

# Wet Tropics Major Integrated Project

Evaluation of the project design phase – July 2017

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# Introduction

The Wet Tropics Major Integrated Project (WTMIP) is one of two integrated projects resourced by the Queensland Government on the recommendation of the 2016 Great Barrier Reef Water Science Taskforce. The MIPs will evaluate the most effective combination of tools to inform the design of future Great Barrier Reef (GBR) water quality programs. The WTMIP's focus is on the Tully and Johnstone catchments in the wet tropics (primarily sugarcane, but also bananas). Terrain NRM was contracted by the Queensland Government to coordinate stage 1 (the program design) of the WTMIP.

This report presents the findings of an evaluation of the WTMIP design phase. The terms of reference specified a process and outcome evaluation, investigating how the project was delivered, including efficiency, quality and customer satisfaction, and whether it achieved its objectives. The primary audience for the evaluation are the key project stakeholders and delivery agents to improve the future design and delivery of the WTMIP and similar projects.

## WTMIP design process

The design process is described in detail in the final WTMIP design proposal (Terrain NRM, 2017) and briefly summarised here.

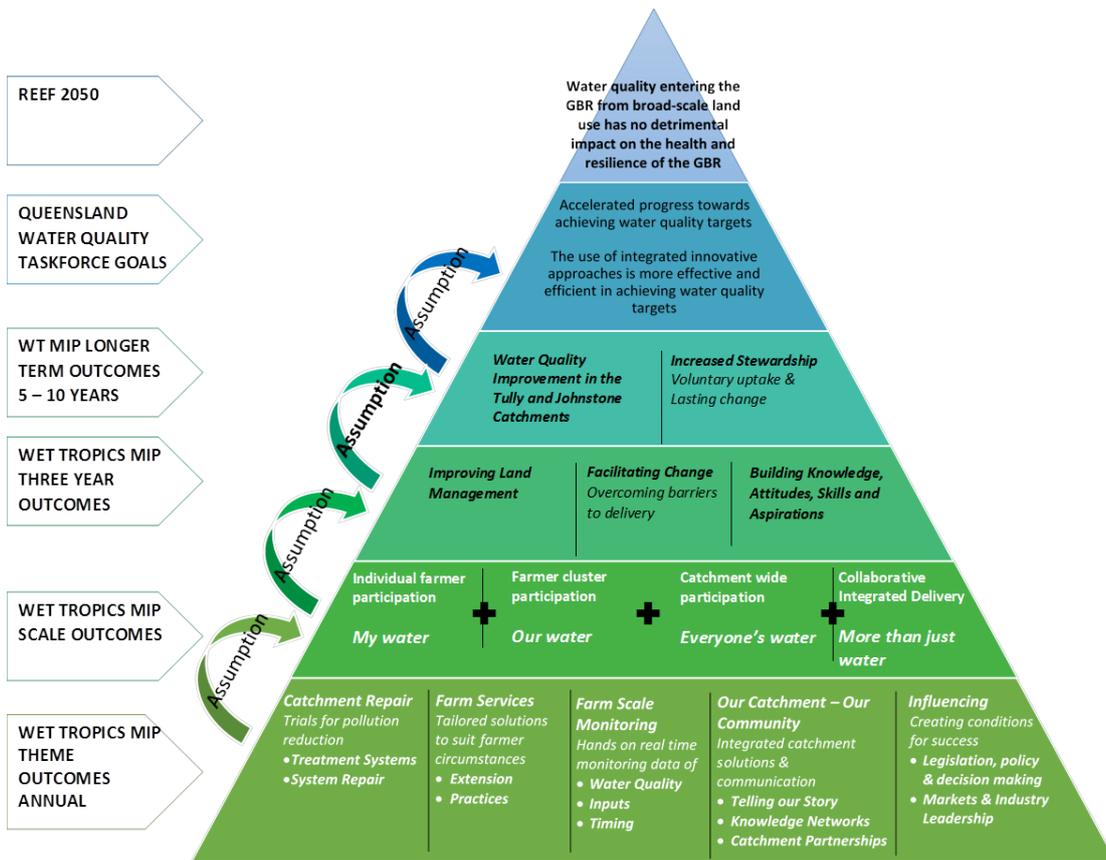
The **Consortia** includes over 40 organisations including all the key partners, stakeholders, researchers, non-government organisations and agencies in the region and beyond. The role of the Consortia was to facilitate local engagement, share knowledge and access specialist expertise.

The **Project Panel** directed and had oversight of the WTMIP design process, supported by Terrain NRM. Project Panel members were initially selected by industry organisations and then science, Traditional Owner and local government representation was added.

Between January and July 2017, the formal WTMIP design process was structured around a series of workshops:

- A Consortium Inception Meeting to outline the design process and develop a Partners' agreement.
- Two Ideas Workshops that provided the opportunity for community and stakeholder input. Over 500 ideas were generated and collated through the workshops or other pathways that were made available (web, phone, other meetings).
- A two-day technical Prioritisation Workshop that reviewed and prioritised (but did not discard) project ideas.
- Concept champions further developed priority ideas by drafting feasibility reports.
- Two Local Solutions workshops to present and refine the project concepts.

Through this process, the original 550 ideas were first aggregated into 97 concepts in 14 categories, which were then refined into 5 program themes and an overall program logic (Figure 1). An important feature of the process was the principle of 'no orphan ideas' i.e. not losing suggestions, and maintaining a 'line of sight' to all contributions.



**Figure 1 WTMIP program logic**

The program logic is fully described, including rationale, assumptions and key performance indicators in the final project design proposal which was submitted (along with the associated Communications Plan and Monitoring and Evaluation Strategy) to Queensland Government in July 2017.

A **Steering Committee** convened by the Queensland Government Office of the Great Barrier Reef (OGBR) also reviewed and provided feedback on the design of both MIPs.

# Major findings

## Summary statement:

The design phase of the WTMIP has successfully secured stakeholder and partner commitment to a collaborative and adaptive approach to improving water quality and livelihood outcomes over the forthcoming implementation phase of the MIP. This has been achieved through an innovative design process guided by the Project Panel, through effective engagement of the Consortia members, and effective facilitation by Terrain NRM.

The evaluation focused on seven themes that reflect the requirements for successful 'place-based' programs that engage and empower the community to work collectively to address important issues. Each of these are explored in detail in the main body of the report:

- The design process;
- The participation of diverse stakeholders;
- The use of different types of knowledge;
- Tailoring of actions to the local context;
- Building shared ownership and understanding;
- Building implementation capacity; and
- Embedding learning in delivery.

In the view of the evaluation team (drawing on evidence from participant surveys, focus groups and project documentation) the design phase of the WTMIP has successfully achieved diverse participation, knowledge integration, locally tailored actions, shared ownership and implementation capacity. This is a significant achievement given the highly participatory, institutionally complex and experimental nature of the process and tight timeframes for project delivery.

These elements provide a strong foundation for project implementation, and opportunities to further strengthen these are identified in the evaluation report. The evaluation also identified aspects of the design process that did not entirely meet or fit with some participants' expectations or assumptions, such as the extent of direct landholder participation.

Monitoring and evaluation will be critical to support on-ground experimentation, to demonstrate outcomes, and to understand the potential transferability of results. This report highlights the need for specialist evaluation skills and the negotiation of roles as the monitoring and evaluation components of the project are further developed.

The key findings and recommended actions from the evaluation are:

- 1. The Project Panel and partners, supported by Terrain NRM, have successfully managed a complex and challenging process to develop the WTMIP design in a collaborative way with key stakeholders.**

Under the direction of the Project Panel, Terrain NRM facilitated an innovative design process that sought wide engagement of landholders and institutional stakeholders. Participants from the Project Panel, Consortia, and OGBR expressed high levels of satisfaction with the overall design process. We highlight three specific dimensions of the process that were emphasized in feedback:

- Open and inclusive engagement of participants across all sectors of the local community and broader interests;

- Consistent with the grass-roots design principles, decision-making responsibility rested with the Project Panel and was often shared with workshop participants (an engaging and empowering strategy, not without risks);
- Bringing together scientific, industry and landholder perspectives in a co-design process.

As the process facilitator, the Terrain NRM project team's leadership, team work and culture were widely recognised as critical to the success of the design phase, showing a deep commitment to the principles of place-based planning, open and emergent process, and shared decision-making.

Some challenges were encountered in managing the large number of ideas generated through the workshop process in a way that respected everyone's input, but allowed common themes to emerge in a coherent framework. The 6-month timeframes for the design phase were challenging for managing the volume of input and maintaining effective communication.

**Recommended action:** Document and share the learnings from the design process through the Steering Committee and other means to improve the application of *guiding principles* and *best practice* participatory design more widely (**Terrain NRM**).

## **2. Excellent participation was achieved across industry groups, OGBR, related initiatives, consultants, researchers and other stakeholders.**

High levels of participation were evidenced through the workshop documentation, the Consortia survey and focus group feedback. The Project Panel, initially comprising 6 industry and one science representative, expanded to include Traditional Owner and Local Government representatives. Of the 40+ Consortia members, most reported being engaged well through the process with strong attendance at workshops and more than half of Consortia members actively contributed to the design documents. Small operators (e.g. small consultancies) however, found it difficult to provide this level of engagement. Survey results show that Consortia members felt the process was efficient, and that they were confident their contributions were incorporated into the design documents. OGBR participants described the opportunity to participate as highly valuable but also described the challenge of balancing their contribution across different roles in the MIP process e.g. as investors, assessors and participants. Local staff from the relevant state government agencies (as well as OGBR and GBRMPA) participated in the workshops. Government agencies and other large organisations require high level briefings in addition to local staff participation, and the Reef Water Quality Protection Plan Intergovernmental Operating Committee and the MIP Steering Committee helped in this regard.

**Recommended action:** As the MIP transitions to implementation, maintaining effective engagement with such a wide range of stakeholder organisations is likely to be challenging. The capacity of the MIP to coordinate and leverage related initiatives will rely on maintaining the commitment of relevant stakeholders, and potentially, the ability to adjust Project Panel or Consortia membership or mode of operating over the implementation period as needs change (**Terrain NRM and Project Panel**).

**3. There is a perception that the participation of landholders in the design phase was less than hoped. Strong engagement of growers is recognized as critical for implementation phase.**

Feedback from Focus Groups and the Consortia survey showed that there were different expectations of the level of direct grower engagement in the design phase. Based on the strong engagement of industry representatives through the process, Terrain NRM's reports of significant grower attendance at the initial workshop, and Terrain's engagement and communication activities with grower networks outside the workshop process, our conclusion is that grower participation in the design phase has been sufficient. It is also our view that achieving greater levels of grower engagement in the design phase would have been difficult, given:

- The time available and timing of the design process;
- The complexity of the design task; and
- The leadership and participation of industry groups representing growers.

We have not directly tested the views of landholders (beyond those who are on the Project Panel and Consortia) in this evaluation. However, partners recognize that closer and more targeted engagement with the grower community is critical for the implementation phase to realise the aims of collaborative experimentation for water quality improvement.

**Recommended action:** Effective direct engagement with growers is critical for the WTMIP implementation phase although not all growers will need to be engaged in the same way. Local knowledge and relationships will be central to building networks that enable growers to work with extension specialists, scientists and others in actively designing, testing, and monitoring actions on-ground and extending this knowledge to others (**Project Panel**).

**4. The WTMIP design is tailored to the local context, but more thinking is needed to assess what might be transferable or scaled-up.**

There is clear evidence that the technologies and approaches proposed in the WTMIP design process have been tailored to the local context, considering, for example, the location of treatment systems in different parts of the hydrological system, and adapting actions to different types of growers and farming businesses across catchments. Working in two distinctive catchments has increased project complexity but also offers opportunities for greater learning in the region.

There was some feedback from stakeholders that the WTMIP design has focused on technological or practice interventions on farm, but less directly on broader institutional reform processes such as ecosystem service payments, land use change, structural change in industry or the role of value chains. However, this was not widely reported as an issue. Through the implementation phase the WTMIP could continue to draw attention to opportunities for creating enabling conditions in the broader market, policy or industry environment that support project aims.

The WTMIP is a pilot project so the potential for learnings to be transferred to other catchments and/or scaled up to wider processes is an important consideration. Understanding the local catchment characteristics (landscape, farming systems and social and institutional characteristics) compared to the wider GBR region will allow the transferability of insights or approaches to be better assessed.

**Recommended action:** The characteristics of the WTMIP catchments (landscapes, farming systems, social and institutional characteristics) are benchmarked against other GBR cane

catchments and communities to allow the potential transferability of learnings to be assessed (**OGBR, Terrain NRM, Canegrowers**).

**Recommended action:** The WTMIP project should actively influence broader industry or regional reform agendas that are aligned to the WTMIP objectives. This will require constructive relationships with broader industry and policy networks (**Project Panel**).

#### **5. The WTMIP design process has generated a strong sense of shared ownership and commitment across industry bodies, Terrain NRM, OGBR and Consortia partners**

The Consortia survey and focus groups clearly showed high levels of ownership and commitment to the WTMIP process. To maintain this, the project needs to remain flexible and continue to evolve with direction from the Project Panel as community representatives. Stakeholders identified significant risks with meeting the high expectations of the project to deliver practice change, water quality benefits and transferrable learnings in the project timeframe. Focus group and survey responses widely noted that, while the Queensland Government clearly supports the MIP, losing this support or engagement, such as through staffing changes or shifting policy priorities, would present a major risk to project success.

**Recommended action:** Managing stakeholder expectations will require clear and ongoing communication of WTMIP's multiple objectives in facilitating sustainable livelihoods *and* water quality benefits (**Project Panel, Terrain NRM**).

**Recommended action:** Maintaining close working relationships with OGBR staff and higher level briefings to ensure the Queensland Government remains aware and engaged with the project's objectives, approach and progress (**Terrain NRM, OGBR**).

**Recommended action:** Recognise that in facilitating local ownership and leadership of the project, the project can and should continue to evolve and adapt its approach to local sustainability and water quality issues. Allowing this to happen will be key to maintaining local ownership and leadership (**OGBR, Project Panel**).

#### **6. The WTMIP design has identified some innovative technologies to trial and assess, but this is just the start of an ongoing co-design and co-learning process that requires exemplary monitoring and evaluation approaches**

The WTMIP design has incorporated innovative technologies such as treatment systems, and next generation monitoring and evaluation approaches, such as real-time fine-scale water quality monitoring. The potential for 'step-change' innovation in the MIP approach is through farmers and scientists working together to explore new approaches. This requires 'state of the art' monitoring that is credible to farmers as well as scientists, and relates to sustainable livelihood and water quality benefits. While there are multiple audiences and scales of interest, the co-learning at farm scale underpins the project design. Monitoring objectives were reported to include:

- supporting on-ground action research to trial technologies and approaches in the WTMIP;
- measuring the benefits for sustainable livelihoods;
- measuring the benefits for water quality at a range of scales; and
- understanding the implications for the GBR and potential transferability and scalability of technologies and approaches.

**Recommended action:** The monitoring and evaluation resources and effort required to meet these multiple needs is significant. We suggest that the monitoring and evaluation strategy receives further input and review from evaluation specialists to confirm it will meet these needs (**Project Panel, Terrain NRM, OGBR**).

**Recommended action:** The monitoring and evaluation strategy will need to resolve how much effort or priority is given to different monitoring and evaluation objectives (e.g. accountability, performance, and learning) and across different scales and end-users. Clarification of roles and responsibilities within and outside the region will be needed. Given the practical challenges of attributing program impact in a crowded delivery space and a variable and unpredictable physical environment, there is a need to seek consensus between investors and partners on relative priorities, expectations and focus of the monitoring and evaluation activities (**Project Panel, Terrain NRM, OGBR**).

# Evaluation approach

## Literature

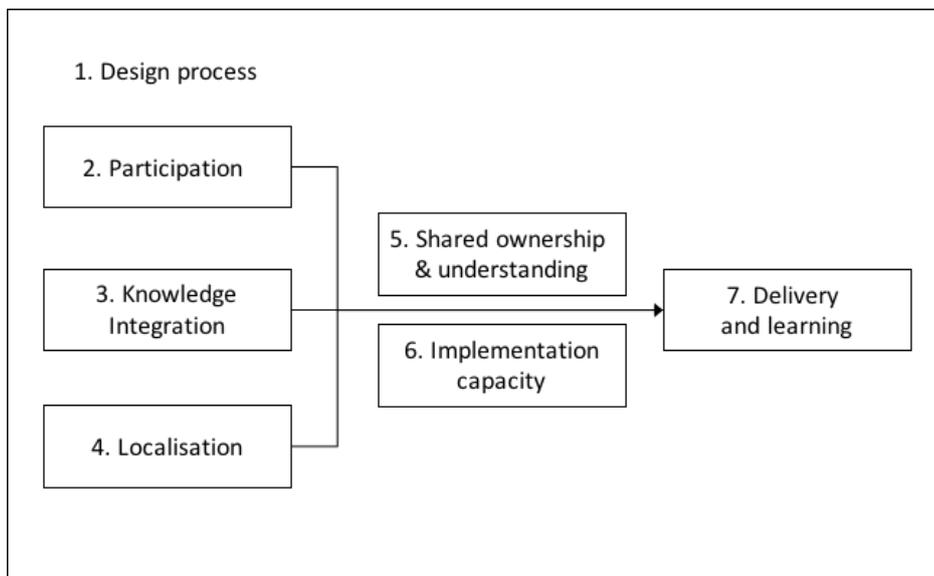
An evaluation framework was developed by the project team, drawing on relevant literature including:

- Place-based initiatives literature (e.g. Juarez et al. 2011) which highlights good practice ‘rules of thumb’ for place-based initiatives.
- The draft Great Barrier Reef Scientific Consensus Statement 2017 – sections on governance and social dimensions of landholder engagement (e.g. the importance of transdisciplinary, adaptive and participatory approaches).
- Rural Learning Area framework (Wellbrock & Roek 2015) that emphasises the need to link grassroots engagement, knowledge systems and agents, and governance arrangements within *and beyond* the local initiative.
- Collaborative capacity in pilot projects (Van-Popering-Verkerk et al., 2017) that highlights the factors in pilot projects that build the capacity of individuals, organisations and networks.

## Evaluation framework

The evaluation framework was revised and condensed following discussion with WTMIP project staff. The framework (Figure 2) contains 6 outcomes that are important and distinctive characteristics of successful ‘place-based’ programs that seek to engage and empower the community to collectively address important issues. The design process and the 6 outcomes together make the 7 themes of this evaluation report:

1. The design process;
2. The participation of diverse stakeholders;
3. The use of different types of knowledge;
4. Tailoring of actions to the local context;
5. Building shared ownership and understanding;
6. Building implementation capacity; and
7. Embedding learning in delivery.



**Figure 2. Evaluation themes**

The evaluation findings are reported against each of these themes in the following sections. A series of evaluation questions for each theme were used to guide the design of the survey and focus group processes, and are reported as ‘snapshot findings’ under each theme.

## Data collection

Three primary sources of evidence were available for the evaluation:

- Existing process documentation including evaluation reports for the inception meeting and workshops, prepared by Terrain NRM;
- The draft WTMIP design documents, including the design proposal, communications plan and Monitoring, Evaluation, Reporting and Improvement (MERI) plan; and
- People’s perceptions of the design process (key stakeholders and delivery agents)

Two processes were used to collect evidence of the perceptions of key stakeholders and delivery agents:

- A survey of the Consortia members and project subcontractors; and
- Three focus groups with Terrain NRM project staff, the Project Panel and OGBR staff.

Several additional interviews were conducted with key informants that were not able to attend the focus group sessions.

This evaluation received clearance from CSIRO’s human and social research ethics committee, and participants provided their informed consent for findings to be reported here and in a scientific publication later.

## Constraints and limitations

Note that the evaluation was conducted in very short timeframe (c. 4 weeks). Landholder perceptions were not directly canvassed as part of this evaluation. Some understanding of landholder perspectives was provided by the Project Panel (most of whom are landholders as well as industry group representatives) and evaluation reports of the workshops where landholders were participants.

## Results and assessment

Survey results are provided in a separate report to Terrain NRM and are available on request. Terrain NRM prepared a series of workshop evaluation reports as part of the design process and these provide additional detail. Findings are summarised against each of the evaluation framework themes in the following pages. A short rationale for each theme is given. Snapshot findings against each of the individual evaluation questions are provided, and then discussed. Evidence to illustrate the findings is drawn from the Focus Groups (FG) and the Consortia survey. The major findings were then developed by considering the learnings from the design phase, and implications for project implementation.

# Results

## Theme 1: Design process

### Rationale:

The delivery of a successful design process for the WTMIP requires effective facilitation and appropriate structures for participation, leadership and collaboration, and a culture that enables these outcomes. This theme looks at the main elements of the design process – the Consortia, Project Panel and Terrain NRM’s facilitation of the process.

### Snapshot findings:

Evaluation questions	Rapid appraisal
How well did the Consortia process contribute to the design process?	Good but hard for small operators to effectively participate and timeframes were challenging
How well did the Project Panel contribute to the design process?	Good but could consider how science expertise can contribute more effectively in the implementation phase
How well did Terrain NRM perform as facilitator of the design process?	Excellent

### Discussion:

#### Pre-design and tender process

Terrain NRM noted that preparing the initial tender document was the start of the ‘design thinking’ in the process. Terrain NRM noted that the preparation of a realistic costing was a challenging part of the design process, resulting in what Terrain described as ‘under-costing’ of the project. Winning the competitive tender process demonstrated Terrain NRM and partners’ capacity and validated their role and reputation in the region with partners and communities:

*“The competitive tender process increased transaction costs but winning the bid as a group...it meant that everybody was invested” [Terrain NRM FG]*

Another important activity that was reported to have had significant benefits for informing the design process, and building shared understanding of the issues was ‘walking the landscape’:

*“Walking the landscape improved our understanding of how the system works, a great starting point and helped get everyone on the same page...but time commitment reduced grower participation” [Project Panel FG]*

#### Design process (workshop series)

The workshop process clearly framed the design process as open and inclusive, flexible and emergent. It modelled the behaviour it sought from participants – sharing knowledge respectfully and inviting local ownership.

*“A great aspect of the MIP was that it brought together people from a wide range of industries, backgrounds and interests into a collaborative design process. This alone will contribute greatly to a collective understanding of the issues and challenges facing reef water quality.” [Consortia survey]*

The design process probably resulted in the self-selection of Consortia members who are collaborative and committed to working in partnership with growers and the local community. However, it was sometimes unclear to Consortia members when to contribute, and the timeframes and workshop process was challenging for some participants, particularly small organisations such as sole operators.

*“tight time frames were managed exceptionally well by Terrain NRM but not always conducive to best outcomes in consultation - some things just take time” [Consortia survey]*

The big workshops (ideas and prioritisation workshops) were challenging to run, and (not surprisingly) had a few rough edges.

*“Getting large groups of people to work together efficiently in a workshop setting... share their ideas in a succinct way...manage huge volumes of input and maintain transparency and communication a difficult balance” [Terrain NRM FG]*

More time might have eased the pressure to document the outcomes. The time pressure also contributed to building energy, engagement, agility and creativity, but at significant personal cost (time and energy) to facilitators.

*“A few extra weeks might have provided space for more thoughtful processing of ideas between workshops, enhanced the clarity of thinking, opportunities to test-run different processes before jumping in. But this meant we had to rely heavily on an open and adaptive approach.” [Terrain NRM FG]*

Consortia members were asked to rate the performance of the design process against five criteria. Most responses ranked the design process as performing very well or adequately against criteria ‘using the best available science’, ‘tailored to local conditions’ and ‘incorporating landholder perspectives’. Linking to other activities was considered ‘adequate’ by most respondents. Effective monitoring and evaluation was mostly answered ‘very well’ or ‘adequately’, but also recorded the highest number of ‘not sure/don’t know’ responses (8 out of 22 responses).



**Figure 3. Consortia members’ ratings of how well the WTMIIP design process achieved these outcomes [Consortia survey]**

## Consortia

The Consortia was open and inclusive to interested parties. The development of capability statements helped Terrain NRM identify appropriate skills for specific design tasks.

The survey of Consortia members showed high levels of satisfaction with the Consortia process (Figure 4 below), including sufficient opportunity to provide input and confidence that their input had been incorporated

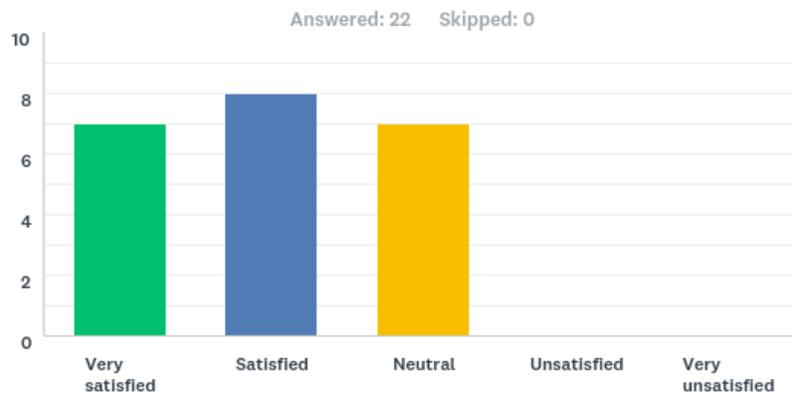


Figure 4. Reported levels of satisfaction with the Consortia process [Consortia survey]

Consortia members also largely felt that the process had made best use of their time and resources (Figure 5).



Figure 5. Consortia members' views on whether the WTMIP Consortia process made best use of people's time and resources.

Sustaining engagement in the Consortia process was particularly difficult for small and medium operators – providing time at short notice with no commitment to further work, especially if this involved travel. This is less of an issue for larger institutions who can bear that cost, but raises the question of whether this level of engagement and commitment would be sustained if the Consortia approach was adopted more widely.

The short timeframes for input were really challenging for all Consortia members. Some 'new' science and technical organisations participated in the Consortia process, although some (e.g. evaluation specialists) were not able to engage with the workshop process so were not able to contribute.

Overall, however, the Consortia process was very successful and supported by Consortia members and focus group feedback.

*“Terrain NRM successfully setting up the Consortia was a masterful stroke – setting-up fixed fee and rules for the **Consortia** members up-front – a great piece of planning and negotiation to secure three-year commitment of members, and, done well under the tight timeframes set by government” [OGBR FG]*

*“Come to the table or you don’t get any money, has in a way ‘forced’ collaboration and idea sharing, and taking local knowledge on-board, improved interaction with the science community, put N reduction thinking into a wider approach that will work” [Industry rep. Project Panel FG]*

*“If Terrain NRM was to do another large project like this again we would run a Consortia model again” [Terrain NRM FG]*

## **The Project Panel**

The initial Project Panel was selected from industry groups and one science representative, but expanded during the design process to include local government and traditional owner representatives.

The Project Panel membership and role clearly set the tone for landholders driving decisions and signaled a ‘different way of working’ (for consultants and science providers in the Consortia who are used to working to contracted briefs, but also for landholders who are used to being offered projects that have been designed by others).

Project Panel members clearly take ownership and share responsibility for the success of the WTMIP. A strong sense of shared commitment and collaboration was evident in focus group discussions. Commitment to collective action through the Project Panel was a key element of the design process success.

The Project Panel also play a key role as the interface with landholders, providing legitimacy to the process, supporting and identifying opportunities for coordination, information and resource-sharing between industries and stakeholders.

Concerns or risks raised by Project Panel include the potential for lack of ongoing commitment to the process by government; government focus on accountability versus local focus on learning and improvement; and expectations to show benefit to landholders and government quickly.

As the project moves from design to implementation phase there is an opportunity to explore new or different ways of improving the dialogue between scientists and landholders to support implementation and adaptive management. Existing science representation on the project panel may not be the most appropriate or effective way to proceed in the next phase. Possible ways to organize could include joint landholder-scientist working groups or learning groups organized around place-based, project activities that also link to wider discussion or themes under the MERI logic. These wider thematic discussions could then bring in specialist evaluation and program design/manager knowledge to help unpack insights and scale-up the learnings.

## **Terrain NRM as facilitator**

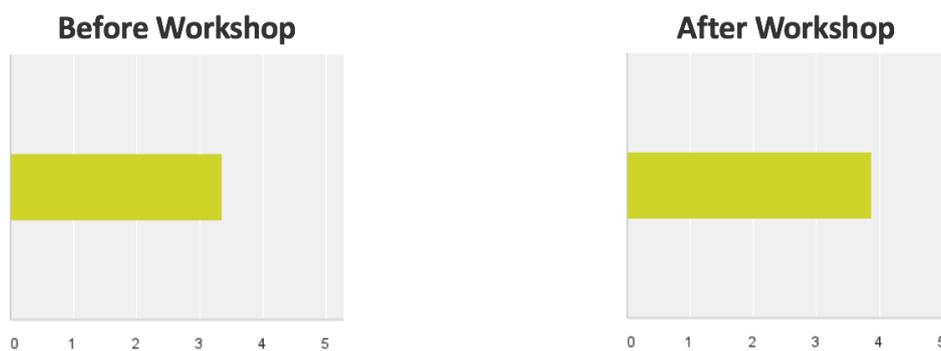
Terrain NRM shared or devolved decision-making to encourage participation and shared leadership, even when there were obviously some risks in doing so. For example, open dialogue about payment for Consortia participation in workshops, seeking landholder feedback on whether they should be recompensed for participation, identifying who should develop the feasibility briefs, and an open discussion about the best governance arrangements for implementation. This

was bold, and is likely to have contributed to the strong sense of ownership and commitment that the design process has generated.

The Terrain NRM project team showed a deep commitment to the principles of place-based planning, open and emergent process, and shared decision-making. Terrain NRM’s leadership, team work and culture has been critical to success of design phase. The OGBR Focus Group discussion noted that Terrain NRM and particularly Carole Sweatman’s leadership, advocacy and passion, has underpinned the success so far, showing a high level of flexibility and adaptability and created an enabling environment for her team’s success and capability. OGBR also noted that Terrain NRM has resourced the project well – putting dedicated, capable, and adaptable individuals in project roles.

The project team sought to capture detailed feedback from workshop participants throughout the process, and actively used this information to adjust their approach. The example below (Figure 6) illustrates one measure that showed workshop participants were more optimistic about addressing water quality issues after attending the solutions workshop.

Answered: 66 Skipped: 0



**Figure 6. Evaluation feedback from the solutions workshop, measuring optimism about addressing water quality issues before and after the workshop (5=high, 0=low)**

## Theme 2: Participation

### Rationale:

Good participation is a necessary precondition to integrating knowledge, tailoring actions to local conditions, and building ownership and commitment. It is important to think about who participated, in what ways and for what reasons.

### Snapshot findings:

Evaluation questions	Rapid assessment
Has the design process effectively and efficiently engaged local landholders?	Yes, but there are different views about what levels of participation were realistic or appropriate for this phase
Has the design process effectively and efficiently engaged industry organisations (e.g. Canegrowers, mills, ABGC)?	Yes
Have risks of participation been identified and planned for?	Participants saw non-participation as a risk (e.g. loss of government or landholder involvement). Aware of need to show benefits from implementation phase.
Has the design process effectively and efficiently engaged scientists?	Yes, via Consortia but hard for small operators to engage.
Has the design process effectively and efficiently engaged Qld. and Australian Government?	Yes, strong engagement with OGBR and participation of local agency staff from other departments. Higher level engagement of other agencies via Steering Committee.  The Australian Government also engaged via Steering Committee, briefings and 1st workshop (GBRMPA). Difficult with no local representatives.
Are there any relevant industries or organisations that have not been engaged or chosen not to participate?	Generally, no. Some different views on opportunities to participate amongst a small number of organisations (e.g. GBRMPA, Traditional Owners).

### Discussion:

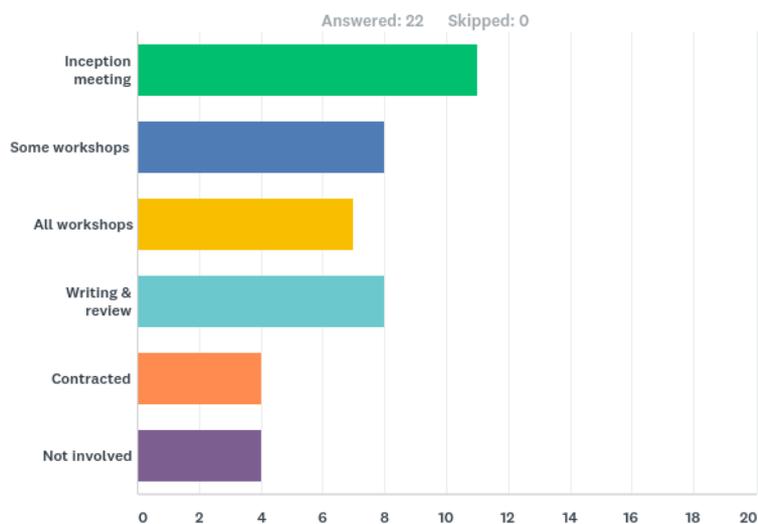
The focus group discussions highlighted that a range of approaches were used to ensure the broadest possible opportunities for participation of local and regional stakeholders (communication, workshops, engagement through stakeholder's own networks and community events). The Project Panel and Consortia secured participation of key industry and community representatives and a diverse range of research and other service provider organizations for the life of the project. The process has deliberately expanded participation to 'new' industries (such as bananas) and value-chain members (such as sugar mills). Terrain NRM was able to successfully sustain this involvement despite tight timeframes and heavy workloads for themselves and participants.

While different participants brought their own needs and interests to the table, there is also very strong convergence across Terrain NRM, the Project Panel members and OGBR about the main reasons for their participation. Foremost amongst these is a shared view of the need for a

collaborative approach that demonstrates shared commitment, shared-responsibility for success and ownership amongst participants. Each of the three groups recognized that landholder and general citizen involvement in the design process was lower than ‘desirable’. There were different views about what was ‘expected’ and if these expectations were realistic in this initial phase of the project. The timing of the workshops (not suiting production timelines for growers), the time commitment required, and the tendency for landholders to rely on their representatives to engage on their behalf, were contributing factors. There was a shared expectation that landholder participation will increase during delivery phase.

The main motivation for Consortia members participating in the WTMIP design was ‘contributing to the WTMIP design’ (18 out of 21 responses) and ‘showing the benefits of working together’ (14/21). Other important motivations (in order of the number of responses) were ‘to coordinate activities’ (10/21) ‘networking’ (8/21) ‘representing members’ (7/21). Surprisingly, paid work was not identified as a strong motivation (10/21 said it was not a motivation, another 10 said it was a less important motivation).

Of the Consortia members who completed the evaluation survey (22 out of 44 organisations) participation in the design process was quite high, with about half attending all workshops, and half contributing directly to the design documents (Figure 7). Four respondents to the Consortia survey were not able to participate in the design process.



**Figure 7. Participation of Consortia members in the WTMIP design process.**

## Theme 3: Knowledge integration

### Rationale:

The capacity to recognize and bring together, often in new ways, different types of knowledge, is essential to resolving complex problems that stretch across disciplines and across different parts of society. This capability contributes to success in adaptive and collaborative problem-solving processes such as the MIPs.

### Snapshot findings:

Evaluation questions	Rapid assessment
Have landholder ideas, interests and knowledge been taken on board?	Yes, to the extent that they engaged directly or were facilitated through Project Panel members
Has the design process accessed and applied the best available science?	Yes, but consider alternative or additional ways to support science partnerships as part of the implementation phase.
Have OGBR, DAF and other state agencies actively contributed to the design process?	Yes, see Theme 2 for further comment.
Has the design process influenced the way science will be used in problem-solving?	Yes, evidence of more community-led and/or collaborative application of science.
Are novel or uncertain approaches being trialed?	Broad range of ideas collected, open to experimentation, some new technologies identified.

### Discussion:

It was clear from focus group discussions that the WTMIP process has invested significant effort to identify and facilitate the integration of knowledge from diverse local stakeholders, from the science community, from commercial service providers and government in the design process. Terrain NRM, with its multi-stakeholder, multi-land use focus was well positioned to support this approach and were regarded as successful in this role. Several major activities were designed to integrate knowledge including: eliciting ideas for action from workshop participants; the explicit ‘tracking’ of those ideas in the process; and, the collaborative development of criteria and prioritization process, and, conducting the technical feasibility and synthesis activities as part of the implementation design:

*“...at the technical feasibility workshop, there was a really positive feeling – respect for different views and other people generally, letting go of egos including amongst government and CSIRO “to get the job done” – this let us draw expert and other knowledge into the technical feasibility briefs” [Terrain NRM FG]*

The early decision by Terrain NRM to call for capability statements from prospective Consortium members, and the operation of the Consortium itself, tied the *expectation* of knowledge-sharing to the *opportunity* for participation in the WTMIP. Linked to the following *Theme 4*, the Project Panel, in particular, highlighted the benefits of bringing local expertise to propose, refine or contest potential technologies or actions identified in the process. The opportunities for real-time monitoring on farms as part of the proposed delivery is seen as an exciting prospect by industry

representatives. Benefits included testing their intuitive knowledge of the system against the data – and drawing on both to improve management outcomes. Generally, “the science” was thought to have been well integrated into the design phase, however, the OGBR focus group suggested that more direct participation of science representatives on the Project Panel could be explored.

When Consortia members were asked ‘What do you think was the best thing about the WTMIP design process?’ responses consistently referred to a diversity of people and expertise together with lots of opportunity to get involved (12/21 responses), and a well-run process that allowed lots of ideas to be collected and then built into a project proposal (8/21). Some quotes below illustrate these sentiments:

*“extensive community and industry consultation - grass roots approach supported by technical experts (not the other way around). truly integrated”*

*“Design by people with on-ground knowledge.”*

*“Putting everything on the table and then successively narrowing/focusing, without losing the line of sight to the original ideas.”*

*“transparent and open process to collect and shape ideas, authentic collaboration with farmers and scientists”*

## Theme 4: Localisation

### Rationale:

Processes and solutions that accommodate the conditions and needs of local people, economic activity and landscapes are likely to be more acceptable, appropriate, effective and long-lived.

### Snapshot findings:

Evaluation questions	Rapid assessment
Is there evidence that the project design is tailored to local landscapes, farming systems and landholder preferences?	Yes. But having two catchments and two industries has increased complexity for design.
What needs to be done differently here and why?	Project Panel are strong advocates for tailoring the design and planned actions to local conditions.  Local knowledge challenging science knowledge in some cases.
Are these differences understood and accepted by stakeholders outside the region?	Some indications of this.

### Discussion:

The focus group discussions underscore a key principle of the WTMIP to develop processes and solutions that are 'owned' by local stakeholders and that are tailored to the landscape, production system and socio-cultural character of the two priority implementation catchments. As discussed above, the success of the WTMIP in providing opportunities for local stakeholders to influence and, in many cases, to direct the activities of researchers and other service providers is considered a major strength of the process by participants. Commitment to this principle extended beyond tailoring implementation activities to seeking direction from WTMIP participants on what form the governance arrangements the project should take going forward.

Participants in the focus groups identified several expected benefits from tailoring the WTMIP process and planned delivery to the region, including:

1. Opportunities for local stakeholders to debate with experts about "what is going to work here";
2. A stronger sense of the initiative being community-led, rather than science or government-led
3. Greater ability to demonstrate local and wider benefits;
4. Greater willingness to take responsibility amongst local stakeholders;
5. Making the larger 'reef problem' more solvable in peoples' minds and connecting it to local environments that people work in, use and care about; and
6. Embedding water quality outcomes into broader farm business and industry goals.

An observation in the OGBR focus group was that the need to tailor the process and the solutions to the different characteristics of the two catchments has increased the complexity, and therefore difficulty, of the process.

When asked to rate how well the WTMIP design was tailored to local conditions, 12 out of 22 Consortia survey respondents said, 'very well' (refer to Figure 3). Some comments in the survey, however, flag the need for further work in tailoring the design, and testing the validity of some elements in the local landscapes:

*"Southern designs for treatment systems may not be applicable in tropics." [Consortia survey]*

*"I don't think the workshops got to the point of tailoring the interventions to the landscapes. That detail will come next I assume." [Consortia survey]*

## Theme 5: Shared ownership and understanding

### Rationale:

Collaborative approaches rely on groups with diverse interests and backgrounds developing a shared or often new understanding of each other, the problem they face, and a shared understanding of what should be done about it.

### Snapshot findings:

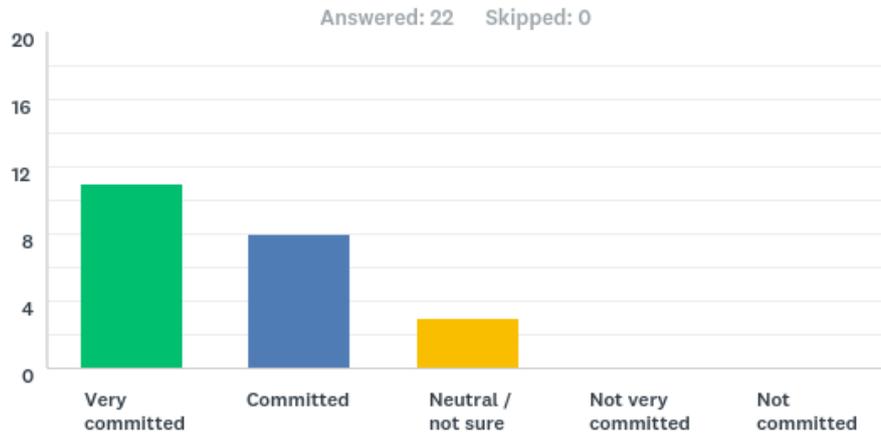
Evaluation questions	Rapid assessment
Do landholders feel that they are driving the project?	Yes, via Project Panel, but currently a high reliance on grower representatives
Has the project generated a sense of shared local ownership across the Tully & Johnstone catchments?	Yes - as far as we can tell, at this early stage.
Has the design process built a shared ownership of the WTMIP project and commitment to contribute? What new or strengthened protocols or norms of joint problem solving and delivery are emerging?	Yes. Unambiguously. Design process has created shared culture of collaborative problem-solving and partners taking ownership of the problem.
How has the 'problem' been framed, and has this changed in response to the design process?	The problem of water quality or nutrient management is now seen as whole-of-enterprise and industry viability problem. This is more amendable for grower engagement but need to maintain a clear line of sight to water quality benefits via monitoring and evaluation.

### Discussion:

The focus groups indicated that interaction through the WTMIP process has had a significant effect on how different groups see each other, and that these changes will improve the outcomes from the collaboration. The banana industry, for example, reported how they now understand their role as being part of the regional solution along with cane and other land managers. Both OGBR and industry representatives acknowledged the effect of the process on improving Queensland government's understanding of the 'practice change problem' including providing a better understanding of the complexity of farming systems and business decisions on-farm, and the obstacles faced by farmers in practical terms.

The Project Panel and Terrain NRM focus groups also recognized that the MIP is "a big step" for government and the need to keep improving that relationship, building trust and understanding between parties. The goal here is to encourage the sharing of responsibility between governments and regional stakeholders. Multiple examples were discussed in the focus groups about how interaction between scientists, industry and others has led to a better understanding of the problem, improved consensus on proposed actions, or, where differences persisted there is a pragmatic accommodation of different views to allow progress on implementation to move ahead.

Consortia members were asked their level of commitment to the project as it moves to the implementation phase (Figure 8). More than half the respondents chose 'very committed' with most of the balance saying 'committed'.



**Figure 8. Level of commitment of Consortia members to the project as it moves towards implementation.**

Comments also indicated that, while Consortia members are committed to supporting the project, there remains significant uncertainty as to what, if any, roles they will play in implementation.

*“At this point in the process, I am not sure how our organisation will be involved, but we remain committed to the program.” [Consortia survey]*

## Theme 6: Implementation capacity

### Rationale:

Preparing for successful implementation relies on identifying, engaging and aligning with regional networks and other stakeholders' efforts for collaborative advantage. It also benefits from clarifying roles and responsibilities amongst partners, considering new instruments and institutional responses.

### Snapshot findings:

Evaluation questions	Rapid assessment
Has the design process identified and engaged relevant initiatives, networks and resources?	Yes
Is there evidence of greater alignment of planned effort between stakeholders?	Yes, plans to share implementation and extension resources between partners. Strong focus on providing an integrated package of actions.
Have the implementation roles for state and local governments been agreed?	Not entirely clear. Local government are encouraging household-level actions that improve water quality. OGBR are well engaged but see their role primarily in project management, oversight and policy learning. Implementation roles for other agencies unclear at this stage.
Have any 'new' institutions been engaged or instruments identified?	Some progress. Contribution of market instruments (e.g. credit schemes) identified; supply chain partners (e.g. mills) involved.

### Discussion:

Participants described a wide-ranging suite of actions proposed in the implementation design. Importantly, this was seen to provide 'multiple points of entry for land managers' into the WTMIP, and as a result, different pathways towards practice change. It was also universally seen to provide a more 'integrated package of actions' as an improvement on previous grant-based programs or what was described as a 'piece-meal' approach to water quality improvement in the past. The process is seen widely to have enhanced the ability to coordinate, leverage and share implementation resources within the region – particularly the coordination of rural industry and catchment land management and technical extension networks. Consortia members mostly thought that no groups or organisations were missing (11 out of 16 responses) although a few thought greater Traditional Owner engagement was desirable.

One rural industry described how the process has built their capacity to deal with the issue through better access to expertise and resources from both within, and outside the region. The Project Panel and Consortia arrangements were seen to be central to this capability. Participants reported the WTMIP also enhances cooperative land management relationships already operating between groups locally, such as between Traditional Owners, farmers and conservation estate managers in the Tully catchment. Local government described the opportunity to enroll the

broader, non-agricultural community more directly in contributing to water quality outcomes through the WTMIP process.

There were some risks identified regarding the “multiple projects and delivery programs” (e.g. across industry, state, federally–funded initiatives) underway in the region and the potential to stretch regional capacity, create competition and potentially lead to one project “cannibalizing another” for resources or participants. There is potential for divergent expectations between regional stakeholders and governments about the lag times in demonstrating practical outcomes. All groups expressed the importance of continuity in the arrangements, post the planned 3-year cycle and the need to set realistic expectations of impact timelines.

## Theme 7: Delivery and learning

### Rationale:

Developing an agreed, appropriate and effective MERI framework; stakeholder and partner commitment to the practice and principles of adaptive management; and a capacity to capture, share and scale-up lessons from the MIP. The innovation potential of working more effectively with farmers is reliant on effective, rapid feedback about the success or otherwise of actions trialed, and cultivating experimentation and co-learning between farmers, scientists and governments.

### Snapshot findings:

Evaluation questions	Rapid assessment
Has the design process agreed a MERI framework that commits to 'good practice' adaptive management?	Yes, but early stages of development
How does the proposal demonstrate a strong commitment to learning across key stakeholders, delivery agents and landholders?	Yes, but the challenge of meeting these multiple needs is significant.
How have questions of transferability and scalability of insights been considered?	Transferability is a strong state interest. It is considered in the design but needs further development.

### Discussion:

There was a commonly held view across the focus groups that the process, and principles guiding the WTMIP design were the primary innovation in the process. There is clear and shared commitment by participants to the principle and practice of adaptive management in the delivery phase. The project itself is described as experimental and, with that, the importance of following the process during and beyond the life of the project was emphasized widely:

*"We want to be open to what is coming out of the community – we want this to be an opportunity to learn together...to have a view to beyond the life of the project" [OGBR focus group]*

Perhaps the most significant development, in practical terms, for genuine adaptive management at the property scale, is the proposal for instrumentation to support real-time monitoring of effectiveness of new and existing practices on farms. This is described as a fundamental building block to improve land manager knowledge of their production systems (including N-use efficiency) and, in turn, provide opportunity for experimentation and improvement:

*"The MIP is an opportunity to test our intuitive ideas about what works, and monitor the effect locally – to really test it...and then communicate to landholders that this is the outcome you will get both on-farm and the wider benefits" [Project Panel member]*

*"The real win is getting 'real-time monitoring' in place on farms – N is invisible – we need to monitor it to manage it – where it's coming from and then what to do about it – growers want this." [Project Panel member]*

State government and Terrain NRM participants both described the importance of exploring and capturing the lessons regarding the transferability of the MIP experience in both the Wet Tropics and Dry Tropics (Burdekin), for possible future application in other locations in the Reef catchments. The Steering Committee, supported by the state, was seen to have a pivotal role in this task. Another suggestion that would support transferability is embedding managers from other locations as participant-observers in the MIP processes. Several focus group participants mentioned that the opportunities to share lessons and work collaboratively across the Burdekin and Wet Tropics MIP processes had not been fully realized and there was more work to do in this area.

Consortia members consistently showed some reservation about the state of development of the monitoring and evaluation components of the WTMIP design documents, and this is linked to uncertainty about whether ‘innovation’ will be achieved.

*“It seems as if evaluation will be less thoroughly embedded in an ongoing way than I had originally hoped. If that’s true, I think it’s a weakness.” [Consortia survey]*

The development of an appropriate monitoring and evaluation strategy for such a complex and emergent project in the time frames available has been extremely challenging. The material presented as part of the design proposal is robust in its approach, albeit in the early stages of development. The high-level program logic developed for the proposal is an effective framework to communicate and assess the project’s expected impact.

Streamlining the monitoring and evaluation design to ensure it meets the needs of farmers, industry, Terrain NRM and Government audiences at property, catchment and GBR scales is not a trivial exercise, and will require the careful balancing of learning (lead) and outcomes (lag) indicators. Realistic expectations will be an important component of this. As one Consortia member commented:

*“The main risks are: 1. That the program fails to deliver land management practices which, when scaled up, achieve target water quality improvements; 2. That lessons learnt are not captured and harnessed in an enduring way that facilitates continuity and transfer-ability.” [Consortia survey]*

The issue of transferability and scalability of learnings is important, and will require serious attention. This is a strong interest for policy-makers, but also industry and the wider network of NRM organisations. International research suggests that there are significant barriers to the extension and uptake of learnings from policy pilots like the MIPs (e.g. *McFadgen & Huitema, 2017; van Popering-Verkerk & van Buuren, 2017; Vreugdenhil, 2010*). Transferability and scalability should be considered in more detail as the monitoring and evaluation strategy for the MIP is further developed.

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