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New Zealand Agricultural &
Resource Economics Society (Inc.)

Technical approaches in collaborative stakeholder decision making

Simon Harris¹, Melissa Robson, & Ned Norton

¹ Harris Consulting, N.Z.

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The background of the slide is a light gray gradient, decorated with numerous realistic water droplets of various sizes. Some droplets are large and prominent, while others are small and subtle, scattered across the top and bottom edges of the frame.

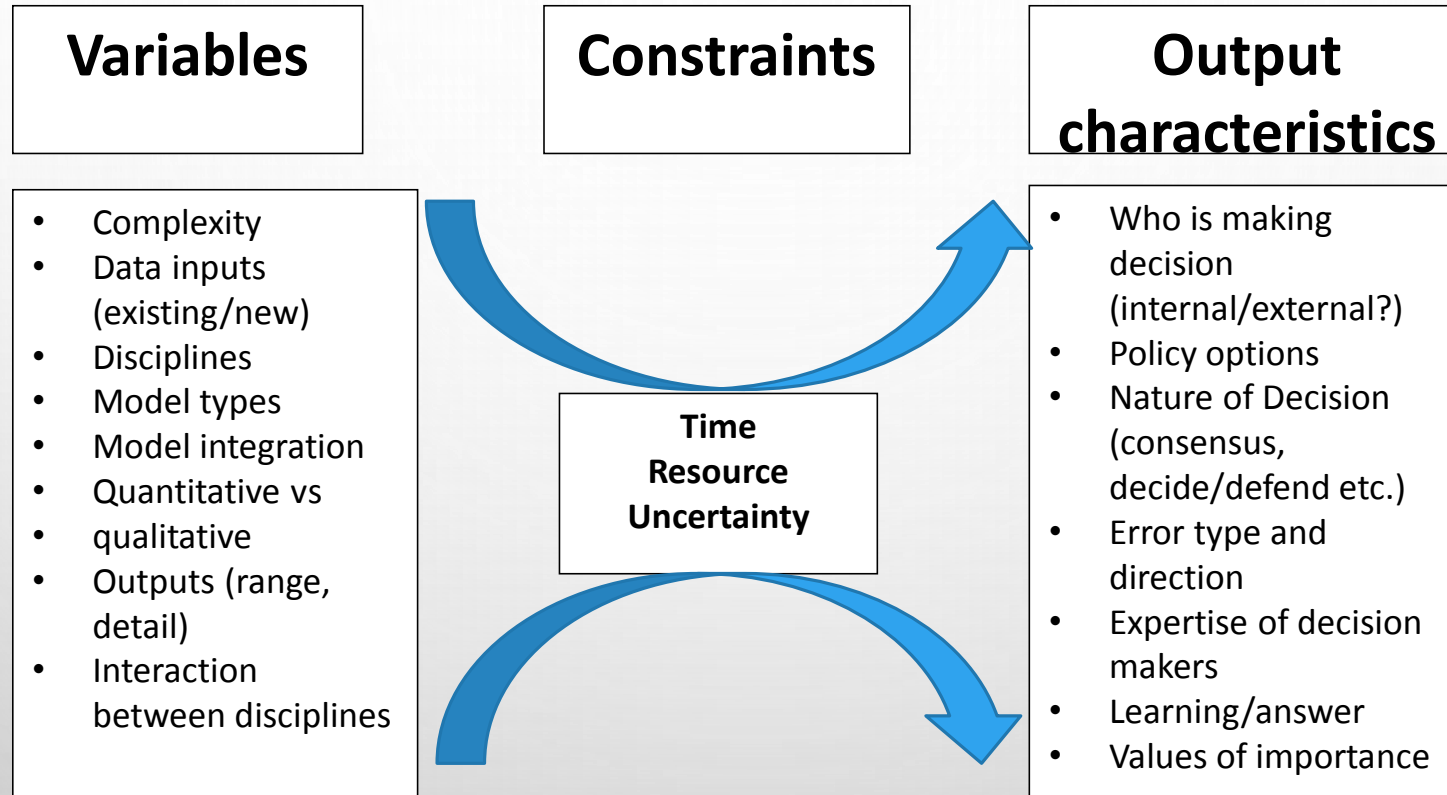
TECHNICAL APPROACHES IN COLLABORATIVE STAKEHOLDER DECISION MAKING

SIMON HARRIS, MELISSA ROBSON, NED NORTON

COLLABORATIVE STAKEHOLDER DECISION MAKING


- WICKED PROBLEMS – UNCERTAINTY, MULTIPLE PERSPECTIVES, NON UNIQUE SOLUTIONS
- STAKEHOLDER DECISION MAKING –
 - ACCEPTABLE VS OPTIMAL
 - TIME BOUND
 - LEARNING PROCESS
- TECHNICAL TEAM
 - SUPPORTS
 - LARGE
 - VERY DIFFICULT ROLE
- HOW DO TECHNICAL TEAMS DECIDE WHAT TO DO?
- FRESHWATER MANAGEMENT AS EXAMPLE

FRAMEWORK

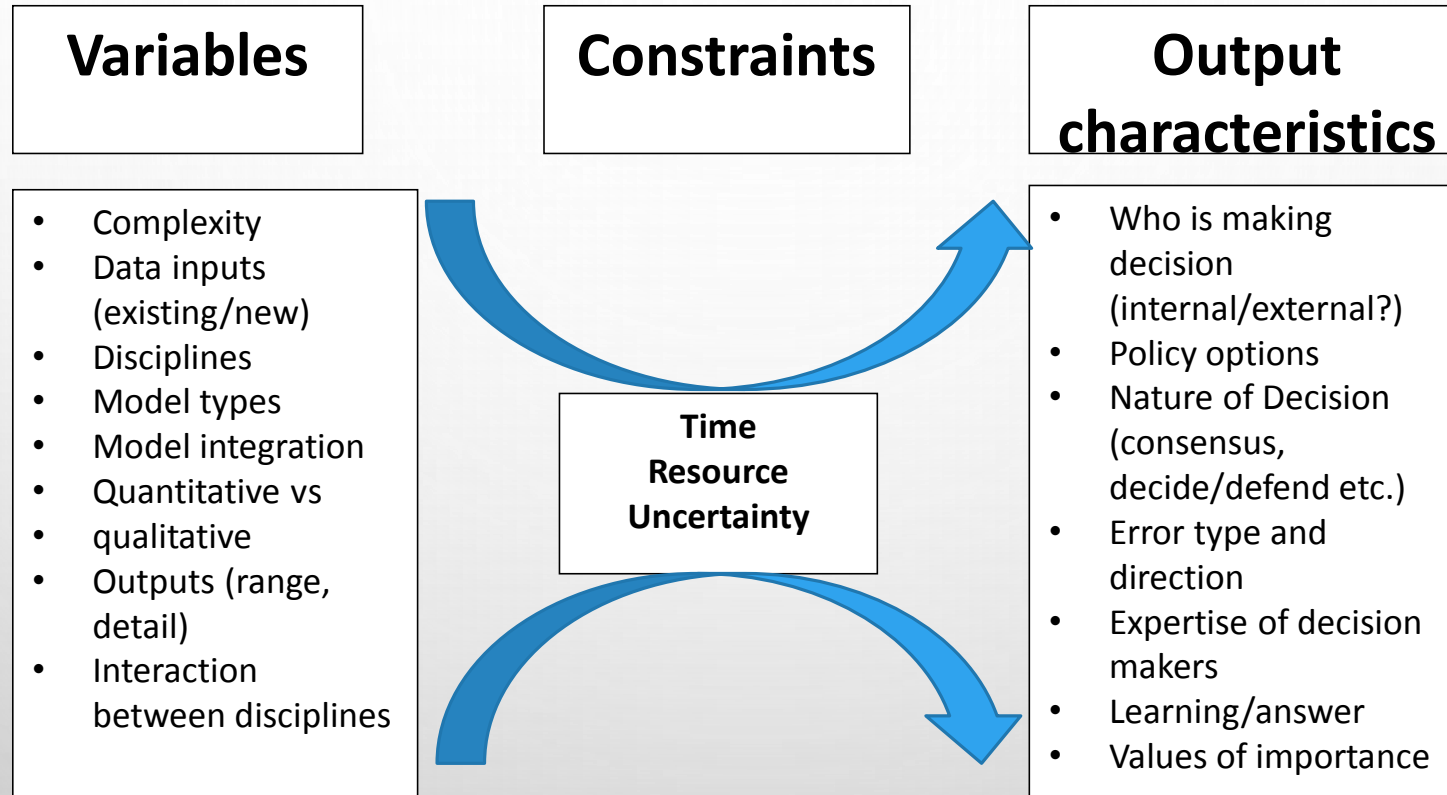




OUTPUT CHARACTERISTICS


- EXPERTISE OF USERS
 - LEARNING VS ANSWER
 - VALUES ADDRESSED
 - POLICY OPTIONS AVAILABLE
 - ERROR TYPE
 - NATURE OF DECISION MAKING (CONSENSUS VS MAJORITY)
 - INVOLVEMENT OF THE TECHNICAL TEAM IN THE DECISION MAKING
 - FACE TIME, DECISION MAKING TIME
- 

FRAMEWORK

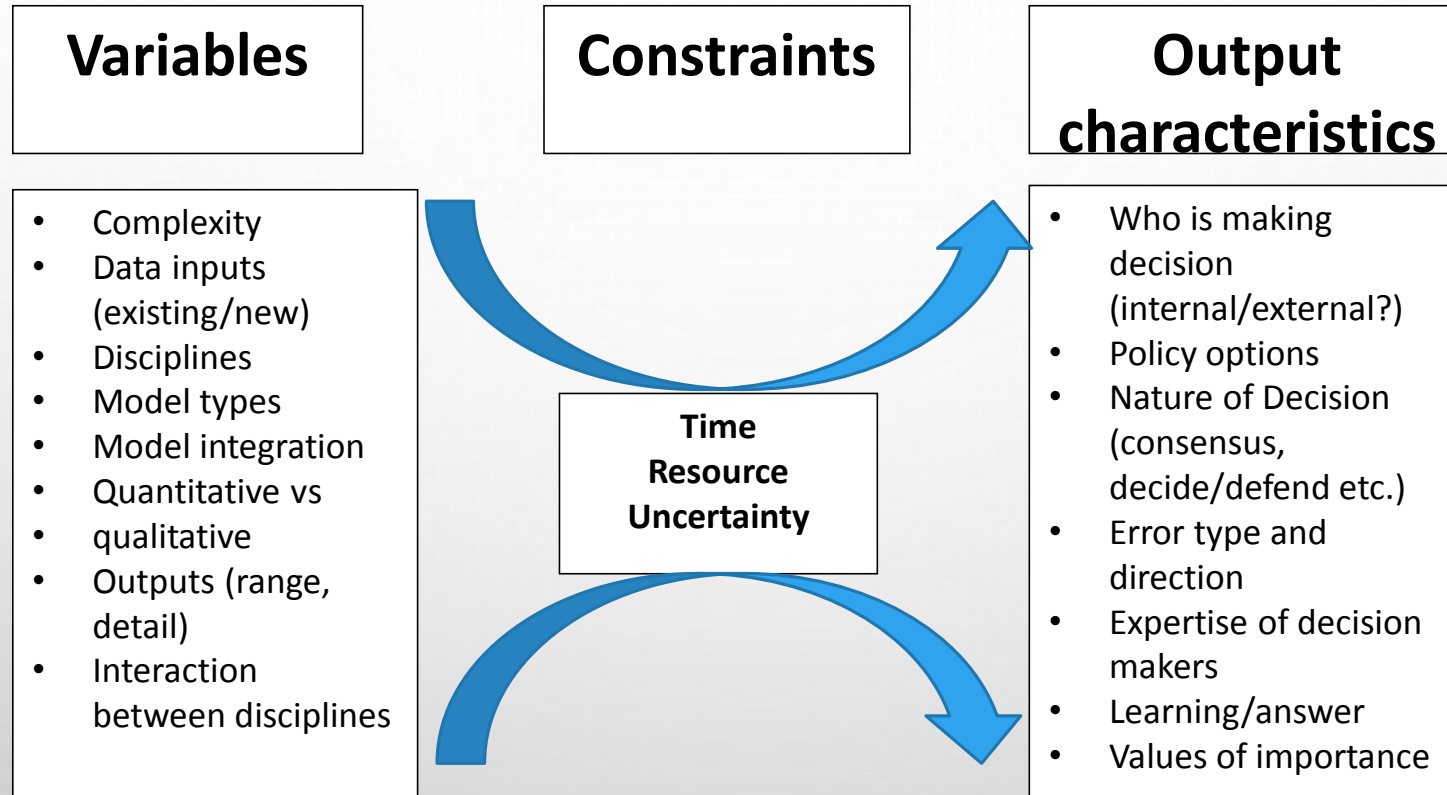




CONSTRAINTS

- TIME – NEVER ENOUGH
 - RESOURCES – PEOPLE AVAILABILITY IS AS IMPORTANT AS \$
 - UNCERTAINTY - INTRACTABLE
- 

FRAMEWORK



VARIABLES - COMPLEXITY OF MODELING

- NATURE OF DECISION – CONTESTED TEND TO REQUIRE MORE REPRESENTATIVE MODELS
- LEARNING – COMPLEXITY CAN WORK AGAINST LEARNING
- ERROR TYPE
- MODEL TYPE
- DATA
- INTERACTION BETWEEN MODELS (SEE NEXT)

DATA

- DECISION TYPE – THE MORE CONTESTED THE FINAL DECISION WILL BE, THE MORE DATA INTENSIVE
- LEARNING – DATA COLLECTION CAN BE USEFUL LEARNING
- VALUES

DISCIPLINES

- COVER VALUES TO BE ADDRESSED
- NATURE OF DECISION (STAKEHOLDER CONSENSUS MAY BE MORE FLEXIBLE)
- EXPERTISE – CAN SUBSTITUTE STAKEHOLDER EXPERTISE FOR TECHNICAL
- POLICY OPTIONS – SOME DISCIPLINES CAN'T BE ADDRESSED

MODEL TYPES

- EG STATISTICAL, SIMULATION, OPTIMISATION, SPATIAL, BBN, NARRATIVE
- NEED TO CONSIDER
 - POLICY OPTIONS
 - LEARNING AND EXPERTISE
 - ERROR TYPE
 - DATA AVAILABILITY AND ACCURACY



MODEL INTERACTION

- INTERACTION BETWEEN MODELS GENERATES
 - COMPLEXITY,
 - CALIBRATION PROBLEMS,
 - FLEXIBILITY ISSUES, AND
 - BOTTLENECKS



OUTPUTS – RANGE AND DETAIL

- DECISION MAKERS OFTEN LAY PEOPLE
- HAVE LIMITED TIME TO DIGEST ISSUES OUTSIDE MEETINGS
- HAVE EVEN LESS TIME IN MEETING FOR TECHNICAL INPUTS
- LIMITED NUMBER OF THINGS THEY CAN CONSIDER
- WITH LONG PROCESSES FORGET WHAT THEY LEARNED
- NEED TO BE REALISTIC ABOUT WHAT WE PRODUCE – FOCUS ON KEY INDICATORS
- HELICOPTER VIEW INITIALLY, THEN FOCUS ON KEY STICKING POINTS



INTERACTION WITHIN TECHNICAL TEAM

- NATURE OF DECISION
 - INVOLVEMENT IN DECISION
 - LEARNING
 - DECISION MAKER EXPERTISE
 - KEY TO DEVELOPING UNDERSTANDING AND SOLUTIONS
- 



DISCUSSION

- STAKEHOLDER PROJECTS ARE MESSY
 - PRECISION OVER-RATED
 - UNCERTAINTY HIGHLY LIMITING
 - REALITY OF DEALING WITH STAKEHOLDER GROUPS – TIME, EXPERTISE, IMPORTANCE IN DECISION
 - INTERACTION OF PEOPLE OVER MODELS
- 