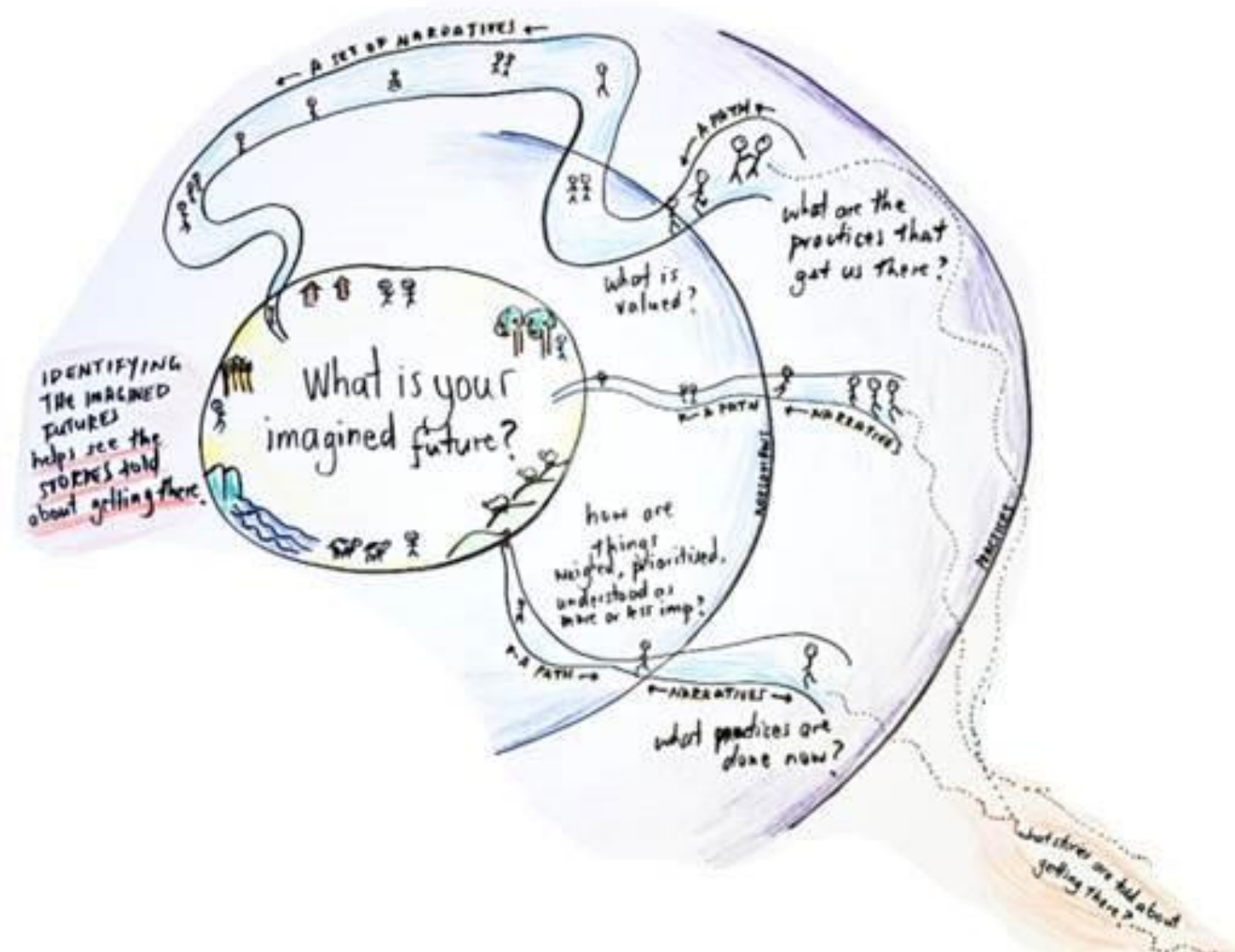


Senses of sustainability: Imagining farming futures through narratives

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Moving the Middle: empowering land managers to act in complex rural landscapes is a Ministry for Business, Innovation and Employment (MBIE) funded research programme



A bit of context: Moving the Middle

Moving the Middle: Empowering land managers to act in rural landscapes

- Overall project aim: to identify and use key leverage points for change to help farmers (and growers, land managers etc) adjust their land management decisions and thus improve their environmental performance.
- Narrative stream aims (there are four streams in the project)

1. Identifying and exploring public and private narratives related to farming in Aotearoa

2. Identify leverage points/points of intersection within current narratives

3. Explore the question
How might these narratives be reframed to empower land managers to meet Aotearoa's environmental and societal challenges?

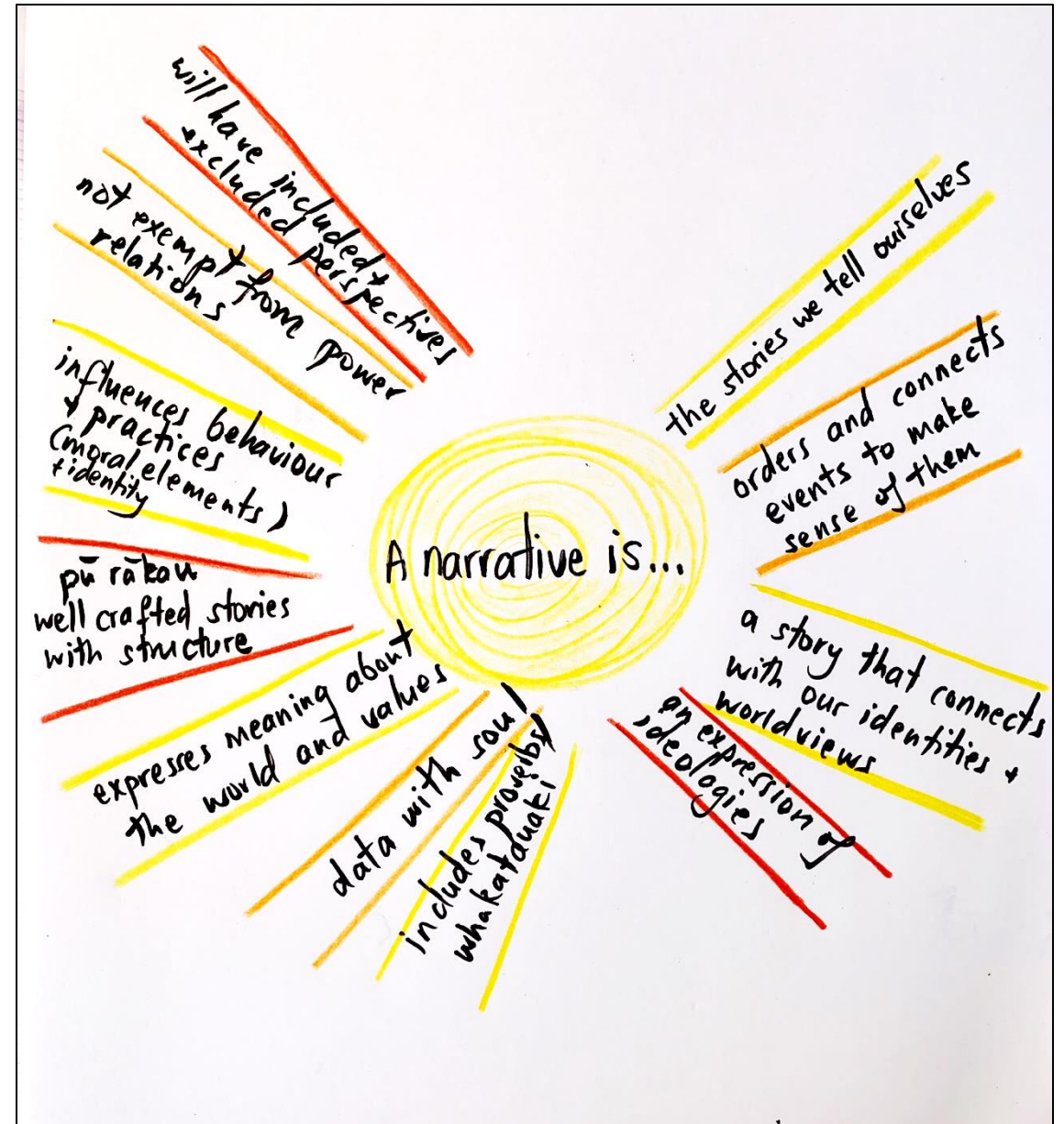
Going to cover these three points very briefly! What we have done, and what next...



What are narratives?

Narratives are...

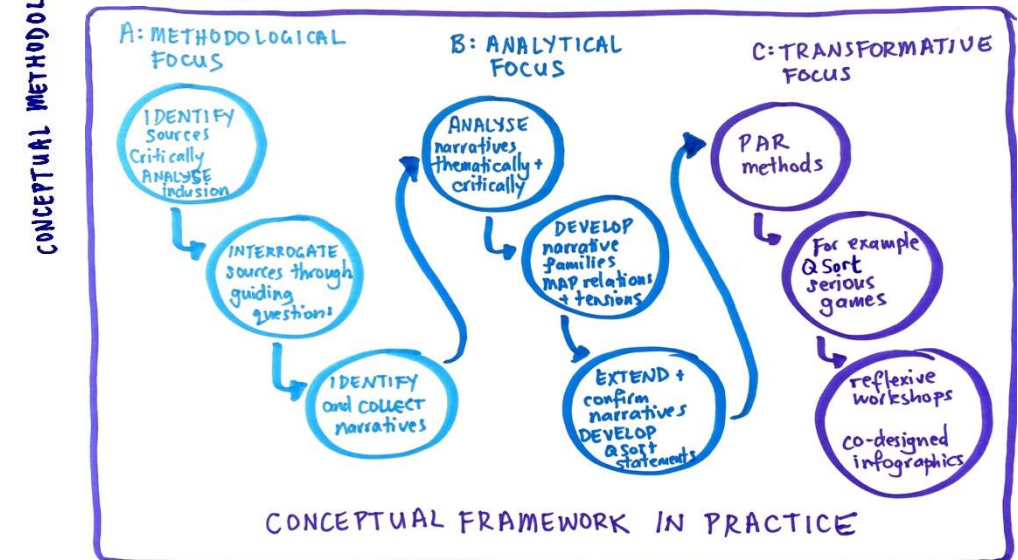
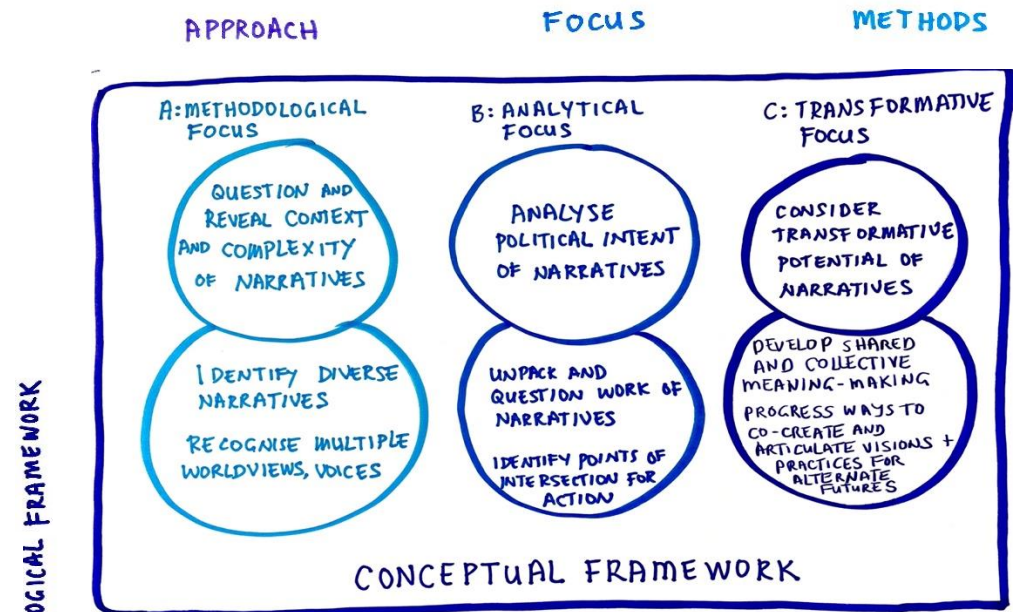
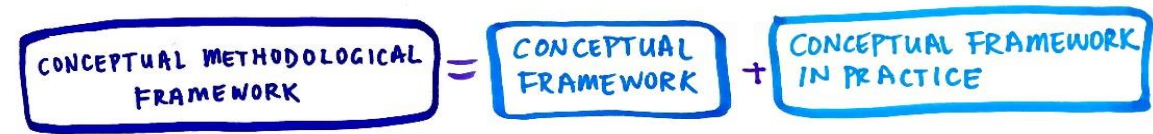
- **Crafted stories that express meaning about yourself, the world and your values**
- The stories we tell ourselves and share with others to make sense of being in the world
- Narratives are used to order and connect events, to **make sense of them**
- Narratives include pūrākau, legends and proverbs.



Conceptual methodological framework

i.e. the overall plan

- Grounded approach, Framework guides methodology
- Emphasises the enactive dimensions of narratives
- Informed (and inspired) by Harris (2022)
- To assemble and interrogate the presence of a rich, dense and highly influential narrative-scape about farming in which any new or modified decision-making about land uses will be set.



Towards developing an understanding of contemporary farming narratives in Aotearoa

Narrative sources	We looked for
<ul style="list-style-type: none"> • Industry lobby groups - e.g., Federated Farmers • NGOs - e.g., Fish and Game, Forest and Bird, Greenpeace • Crown Research Institutes - e.g., NIWA, MWLR, AgResearch • Industry bodies - e.g., Beef and Lamb, Dairy NZ • Local government - e.g., Waikato RC; Gore District Council, Matamata-Pikao District Council • Iwi owned companies - e.g., Wakatū, Ngai Tahu enterprises • Social media, community groups; in Southland, Hauraki Plains Submissions to Bills 	<ul style="list-style-type: none"> • Groupings of stories • Commonalities • Connections • Conflicts and tensions • Absences and presences • Key touch points • Perceptions • Values • Future hopes • Differing time horizons • Historical elements and trajectories • Ways of framing positions around sustainability • How sustainability is being understood • Where is the investment? • What is the imagined future? • What work the narratives are doing? For whom? By whom? Where? • Where are narratives circulating? Who are they resonating with? <p><i>We did not always get answers to these questions, but they served as a provocative guide for collection.</i></p>

Methodological focus

Focus: Question and reveal context and complexity of narratives

In practice: identify and analyse sources; identify and collect diverse narratives

1. Identifying and exploring public and private narratives related to farming in Aotearoa

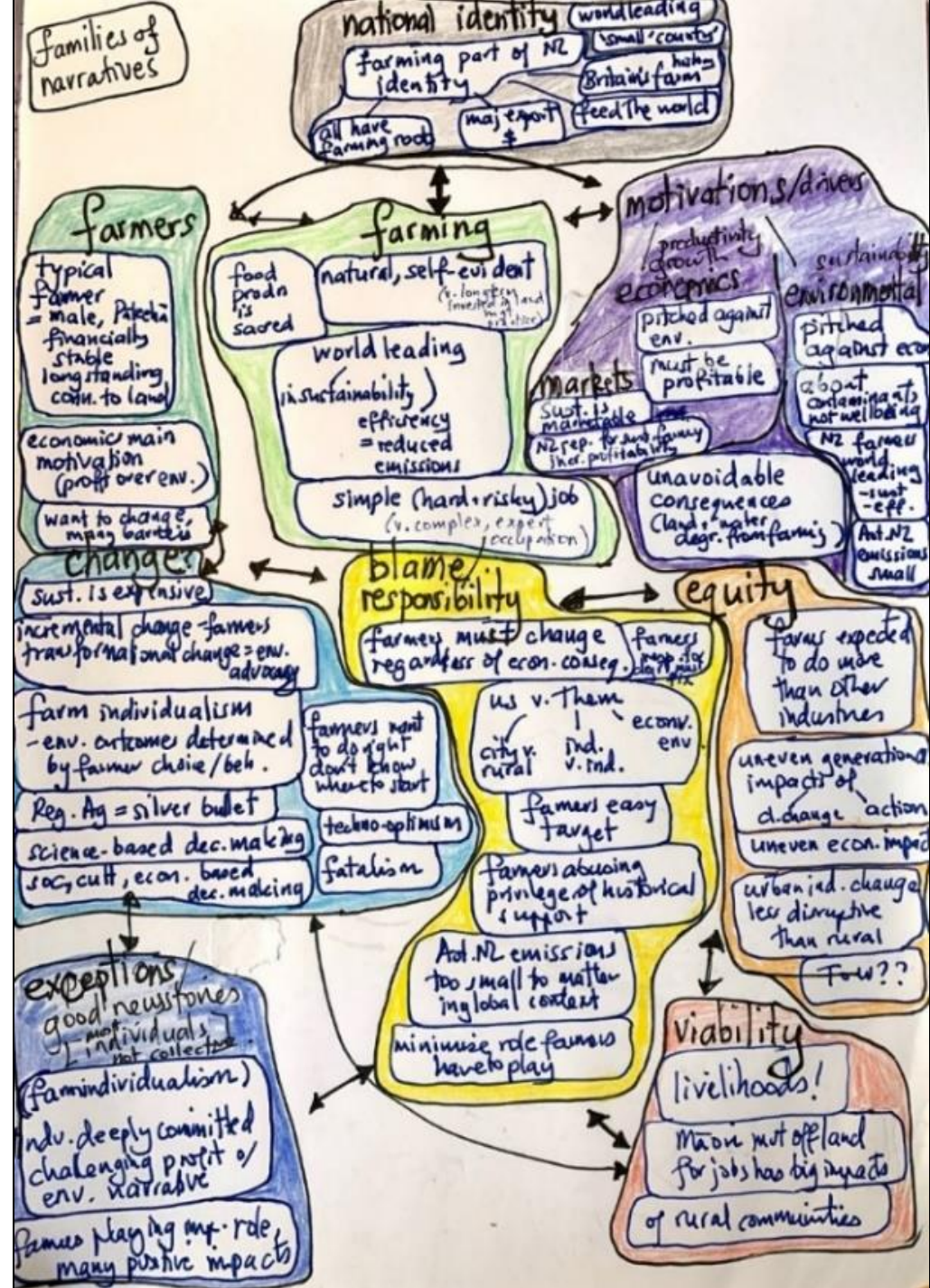
- Table shows sources and approach
- Second table shows continual critical review of the narrative gathering process

Guiding questions for interrogation of sources	<ul style="list-style-type: none"> • Where is the investment? (money, resources, energy) • What are they saying? Eg in vision or policy statements • Where are resources directed? • Anything binding, obligatory practices... • What is there to move towards vision/policy etc? • What 'old' practices are being resourced? • What is the imagined future? (wider environment, society) • What are they saying about sustainability/environment/society? • How is the above framed and defined? 	<ul style="list-style-type: none"> • What does being a 'good farmer' mean for this group/institution/company? (scale: farm, individual) • Best practices and values, e.g., push to use more fertiliser (from a fertiliser company) would mean a good farmer is a good consumer of product • Guides to good farming practices? • Ideas of ownership threading through all of the above? • Ways and places Māori environmental ideas are being incorporated into or shaping Aotearoa NZ narratives (or being appropriated) e.g., ideas around kaitiakitanga and manaakitanga are legitimising taking an environmental stance against a purely economic one.
Questions to ask of narrative list	<p>Once we had identified an initial list of existing narratives, we checked our list with the following questions:</p> <ul style="list-style-type: none"> • Do we have narratives from/for/linked to the following areas of diversity: <ul style="list-style-type: none"> gender, age, ethnicity location (place, rural/urban/fringe...) differing scales • Do we have narratives that capture: <ul style="list-style-type: none"> Aspirations Values or what is being valued Practices • Where has our list come from? • Where have we looked? • Whose narratives? [may have historical basis] • Look for absences and presences • Look for tensions • What are we missing? • What is there a lot of? 	<ul style="list-style-type: none"> • Absence does not necessarily mean we have to fill it. e.g., Te Ao Māori narratives – are they being used by iwi businesses or Māori farmers already? If not elsewhere, would this help with co-governance arrangements and understandings or would it be co-opting? • Legibility of grand narratives, illegibility, and messiness of place-based narratives. • Does this mean some stick better? • What narratives specific to locations can we find? • Māori land managers, Ngai Tahu farms, Wakatū etc • What narratives do we wish were there? • What small scale stories could be brought to wider attention? • What different sets of narratives are at work? • Which of these are complementary to wider narratives? Which are not? • Which could or should travel?
Extend and confirm narratives	<ul style="list-style-type: none"> • Have we just found what we already know? • What are the gaps? What is our strategy for identifying gaps in the narratives? • Applying experience of team, and literature. • Continual adding of new narrative angles as current media or reading revealed hitherto unknown gaps. • Saturation of new data points: news items confirmed the narratives we had identified. • Equal parts documentation/literature and interviews/focus groups. Interviews and focus groups can also be used to fill in gaps of knowledge. • Later: Testing (Q sort) narratives with individuals and sample group and interviews with those asked to contribute. 	

Analytical focus

Focus: Analyse political intent of narratives/the work of narratives
 In practice 1: Analyse narratives; develop narrative families; map relations and tensions

- Assembles the diversity of narrative storylines into 'families' based on key themes delimiting narrative relationalities
- Figure shows families of narratives interlink in multiple ways: Sample to show narrative mapping



1. Identifying and exploring public and private narratives related to farming in Aotearoa

Analytical focus cont.

- More analysing and making sense
- Themes around which narrative families were built
- Narrative detail, examples of storylines circulating
- Many contradictions and tensions (potential points of intersection??)

Farming/growing (what is it?)	National identity (farming is key to identity)	Motivation/Drivers (why farm? why make changes?)
<p>Food production is sacred</p> <p>Farming is natural and self-evident</p> <p>Farming is a long-term investment in the land</p> <p>Aotearoa is world leading in sustainability</p> <p>Farming is a simple, hard, and risky job</p> <p>Farming is a complex, expert, occupation</p> <p>Work towards a 4th bottom line: money with care (farming profitable and supports wellbeing)</p> <p>Farming continues as usual</p> <p>Farming looks very different now</p> <p>Farming systems are complex and difficult to change</p> <p>Farming is an economic enterprise first</p> <p>Farming must consider te mana o te wai/taiao</p> <p>Farming is an economic, environmental, community enterprise.</p>	<p>Aotearoa is world-leading</p> <p>Farming part of Aotearoa identity</p> <p>Long-term farming history and colonial ties</p> <p>Feed the world</p> <p>We 'all' have farming roots</p> <p>'Small' country</p> <p>Farming is a major export earner</p>	<p>Prod uctivity and growth are pitched against the environment and sustainability</p> <p>It is about trade-offs: economic and environmental</p> <p>Farming must ultimately be profitable</p> <p>Sustainability is marketable</p> <p>Aotearoa has a reputation for sustainability</p> <p>Aotearoa is world leading in sustainability</p> <p>Aotearoa emissions are small</p> <p>Unavoidable consequences of farming: land and water degraded</p> <p>Focus is on contaminants not well-being</p> <p>Many want transformed environment-economy relations</p> <p>Many have economy as top priority</p> <p>Reciprocal relationship values in tension with extractive productionist view</p>
Science narratives	Community narratives	Governance narratives
<p>Decisions should be science informed. But which science?</p> <p>Awareness that there is different science and elements of science</p> <p>Science is settled</p> <p>Across the board can see 'science' usually not settled</p> <p>Farmers know more than scientists/advisors about their land</p>	<p>Change in land use risks unsustainable rural communities</p> <p>But increase in diversity of land use has community benefits</p>	<p>Scale of decisions often central government, leaves no agility for micro context</p> <p>Local government involvement important as close to communities and local environment</p>

1. Identifying and exploring public and private narratives related to farming in Aotearoa

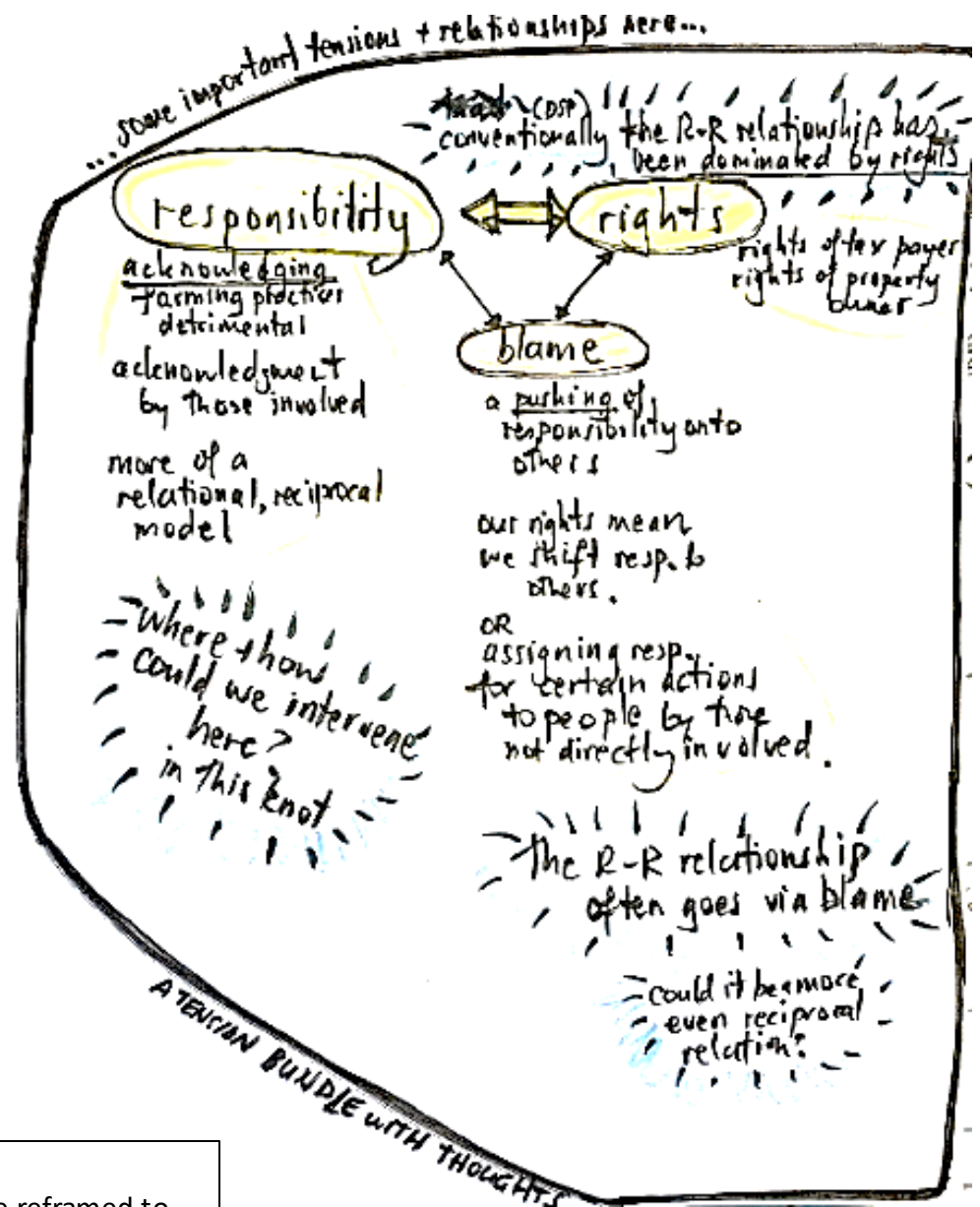
2. Identify leverage points/points of intersection within current narratives

Te Ao Māori narratives	Change? (what next)
<p>Te Ao Māori worldview is holistic & multidimensional, does not separate people from the land or environment. There is interdependency. People are the land and the land is the people</p> <p>Whakapapa: stories of origins of the universe. Papatūānuku (Earth Mother) and Ranginui (Sky Father). Care of Papatūānuku is paramount</p> <p>Toitū te marae o tane, toitū te marae o Tangaroa, toitū te iwi; when land and water are sustained, the people will prosper.</p> <p>Long term vision (hundreds of years), about future generations</p> <p>Multi-ownership, people are kaitiaki of land and environment.</p> <p>Different roles to play: guidance, leadership, operational, advocacy, trustee.</p> <p>Different statutes to manage Māori land - may have hundreds of owners. Te Ture Whenua Māori Act/Māori land trusts. Much more complicated situation.</p> <p>Climate change increases risk to Māori capital, enterprise, and employment.</p> <p>Māori women are living with the consequences of colonisation of tikanga Māori</p> <p>Decision making: balance between profit and tikanga, kaitiaki. Do you plant exotic or native trees? Different purposes - right tree, right place, right time.</p>	<p>Sustainability is expensive: most farmers want incremental change; environmental advocacy groups want transformational change</p> <p>Farm individualism: Outcomes seen as determined by farmer choice and behaviour</p> <p>Regenerative agriculture could be a silver bullet</p> <p>Science-based decision-making important</p> <p>Social, cultural, and economic-based decision-making are important</p> <p>Techno-optimism: the right technological fix will solve this</p> <p>Farmers want to do the right thing but do not know where to start</p> <p>Farmers want the land and environment to be well</p> <p>Farmers do not want to change farming too much (reasons vary: complexity, status quo, incremental change)</p> <p>Having the environment and humans thriving is crucial</p> <p>Environment is healthy enough</p> <p>Fatalism, the problem is so large it is insurmountable</p>
Blame, rights, and responsibility (who should)	Equity (is it fair?)
<p>Farmers must change regardless of economic consequences</p> <p>Farmers are responsible for environmental degradation and must pay</p> <p>Battlegrounds: us v them; city v rural; industry v industry; economy v environment</p> <p>Farmers are an easy target</p> <p>Farmers are abusing the privilege of historical support</p> <p>Aotearoa emissions are too small to matter in the global context</p> <p>Minimise role farmers have to play</p> <p>Farming must change now</p> <p>Historical legacy of environmental damage from farming exists</p> <p>Farmers currently doing the damage must change</p> <p>Responsibility to the land</p> <p>Potential adverse environmental impacts from farming</p> <p>Intergenerational focus (long-term thinking) versus short term thinking</p> <p>Contaminants – only considered in water quality so far</p>	<p>Farms are expected to do more than other industries</p> <p>Uneven generational impact of climate change and climate change action</p> <p>Uneven economic impact</p> <p>Urban industry change is less disruptive than rural</p> <p>Co-governance is necessary; need Māori values, Treaty partnerships need to be enacted</p> <p>Worldviews range from Te Ao Māori or wanting Te Ao Māori incorporated to the dominant social paradigm (extractive industries)</p> <p>Native species are privileged over introduced, yet farms are themselves completely introduced landscapes (flora/fauna)</p>

Analytical focus

In practice: Identify points of intersection for action, tension bundles and consensus

- Tensions identified in the narratives are 'bundled' as a lense to begin thinking
- Sample tension bundle: rights, responsibilities, blame
- Asking ourselves: How can narratives be useful in mediating a compromise or way forward in these examples?



2. Identify leverage points/points of intersection within current narratives

3. Explore the question How might these narratives be reframed to empower land managers to meet Aotearoa's environmental and societal challenges?

Analytical focus cont.

- Imagining futures through the implicit and explicit stories that need to be told to achieve imagined farming futures
- Table shows possible points of intersection for re-framing narratives?

Rights and responsibilities tension bundle (and the role of blame)	<p>Ideas that connect</p> <ul style="list-style-type: none"> • Property rights? Private property, non-owned resources • RMA failed process to navigate rights and responsibilities • Te Ao Pākehā and extractive economic paradigm dominant framing of issues • Responsibility and balance are strong principles in Te Ao Māori (often expressed through kaitiakitanga and whanaungatanga) • Ideas of agency – are things framed as ‘cannot’ because there is resistance? • Narratives link with sense of self and worldviews, which connect with practices • Traditional custodians, connections to place, kaitiakitanga, caring for country. Stewardship, imbued with colonial relations of power. • Being manuhiri. The dance between non-Māori caring and connections to place and tangata whenua caring, responsibilities, relations, and connections. <p>Consensus that there are environmental challenges and that farming overall is a contributor to environmental challenges. Given this: Rights and responsibility tension bundle is then about what type of change is required, whose responsibility is change, who is to blame for current environment degradation? All of which sets up for what changes should be made, by whom, paid for by whom etc.</p> <p>Potential If arguments for status quo are about "farmers are already making changes" then It seems to be all about how, how much and who. If arguments are about “farmers don’t need to make many changes” then finding ways to make changes meaningful to them could be a way forward. It is also about the scale of change i.e., small incremental steps versus transformational change</p>
Consensus	<ul style="list-style-type: none"> • Points of consensus may be useful for co-producing narratives with farmers
(Differing) time	<p>Time has been identified as a key point of intervention.</p> <ul style="list-style-type: none"> • Cultural conceptions of time and time horizons. Thinking about future and past generations simultaneously. • Thinking genuinely long term, not short-term capitalist time frames. • Differing ideas of time and time horizons may also be fruitful to introduce to influence perceptions and worldviews.
Culture as enabler	<ul style="list-style-type: none"> • Culture as an enabler of enterprise/economic development (flip narrative of culture as dis-enabler)
Gender	<ul style="list-style-type: none"> • Gender matters in responses and practices. • Literature suggests narratives sit and circulate differently with women farmers. • Can we explore the role of gender in which narratives move where, possible points of intersection?

2. Identify leverage points/points of intersection within current narratives

3. Explore the question
How might these narratives be reframed to empower land managers to meet Aotearoa’s environmental and societal challenges?

Transformative focus

- Consider transformative potential of narratives and storytelling
- Develop shared and collective meaning-making
- Progress ways to co-create and articulate visions and practices for alternate futures
- Participant action research methods

Q Methodology (have done this, now working with results)

- Investigates relationships between and within a specific set of collected narratives
- chance to test if/how the initial narratives presented in this paper resonate with farmers etc
- Gives strong quantitative and qualitative data on the many relationships between the viewpoints
- Data be useful to support the co-production of new narrative re-framings

Serious games (still to come)

- Aim to shift narratives, highlight contrasting positions, negotiate alternative futures
- Designed to foster knowledge exchange and disussion
- ‘Test’, socialise and evaluate the reframed co-produced narratives?

Infographics (still to come)

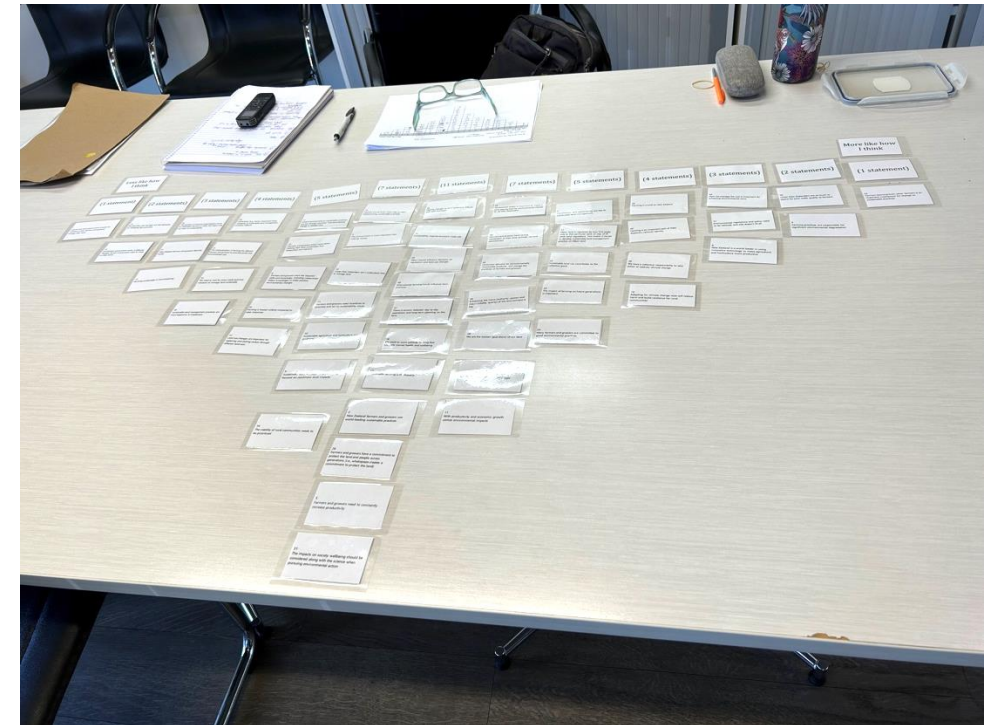
- Visually appealing
- Cartoons can illustrate future trajectories of different farming practices and their outcomes; Readers can think about if these future worlds are desirable or not

3. Explore the question
How might these narratives be reframed to empower land managers to meet Aotearoa's environmental and societal challenges?

Transformative focus cont.

Q methodology process and findings – very quick overview – some big juicy stuff to work with

- A Q study aims to identify the predominant social viewpoints on a topic over which there is debate and contestation.
- A concourse/narrative statements on the topic are developed
- The statements are sorted and ranked by participants during an interview or Q sort
- Statements are sorted from “most like how I think” to “least like how I think” on a forced distribution grid.
- The ranking of the statements within each Q sort are compared using factor analysis resulting in clusters of viewpoints.



1. Identifying and exploring public and private narratives related to farming in Aotearoa

2. Identify leverage points/points of intersection within current narratives

We need consistent government policies so we can care for our land

All we care about is farming well – farming is hard enough without unfair scrutiny and government interference.

We are part of a bigger system. The whole of New Zealand needs to respond to climate change. Connection and relationships are key to sustainable land management.

Farming is New Zealand, it feeds us, pays for New Zealand, and is the best in the world. We are already farming sustainably

Climate change is here – we need fundamental changes to farming practices.

Five factors emerged from the Q sorts.

Factors are like collections of narratives.

They describe clusters of ideas that coalesce together.

They are not a person, or one idea

They are much more complex than these sentences suggest – beware of oversimplifying

1. Identifying and exploring public and private narratives related to farming in Aotearoa

Most important statements (most like how I think)

- Environmental regulations and policy need to be tailored: one size doesn't fit all
- Farmers are kaitiaki of their land, and therefore they have a strong commitment to protect the land and people across generations
- Urban New Zealanders are just as much to blame for poor water quality as farmers
- Inconsistent government policy is delaying changes that farmers and growers want to make on their farms
- Farmers learning from other farmers is an important mechanism for change to sustainable practices

Each factor contains lots of detail

One example here

We need consistent government policies so we can care for our land

Least important statements (least like how I think)

- Farming needs to constantly increase productivity
- Sustainable agriculture and horticulture are profitable
- Māori should play a part in decisions on regulations and land use changes
- Making changes to farm systems is difficult with staff shortages

"We've learnt a hell of a lot through a catchment group ..., we're a very leaky... some of the oldest soils in New Zealand or the oldest right here, and it has an effect. And that's, that's why catchment level stuff is so important rather than regional based policy."

...ownership is somewhat farcical because you're only here for a period of time. Yeah. I mean, you can't take, you can't take land anywhere with you. That's why I struggle with the whole ownership of land thing.

It's about farming smarter, not harder. Right? ...making sure you capture value, not someone in the middle. And I think that's why I say that because quite often increasing productivity comes at the expense of the environment, right?

No.	Consensus Statements
37	Farming is a constant financial juggle
39	Institutions make changing to sustainable land management practices difficult
18	We need to work towards farming that supports mental health and wellbeing
12	Sustainable farming is marketable
47	There is tension between day-to-day operations and long-term planning on the farm

This might mean there is consensus that ‘farming is a constant struggle’ is ‘most like how I think’, or maybe it’s neutral for everyone or maybe they all put this as ‘least like how I think’. Consensus does not mean agreement with the statement, it means agreement on where it was ranked.

This means there are the biggest gaps between these statements in terms of participants ranking them as ‘most like how I think’ and ‘least like how I think’. In other words there is no agreement that ‘farming practices are responsible for environmental degradation’

1. Identifying and exploring public and private narratives related to farming in Aotearoa

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But what we are looking for is...

Areas of consensus or disagreement

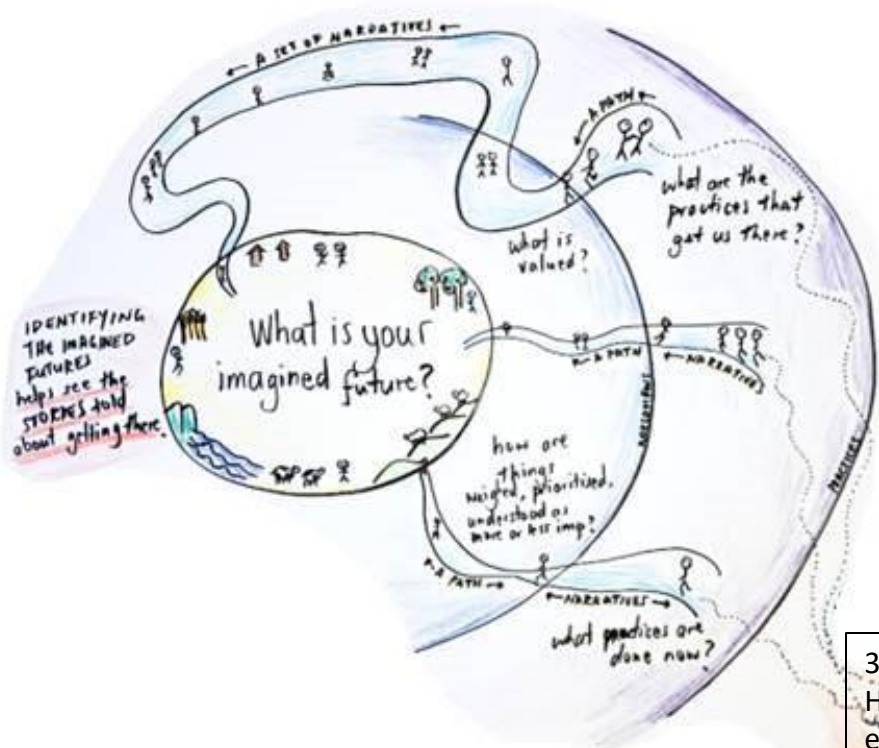
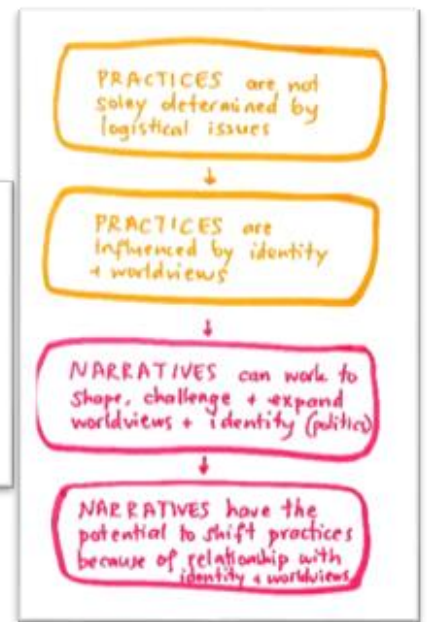
Where is there agreement across the narratives?

Where is there disagreement across the narratives?

No.	Disagreement Statements
4	Farming practices are responsible for significant environmental degradation
29	Māori should influence decisions on regulations and land use changes
20	Farming is treated unfairly compared to other industries
17	Small improvements to sustainable practices are not enough anymore. Transformational change is needed now
33	We need to wait for more viable technical solutions to manage land sustainably
28	We are the kaitiaki (guardians) of our land

So what work do narratives do?

- Narratives create and reinforce **identities** and **worldviews** and therefore have implications for land management practices
- Narratives are the stories that enable us to reach our imagined futures. Highlighted in diagram below



3. Explore the question
How might these narratives be reframed to empower land managers to meet Aotearoa's environmental and societal challenges?

- We have been given task of moving practices through narratives, but this relationship is complex
- Land management practices are not solely determined by logistical issues but are also influenced by identity and worldviews
- Narratives can work to shape, challenge and expand worldviews and identities and therefore have the potential to shift practices.

Imagining farming futures through narratives – so far

Big project question:

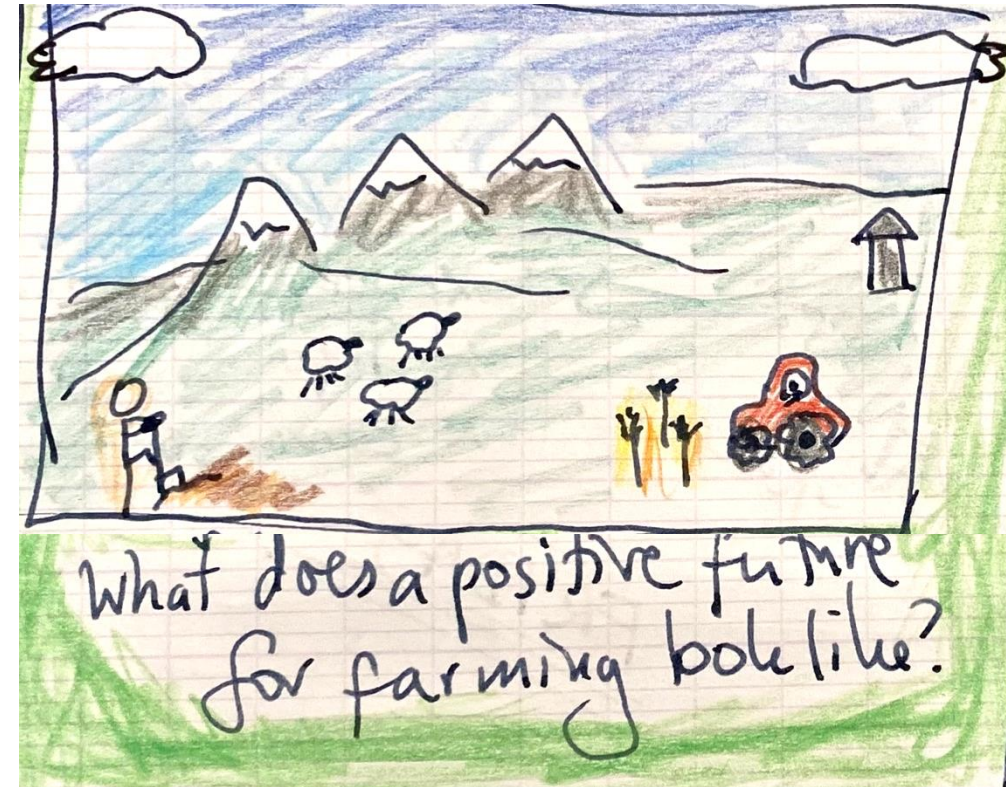
- How to empower land managers (aka the middle) to act?

Our narrative focus:

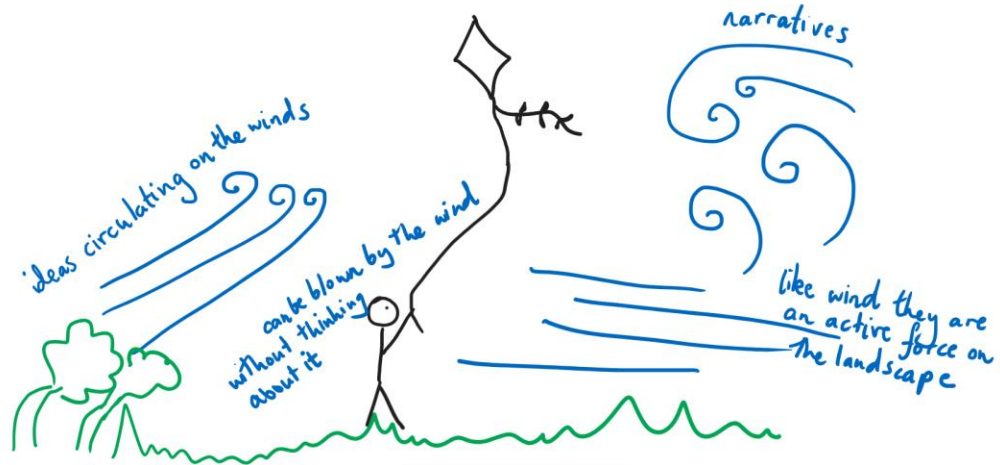
- Identify, describe existing narratives
- Lots of testing, refining
- How narratives shape the past, present, and imagined futures of farming in Aotearoa New Zealand

Next: Reframe narratives

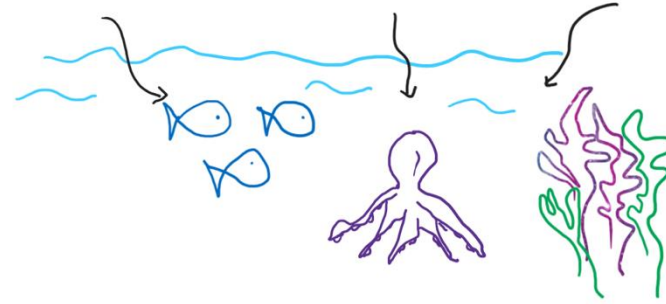
As well as revealing a relatively limited imagination of what farming can be or should be, the research provides a knowledge foundation for potentially transformative narrative re-framings.



Imagining farming futures through narratives – possibilities and thinking



Narratives are doing work in the world
 We will be adding characters to the water



changing narratives is a big ask
 but adding components to mix + mingle can have generative effects

STORIES, STEPPING OUT INTO FUTURES TO SHIFT MINDSETS AND NORMS

potential characters → across different stories

soil (and connection to land)
 mental health + wellbeing
 future generations

water (disruptive?)
 regulation

environment/economy dichotomy
 self efficacy

plot lines

status quo

collective problem

climate change

what responses might there be to these stories? add them to the mix ...

Story with a hero's journey?
 character development
 pen's resolution

