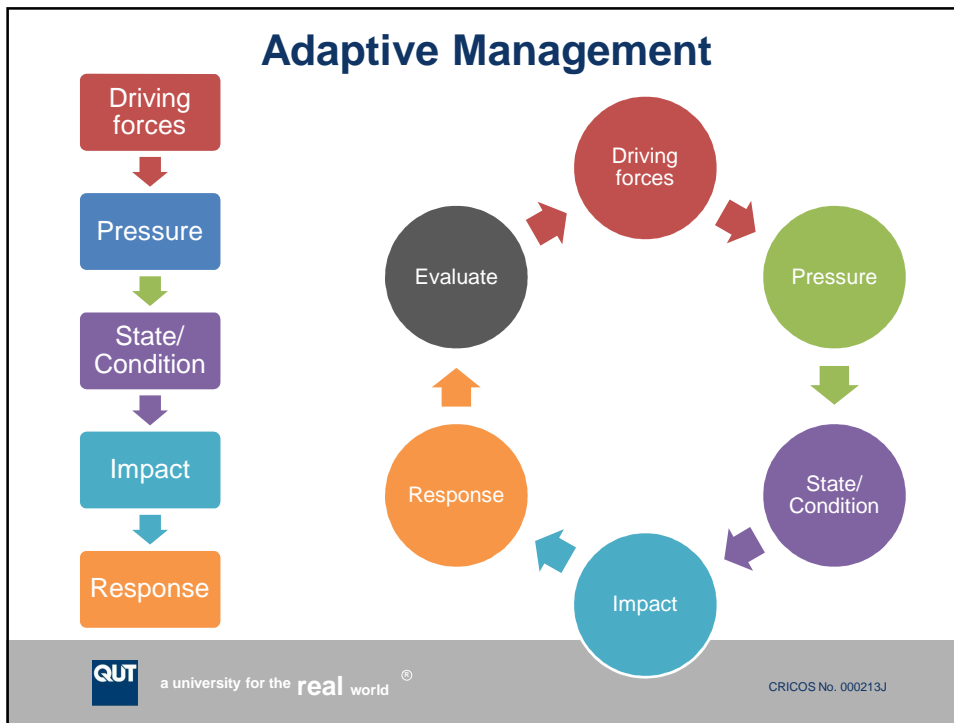
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DPSIR Framework for SoE Reporting



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Missing Link

Do we need to evaluate management responses?

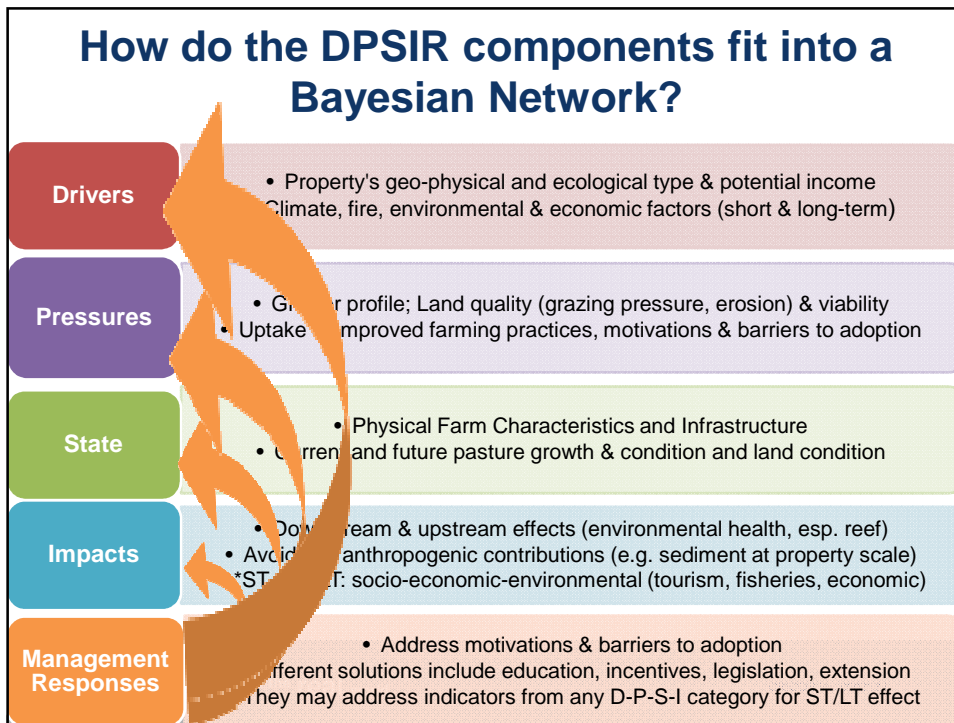
Objective:

- add an evaluation phase
- close the feedback loop in the DPSIR cycle

And therefore help inform Adaptive Management

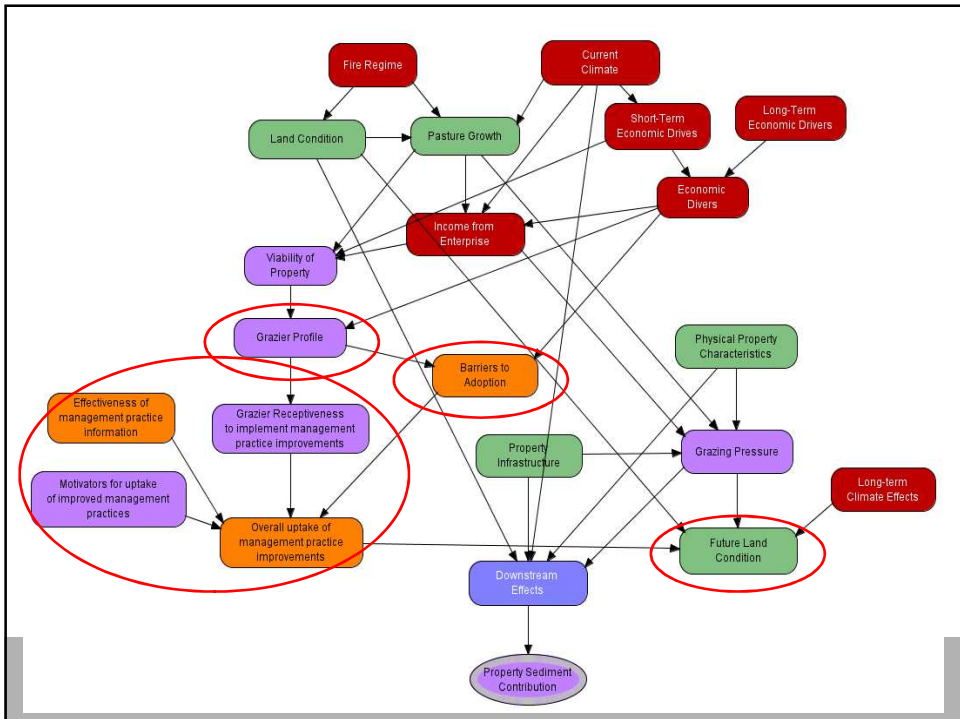
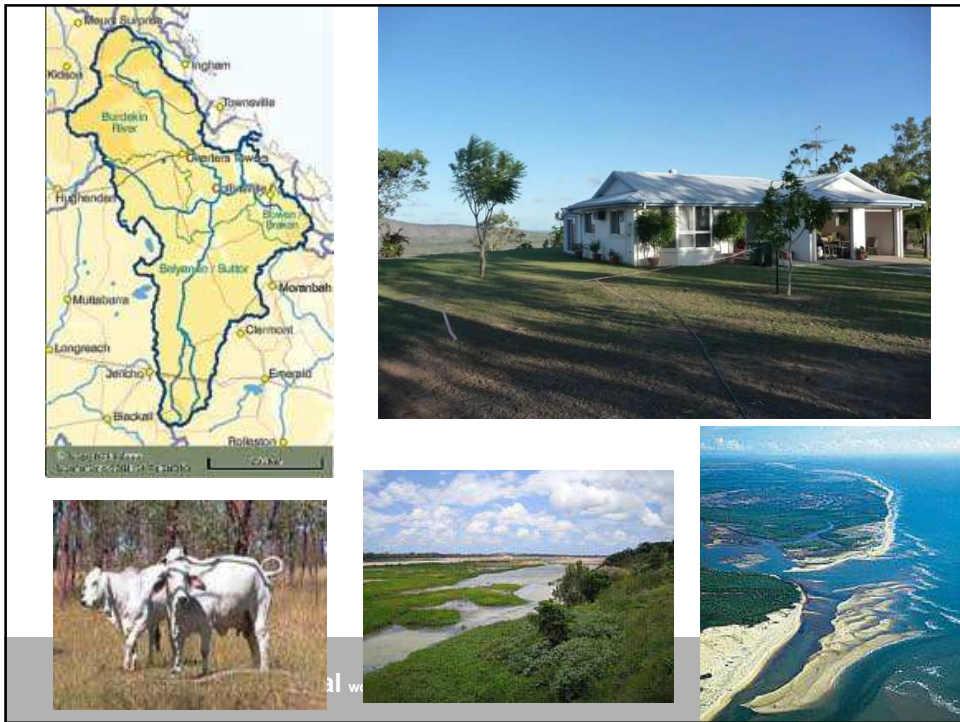
The small diagram on the right is a circular flow of five nodes: 'Driving forces' (red), 'Pressure' (green), 'State/Condition' (purple), 'Impact' (teal), and 'Response' (orange), connected by clockwise arrows. A grey 'Evaluate' node is positioned between 'Response' and 'Driving forces', with an arrow pointing from 'Response' to 'Evaluate' and another from 'Evaluate' to 'Driving forces'.

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Aim:
Identify strategically important policy or decision-making needs that could benefit from synthesis of SOE data

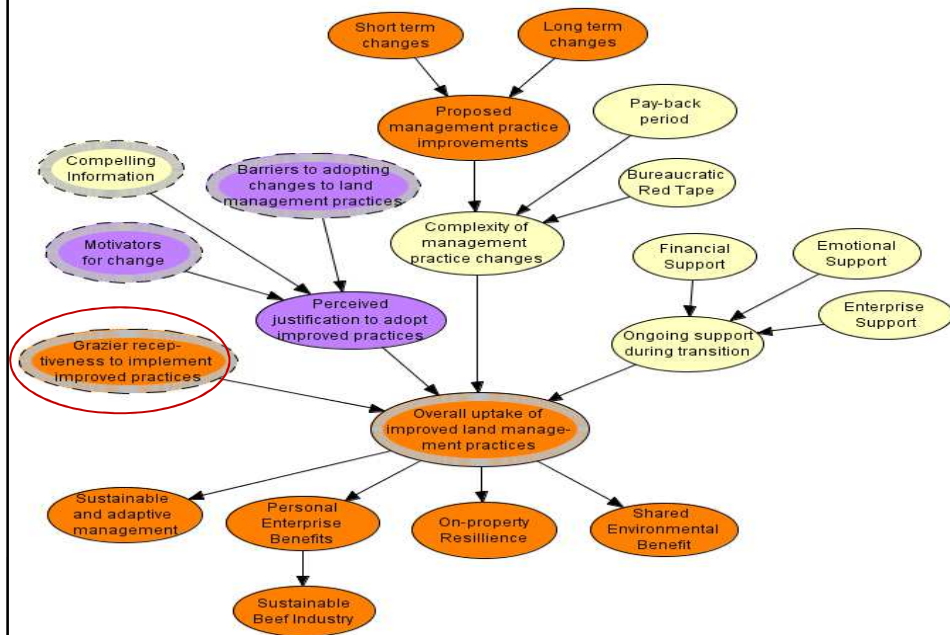




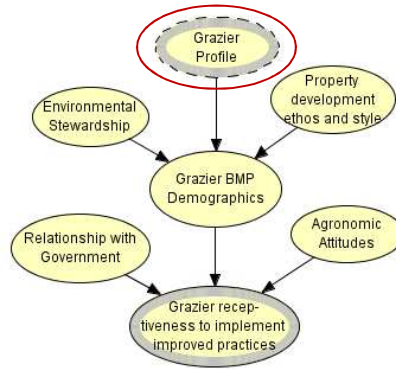
Object Oriented BNs (OOBNs)

- Overcomes many limitations of traditional BNs
 - Feedback loops (time slices)
 - Dynamic modelling
 - Reduces clutter & hides details at various levels
- Improves visual aspects of model
- OOBNs provide an intuitive way of modelling
- ‘Opens up’ networks for integration with other BNs
- Each subnetwork is a self-contained OOBN
- Improved ‘ownership of model’ by stakeholders
- Enables parallel development of subnetworks

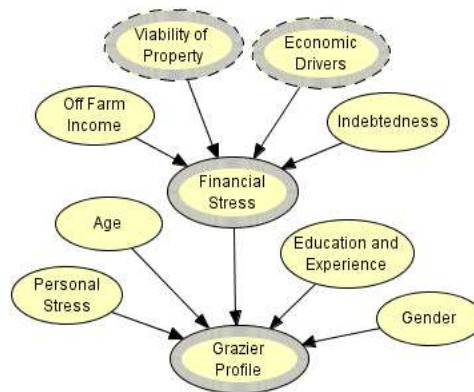
Overall Uptake of improved practices

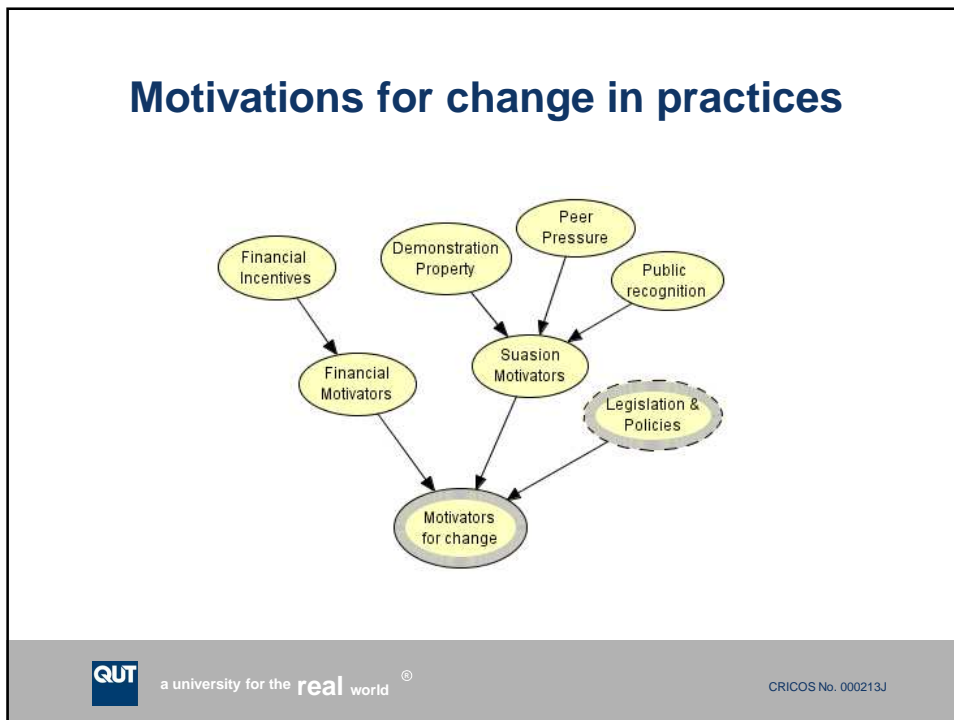
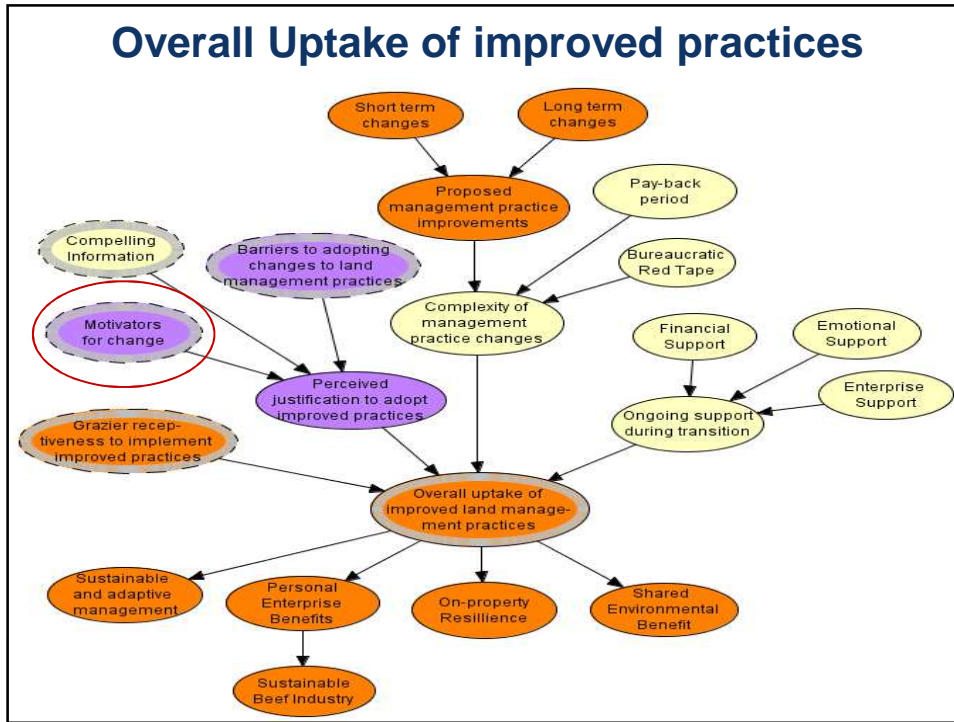


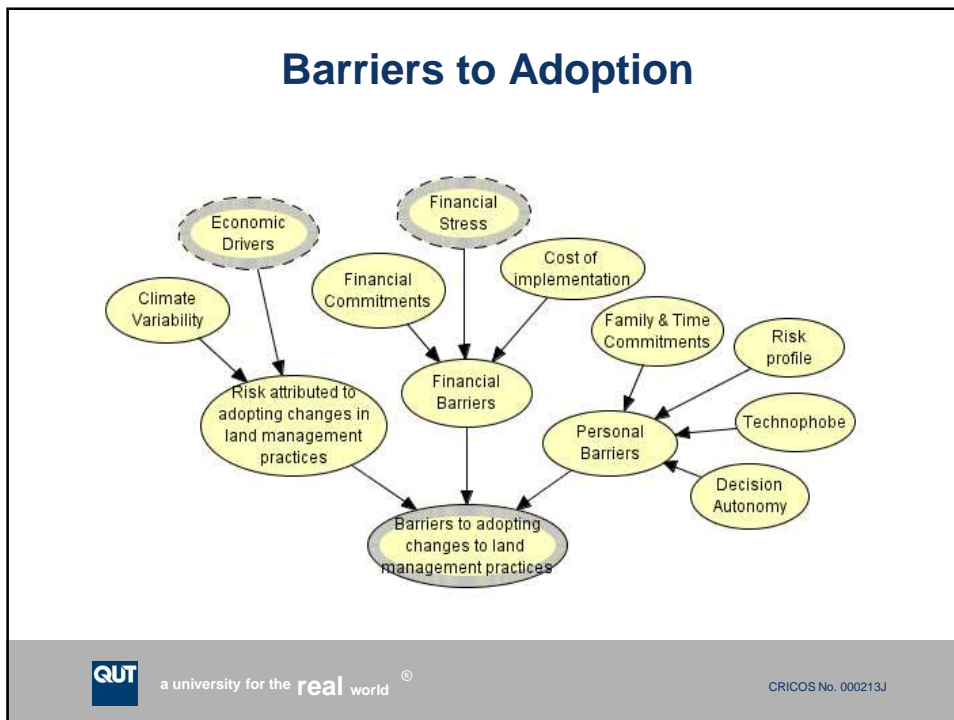
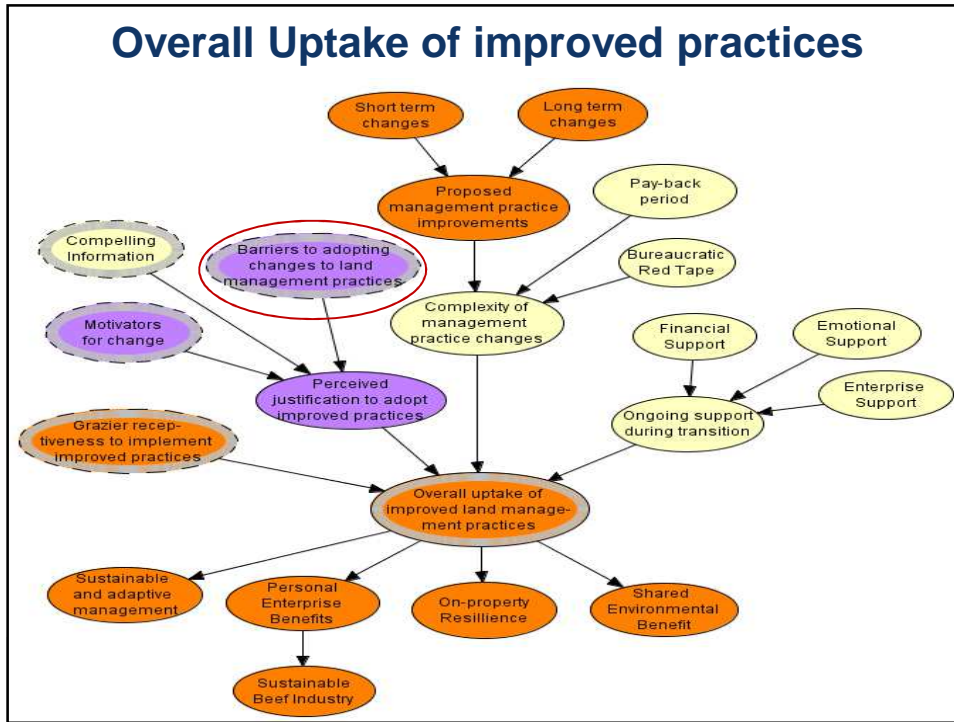
Grazier Receptiveness to implement improved practices

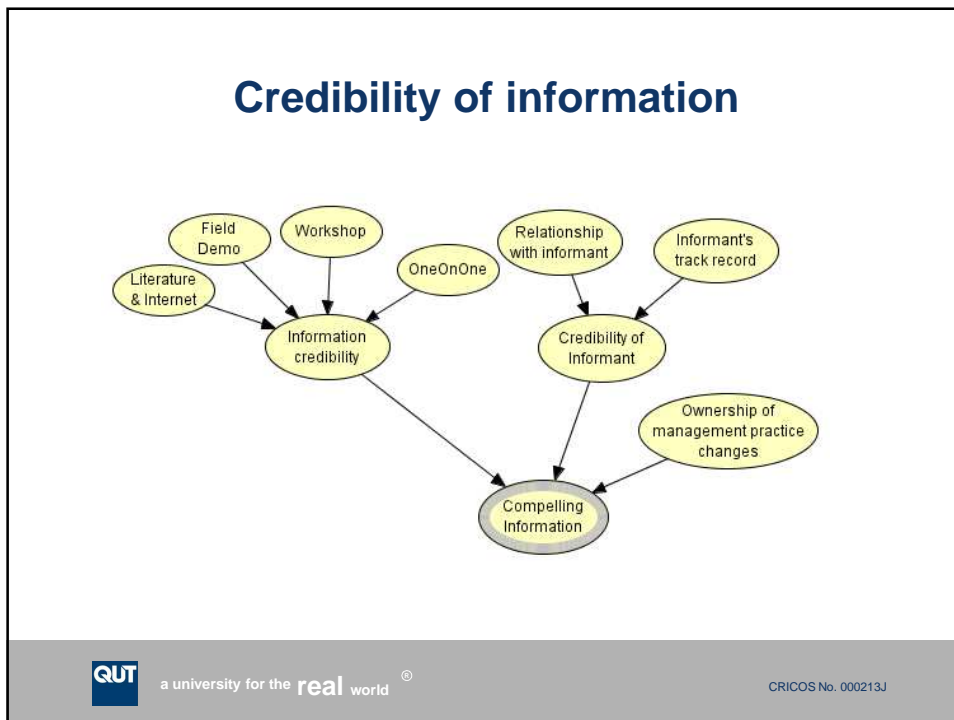
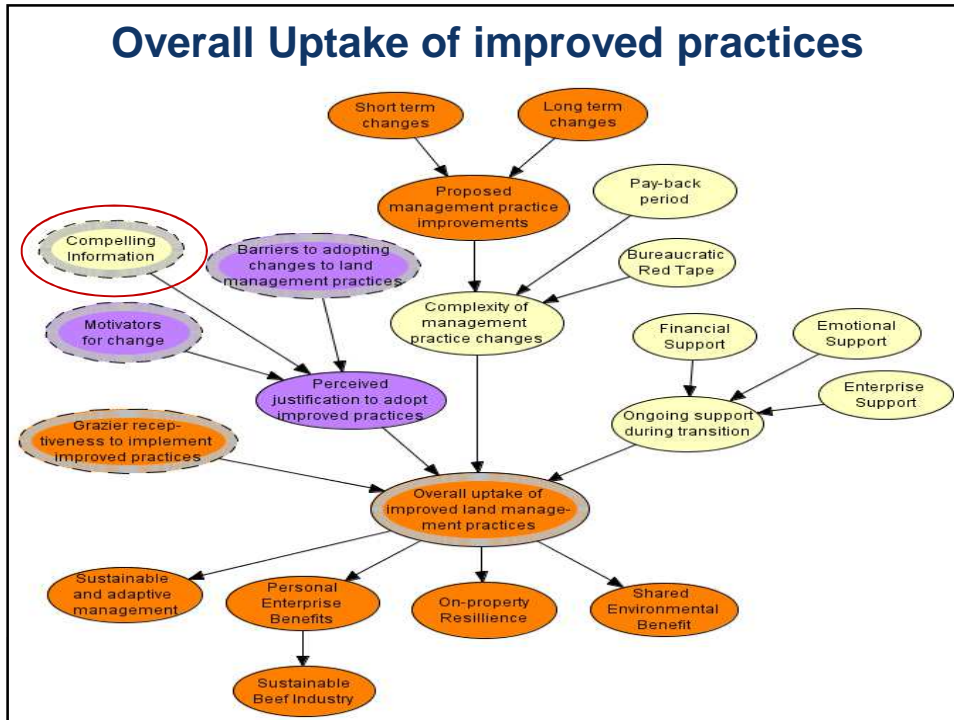


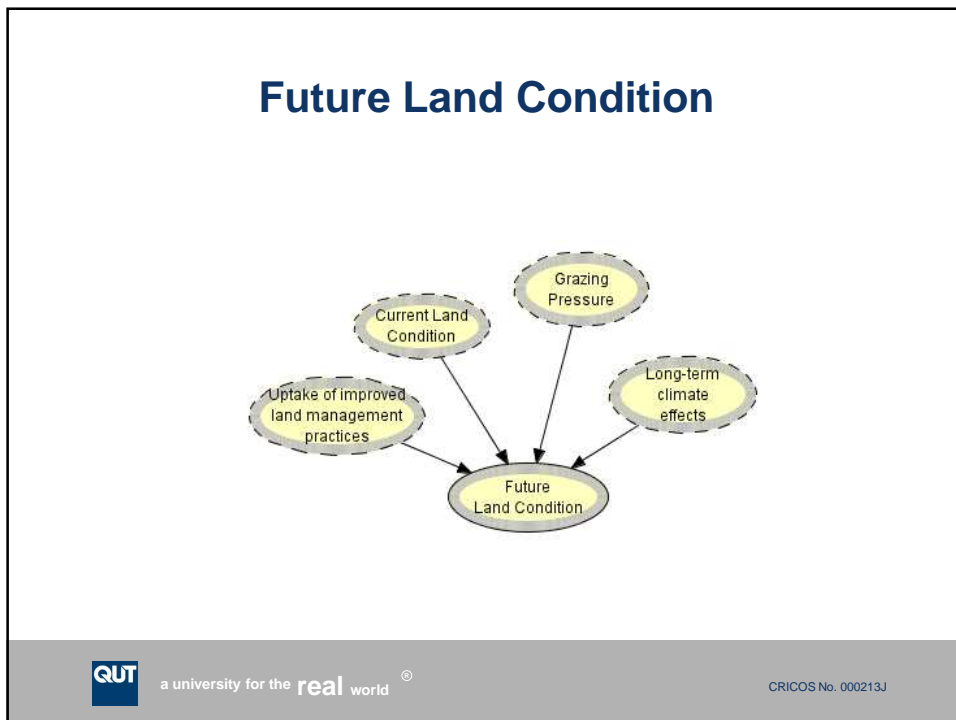
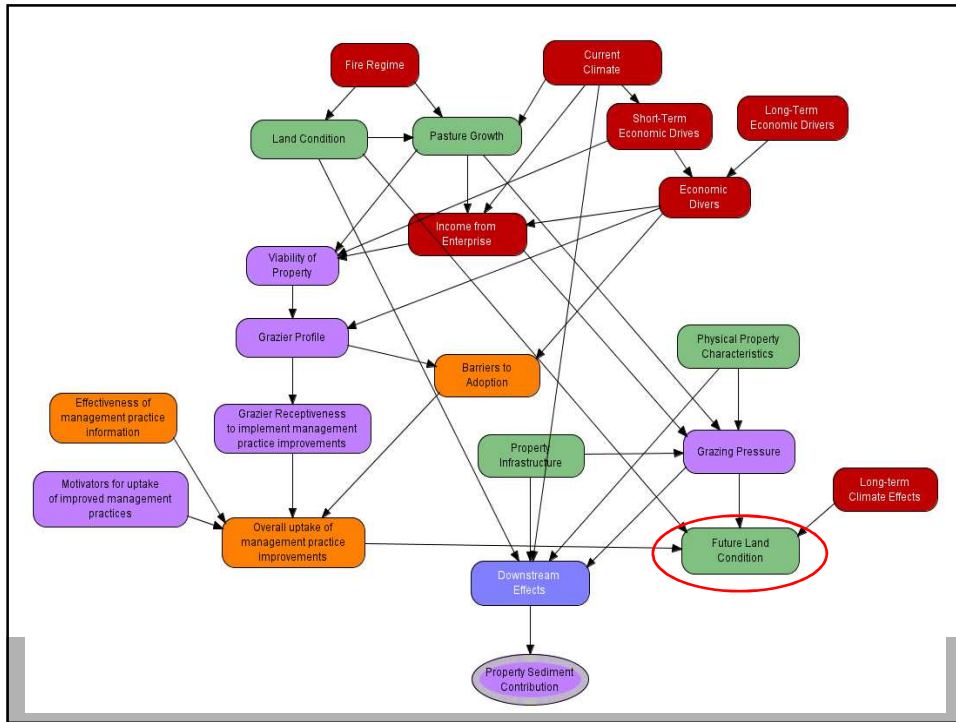
Grazier Profile









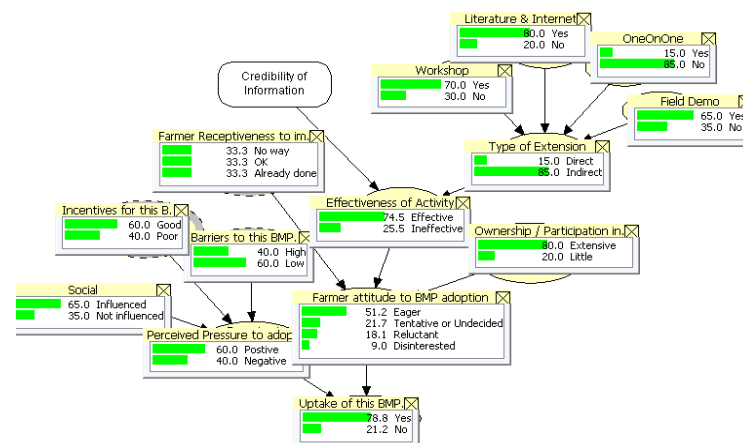


Hypothetical “What if”

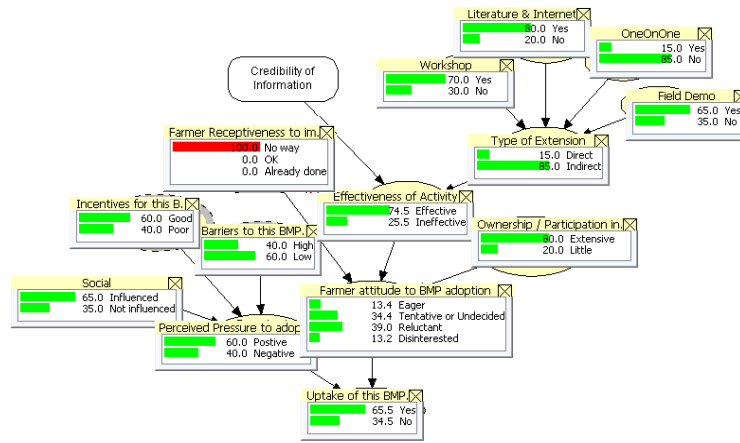
- Based on earlier version of the BN model!!



Hypothetical “What If” for BMP Uptake



“What If” for BMP Uptake - Hard nut



“What If” for BMP Uptake - Hard nut

