

# Designing auctions with outcome bonuses An application to ground nesting birds

## National Market Based Instruments (MBI) Pilot Programme -

Nick Abel, CSIRO ([nick.abel@csiro.au](mailto:nick.abel@csiro.au))

Stuart Whitten, Russell Gorddard (CSIRO) and Alexandra Knight (MCMA)

## National (MBI) Pilot Programme



# What is Nest Egg?

- Auction-style program making payments to landholders
- Focussed on the future of the Plains-wanderer, Brolga and Bush Stone-curlew
- Novel aspect is the separation of payments into a competitive up-front component and fixed outcome bonuses based on vegetation benchmarks and presence/breeding.



# Outcome payments can:

- Motivate hidden action
- Reveal hidden information
- Reduce reliance on modelling of outcomes
- Encourage flexibility & innovation
- Increase accountability for public funds

# Why Nest Egg

Ground-nesting bird populations are declining:

- Predation by foxes
- Loss of suitable habitat through weeds, firewood collection, pests (rabbits), draining wetlands etc.
- "Fence and forget" won't work - Active management is needed to help birds breed!

# Nest Egg tender

## Auction-based incentive program

- Landholder bid specifies an upfront payments
- Fixed payment for meeting habitat benchmarks
- Bird Bonus if birds are present and/or breeding



# Plains Wanderer Habitat Benchmark

Pictures removed to reduce file size



# Bush Stone Curlew Habitat benchmark

Pictures removed to reduce file size

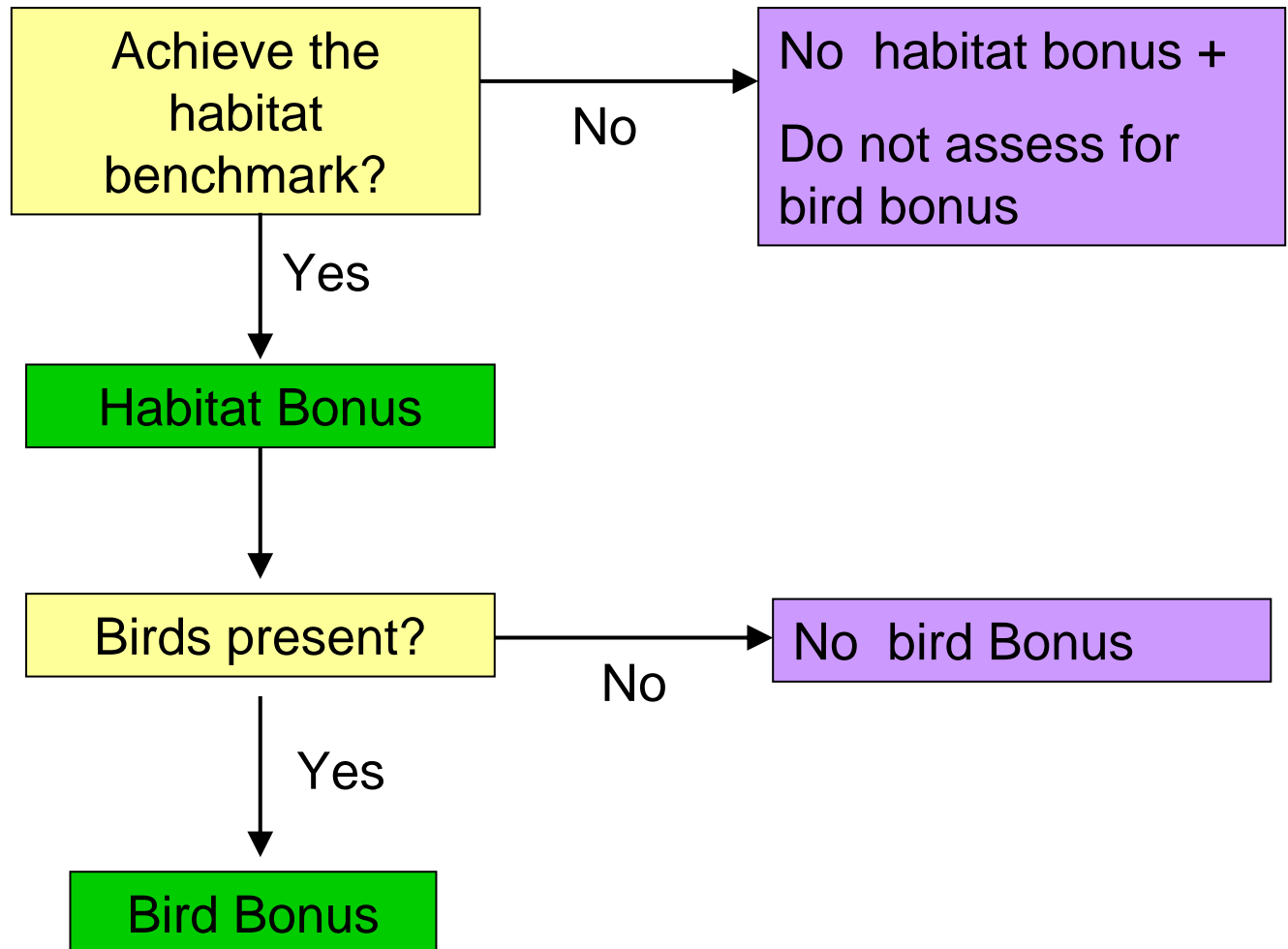


# Brolga Habitat Benchmark

Pictures removed to reduce file size



# Benchmark/ outcome bonus payments



# Nest Egg Trial So Far

- Landholders attended workshop
- Landholders asked to select either an input or outcome contract and place a bid on both
- All landholders selected outcome contracts



# Lessons learned so far

- Farmers all opted for the outcomes contracts - so they are less risk averse than predicted. Reasons include that they are used to risks, and the sum at risk is a small proportion of their annual turnover
- Modelling and actual bids estimated the outcome option to be more cost-effective
- Outcome incentives not suitable when the outcome is far into the future, when management requirements are well known and easily monitored, or when the outcome is costly to observe
- Outcome incentives are useful when management requirements are uncertain, management actions are hard to observe, and when management requirements vary with circumstances

# Thank you

**Stuart Whitten**

Markets, Incentives and Institutions  
Team

CSIRO

[Stuart.whitten@csiro.au](mailto:Stuart.whitten@csiro.au)

**Alexandra Knight**

Murray Catchment Management  
Authority

[Alexandra.Knight@cma.nsw.gov.au](mailto:Alexandra.Knight@cma.nsw.gov.au)

