

Exploring possible development futures for the Fitzroy catchment through participatory scenario planning



National Environmental Science Programme

**Multi-objective
planning in
northern
Australia**



- Create a toolkit to guide planning and management that supports multiple uses of land and water
- Guide participatory scenario planning to assess the outcomes of alternative development scenarios in the Fitzroy River catchment
- Create narratives and associated land-use maps and set up GIS-based tools for scenario evaluation
- Develop a network of stakeholders engaged in planning and contributing to better informed government planning processes



Bob Pressey Jorge Alvarez
Project leaders

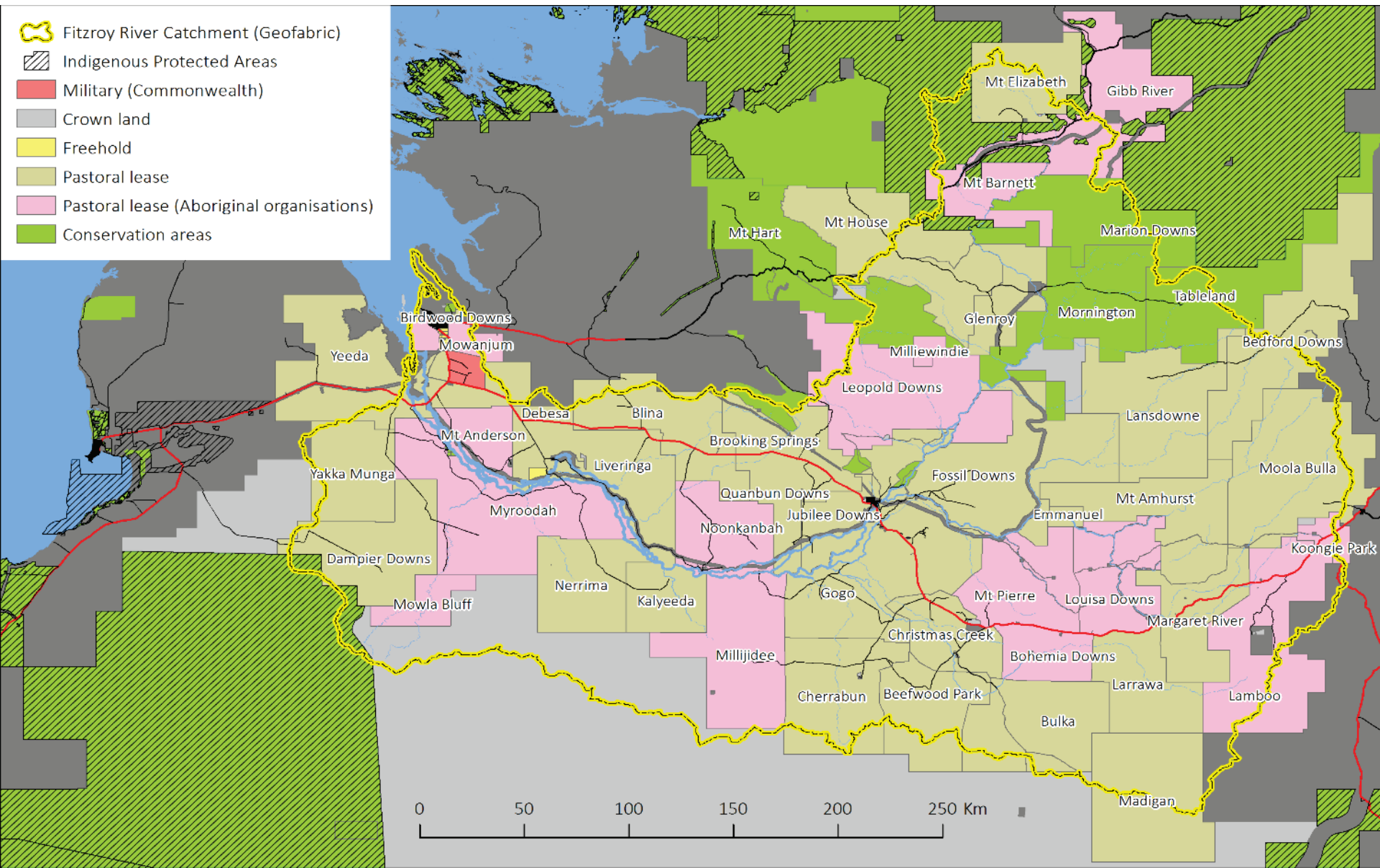


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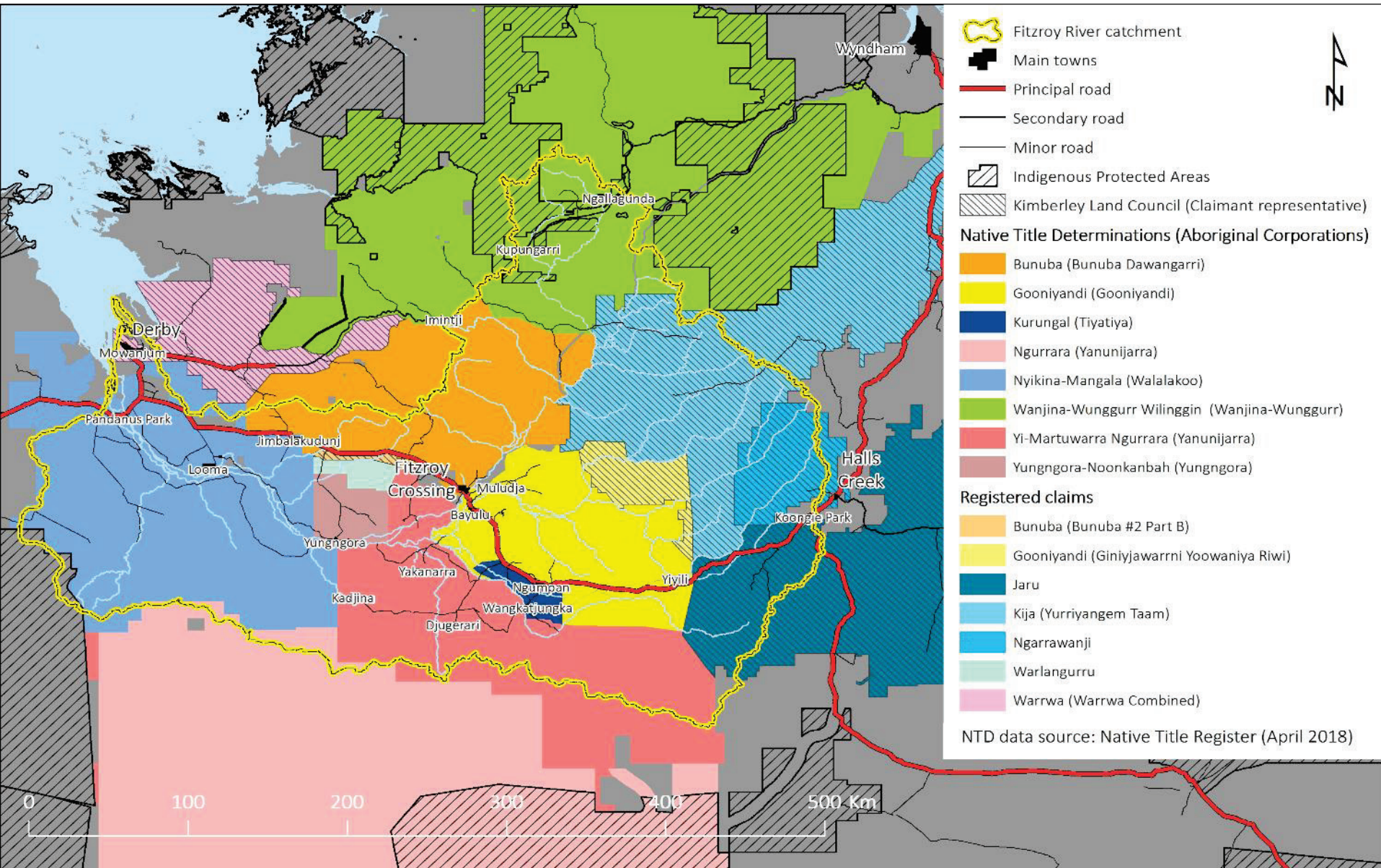
Fitzroy River catchment, Kimberley, WA



The project covers the full area of the Fitzroy River catchment, mainly pastoral use (~48 pastoral stations), protected areas, IPAs, etc.



Includes eight Native Title Determinations and seven registered claims



Fitzroy futures

All care about the future of the Fitzroy and the people

- Different people
- Different goals
- Different futures
- Different plans



Why scenarios?

Useful when people are in situations that...

- Are complicated and uncertain, possible surprises
- Want to change, but disagree on how to do it or how the future should look
- Cannot be changed unilaterally and need others to move forward
- Require flexible and long-term planning

Create a shared space for constructive and objective conversations about different development pathways for the Fitzroy River catchment and their outcomes



Outline

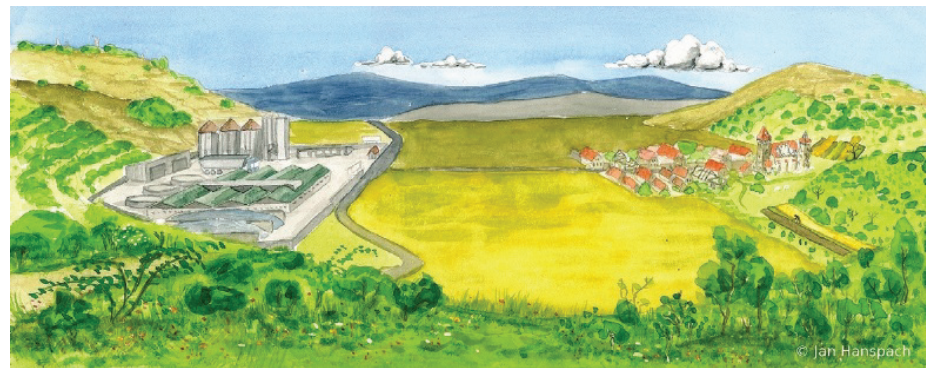
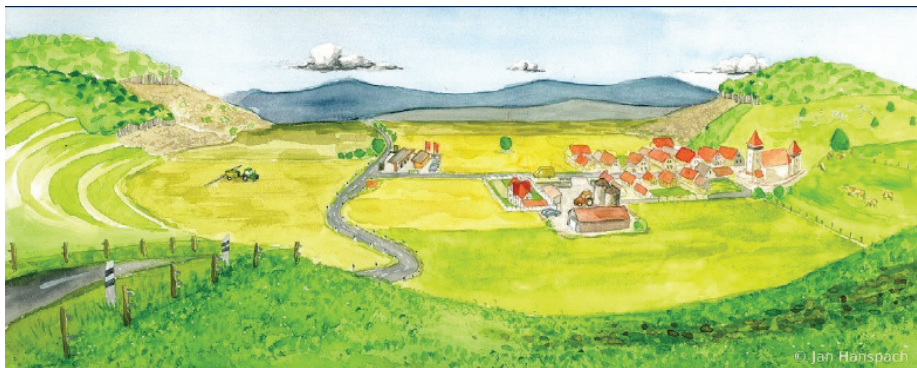
1. What is scenario planning
2. What are we trying to achieve
3. How are we planning to do it
4. Stages and timeline
5. Who will participate
6. Detail of activities and outputs
7. What are the benefits

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Scenario planning is about...

Creating stories that tell us what could happen in and around the region that shape the future development of the catchment



Imaginary alternative **development scenarios** from a participatory scenario planning exercise in eastern Europe (Hanspach et al. 2014)

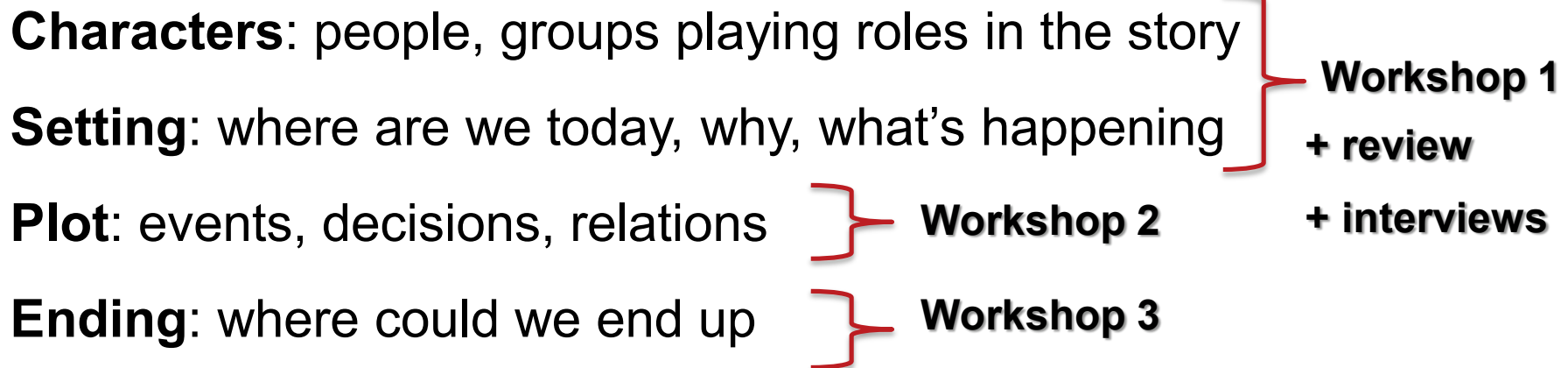
*Sharing stories can open up thinking
and possibly shape future decisions*



**Kahane. 2012. Transformative scenario planning: Working together to change the future*

Scenarios

Short stories that tell different versions of what **could happen** in an area (and around it) and how that would shape the future.



Scenarios need to be plausible, not fiction stories!

Participatory scenario planning is about...

- Working together to explore alternative futures
- Thinking about the futures that we reject, not only those that we like, prefer or accept
- Seeing the situation from other people's perspectives



Photos: tourism (Alamy Stock), agriculture (J. Alvarez-Romero), savanna burning (Glenn Campbell), pastoral (M. Douglas), mining (The West Australian)

Scenario planning is NOT...

- **Not** talking about what we believe should happen or predict will happen, *it's about what we think could happen*
- **Not** pushing our own interests or goals, or those of our organization, community or group, *it's about bringing our knowledge and insights*
- **Not** stopping us from supporting or opposing activities or projects related to developments in the region
- **Not** about creating consensus and having to agree on creating a shared vision about the future

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Objectives

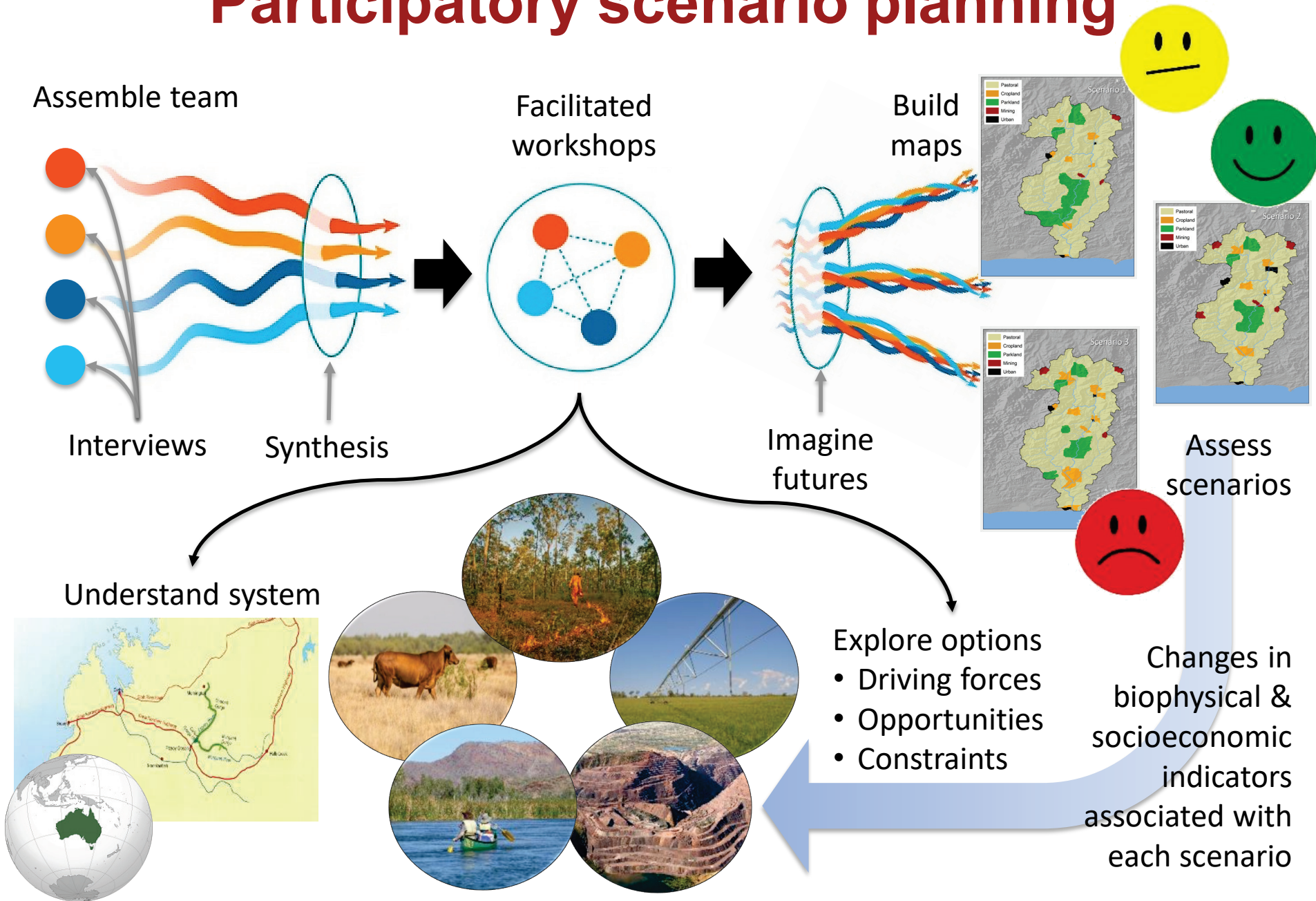
Systematically examine possible futures for the region to...

1. Build shared understandings of what is happening in and around the region that can influence the future of the catchment
2. Explore and understand different development initiatives, including drivers, opportunities and constraints
3. Develop narratives describing alternative development paths for the region, including events, decisions and uncertainties
4. Build maps representing land-water uses based on narratives and assess possible changes (biophysical and socioeconomic)
5. Identify potential effects (positive and negative) in the wellbeing of residents of the catchment associated with alternative futures

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Participatory scenario planning



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Stages of the participatory scenario planning process

1. Identify current and future land/water use and development issues	Desktop and interviews
2. Identify and map current land and water “values”	Desktop
3. Explore development options and create narratives of future development scenarios, including... a) Sharing views on development b) Identifying driving forces c) Exploring development initiatives d) Creating scenario narratives	Scenario workshops 1-2
4. Map potential distribution of future land-water uses based on scenario narratives and exploration of development initiatives	Desktop in consultation with team members and experts
5. Evaluate the outcomes of scenarios (including co-benefits and trade-offs among environmental and socioeconomic objectives)	Scenario workshop 3 and assessment workshops with TOs and pastoralists

You can download a [summary table](#) with more details on the process.

Timeline

I. Assemble team and interviews (Jan-Apr 2018)

Collect and summarize the views of team members

II. Scenario planning workshops (Jul 2018-Apr 2019)

1. Set the scene and understand the system
2. Imagine alternative development futures
3. Create and assess maps representing scenarios

III. Residents' responses to scenarios (May 2019)

Workshops with pastoralists and traditional owners

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Scenario Planning Team

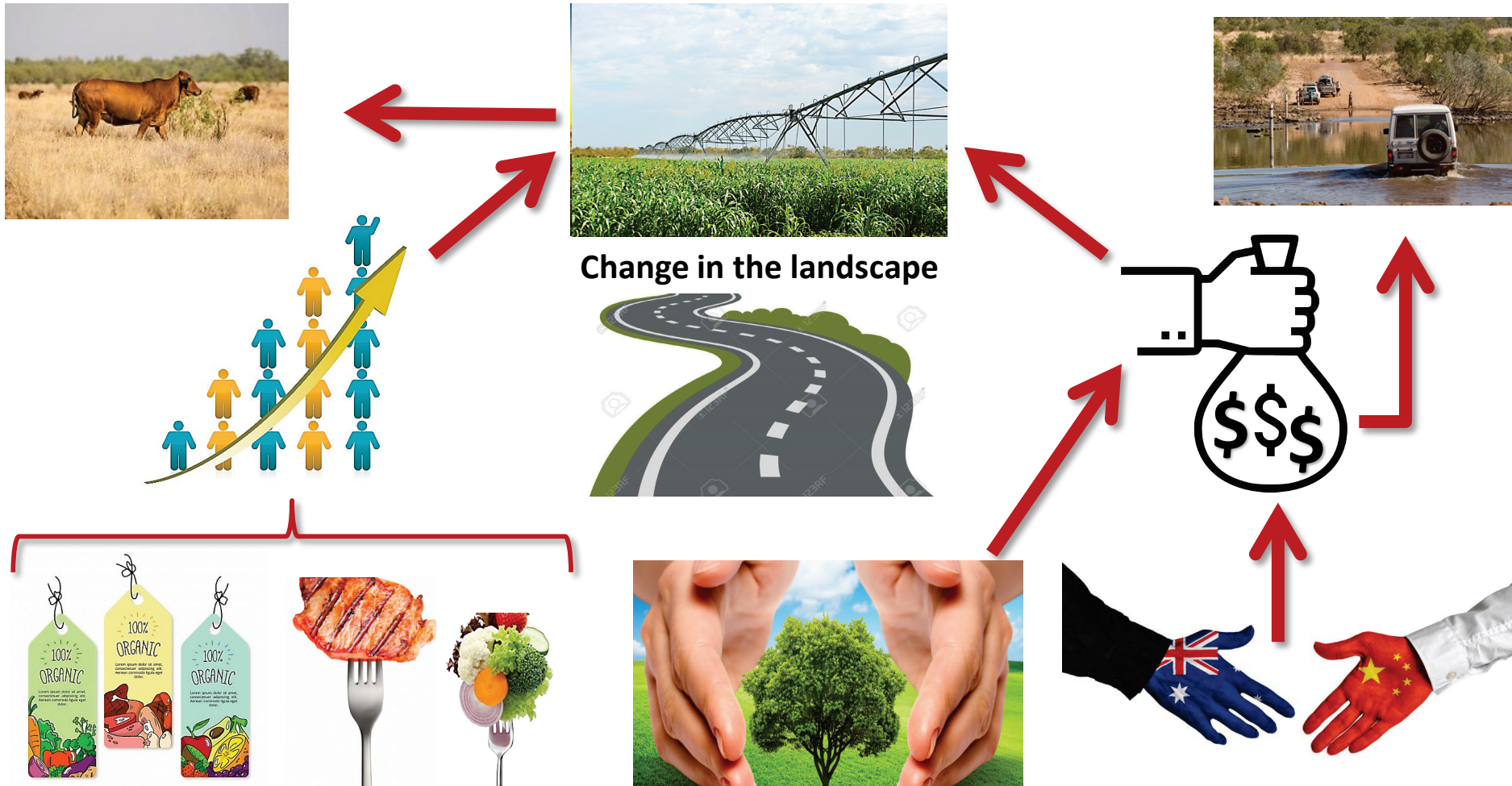
- Varied backgrounds bringing the perspectives of different sectors and stakeholder groups
- Land/water use, NRM, resources, enterprise planning
- View the future from alternative perspectives
- Comfortable talking in large and mixed groups
- Work with others, listen, reflect on diverse viewpoints
- Communicate regularly with researchers
- **Not an advisory and/or decision-making group**

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Workshop 1. Set the scene and understand the system

- Understand the system (looking back to look forward) and explore driving forces of change*



Workshop 1. Set the scene and understand the system

- *Understand the system and explore driving forces of change*
- *Explore potential development initiatives*



World-class research to support sustainable development in northern Australia

Workshop 2. Imagine alternative development futures

THE SCENARIO DEVELOPMENT PROCESS

Define Focal Issue, Question, or Decision and Relevant Timeframe
Review Past Events & Alternative Interpretations

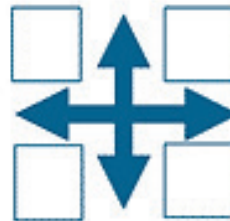
Identify
Driving
Forces



Identify
Critical
Uncertainties



Develop
Plausible
Scenarios



Discuss
Implications
& Paths



Source: www.scenarios2strategy.com

Workshop 2. Imagine alternative development futures

What's in the stories? Drivers, opportunities and constraints, particularly those that are most important (create big changes) and uncertain (can go in very different directions)

Events: changes in international demand for agricultural or mineral resources, major investments in some industries, etc.

Decisions: reforms of national policies regarding energy, changes in legislation regarding land tenure, etc.

Governance arrangements: strong or weak environmental governance, alliances within and among different groups, etc.

Workshop 2. Imagine alternative development futures

Example of development drivers in the Great Barrier Reef coast

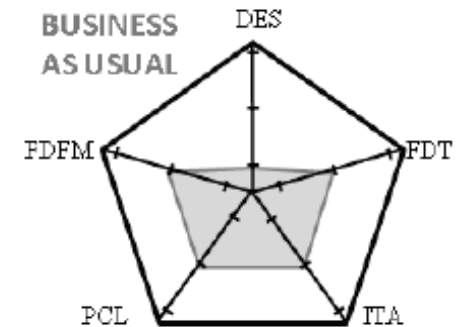
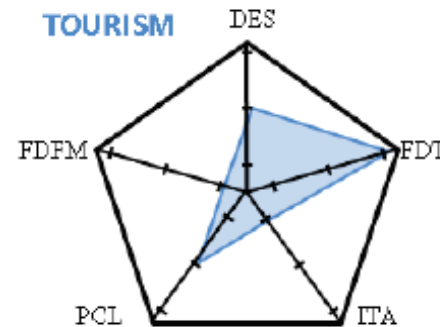
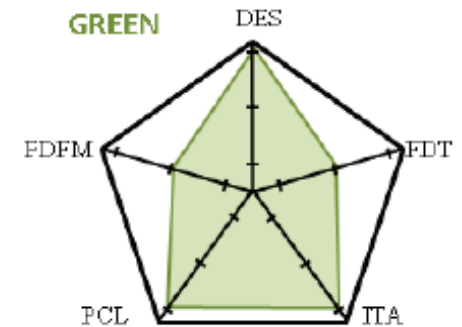
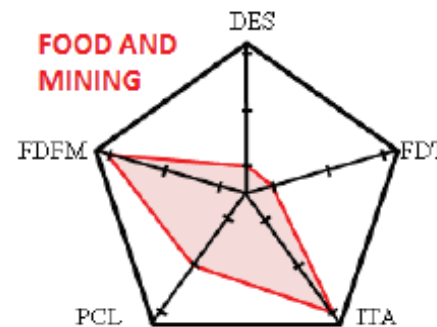
FDFM: Foreign demand for food & mining

DES: Demand for environmental services

FDT: Foreign demand for tourism

ITA: Innovation & technological advances

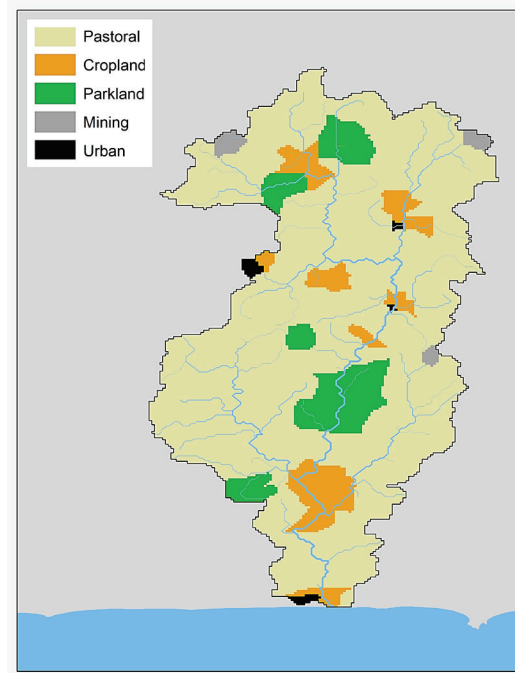
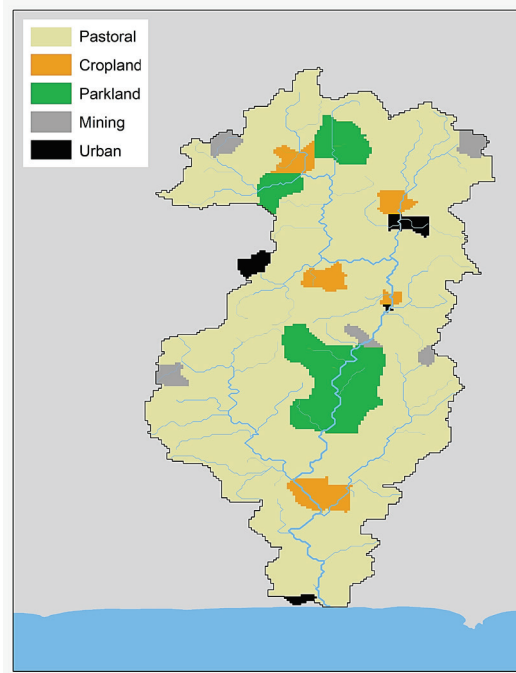
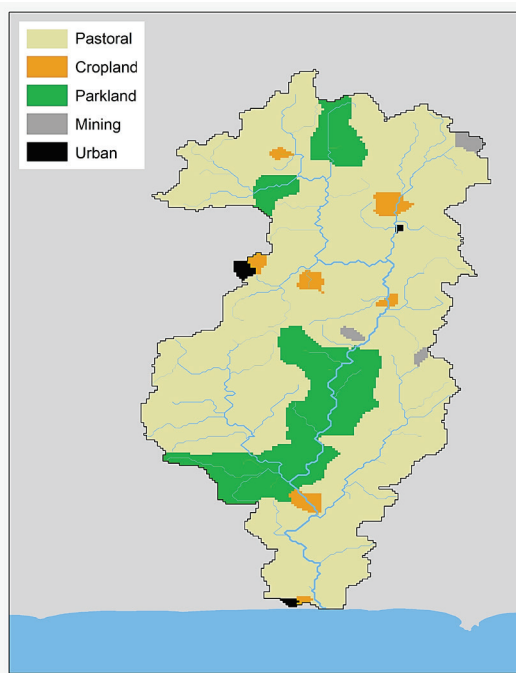
PCL: Preference for coastal lifestyle



Augé et al. 2016. Spatially explicit scenario planning of development in the Great Barrier Reef coastal zone

Between workshops 2 and 3 create maps representing scenarios

- Use computer programs and maps of climate, soils, terrain, tenure, vegetation, infrastructure, etc. to build maps of future land uses
- Define rules for possible transitions (changes) between land uses based on identified opportunities and constraints

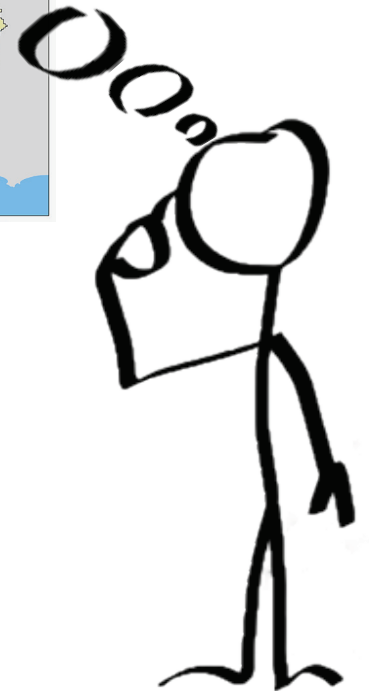
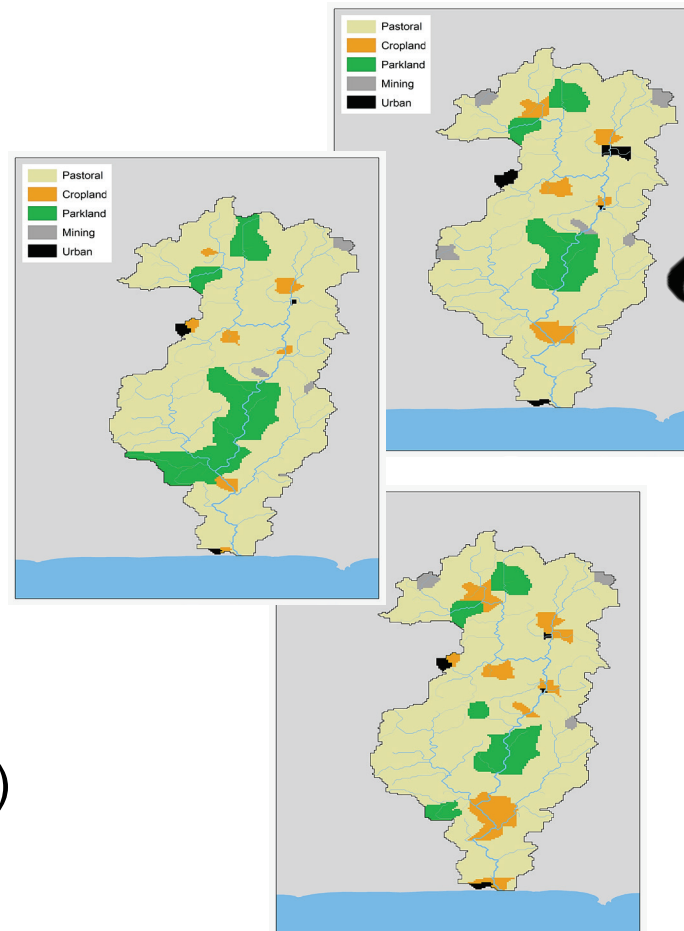


Workshop 3. Assess changes associated with scenarios

How could changes associated with the scenarios affect the wellbeing of different stakeholders?

Assess based on...

- Stories (narratives)
- Land-water use maps
- Changes in biophysical & socioeconomic indicators (agriculture production, biodiversity protection, carbon storage, tourism activity, number of jobs, etc.)



Knowledge and Heritage



Food and clean water



Meaningful occupation



A good time with family and friends



Residents' responses to scenarios

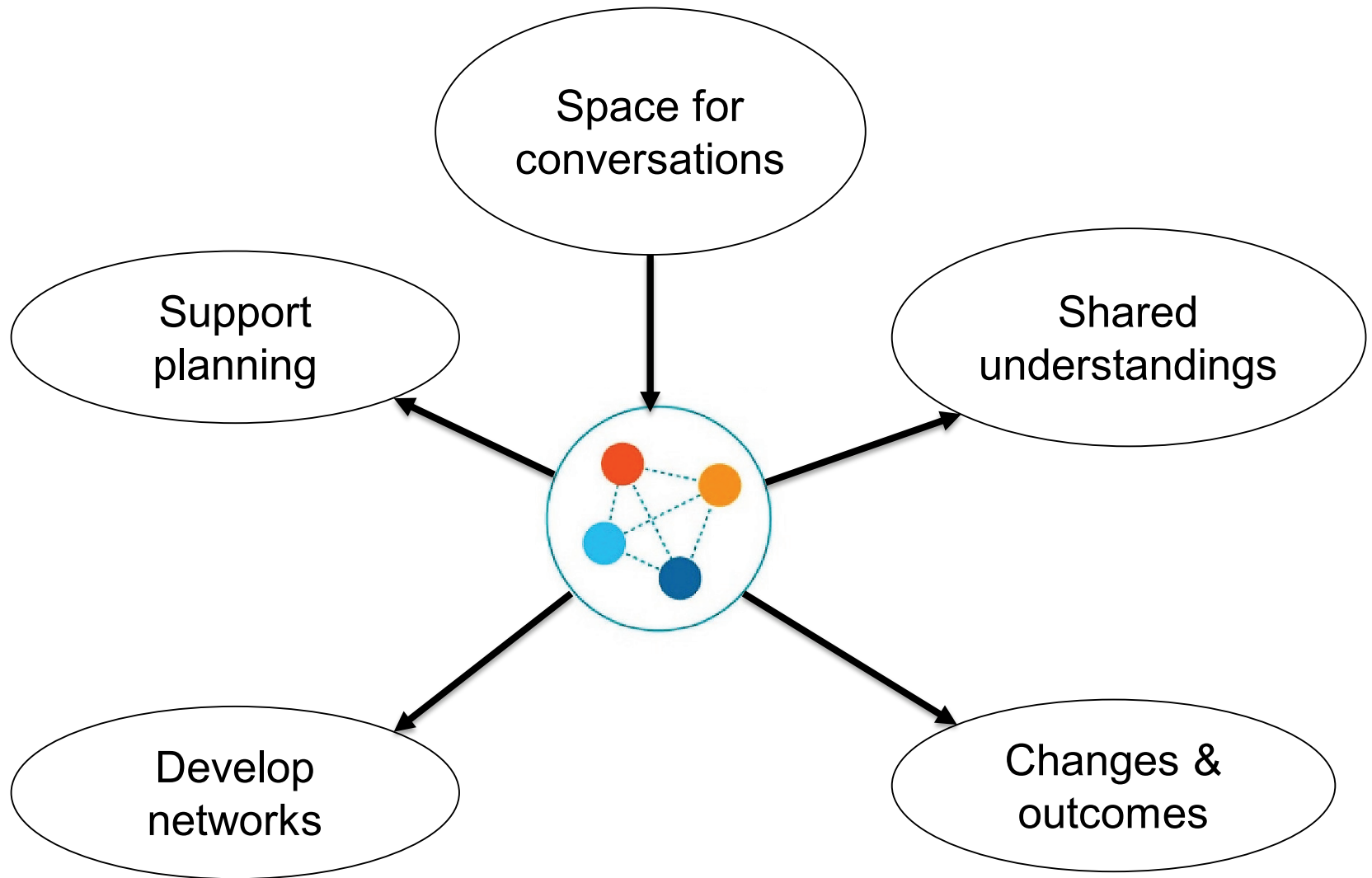
Additional workshops with pastoralists and Traditional Owners (together with NESP project 5.4) to assess positive/negative effects of changes in residents' wellbeing

	Scenario 1	Scenario 2	Scenario 3
Better ↑	↓	↑	=
	↓↓	↓↓	↑
	↓↓↓	↓	=
No change ↓	↑	↑↑	↓↓↓
	↑↑↑	↓	↑↑
	↑↑	=	↑
Worse	=	↓	↑↑↑

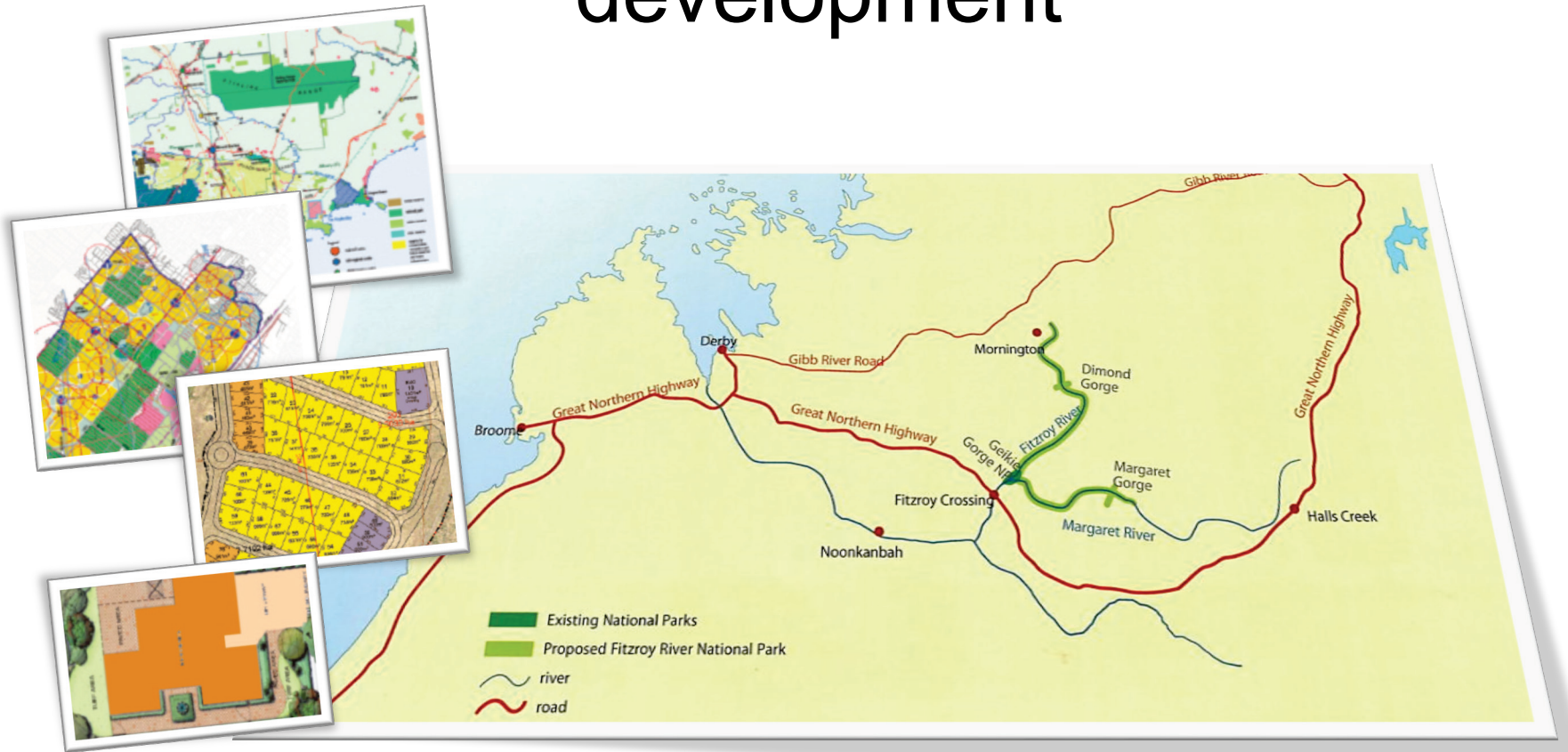
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Benefits and outcomes of the process



Inform land-water use planning, including conservation and development



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