Table for Workshop

What are the main impacts / vulnerability in your sector / area / ecosystem?

| **Sector** | **Geographic Area** | **Ecosystem** | **Impacts** | **Ideas to manage** | **Adaptation Research** | **Impediment** |
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| Agriculture & Reserve System | • Tablelands & Slopes | • Lowland Woodlands<br>• Grasslands | • Grassy Weed Invasion | • Competition and resilience of native pastures<br>• Revegetate | • New weeds?<br>• Sleepers?<br>• Sensitive species<br>➢ Understand better biodiverse plantings | • Public Education<br>• Inconsistent governance |
| Reserve System | • Alps | • Sub-alpine woodlands | • Habitat loss<br>• Species loss due to various climate change | • Monitor changes<br>• Identify thresholds to act | • Identify refugia and any other options | • Prioritization of options and time |
| All | • Especially woodlands and forests | | • Increased fire and fire protection measures (hotter etc.) | • Protect fire refugia and landscape mosaic<br>• Patterns of fire important | • Modelling<br>• Refugia<br>• Project changes in fire patterns + pot for strategic interventions | • All efforts go into protect assets and people + not protect biodiversity |

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| Restoration Reveg Practicioners | • Key area for restoration | • All? | • Fragmentation<br>• Habitat loss | • Reveg + Restoration | • How to effectively restore habitat | • Carbon-driven monoculture plantations |
| All | | | • Loss of drought refugia + fire refugia | • Accurately identify + introduce conservation stewardship | • Tech of restoration<br>• Mechanisms for delivery permanent conservation stewardship | • Lands to be best land for farming etc.<br>• Lack of regional and locally specific data (location) |
| Private/Leasehold | • Regional | • Lowland grasslands & woodlands | • Fragmentation<br>• Reducing resilence<br>• Changed ecosystem condition | • Enhance quality connectivity for a wide range of species | • Species mobility across diverse landscape<br>• Patch size, quality<br>• Species for restoration to advocate links | • Urban expansion<br>• Rural lease management<br>• Landholder values<br>• Planning policy |
| Protected Areas | | • Sphagum bogs<br>• Wet Forests<br>• Veg on Edge | • Wild Fire and Management Response | • Manage fire within thresholds<br>• Alternative lower compact measures | • Ongoing monitoring management actions | • Community expectations for NC and/or fire protection |

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| | | | | • Grazing<br>• Removing weeds | • Especially tools for reducing fire risks | ➢ Conflict |
| Private/leasehold | • Regional | • Grasslands<br>• Woodlands<br>• Wetlands | • Drought/drying of landscape | • Reduction in grazing pressures, farm dams?<br>• Water intensive crops/plantations<br>• Gov't acquisition | • Location of drought refugia<br>• Socio-economic tools for farmers to modify l/u with bio-ecol outcomes | |
| All | • Region | • Lowland ecosystems under stress | • Exotic weeds | • Spread impact on native ecosystems<br>• Maintain groundcover to minimise invasion risk<br>• External vigilance | • Changing distribution patterns<br>• Identify 'time bombs'<br>• More cost-effective control measures | • Money<br>• Poor knowledge in land mgmt agencies<br>• Poor understanding in urban communities |
| All | • All | • All | • Adequacy of reserve system | Re-assess effectiveness of PA system to conserve biota | • Identify shifts in distribution<br>• Identify opportunities for conservation | • Land tenure<br>• Political<br>• Money for management |

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| | | | | | outside reserve<br>• Adaptive mgmt for mobile species moving into existing reserves | |
| National Park | • TriState<br>• National Park<br>• Bogong<br>• Kosc<br>• Nanagi | • Alpine/ subalpine | • Temperature rise – reduced snow | • Identify vulnerable species | • Prioritise vulnerable species & appropriate actions | • Knowledge of thermal tolerances |
| | | • Woodlands/ forests | • Fire | • Frequency & intensity of prescribed burning | • Determine impacts on terrestrial biodiversity of prescribed burning | • Lack of monitoring (long-term)<br>• Community attitude |
| General | • General | • General | • Extreme Temperature | • Identify particularly vulnerable regions & species | • Prioritise regions & species | • Integrating physiology & ecology & applying to conservation management |

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| | | | • Weeds species distribution change | • High risk sleeper weeds | • Prioritise vulnerable species | |
| | • ACT Region | • Grassy woodlands | • Connectivity | • Connect or not? If so, how? Where? | • Which species will benefit from what type of connectivity<br>➢ Landscape design rules | • Influencing ownership and planning |
| | • ACT Region | • Wetlands<br>• Riparian Zones | • Reduced environmental flows of water | • Increased environmental flow<br>• Remove impediments to water flow<br>• Restoring habitat | • Timing and amount of flows<br>• Monitoring | • Linking knowledge with policy & practice<br>• Attitudinal change |
| PA & Private & Public | • Lowland | • Grasslands (native) – lowland | • CO2 fert<br>➢ Change in composition<br>• Woody weeds | Document change<br>• Fire<br>• Weeding<br>• Mowing<br>• Grazing<br>• Translocation | • Which spp will be adv/disadv by CO2 fert?<br>• How to manage? | • Knowledge about trajectories of change<br>• Will to be active<br>• Basic |

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| | | | | • Reseeding<br>• Soil treatment<br>• Revisit action plans in context of CC adaptation | • Impacts on fauna & soil biota<br>• Prioritization of interventions<br>• Modelling | understanding of ecosystem |
| Private Land | • Non-alpine regions | • Grasslands<br>• Woodlands<br>• Wetlands<br>• Remnant trees<br>• TSRs<br>• Roadside reserves | • Climate Change<br>➢ Agriculture<br>➢ Changes land use<br>➢ Potential displacement & disturbance of biodiversity | • Refugia modelling to identify high priority areas for conservation<br>• Landholder incentives eg. stewardship payments, whole-of-farm-planning<br>• Revisit management plans in CC context, purchase of land for conservation<br>• Diversify income sources | • Modelling impacts & refugia<br>• Monitoring trends<br>• Socio-economic research to help regional communities to adjust impacts on species, agric systems, ecosystem processes<br>• What are the new opportunities (eg. wine, olives, truffles) | • Understanding time frames<br>• Which generation to talk to?<br>• Socio-economic capacity to adopt & adapt<br>• Information flow to landholders |
| All – Native & Production Systems | • All | • All | • Changes in pollination – Decrease fruit and | • Promotion of the industry<br>• Restoration of | • Monitor trends in pollinators<br>➢ Reasons | • Lack of knowledge about causes of decline |

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| | | | seed production | vegetation to provide pollinator habitat. | for trends<br>➢ Flow on effects<br>➢ Impacts on native bees & relationships with European wasps & honeybees, insectivorous/mammal/ bird pollinators | • Insufficient substitutes<br>• Time related to recovery decline. |