



The Local SDGs Program

Progress Report



The Local SDGs Progress Report is produced for the Ian Potter Foundation to communicate our project's progress in developing robust pathways towards future-proofing Australian communities and enabling people and nature to thrive.



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November 2019

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i. Purpose

The Local SDGs Progress Report and financial statement are produced for the Ian Potter Foundation to communicate our project's progress in developing a general framework for future-proofing the sustainability of local communities in regional Australia. This also presents an opportunity to express our gratitude for IPF's integral support and role in achieving our aim of working towards adaptive pathways so people and nature can thrive in the uncertainties ahead.

The report addresses four goals of our project which entail undertaking comprehensive case studies using mixed qualitative (participatory) and quantitative (modelling) methods to assess options for improving multiple socio-economic and environmental dimensions of sustainability for two regional Australian communities; Forrest/Otways region & the Goulburn-Murray region.

In addressing the four goals of this report we will demonstrate how our team has strived to contribute to the theory and application of adaptive planning for local sustainability through working on literature reviews, journal articles, modelling of robust decision making under uncertainties, and contextual analyses. These processes have been facilitated through collaboration with community engagement specialists, academic experts and ongoing engagements with local communities. We have also communicated our research, activities and initiatives through a variety of ways including an array of publications, conferences, our website and social media.

ii. Grant Details

Progress Report due date

11/15/2019

Organisation Name

Deakin University: Faculty of Science, Engineering and Built Environment

Please confirm whether or not the organisation address has changed since the grant was awarded.

The organisation address has not changed.

If the primary contact of the project has changed since the grant was awarded please include

The primary contact for the project has not changed.

Project title

Local SDGs: A general framework for charting pathways to sustainability to future-proof local communities

Project description

The aim of this project is to develop a general framework for future-proofing the sustainability of local communities in regional Australia.

The project team will undertake comprehensive case studies using mixed qualitative (participatory) and quantitative (modelling) methods to assess options for improving multiple socio-economic and environmental dimensions of sustainability for two regional Australian communities; Forrest and the Otway Ranges & the Goulburn-Murray irrigation district.

The framework will be generally applicable across rural/regional Australia.

Widespread uptake of the framework for charting pathways to local sustainability can help Australia and the world achieve the UN's Agenda 2030 and the global Sustainable Development Goals (SDGs) from the bottom up.

iii. Project Progress and Outcomes**Goal 1: the state-of-the-art knowledge in local sustainability**

Understand the local context and the state-of-the-art knowledge in local sustainability by reviewing previous relevant work, including: Grey literature - past locally-relevant, sustainability-related activities/assessments/documents for each of the case-study areas. These include regional catchment strategies, climate adaptation plans, community development strategies, and future scenarios/projections. Scientific literature, published studies on local sustainability assessment and planning in complex social-ecological systems including climate adaptation, risk management, scenario planning, vulnerability and resilience assessments.

Timeline of the actions/KPIs necessary to achieve this goal

1. Scope grey literature by web search, consulting with partner agencies and stakeholders (Jan-Apr 2019)
2. Conduct systematic scientific literature search (Jan-Apr 2019)
3. Write a review of the scientific literature documenting previous work in local sustainability assessment including a review of previous work in the case study areas (Jun 2019 ? Jul 2020).

Measurements to be put in place to determine if you have achieved your goal.

1. Review documentation appraised and approved by partners/stakeholders.
2. Review directly informs aspects of the case study methodologies.
3. Web page/blog article describing the case study exceeds 1000 views.
4. Review paper published in international journal

1.1 Sustainability

Our team has strived to contribute to the theory and application of adaptive planning for local sustainability through working on journal articles.

We initially started by reviewing key articles and policy documents in relation to the state-of-the-art knowledge in local sustainability. This resulted in an opinion piece in the journal of The Lancet Planetary Health, proposing a participatory and inclusive governance agenda for a bottom-up implementation of the SDGs, which we term Local Agenda 2030, to promote well-being and prosperity of local communities (see Appendix A). Fig. 1 uses a word cloud to display the most common words we encountered in SDG-related publications.



Figure 1. The seven top topics in publications related to achieving sustainability in cities and local communities (2017–2019). Word-clouds represent the frequency of the top-50 words allocated to each topic. The topics are named based on the most descriptive (often the most frequent) words in relation to the 17 SDGs (e.g., ‘water’ is related to SDG 6). There are also less frequent (descriptive) words under each topic whose associated SDGs were not included in the topic name as they were less significant. The size of each word-cloud is proportional to the share of publications related to the respective topic. The (rounded) percentage of the share of publication in each topic is shown in topic names. The word font size represents the frequency (the descriptiveness) of the word within each topic. Words are colour-coded according to the SDGs legend bar (e.g., ‘energi’ is gold, related to SDG 7). Generic words that can be related to multiple SDGs (e.g., environment, resource, scenario) appear in grey.

We extended our initial literature review by further analysing current advances in environmental sustainability from a bottom-up perspective through a comprehensive systematic review of more than 4200 publications between 2017-2019 in Scopus, using qualitative synthesis and state-of-the-art text mining algorithms. To complement the literature review, we undertook an in-depth longitudinal review of major international efforts from the early 1990s to the post-2015 sustainable

development agenda to assess the effectiveness of alternative policy solutions and real-world practices for achieving sustainability through the distinct features of local contexts. Our review also reflects critically on challenges and strategic research directions for sustainability science with a strong focus on the local scale and guided by our informed opinions. This review process resulted in a manuscript entitled “Frontier research and future priorities for local sustainability” which is under consideration by One Earth journal (Cell Publishing) as an invited submission (Perspective) (see Appendix B). Fig. 2 below demonstrates a conceptual framework for an integrated approach to achieving sustainability.

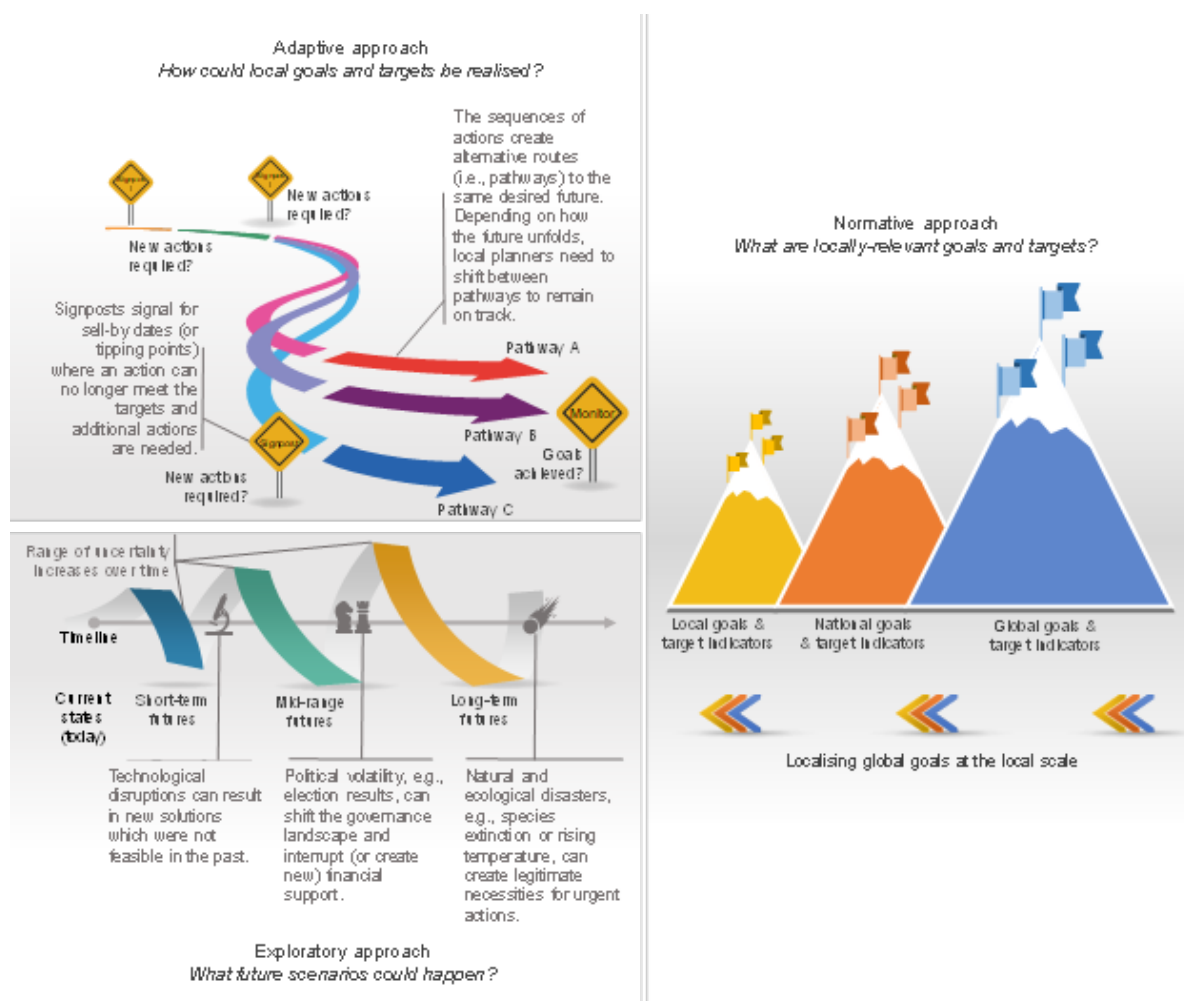


Figure 2. The integrated approach for achieving local sustainability.

1.2 Modelling

In addition to the review literature on local sustainability, we conducted an analytical review of a broad array of methodological constructs in robust decision making of coupled human-natural systems under uncertainties driven by environmental and social change. We initiated an international collaboration with the leading scholars of

this field from Cornell University (USA), TU Delft (Netherlands), ANU, and UNSW, to undertake this review and collect views from ranges of backgrounds in support of our project. We published the results of this methodological review as an article entitled “Structuring and evaluating decision support processes to enhance the robustness of complex human–natural systems” in *Environmental Modelling & Software* (see Appendix D). We also submitted another manuscript entitled “Exploratory modelling: Taxonomy, benefits, and challenges of an emerging modelling approach under uncertainty” based on this methodological review to *Earth’s Future* (see Appendix E).

1.3 Contextual Analysis

A contextual analysis is also being undertaken in order to demonstrate knowledge of local issues and existing sustainable pathways when consulting local communities as part of our Forrest and Goulburn-Murray case studies. The methods involve a review of grey literature, scientific journals and previous community engagements. A list of relevant documents has been compiled in Endnote which includes climate adaptation reports and published studies on sustainability planning. These documents are also being coded for the most applicable SDGs using such tools as Nvivo. We further explain the implementation of contextual analysis in the case study regions under Goals 2 and 3.

Goal 2: developing adaptive pathways in the Forrest community

Derive detailed local sustainability pathways for the Forrest/Otway Ranges study area. For example, pathways may include actions to increase capacity to adapt to climate change, manage bushfire risk, and develop mountain-bike tourism. This includes assessing the range and viability of options (e.g. fire readiness, tourism promotion, agricultural transition) and determining where and when they are required to ensure a just transition to a more sustainable future for the study area.

Timeline of the actions/KPIs necessary to achieve this goal

1. Define sustainability dimensions and indicators for the study area (Feb-Mar 2019).
2. Scope important pressures, risks, and opportunities affecting the regions (Mar-Jun 2019).
3. Identify the suite of sustainability options/interventions available as informed by the literature review (Jun-Aug 2019).
4. Quantify the costs and benefits of each time-and-location-specific option encompassing future uncertainties (Aug-Dec 2019).

5. Identify pathways to sustainability using quantitative techniques from applied mathematics/economics (Jan-Jul 2020).

Measurements to be put in place to determine if you have achieved your goal.

1. At least 3 case study papers submitted to scientific journals.
2. More than 10 participants at each community workshop.
3. At least 10 interviews conducted with key stakeholders.
4. Greater than 200 responses to surveys/questionnaires
5. Blog post exceeds 1000 views.
6. Social media pages have >50 followers.
7. High level of stakeholder satisfaction >80% with the local future-proofing process.
8. PhD student 1 submits their PhD thesis.

2.1 Forrest Contextual Analysis

A key step in the process of adaptive planning for the Forrest community involved a thorough understanding of local sustainability issues. Ongoing meetings with project stakeholders such as The Department of Environment, Land, Water and Planning (DELWP) have been essential to the adoption of a contextual analysis and local community engagements. For the Forrest Contextual Analysis, we conducted a desktop review of: grey literature, results of previous community engagement activities, and relevant internet content (e.g. websites, local news sites). These documents were imported into the software package NVivo 12 (QSR International Pty Ltd 2018) and statements from the documents were coded to relevant SDGs. The top five SDGs of interest were identified by the number of coded statements across all documents and a hierarchy chart produced from NVivo. We also conducted a workshop with the community project steering committee in which they identified the priority SDGs (fig. 3) and targets relevant to the community. The community steering committee identified important SDGs in two levels of priority.



Fig. 3 Key SDGs applicable to the local Forrest Community

2.2 Forrest Community Engagement

We are collaborating with community engagement specialists from the Department of Environment, Land, Water and Planning (DELWP) to accomplish this. These DELWP specialists have volunteered their time and expertise, for which we are extremely grateful.

1. Informal workshop with project steering committee to initially shortlist the SDGs (May 2019 – already completed)
2. Three activities which are run over the course of two days (September 2019 – already completed):
 - a. Listening Post: setting up a tent at the town General Store for two mornings in order to capture a wide range of community members, and canvassing their opinions on important issues for the region
 - b. Interview with locally relevant person at Local Council (Colac-Otway Shire) for the same purposes as in point a.
 - c. Kitchen Table Discussion with five key community members, for the same purpose as in point a.
3. Open House (October 2019): an event where the community can drop in and provide opinions in more detail than through the Listening Post.
4. Ideas and Actions Workshop (November 2019): a more structured event where, having heard from the community what they want the future to look like, we invite feedback from them as to the ways they think it can be best achieved.

We had rewarding and successful engagement activities (fig. 4) with the willing and welcoming Forrest community in September, October, and November. For example, during our listening post, more than 50 members of the local community seized the opportunity to voice their concerns on SDG-related issues. Each was given three red dots to put on the SDGs believed to be of greatest priority. Next was the Kitchen Table Discussion (KTD) which provided the opportunity for a more in-depth discussion centred on wastewater, education, climate change adaptation, bushfire response, and housing affordability. A successful follow-up Open-Day Forrest community engagement in mid-October provided us with the opportunity to report what we had learnt and if there was anything we missed.

Forrest - September



Forrest - October



Fig. 4 Engaging with the Forrest Community

2.3 Katrina's PhD Forrest Case Study

Katrina is focussing on the Forrest case study. Her academic background is in mathematics and ecology, but she also has community sector experience from five years working with a local Women's Health Service. She has been actively involved in many engagement activities with Forrest stakeholders, experts and members of the Forrest community. Katrina has written an abstract for the December MODSIM Conference "A participatory framework for evaluating Sustainable Development Goals under future uncertain change" (see Appendix I). This is in addition to the first of four planned publications including the draft paper "Localizing the Shared Socioeconomic Pathways to generate scenarios en route to the Sustainable Development Goals" (see Appendix L), which focuses on defining sustainability dimensions and indicators for the study area and also scoping important pressures, risks, and opportunities affecting the regions.



Fig. 5 Katrina and the 2019 CIE Conference



Katrina delivered her PhD Confirmation Presentation (see Appendix K) the same day she received the news that she had won the Centre for Integrative Ecology Science Outreach award as part of the [2019 CIE HDR Research Awards](#) (See Appendix J). This was awarded for best translating and communicating science for the benefit of the broader community as part of her Local SDGs Forrest PhD Project:

Local Agenda 2030: Localising the Sustainable Development Goals and developing pathways for implementation in Australian communities

In addition to being awarded a certificate and prize, Katrina had the opportunity to deliver a 10-minute presentation at the [2019 CIE Annual Conference](#) in October (fig. 5). This is a great forum for academics, researchers and students to showcase their research and reflect upon their achievements.

Goal 3: developing adaptive pathways in the Goulburn-Murray region

Derive detailed local sustainability pathways for the Goulburn-Murray study area. For example, pathways may include actions to increase resilience to water variability, and their ability to innovate with new technologies. This includes assessing the range and viability of options (e.g. irrigation reconfiguration, ecosystem services markets, renewable energy) and determining where and when they may be required to ensure a just transition to a more sustainable future for the study area.

Timeline of the actions/KPIs necessary to achieve this goal.

1. Define sustainability dimensions and indicators for the study area (Feb-Mar 2019).
2. Scope important pressures, risks, and opportunities affecting the regions (Mar-Jun 2019).
3. Identify the suite of sustainability options/interventions available as informed by the literature review (Jun-Aug 2019).
4. Quantify the costs and benefits of each time-and-location-specific option encompassing future uncertainties (Aug-Dec 2019).
5. Identify pathways to sustainability using quantitative techniques from applied mathematics/economics (Jan-Jul 2020).

Measurements to be put in place to determine if you have achieved your goal.

(III) WHAT MEASUREMENTS WILL YOU PUT IN PLACE TO DETERMINE IF YOU HAVE ACHIEVED YOUR GOAL?

1. At least 3 case study papers submitted to scientific journals.
2. More than 10 participants at each community workshop.
3. At least 10 interviews conducted with key stakeholders.
4. Greater than 200 responses to surveys/questionnaires
5. Blog post exceeds 1000 views.
6. Social media pages have >50 followers.
7. High level of stakeholder satisfaction >80% with the local future-proofing process.
8. PhD student 2 submits their PhD thesis.

3.1 Goulburn-Murray Workshops

In developing local sustainability pathways for the Goulburn-Murray community, it is apparent that it has completely different characteristics in contrast to the Forrest community. The Goulburn Murray region (fig. 6), as the 'inland water playground' and the 'food bowl of Australia', has been long subjected to planning and strategic discussion through intensive engagement with decision-makers and practitioners. This long planning history has led to a high system thinking ability, already shaped a shared perspective about the future of the region among stakeholders, and has created a rich source of data and models. It, however, caused reluctance among stakeholders for new engagement activities. Therefore, the research team decided to slightly modify their initial plan of interaction with the community and rely more on the use of existing data and documents and to use the stakeholder capacity more carefully, only for consultancy and for informing the contextual analysis process.



Fig. 6 Goulburn-Murray Region in North-Central Victoria

To avoid imposing additional engagement activities with the community, we also decided to attend and follow some of the ongoing engagement activities that are already going on in the region. For example, the Goulburn-Murray held a regional vision forum where these pressing issues were discussed and they are very interested

to achieve sustainable futures. It was decided that key actions for the Goulburn Murray Region include development of a governance process, policy directions, opportunities and impacts. It was also established that it was important to identify industry drivers such as dairy, irrigation and facilitating investment.

We also attended the Goulburn Murray Region Action Working Group Meeting in Tatura where we outlined that we are undertaking a preliminary contextual analysis and stakeholder engagement activities in the form of workshops, interviews, survey for visioning, target setting, actions formulation, and the design of the monitoring system. We also acknowledged there are many existing resources in the GM region: historical information, previous strategic thinking, planning documents and scenario framing activities. We received feedback from participants regarding other available resources related to the case of GM.

3.2 Reihaneh's PhD Goulburn-Murray Case Study

This task had a delayed start due to the later than anticipated arrival of our overseas PhD candidate, Reihaneh (fig. 7) who commenced in October. Reihaneh also attended the CIE Conference and delivered a great talk regarding the application of machine learning techniques for informing reservoirs' inflow prediction. She has an engineering background and worked on multiple projects. Her Local SDGs research topic focuses much more on applying robust decision making for sustainability under uncertainty techniques to the Goulburn-Murray case study region. The issues in this region include reduced water availability, climate change, the decline of irrigated agriculture, recovery of environmental water, sustainable food production and livelihoods.



Fig. 7 Reihaneh Bandari PhD Candidate presentation at CIE conference

As with the Forrest case study, the need for a contextual analysis arose from consultation with experts at the aforementioned Goulburn-Murray workshops. We subsequently compiled a list of all references that we obtained from the Tatura meeting participants in an Endnote library for the [GM contextual analysis](#). This contextual analysis was therefore being undertaken to demonstrate knowledge of local issues and existing sustainable pathways when consulting with the Goulburn Murray community.

Resources have been compiled in Endnote (see Appendix M) which consists of grey literature reports and scientific journal articles pertaining to water resource management and irrigation, farming and dairy industry, future planning and sustainability in the Goulburn Murray region of North Central Victoria (fig. 8).

ENDNOTE

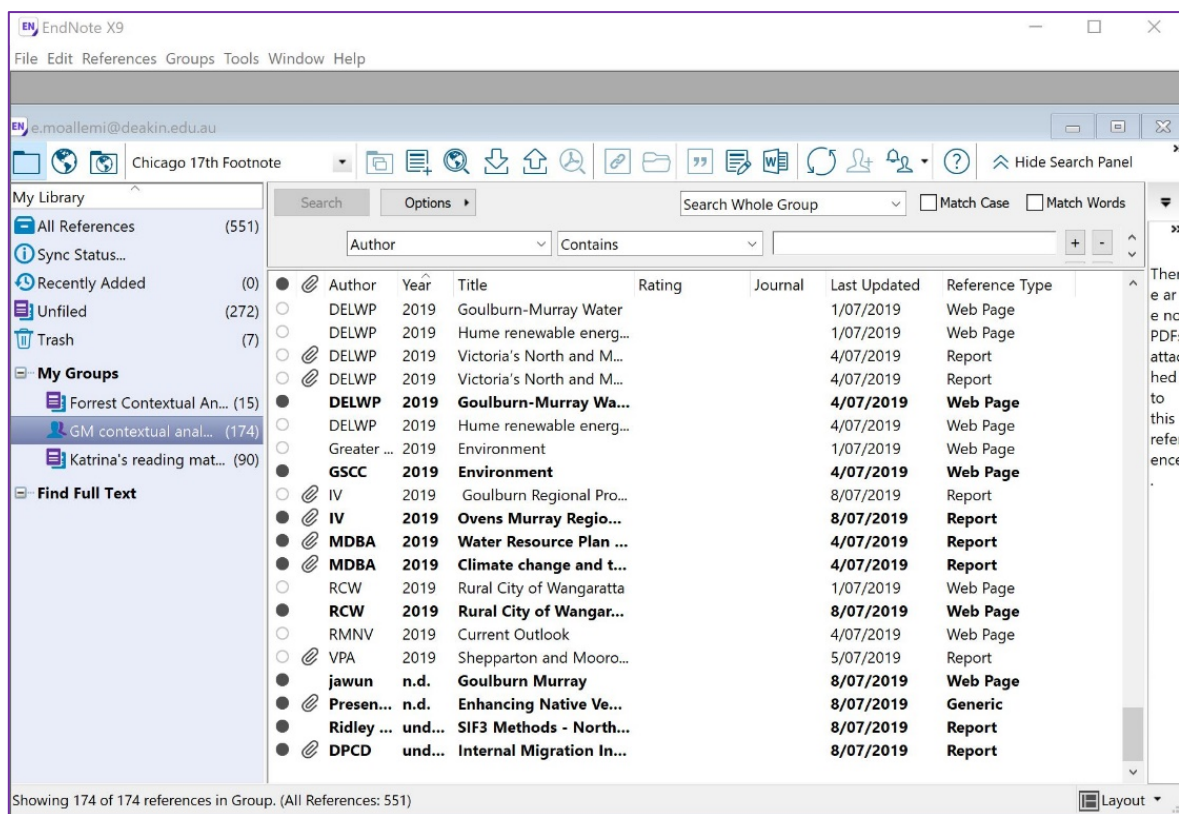


Fig. 8 Goulburn-Murray list of resources in Endnote

We use the SDGs as a global sustainability framework which indicates goals and target indicators in relation to various aspects of sustainability such as water and sanitation, food and agriculture, energy, job and economy, etc. We then *review* existing scientific articles, reports and websites to *collect* statements (as unit of analysis) and *label* the statements based on one of 17 SDGs. Next the top five SDGs of interest are identified by the number of coded statements across all documents. This is performed using Nvivo (fig. 9) to import pdfs and systematically highlight

statements. In excel (fig. 10) we document the driving forces of the Shared Socio-economic Pathways (SSPs) as our framework to identify the challenges and opportunities of future driving forces in relation to SDGs (see Appendix M).

NVIVO

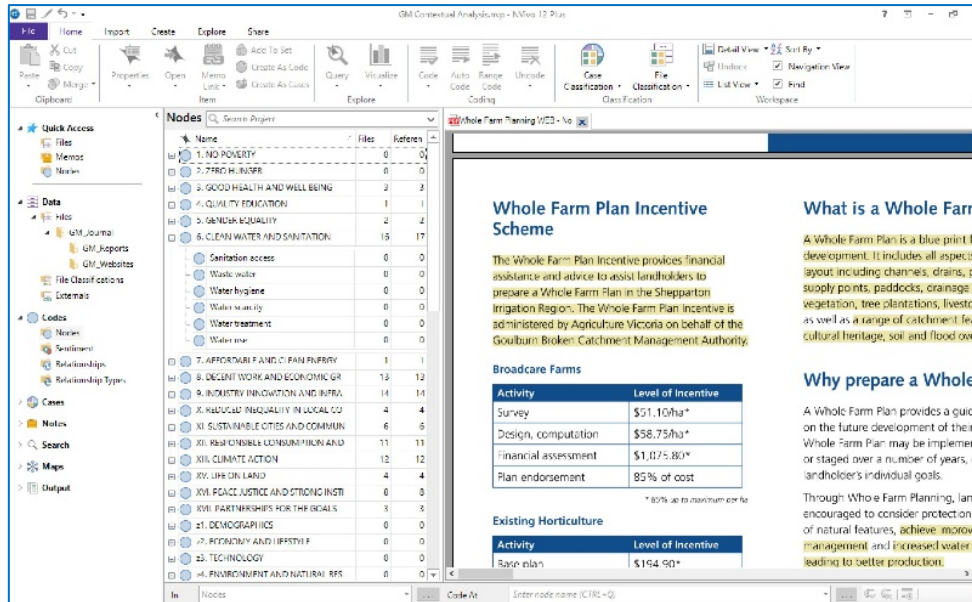


Fig. 10 Nvivo used to code the Endnote documents for applicable SDGs

EXCEL RESULTS

Reference	Most frequently coded SDGs
1 Grafton, R 2016, On the Marketisation of Water: Evidence from the Murray-Darling Basin, Australia, http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=edsgcl.46470187&authType=ip:sofic.usid:deakinid	Clean Water and Sanitation Decent Work and Economic Growth Industry, Innovation and Infrastructure Climate Action
2 Crossman, N. et al. 2009, Reconfiguring an Irrigation landscape to improve provision of ecosystem services, http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ir00031a	Clean Water and Sanitation Decent Work and Economic Growth Industry, Innovation and Infrastructure Climate Action
3 Hart, B 2016, The Australian Murray-Darling Basin Plan: challenges in its implementation (part 1), http://ezproxy.deakin.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edselc&AN=edsgcl.7-52-0-	Responsible Consumption and Production Industry, Innovation and Infrastructure Peace, Justice and Strong Institutions Climate Action
4 Alston, M et al. 2018, "Limits to Adaptation: Reducing Irrigation Water in the Murray-Darling Basin Dairy Communities." Journal of Rural Studies, https://www.sciencedirect.com/ezproxy-deakin.edu.au/science/article/pii/S0743016717304	Clean Water and Sanitation Life on Land Peace, Justice and Strong Institutions Responsible Consumption and Production Sustainable Cities and Communities
5 Abel, N et al. 2006, Barmah Forest: Barmah Forest: a review of its values, management objectives, and knowledge base. Report to the Goulburn Broken Catchment Management Authority, https://www.gbma.vic.gov.au/downloads/Wetlands	Clean Water and Sanitation Climate Action
6 DELWP 2019, Victoria's North and Murray Water Resource Plan: Comprehensive Report Part 2, https://www.mdba.gov.au/sites/default/files/pubs/vic-victoria%20s-north-and-murray-comprehensive-	Clean Water and Sanitation Life on Land Sustainable Cities and Communities

Fig. 11 Excel spreadsheets to identify the relationship between SDGs and SSPs

Goal 4: developing and communicating a general framework for designing sustainability pathways

Develop and communicate a general framework for designing pathways to sustainability. Synthesise a general framework from common threads in concepts/approaches from across the case studies that is applicable to local communities across Australia and worldwide. The outputs and outcomes from the individual case studies and the synthesis will be communicated widely, including via an online tool aimed at encouraging broader uptake by communities (i.e. including principles, examples, how-to guides).

Timeline of the actions/KPIs necessary to achieve this goal.

1. Synthesise concepts/approaches developed in case studies into a general framework for local sustainability (Jul 2020 ? Jun 2021).
2. Develop professional website providing resources for communities wanting to derive their own pathways to local sustainability (Jul 2020 ? Jun 2021).
3. Publish social media articles on case studies and synthesis (Jul 2020 ? Jun 2021).
4. Publish scientific papers on case studies and synthesis (Jul 2020 ? Dec 2021).

Measurements to be put in place to determine if you have achieved your goal.

(III) WHAT MEASUREMENTS WILL YOU PUT IN PLACE TO DETERMINE IF YOU HAVE ACHIEVED YOUR GOAL?

1. General framework published in a high-impact scientific journal.
2. Adoption of the local sustainability pathways by case study communities.
3. More than 10 participants at each workshop.
4. Web page exceeds 1000 views.
5. Three other communities request local sustainability and future-proofing assessments.
6. Social media pages (Facebook, Twitter, ResearchGate) have >50 followers.
7. PhD student 3 submits their PhD thesis.

4.1 Publications

Our team has strived to contribute to the theory and application of adaptive planning for local sustainability through working on journal articles, such as our recently published commentary in the [Lancet Planetary Health](#) (see Appendix A) and a few other [work-in-progress](#) articles which will hopefully become finalised in the near future. The Lancet article proposes a participatory and inclusive governance agenda for a bottom-up implementation of the SDGs, which we term Local Agenda 2030 for sustainable development, to promote well-being and prosperity of local communities.

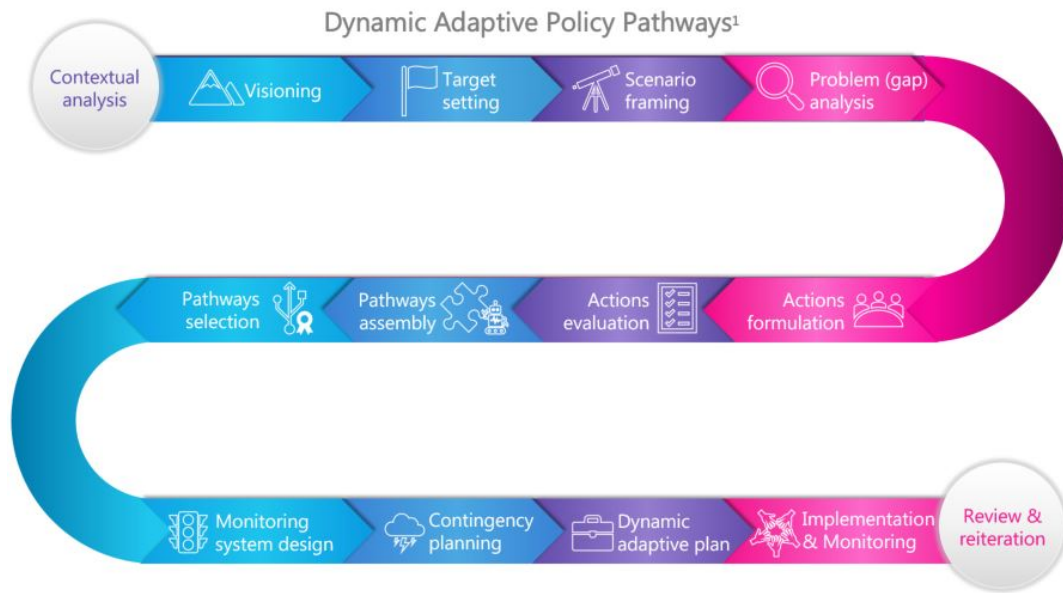
4.2 Workshops

We started working on developing a general framework for designing pathways to sustainability with local communities in regional Australia from the early stages of the project. In our endeavour to achieve an informed and meaningful framework for the project, we ran a Method workshop at Deakin University on 'Method Selection for the Local Implementation of the Sustainable Development Goals' which ended up successful with constructive inputs for the methodology of our project (fig. 12).



Fig. 12 Burwood Method Selection Workshop led by Brett and Enayat

An in-depth survey was also administered to participants to provide us with further reflection and input on methodological and participatory approaches. We are currently writing an opinion article based on the results of the workshop with our participants (see Appendix C). Our draft manuscript entitled "A blueprint for the effective coupling of participatory and modelling methods for developing sustainability pathways" (fig. 13) is going to be submitted to *Global Environmental Change*. In this article, we proposed a framework and concrete actions for a long-awaited link between the popular topic of the SDGs and the important area of stakeholder involvement in policy-making.



1. Adapted from Haasnoot, et al. (2013). Dynamic adaptive policy pathways: A method for crafting robust decisions for a deeply uncertain world. *Global Environmental Change*, 23(2), 485-498.

Fig. 13 Dynamic Adaptive Policy Pathways outlined in the Method workshop

Our proposed framework informs the fit-for-purpose engagement with stakeholders through a multidisciplinary lens and based on the effective coupling of participatory and modelling methods. Our framework is underpinned by an extensive cross-disciplinary literature review. It is also based on the informed opinions of 20 experts in sustainability science about the effective level and form of stakeholder engagement, obtained through workshops and surveys. We reviewed more than 43 different methods for stakeholder engagement, from a variety of areas such as environmental participatory modelling, environmental decision-making, sustainability assessment, and ecosystem service assessment.

We also reviewed and developed a typology of 27 selection criteria that influence that choice of methods for stakeholder engagement. The reviewed methods and selection criteria provided a framework to draw on critical insights of sustainability experts to identify what ways of stakeholder participation become more effective under what conditions. We have developed a range of means to communicate the processes to achieve a general framework for designing pathways to sustainability which includes: meetings, workshops, conferences, publications, a website, networking and social media.

4.3 Conferences

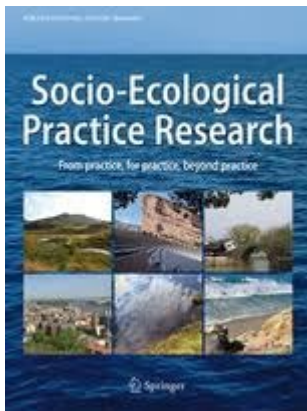
We have multiple prior and upcoming conferences both locally and internationally, providing great opportunities to communicate our project goals and achievements:

[SEPR 2019 Shanghai Conference](#) (China): Brett Bryan (fig. 14) delivered an outstanding presentation earlier this year of our Local Agenda 2030: developing a participatory framework for achieving the SDGs from the bottom up (see Appendix H).



Fig. 14 Brett communicating Local Agenda 2030 in China

Special Issue:



We are currently editing a special issue on the topic of 'Connecting Sustainability Knowledge and Local Action for Achieving SDGs' with an ultimate goal of bringing new ideas from other leading scholars for supporting our Local SDGs project through providing scientific advice on shaping implementable actions and robust pathways for achieving local sustainability. We are also editing an Eco-Summit symposium affiliated [Special Issue](#) (SI) for Socio-Ecological Practice Research ([SEPR](#)) on the same topic.

We aim to enhance the science-policy interface by transcending the boundary between knowledge systems (where scientists operate) and the realm of actions (where policymakers and stakeholders sit) in sustainability science. Our motivation is to collect contributions that can improve the credibility, salience, and legitimacy of policy recommendations for sustainable development through a mix of (e.g., modelling, participatory, data-driven, etc.) methods and approaches.

[Eco-Summit:](#)



Our team is organising this SI symposium for Eco-Summit 2020 on the Gold Coast from 21 - 25 June 2020. Eco-Summit is a major academic and policy event that covers a wide range of topics, such as climate change adaptation, socio-ecological modelling, sustainability and resilience, amongst other areas.

[MODSIM 2019](#): Our team is organising a session at the 23rd International Congress on Modelling and Simulation (MODSIM2019) that will be held at the National Convention Centre in Canberra from 1 - 6 December 2019. We are also presenting some of our findings at this conference. MODSIM is the largest biannual event on modelling and simulation in the Asia-Pacific region.

[2019 Annual Meeting of the Decision Making under Deep Uncertainty](#) (Netherlands). The local SDGs team has two accepted abstracts based on the project results to present in the annual meeting of DMDU Society. We will be presenting on their initial findings on "the method selection framework for developing pathways to sustainability under uncertainty". They will present on another ongoing literature review work on "robust decision making for sustainability under global change: Classifying, sequencing, and evaluating alternative methodological choices"

[Sustainable Climate Risk Management](#) (USA): Enayat received an invitation for a (fully funded) trip to attend the 7th Annual Summer School on Sustainable Climate Risk Management to be held in The Pennsylvania State University, USA, July 29 - August 2. Enayat's invitation was based on his contribution to the decision-making of coupled human-natural systems during the Local SDGs project.

[100 Resilience Fellows](#) (Netherlands): Enayat is offered a fully funded visiting fellowship from a consortium of four leading Dutch universities to undertake an analytical component of the Local SDGs project in the Netherlands in 2020. This program aims to establish and foster an international network of top-level academic scholars, engineers, practitioners and decision-makers who serve as ambassadors of the resilience science paradigm.

4.4 Promotion

We have also been networking by sharing our Local SDGs story via various platforms (see Appendix O):

- We have sent out regular newsletters to our project collaborators (see Appendix N)
- [The Australian SDG website](#) has been developed by the Global Compact Network Australia (GCNA), which provides opportunities for similar organisations to showcase action being taken across government, business, civil society and academia to advance the SDGs in the Australian context.
- [Local 2030: Localizing the SDGs](#) is a website platform that supports the on-the-ground delivery of the SDGs, with a focus on those furthest behind.
- A story about The Local SDGs Project was posted in [Deakin news](#). The story covers the launch of our website and what it offers, including case studies, workshops and links to sustainable development goal resources.
- We are also promoting our initiatives on Twitter [@LocalSDGs](#) and engaging with other SDG organisations. We have accumulated over 100 followers.
- Our website also provides summaries with links to local sustainability [initiatives](#), tools and resources being undertaken around the world.

Website Launched

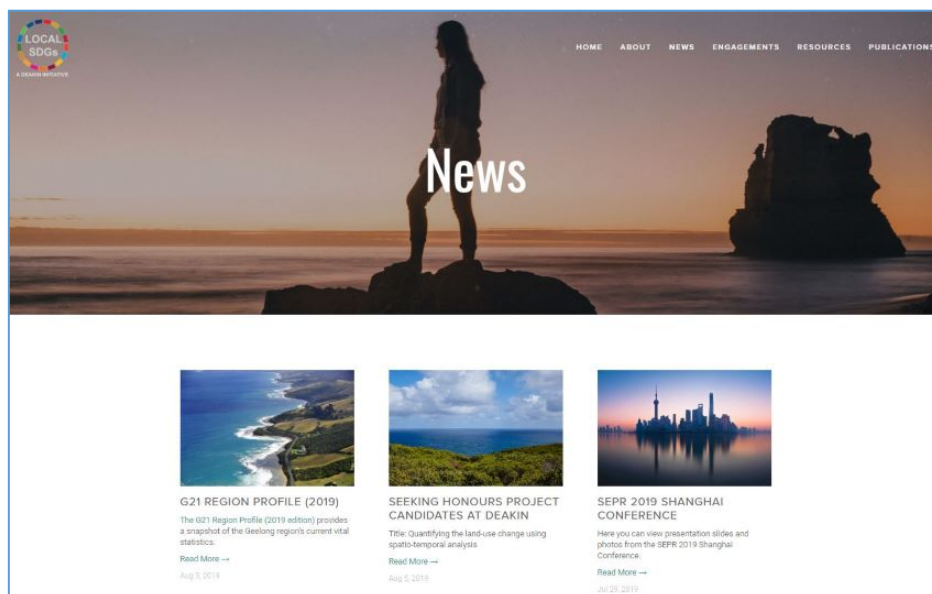


Fig. 15 News item page from the Local SDGs website

We launched our Local SDGs project [website](#) in July (fig. 15), making our work and initiatives available to a wider audience. Visitors to The Local SDGs Project website can find a range of information, including details of the two case studies, information about workshops, meetings and seminars, plus links to publications and resources and to information about the 17 respective SDGs. We are using the website as a collaborative learning platform that enables the communication of recent project developments and outcomes to stakeholders – for example through blogging features and social media. We also want the website to enable further engagement and feedback on our work from a wider group of local communities. The website traffic to date has comprised of 627 visits and 1,787 page views.

iv. Reflection

If there have been any changes (including the timeframe, budget, staffing), please describe these changes, and explain the reasons for them.

N/A

What has been surprising?

A great positive was the high level of interest and passion demonstrated by the local Forrest Community which was beyond expectations. We have also been very impressed by the quality of engagement with project collaborators such as The Department of Land, Water and Planning (DELWP). They have facilitated our planning and community engagements to the highest degree. Our project researchers have been incredibly well-received with many invites from keynote speakers at conferences such as in China to guest contributions in scientific journals such as The Lancet Planetary Health. Our PhD candidate's science award was indicative of the hard work and progress exhibited by the entire Local SDGs Project team.

Please outline future plans/actions for your grant project.

Please include any challenges (reduced funding, difficulty recruiting) that your project or organisation are currently facing. Please also let us know how we can help you thrive.

Reihaneh will continue the contextual analysis outlined in Goal 3 section 3.2 and will generate the similar outputs as Forrest for the Goulburn-Murray case study.

There are two more Forrest engagements being planned with the local community for 2019 in November and December in addition to the numerous conferences and publications outlined in Goal 4. Having identified challenges and threats to the community, our project team will work on finding local solutions. We are in the process of developing participatory models to analyse the fulfilment of local sustainability objectives. A qualitative approach requires community engagement to discover goals, challenges, threats, and solutions.

The quantitative approach entails system dynamics modelling to simulate causal reactions between these challenges, threats and solutions. A four step process has been designed to achieve this aim by developing the following models over the next two years:

1. Connecting the Sustainable Development Goals and the Shared Socioeconomic Pathways (SSPs) for evaluating local sustainability
2. A conceptual framework for modelling SDG synergies and trade-offs at a local scale
3. Modelling local sustainability for achievement of the SDGs
4. A model-based assessment of SDG implementation progress in local communities