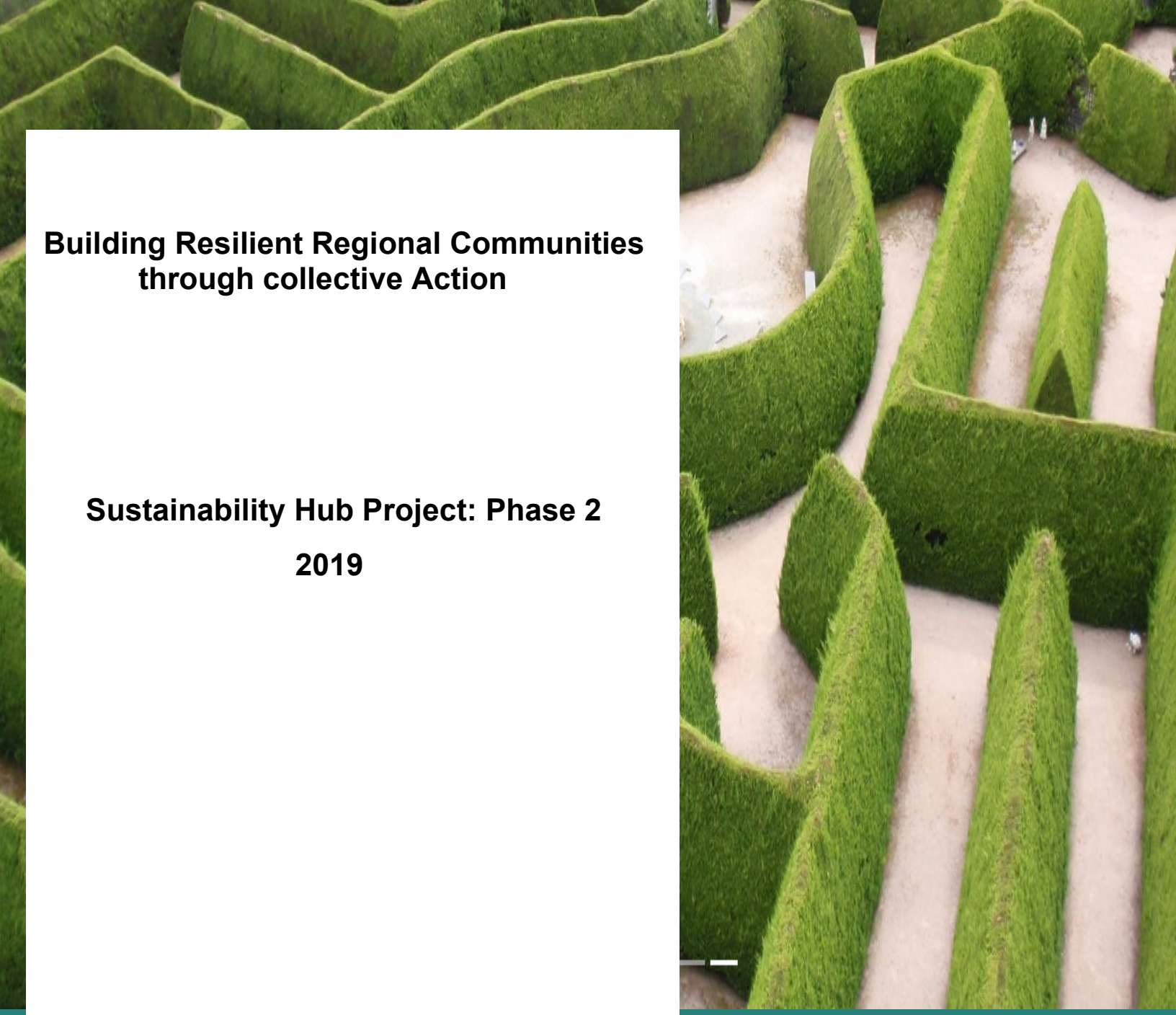

Building Resilient Regional Communities through collective Action

Sustainability Hub Project: Phase 2

2019

November, 2019

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LEGATUS GROUP

THE UNIVERSITY of ADELAIDE

Contents

Executive Summary

The impact of climate change on communities and businesses are inevitable. Regional and rural areas undoubtedly are highly impacted as a result of already existing vulnerabilities. Responding to climate change and sustainability through collective action with a strong focus on community level initiatives can be an important mechanism to build resilient regional communities. It provides an opportunity to pool resources, scale up local sustainability initiatives and encourage community sustainability agency. This report forms part of a series of activities being undertaken by the Legatus Group to connect local government institutions, community groups and businesses through the establishment of a sustainability hub for the Legatus Region in South Australia. The Sustainability Hub is central to the region's climate change action plans.

This report is based on a three-month study aimed at identifying stakeholders undertaking sustainability initiatives in the region and recommending what a sustainability hub may look like for the region. Data for the study was obtained through an online survey open to the public, an institutional appraisal survey of councils in the region as well as in-depth interviews. The study identified 120 stakeholders involved in some form of sustainability initiative in the region. This information has been collated into an excel database as an addendum to this report. This report discusses broadly the characteristics of these stakeholders, the nature of initiatives being carried out and the challenges encountered during implementation. The report importantly recommends the establishment of a regional hub to serve the interest of the entire region as opposed to a series of individual hubs across the region. Five core strategic focus areas for such a regional hub are highlighted in the report to shape the outlook of the hub if established in future.

1. Introduction

1.1 Report Context

Over the years, regional communities in Australia have had to contend with several social, economic and environmental challenges. Undoubtedly, climate change has become an increasing concern for regional areas (Climate Council 2016). According to the Climate Council (2016), making regional areas in Australia more prosperous, livable, productive and sustainable in the face of climate change risks and impacts require strong commitment to climate change adaptation policies and practices. In this regard, the Legatus Group and its regional partners are committed to pursuing and supporting the development of climate change adaptation strategies and making the region more livable. A sustainability hub is envisioned as one of several mechanisms to achieve this goal. The success of previous efforts to establish a sustainability Hub in the region, however, has been mixed. A previous initiative known as the Goyder Line Sustainability Hub was unsuccessful and closed after two years in operation. A feasibility study by Meyer-McLean (2019)[1] of the Department of Geography, Environment and Population University of Adelaide and commissioned by the Legatus Group and its partners sought to revive the sustainability hub idea. The study aimed at reviewing the literature about how such Hubs operate, why previous attempts to establish one in the region have failed and how to go about establishing a new one. The study identified amongst others, a lack of community involvement, funds and feasible projects to keep the Hub operational as reasons for the failure of the Goyder Line Sustainability Hub. The study report importantly also identified a number of sustainability projects across the broader region but noted that these programs are operating in isolation. The study makes several recommendations including the inclusion of community stakeholders involved in these sustainability initiatives in the planning and implementation of a new Hub.

As a follow up to the feasibility study, this current project was commissioned to engage with stakeholders within the Legatus Group region to identify opportunities and feasible mechanisms for establishing a Hub and/or physical trail as well as the organization of a regional sustainability conference in 2019. The practical aim of this research project was to create a database of sustainability initiatives and stakeholders in the region which in the long term can fledge into a process of connecting local initiatives to each other in the region for a greater collaborative/inclusive climate change adaptation and sustainability drive.

The specific terms of reference/objectives guiding the implementation of this three months project are outlined subsequently.

1.2 Terms of Reference

This project's key objectives were:

a. Identify and classify local stakeholders (individuals, industry, civil society groups, community groups, etc.) undertaking or interested in sustainability activities in the region.

[1] **Available at: https://legatus.sa.gov.au/wp-content/uploads/2019/07/Final-report-May-2019.pdf**

b. Analyse activities being undertaken by stakeholders identified.
c. Develop a stakeholder database based on (A) and (B) above.
d. Identify opportunities or mechanisms of creating synergies amongst stakeholders.
e. Identify mechanisms to scale up and integrate these stakeholders and local interest into the establishment of a Sustainability Hubs and or trail.
f. Make recommendations as to how to establish the sustainability Hubs and/or trail.

1.3 Report Structure

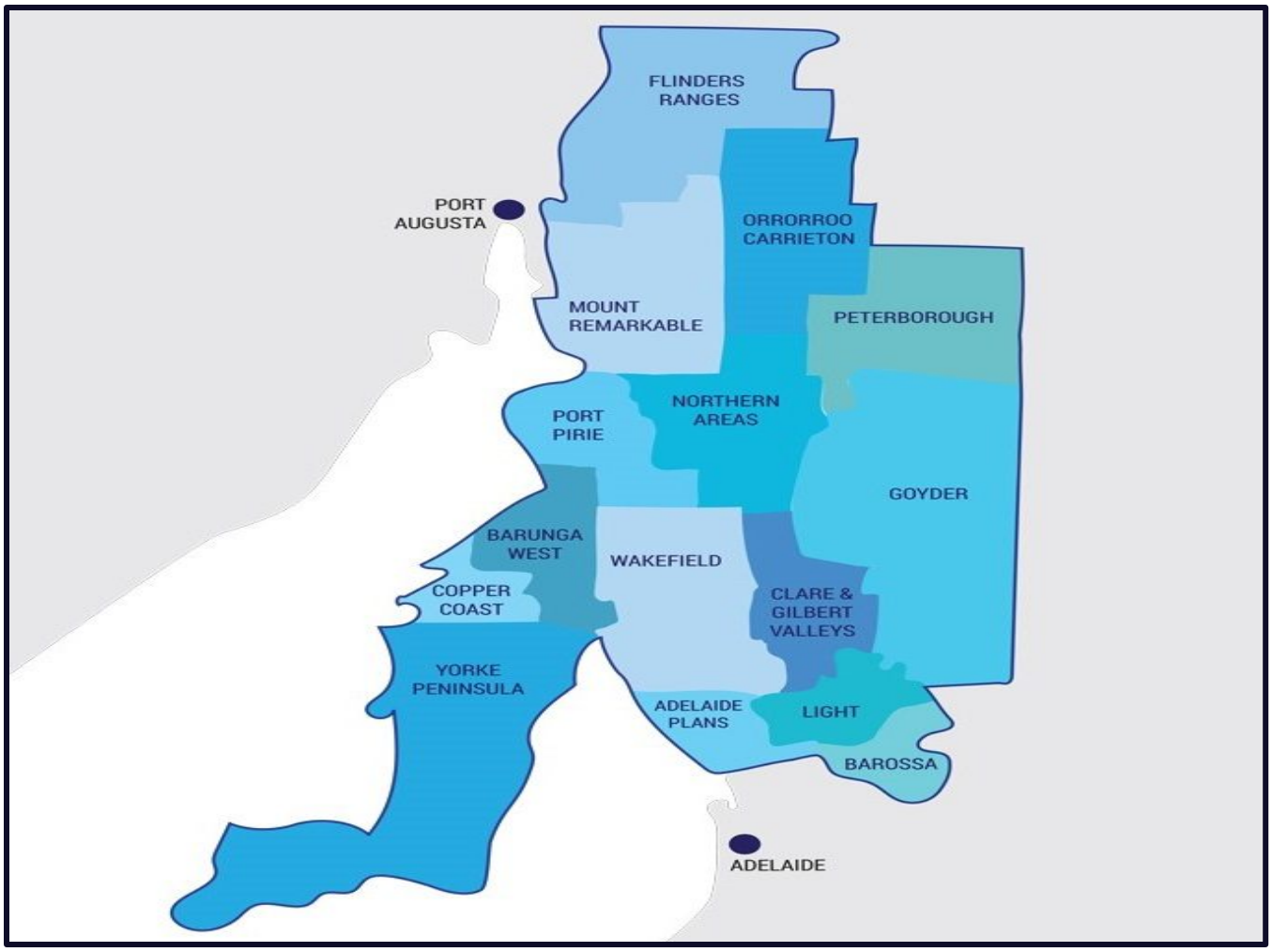
The report is structured into four main sections. In section two, a background to the Legatus Group region is provided. This encapsulates the general geography and economy of the region as well as an overview of the climate change adaptation context of the region. The role of community groups/initiatives in climate change adaptation and sustainability planning and implementation is also reviewed. The third section presents results of this research project by identifying various sustainability initiatives being carried out in the region and the groups or businesses involved. This section also discusses the challenges faced by stakeholders and the way forward for establishing a regional sustainability hub. The final section synthesizes the results and provides some recommendations.

2 Background

2.1 The Legatus Group region

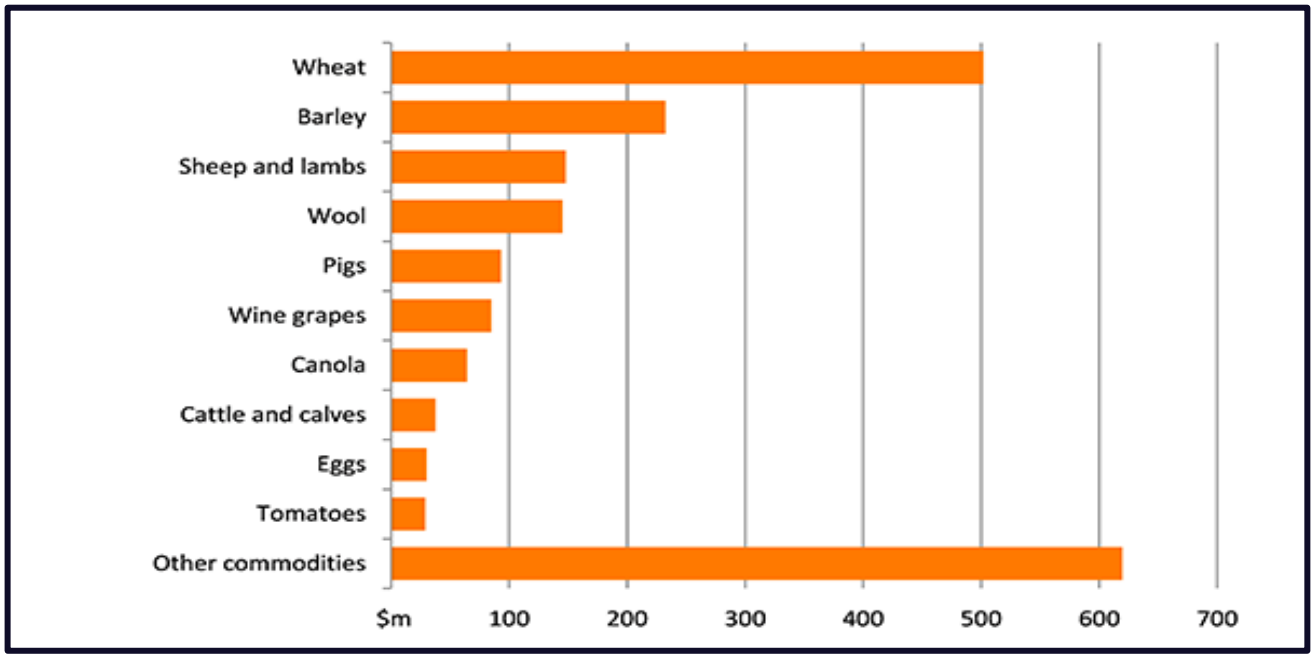
The Legatus Group Region encapsulate the area covered by 15 local government councils located just north of Adelaide through to the Flinders Ranges and from the Barossa Valley to the Yorke Peninsula in the West. Figure 1 identifies and highlights the location of these local government councils. The region's population is estimated to be approximately 113,600 people (ABS 2018).

Figure 1: Map of the Legatus Group region



The region covers approximately 37,600 square kilometres. About 92 % of the land area in the region is agricultural land and is either being used for cropping or cleared for animal grazing. Of the remainder, 6 % is zoned for conservation and natural environment protected areas (ABARES 2019). This highlights the region's defining feature as an agricultural terrain. The region produces two-thirds of the country's wine export, particularly from the distinct Clare and Barossa Valleys. Besides this, the region is also renowned for its production of food crops and animal rearing. Figure 2 provides a snapshot of the region's agricultural production from 2017 to 2018. The region's top agricultural production over the period was wheat ($502 million), followed by barley ($233 million) and sheep and lambs ($148 million) (Department of Agriculture/ABS 2019).

Figure 2: Value of agricultural production in the Yorke-Mid North region, 2017–18



Source: Department of Agriculture/ABS (2019)

The region supports diverse natural resources and biodiversity. The sustainability of the region's biosystems is however threatened by increasing intensification of agricultural production and climate change. It is estimated that only 26% of the regions' native vegetation remains as most have been lost through land clearance for agriculture (RDA 2014). This has led to significant disruption of ecological processes and consequent climate change risks. In total, 46 nationally threatened species have been recorded within the Northern and Yorke region including the spiny daisy (Acanthocladium dockeri), Spalding blown-grass (Lachnogrostis limitanea) and pygmy bluetongue lizard (Tiliqua adelaidensis) being the most critically endangered. If not protected and or restored, some plant and animal species are at risk of extinction (Department of Planning and Local Government 2011). The region's 800km coastline and marine environment provide excellent tourism and other economic opportunities. Nonetheless, these natural resources are also vulnerable to humans (e.g mineral exploration, bush camping, over-harvesting) and non-human threats (spread of weeds and pests) (RDA 2014). Thus, interest in climate change adaptation and sustainability initiatives in the region particularly in the area of land caring is of utmost importance.

The Legatus Group region in the context of sustainability is however also well noted in the reproduction of renewable energy. With over a $1 billion dollars of investment in renewable energy projects, the region leads in the production of Wind farm energy (RDA 2014). Besides this, the world's largest

largest lithium-ion battery installation by Tesla is also situated in the region. In effect, whilst the region's agricultural practices can have significant impact on environmental sustainability, the region equally contributes to sustainability through renewable energy projects initiated by landowners and the communities in general.

2.2 Climate change and regional communities: A brief review

Research indicates that while most Australians will be affected by climate change, those living in rural or regional areas will be impacted most (Climate Council 2016). This is because communities in these areas do not only contend with climate change problems but also face already existing socio-economic problems which are further exacerbated by the impacts of a changing climate (Climate Council 2016). A study by (Climate Council 2016) suggests that in addition to regional communities facing worsening weather events, (such as drought and bush fires) businesses in these regions are taking on increased debt in response to the extreme weather events. The study advocates for strong climate action to adapt to the impacts of climate change which is aggravating unemployment and retention of labour in regional communities.

Detailed analysis of climate change vulnerabilities and impacts for the Legatus Group region are not readily available. The region experiences a Mediterranean climate defined by wet winters and warm summers. A study by Balston et al. (2011) provides some climate change vulnerability projections for the region. It is projected that by 2030, the region will experience an increase in temperatures of 0.8°C (mid-North) and 0.69°C (Yorke Peninsula) respectively during the summer periods with fire danger days expected to rise. Rainfall is expected to decrease on the other hand by 3.5 % (November to April) and 8.7% (May to October). Sea level rise of 0.5-1.0m is also predicted by 2050. Thus, the region is generally predicted to experience less rainfall, hotter days, increased atmospheric CO2 and extreme weather events such storm surges, bush fires and droughts among others. The study further notes that key resources in the region such as native vegetation, groundwater and dependent ecosystems, commercial fisheries among others will be particularly vulnerable to climate change (Balston et al. 2011). The impacts of some of these projected climate change risks are already being felt. For example studies by Bardsley and Sweeney (2010) reveals that crops such as wine grapes are highly exposed and sensitive to climate change. In view of the predicted and current impacts of climate change on the region, the need to adapt as well as champion sustainability initiatives cannot be overemphasized. Sustainability and climate change adaptation are therefore of great significance to the region.

2.3 Adapting to a changing climate

At the state level, commitments have been made to tackle climate change impacts. Most notable of such efforts is the development of a state-wide climate change adaptation framework known as the 'Prospering in a Changing Climate'. The framework recognizes that failure to undertake climate change adaptation measures will lead to long term consequences for the state including low food production, health issues, loss of biodiversity and financial losses among others. The framework situates climate change adaptation as a shared responsibility that requires the collaborative efforts of all tiers of government, business organizations, communities, and individuals. It encourages initiatives at the local and regional level through sectoral collaborations supported by the state government. In this respect and in line with the Climate Change and Greenhouse gas Emissions Act of 2007, the Legatus Group Region have signed a climate change sector agreement with the state government.

The agreements define how climate change in the region is to be tackled with respect to climate change governance, climate change communication and climate change Adaptation and Mitigation actions. Table 1 in section three of this report provides a snapshot of climate change mitigation/adaptation actions being carried out by the various councils in the region. Importantly, the region as a whole has also developed a Regional Climate Change Action Plan for reducing climate change risks, improving resilience and taking advantage of opportunities. Central to this action plan is community engagement and the establishment of a regional sustainability hub. These generally align with the South Australian Climate Change adaptation Framework which stresses the importance of working with communities towards managing the risks of climate change.

2.4 Community-based sustainability initiatives

The regional climate change action plan enjoins governance actors to identify and promote local climate change initiatives, develop a network of climate change decision-makers and make climate change information readily available to communities. Leveraging ongoing community-based sustainability initiatives provides a good starting point for achieving such an inclusive approach to tackle climate change and enhance the sustainability of regional communities without significant additional resources being required.

Sustainability and communities are closely intertwined. Not least because communities are those that suffer most from adverse environment extremes but more so because they are central to environmental governance. It is well noted in the South Australian Climate change adaptation framework that community groups, as well as other non-state actors, are crucial in ensuring the sustainability of regional

economies and can play a leading role in local adaptation processes. Undertaking place-based sustainability initiatives provide a mechanism for most local actors particularly community groups to contribute to local adaptation processes. Community-based sustainability initiatives can be understood as initiatives undertaken by grassroots organizations to tackle environmental issues and improve the socio-economic wellbeing of their communities.

The range of sustainability activities addressed by these organizations is wide and ranges from environmental education, nature protection, to organizing community livelihoods. Despite variations and scope of what they do, their initiatives are not to be underestimated. Community-based sustainability initiatives have been found to contribute to climate change mitigation by supporting low-carbon transitions (Forrest and Wiek 2015). Community-based organizations undertaking sustainability initiatives when well-resourced can also play a key role in bridging information and exchange gap between local populations and policymakers (Tschentscher 2016). Through community- based sustainability projects, local community groups and schools have been noted to raise broad community awareness and action around sustainability and climate change issues (Somerville and Green 2012, Flowers and Chodkiewicz 2009, Walter 2013). Even though most of these grassroots organizations operate on a small scale, they create an avenue for the development of new ideas and practices (Seyfang and Haxeltine 2012, Seyfang and Smith 2007). These ideas of sustainability practices or new models can be adopted and scaled up by other actors including policymakers (Gernert, El Bilali, and Strassner 2018). Essentially, they are able to develop place-based solutions that embody local knowledge capable of responding to local context specificity (situations) including community environmental values and interests (Seyfang and Smith 2007). To fully address the issue of sustainability in the region and establish a sustainability hub, it is important to examine initiatives already existing at the local level in the region.

3 Stakeholders and Sustainability Initiatives

This study identified several stakeholders interested in working towards the sustainability of the Legatus Group Region. In addition to local councils, several parties are engaged in sustainability practices for the benefit of their respective communities or the region as a whole. Both state and non-sate stakeholders were identified. State stakeholders in this study relate to stakeholders that are government institutions (e.g. local councils) whereas non-state stakeholders are private entities (businesses, community groups, individuals) as depicted in figure 2. Non-state actors involved in this space are diverse and range from local businesses to community groups made up of volunteers. Similarly, the range of sustainability activities being carried out is widespread but generally relates to the protection of the region's natural

environments, sustainable agricultural and food consumption practices, recycling among others. This report provides a broad overview of what these stakeholders are doing and some challenges specific stakeholders face. It is important to mention that, the results of the study presented here do not in any way claim to cover comprehensively all the sustainability initiatives and stakeholders that exist in the region. What is detailed in this report must be considered within the context of the research scope in terms of the limited research period (three months), the vastness of the region studied, response rate of research participants and research funding limitations.

Figure 2: Stakeholders undertaking Sustainability Initiatives in the Region

3.1 State Actors

What is being done by the local Councils?

Integrating climate change into the business of local governments is a key feature of the climate change adaptation strategy in South Australia (NCCARF 2013). Local governments are required within the South Australian Climate Change Adaptation framework to provide leadership towards ensuring regional sustainability and climate change adaptation. Local government in the region is embarking on some sustainability initiatives to respond to the particular needs of the council areas they are responsible for. Table 1 provides an overview of some of the initiatives being undertaken by the councils[2].

[2] **Stringent efforts were made to obtain information from all the fifteen (15) councils however only the nine (9) Councils shown in table 1 responded to the research survey instrument.**

Table 1: Overview of sustainability/Climate Change initiatives being undertaken by Councils

Name of Council Area	Initiative(s)
Wakefield Regional Council	• Community Garden • Trees for Life
Barunga West Council	• Community Garden • Four Bin System (Paper/Cardboard, recycling, green waste, general rubbish) • Battery Recycling Program Mobile Phone Recycling Program • Community Power Network (Solar & Battery options for residents) • Electric Car recharging stations x2 at Pt Broughton • Free tree days for residents • No single-use plastics at Council events
Yorke Peninsula Council	• The Great Gum Flat Adventure (Nature Play Festival) • Gum Flat Restoration project (environmental restoration as well as historical items i.e. horse dip) • National Tree Day plantings with local schools • Food & Wellbeing Annual Event (included sustainability with DirtGirl interactive sessions) • Support Progress Associations and community groups with materials for projects i.e. indigenous gardens, community gardens, pathways, beach access, etc. • Increased focus on waste reduction Council maintenance practices i.e. weed control, reserve management
Copper Coast Council	• Waste management • Community gardens • Solar energy
Clare & Gilbert Valleys Council	• Waste Collection Recycling • Compost investigation for CWMS and green waste • Energy audit and a view to installation of solar system • Investigation of support program to assist households to go solar.
District Council of Orroroo Carrieton	• Continued provision of infrastructure to support the agricultural sector, business operations and community needs • Support community organizations and events to ensure sustainability and good governance, and maintain local history and heritage • Reduced environmental impact and preservation of natural environment via energy efficiency strategies, hazard reduction and sound environmental policies and practices
The Barossa Council	• Collaborate with relevant authorities to ensure a regional and holistic approach in the management of natural resources • Support native ecosystems through a planned management approach • Ensure environmental and agricultural sustainability and historic significance of the region is retained • Implement and promote policy that reduces the consumption of our natural resources and reuses or recycles waste
Adelaide Plains Council	• Key Objective: Adelaide Plains Council is a place that is resilient to the impacts of climate change • Key Strategy: Prepare for and respond to the impacts of climate change • Services and Potential Projects: Climate change adaptation responses – Federal, State and Local coastal monitoring initiatives • It also focuses on related areas such as habitat protection, flood management and community environmental initiatives.

Port Pirie Regional Council	• Goal S5 - Adapt to climate change and ensure community resilience. • Strategy 5.1 Identify methods of adapting actions and processes to ensure climate impacts are minimized and resilience to change is maximized. • Strategy 5.2 Review policies and regulatory frameworks to ensure they support climate adaption activities

From the table above, each of the local councils are investing in a number of sustainability initiatives or pursuing some policies to achieve sustainability. Whilst these initiatives respond to the contextual peculiarities of each council area, it is also obvious that similarities exist across the region in terms of specific initiatives being done. For example, waste management is central to the sustainability strategy of each council. Most of the councils are making efforts in this direction to put in place systems for recycling. Community gardening is also a sustainability initiative that is common to most of the councils. Generally, the establishment of community gardens in the region has followed two models- community-led or council-led. In the community-led approach, councils have supported community groups who have conceptualized and initiated the process to set up community gardens. Councils have supported through the provision of resources such as land allotments and/or funding. On the other hand, some community gardens have been established through the council's own initiative. The management of such gardens is however not always controlled by the council. The community garden in Port Broughton as an example has been given to a community group to manage after it was established by the Barunga West Council.

In addition, councils are investing in the protection and restoration of natural resources within their jurisdictions. This is being done through projects such as revegetation initiatives (e.g. tree planting campaigns) and by supporting Community Landcare Groups. Increasingly, a number of councils are also focusing attention on improving energy consumption. Port Pirie and more recently, Barunga West councils are helping households to transition to solar energy through a community power network initiative. The Clare and Gilbert Valley council intend to utilize solar panels for their buildings and the Copper Coast Council has already taken advantage of solar energy at its waste treatment plant. Given that there are parallels in the sustainability initiatives being done by the councils across region, there is a strong case for collaborations and mutual learnings. For example, Barunga West Council's decision to implement a community power network resulted from the successful experiences in Port Pirie. A platform that can enable sharing of sustainability ideas, research and case studies (success and failure stories) would thus be very beneficial to the councils in making the region more sustainable and resilient to climate change.

Regional and for that matter rural areas face challenges including lack of financial resources, limited staff, access to information among others in their ability to plan for sustainability and undertake innovations (Markey, Connelly, and Roseland 2010). The study identified a number of challenges that are affecting the ability of councils to implement successfully a sustainability agenda. Most of the councils who responded to the survey instrument noted the increasing cost of undertaking sustainability initiatives in their council areas. Typical issues of concern include the rising costs of waste disposal and recycling. The vastness of the region also poses a challenge to sustainability practices. Council staff also face difficulties in reaching out to communities from council offices due to the geographical vastness of the region. For example, the distance between Warooka (a community within the Yorke Peninsula Council area) to the Council's office in Maitland is 129km. Similar spatial constraints exist in other council areas such as Goyder, Northern Areas, Flinders Ranges and Orroroo Carrieton councils.

Beyond this, some councils in the region lack sufficient resources. This makes the availability of staff to undertake research and implement sustainability initiatives limited. A number of councils also identified bureaucracy as a major hindrance that slows down their ability to undertake sustainability initiatives. These red tapes are particularly with regard to insurance and the adaption of a regional approach to climate change governance and sustainability planning.

3.2 Non-state Actors

A growing number of non-state actors in the region are exploring various pathways to sustainability in their local contexts. A total number of 120 stakeholders were identified through this study. These stakeholders have different characteristics and are engaged in different types of sustainability practices. To fully understand the nature of these non-state actors and what they are doing, it is necessary to put them into different categories. This is because the various stakeholders have different capabilities, challenges and are at different stages of their organizational development.

3.2.1 The categorization of non-sate stakeholders

The non-state stakeholders are categorized based on their level of operational organization and resourcefulness. Three main categories have been identified: low-tier organizations, mid-tier organizations and high tier organizations.

Low-tier Sustainability Stakeholders

Low-tier stakeholders refer to actors or individuals who are engaging in sustainability initiatives but do not have strongly structured organizational systems. Stakeholders in this category are mostly community

groups made up of volunteers or individuals undertaking sustainability initiatives. Most of the stakeholders in this category conceive and undertake sustainability practices on their own although a few reported obtaining assistances from their respective councils to aid their operations. Table 2 lists stakeholders within this category. Most of these low-tier stakeholders are community groups spearheaded by a few committed individual members. Members often meet once or twice a month to plan and implement desired projects. This category of stakeholders comprises mainly of community land care groups. Besides the land care groups, some groups undertake community and food gardening using permaculture principles.

Some of the community groups in this category are formalized, that is they are incorporated and have a basic governance structure consisting of a president, secretary and treasurer. However, the majority of groups that fall in this category do not have a formal system of governance. It is also important to highlight that some groups listed in this category are not only committed to issues of sustainability but other broad community issues as well. In such groups only a few members or subcommittee are directly involved in undertaking sustainability initiatives. Typical examples include the Green team of the Clare Lions Club and the Environmental Committee of the Thomson Beach Progress Association.

Whilst stakeholders within this division may be operating on a small scale, their impact cannot be underestimated. They are highly driven to make their communities and environment sustainable. Such groups and individuals have strong community connections and can easily command support as well as influence behavioural changes. For example, some community members in Clare look up to and seek advice concerning sustainability practices from the Lion's Green team coordinator. At the same time, the Lion's Green team Coordinator and the Leader of the Friends of the Barossa Bush gardens are able to mobilize local volunteers to undertake Landcare projects.

Table 2: Categorisation of non-sate Stakeholders undertaking sustainability initiatives in the region

Low tier	Mid-tier	High tier
Barossa Revegetation Landcare Group	Barossa Bush gardens Natural Resources Centre	Barossa Improved Grazing Group
Williamstown and Lyndoch Landcare Group	Mt Pleasant Natural Resources Centre Inc.	Upper River Torrens Landcare Group
Friends of Kaiserstuhl Conservation Park	Friends of Gulf St Vincent	Henschke Wines
Friends of Para Wirra Conservation Park	perfection Fresh	Yalumba Wines
Friends of Barossa Bushgardens	Red Centre Enterprises	Dorian Wines
Tanunda Woodlands Group	Warndu	Pernod Ricard
Girls Guide SA-Barossa	Brighter Futures	Vinpac
Friends of Sandy Creek Conservation Park	Penobscot Farm/Watervale hotel	Izway Wines
Two Well Community Nursery	Peats Soil	Seppeltsfield Road Business Alliance
Two Wells Regional Action Team	Balgowan Progress Association	Northern Adelaide Plains Food Cluster
Two wells Lions Club	Coobowie Progress Association	Clare Valley Wine & Grape Association

Thomson Beach Progress Association (Environment subcommittee)	Corny Point Progress Association	Hartfield Site
Parham Action Group	Edithburgh Progress Association	Riesling Trail Management Committee
Two Wells Regional Landcare	James Well & Rogues Point Progress Association	Black Point Shack Owners Association
Farrell Flat Landcare Group	Stansbury Progress Association	Yacka – Moorundie Landcare Group
Port Parham Coastal Volunteers	SA Grain Services	Upper Spencer Gulf Common Purpose Group
Lions Club of Clare District Inc./Green Team	Mid North Young Guns	Upper North Farming Systems
Ecowarriors/Clare primary school	Port Pirie Wetlands Committee	
Friends of Burra Parks	Tarcowie Landcare Group	
Friends of Spring Gully Conservation Park	Peats Soil	
Friends of Martindale Hall Conservation Park		
Clare Valley Children's Centre		
Green Living Permaculture		
Little Bunyip		
Port Broughton Community Garden/Progress Association		
Friends of Clements Gap Conservation Park		
Australian Plants Society Northern Yorke Peninsula Group		
Friends of Innes National Park		
Friends of Troubridge Island and Yorke District Conservation		
Friends of Windara Reef		
Down to Earth permaculture		
Formby Bay Environmental Action Group		
Marion Bay Progress Association		
Pine Point Progress Association		
Port Clinton & Price Progress Associations		
Port Julia Progress Association		
Port Rickaby Progress Association		
Port Vincent Progress Association Inc.		
The Yorke Peninsula Permaculture group		
Southern Yorke Peninsula Landcare Group		
Friends of Telowie Beach		
Friends of Telowie Gorge Conservation Park		
Port Germein Progress Association		
YP Feral Trees Management Group		
Reefwatch YP		
The Friends of the Flinders Ranges National Park		
Friends of Dutchman's Stern Conservation park		
Qourn Community Landcare Group		
Friends of Mount Remarkable National Park		
The Pines Inc.		
Burra Rangelands Action Group		
Midnorthers		

North Beach Township Progress Association Inc.		
Simms Cove Coast Care Group		
Balaklava Community Garden		
Upper Wakefield land care group		
Pygmy Bluetongue Landcare group		
Friends of Nelshaby Reserve		
Point Jarrold Flora & Fauna Research Association		
Spencer Gulf Environmental Alliance		
Port Pirie Garden Club Incorporated		
Port Pirie Community Gardens Inc.		
Peterborough Community Garden		
Johnburg Landcare Group		

Mid-Tier Stakeholders

The mid-tier stakeholders consist of groups that have moderate governance and organizational structures that guide their operation. Most of these groups tend to be highly specialized in particular sustainability issues or set of practices. In addition, a number of such groups have been successful in transforming their sustainability initiatives into commercial opportunities. Exemplars include the Red Centre Enterprise, Wandu, Penobscot Farm/Watervale Hotel and SA Grains. Indigenous food sustainability enterprises have gained increasing support and are currently being spearheaded by two main organizations in the region. The Red Centre Enterprise, for example, is creating more awareness for aboriginal culture and tradition by making Indigenous crops and produce readily available to local markets.

SA Grain Services is another stakeholder that is transforming sustainability initiatives into business opportunities. They have developed and introduced in the region a plastic grain bag and grain bag retriever. Used Grain bags of up to 100m in length are rolled up, tied together and then ready to be moved for recycling using the grain bag retriever. These are sustainability technologies that can be popularized and adopted in the region if greater awareness is created.

In addition to these commercial enterprises, natural resource centers in the region fall under this category. These are well- organized community organizations run by paid staff and volunteers with governing boards or committees. They work closely with Natural Resources Management Boards in the region to undertake landcare and gardening projects as well as serve as a conduit for providing information and training to community groups in their locations.

Upper Tier Stakeholders

The stakeholders in this category have relatively well-structured governance systems and are incorporated as businesses or community organizations (charity). This category consists of business organizations such as wineries, research organizations (e.g. Hartfield site, Barossa improved Grazing Group) and highly developed land care groups (e.g. Upper River Torrens Landcare Group URTLG). Sustainability initiatives undertaken by these groups are diverse. The wine companies are committed to undertaken sustainability projects not only on their vineyards and production systems but also in the communities they operate in. Other groups such as Hartfield Site and Northern Adelaide Plains Food Cluster are committed to developing more sustainable agricultural systems in the region through research and formation of alliances. It is important to state that this category of stakeholders is relatively well resourced compared to stakeholders in the other two categories. Some stakeholders such as the URTLG are involved in grant resourcing by providing other small groups and landowners with funds to undertake projects. Besides being financially resourced, most of the stakeholders have extensive networks and partners to draw on in implementing sustainability initiatives. Importantly, stakeholders in this category have extensive experience and research resources.

3.2.2 Categorization of project types

Different initiatives are being undertaken by non-state stakeholders in respond to climate change and the depletion of natural resources. Some of these initiatives are identified and discussed broadly. Organizations and community groups undertaking these initiatives are mapped out in the database accompanying this report.

1. ***Community food gardening & Permaculture Initiatives***

Community gardening is increasingly become popular both in urban and rural contexts. They are open spaces managed and operated by interested local community members for a variety of objectives (Holland 2004). Community gardens provide a model for encouraging sustainable living (Holland 2004, Turner 2011) and a reconnection of people to the sociocultural importance of food systems (Turner 2011). They constitute a significant mechanism for the production of fresh organic food, the creation of community places and diffusion of knowledge and technology (Stocker and Barnett 1998) whilst encouraging environmental equity (Ferris, Norman, and Sempik 2001). According to Stocker and Barnett (1998), community gardens contribute to sustainability in three ways: physical sustainability is encouraged through the growing of food; communal interaction promotes social sustainability; economic sustainability is promoted through the use of the gardens for training, research and skills development

as well as generation of income for participants. In the Legatus Group Region, there are a number of community gardening and sustainable food production initiatives ongoing. These garden initiatives are different in character and objectives.

School Food gardening is a type of gardening highly encouraged in some of the primary schools in the region. Whilst some schools are undertaking gardening initiatives on their own, most of the schools involved are doing so under the Stephanie Alexander School Kitchen Gardening SAKG program. The SAKG program provides school children aged between 8 and 12 years the opportunity to develop gardens where they plant, nurture harvest and prepare fresh organic food within participating schools. In the region, thirteen (13) schools are currently implementing this program. These participating schools are identified in the database accompanying this report. Interviews reveal the program is popular amongst students, teachers and parents as it provides students with the opportunity to obtain hands-on learning experience in organic food production. A study by Block et al. (2012) reveal students in participating schools develop increased self-esteem and confidence. Interviews with Green living permaculture who works with some of these schools in the mid-north region notes the enthusiasm of students practicing place-based gardening classes and willingness of other schools to join in.

Several individuals and community groups are also establishing community gardens across the region. Some of these gardens as noted before relying on the support of local councils in the region. Community gardens identified include those in Balaklava, Port Broughton, Port Pirie and Tanunda. The Green Team of the Clare Lions club is also planning to set up a community garden in their locality. It is worth noting that, some individuals and groups in the region are offering their expertise and knowledge in the area of sustainable farming practices such as permaculture gardening systems to community groups interested in venturing into such sustainability initiatives. These include Green living Permaculture and Down to Earth Permaculture among others mapped in the database.

Entrepreneurial gardens and food systems are also emergent sustainability practices in the region. These are types of food gardens that are commercial in approach but based on sustainable farming practices such as Permaculture. These are being spearheaded by individuals and businesses who are encouraging sustainable consumption and farming practices. Typical examples in the region include Little Bunyip farm and the Watervale hotel's Penobscot farm. At the Watervale hotel, food is served to guests using fresh produce from the Penobscot farm located a few metres away. The farm is modelled on permaculture principles and is highly sustainable in that, organic food waste from the hotel is returned to the farm and composted ensuring little or no use of fertilizers or harmful chemicals. The farm is also reliant on onsite

water systems largely based on rain stored water. Little Bunyip farm, on the other hand, draws from a strong sense of community in their small scale, intensive and regenerative farming of microgreens and mushrooms. Their produce is marketed and sold to local restaurants in the region including Fino restaurant, St Hugo restaurant and Seven Hill Hotel among others.

Closely related to these gardening initiatives are garden-food-markets production systems focused on Indigenous foods also being progressed in the region by Wandu[3] and Red Centre Enterprises[4]. These specialist sustainable garden-food-market production systems have strong economic, social and ecological sustainability benefits as well as potential to attract tourists interested in sustainable food consumption into the region if well developed and scaled up across the region.

2. Sustainability education through place-based initiatives-urban forestry

Increasingly, Australian schools are implementing sustainability education by adopting integrated curriculum approaches (Green, Somerville, and Potts 2013, Feng 2012). Placed-based sustainability education is an approach that makes use of school grounds and local natural environments as learning spaces for school children. A place-based focus according to Green, Somerville, and Potts (2013 p.12) 'refers to education that is grounded in the nature of the locality in which it occurs'. The Tanunda Urban Forest project in the region exemplifies how schools are integrating sustainability into school curriculum through a place-based approach. Under this sustainability initiative, the woody forest in Tanunda is mapped and further redeveloped through the assistance of two local schools adjacent to the forest-Faith Lutheran School and Tanunda Primary school. Both local schools have introduced urban forest concepts as part of existing units of work rather than as stand-alone subject-matter, linking this local example to broader global issues such as climate and biodiversity (Hall 2018).

Not only do students in both schools learn about climate change and sustainability through the forest project but importantly, they contribute to the natural landscape. Each school is revegetating additional spaces to extend and protect the forest. Through the initiative of two students, 43 native bee hotels have been created by students from the two schools for placement in the forest. This initiative is expected to have a significant impact on the biodiversity of the area as native bees are important pollinators. The project also has a strong community connection through the volunteering of the Tanunda Woodlands

[3] Wandu currently operates an online shop whilst the owners are looking to develop a farm at their property in Clare

[4] Currently operating a Niina Marni café at the Gawler Civic Centre

Group on the project. This school-forest and map model will be beneficial to other schools and communities in the region. It will provide students with a meaningful way of studying climate change and issues of sustainability through placed-based initiatives and natural resources. Already, there are discussions to replicate the model within the Seppeltsfield area.

3. Land care initiatives

In the region, there is a strong interest in the protection and restoration of the natural environment, particularly amongst the older population. Such interests in conservation are reflected by number of Landcare groups (including friends of parks and conservation areas) in the region. Members of these land care groups undertake a number of sustainability initiatives. These include controlling weeds and pest animals in nature reserves, revegetation of native plants, biodiversity research, controlling soil erosion and cleaning of coastal areas among others. Most of these activities are implemented by volunteers and other community members mobilized through working bee events. According to these groups they have received some form funding from organizations such as Conservation SA for the buying of materials. It provides an opportunity for local people to come together to identify environmental issues, discuss, prioritize and take action. Landcare groups that have affiliations with conservation parks also play a vital role in providing information to visitors in these parks. For example, some of the groups assist park staff with guided tours for students. Their role is central to the conservation of these parks, as paid staff most often are inadequate in fully managing these public natural spaces. Natural resource centres such as the Barossa Natural resources centre have also benefited through the support of a local land care group.

4. Recycling waste

Recycling of waste has largely been driven in the region by the local councils. Nonetheless, a number of individuals are involved in some form of recycling effort. A community interaction conducted by the Lions Club in Clare revealed a lot of people in the community were interested recycling plastics. A number of people asked for recycling information and how they could become involved in recycling activities. Through the education and information provided by the Clare Lions Club green club team, a large number of locals have become more conscious and aware of the issue of plastics and recycling. Some restaurants including Clarise Bakery, Wild Saffron and Main Street Bakehouse through this initiative for example have agreed to move from plastic straws to paper straws. A parent through the Clare Valley Children's Centre is also collecting plastic bottle tops for recycling.

3.3 Barriers and Opportunities

3.3.1 Barriers

The sustainability initiatives being carried by these community- based groups and individuals have the potential to stimulate behavioral changes at the local level and improve environmental sustainability. However, these groups and individuals (especially the lower-tier groups) still encounter some challenges, however, that require attention if their initiatives are to be sustainable. The most outstanding problems faced by groups are discussed below:

1. ***Lack of funding and resources***

Lack of funding and resources was a common challenge identified by most stakeholders as a barrier to undertaking their sustainability initiative. This was a problem that cut across most of the low and mid-tier groups. Even though some of these groups receive some form of funding through various community and environment grant schemes, this according to them is inadequate for their activities and the kind of local impact they want to make. When such grants are not obtained, the groups usually have had to rely on membership fees or monies obtained through fundraising events. The lack of funding makes long term planning difficult for the low tier stakeholders.

2. ***Lack of Capacity***

Another challenge faced by individuals and groups involved in sustainability initiatives face is a lack of knowledge and capacity. This manifests in two ways, especially amongst low-tower stakeholders. First, some of the individuals and groups undertaking initiatives are driven by their interests and passion rather than sound understanding. For example, some community groups have had to rely on their own understanding or research on the internet to undertake their initiatives. Even though they may bring onboard local knowledge to bear on their initiatives, they lack the technical know-how. Even more worrying is the fact that some groups involved in land care initiatives have not had any substantial training from the local councils. Secondly, the leadership of some of these groups lacks the skills and knowledge to apply for and win grants. Given that they are already time-bound to their respective initiatives and projects, doing research and developing grant application skills appear to be extra burden.

3. ***Bureaucracy and Trust***

Most individuals and groups interviewed also identified the bureaucratic red tapes they encounter in their relationship with their respective local councils as challenging. Receiving information or approvals from

the council in relation to the projects they want to implement takes a long time to obtain. During an interview, a community group member noted how council requires volunteers to properly register before they could be involved in land care projects. According to the community group member the time-consuming process of registering frustrated most of the locals who were initially willing to volunteer. As part of the registration process, locals were required by the council to fill a four-page form that most individuals deemed unacceptable and hence opted out of volunteering. Beyond this, other community group members made mention of how time-consuming meetings with councils or other state organizations could be. One member noted that meetings could go on for hours. For example, a mere induction for a local community group trying to establish a community garden took almost two hours.

Beyond the bureaucratic delays associated with setting up these initiatives, another issue that was brought to the fore during interviews was the problem of trust. There appears to be some level of mistrust between some council staff and community stakeholders. Several community groups do not trust their councils to assist them in carrying out their sustainability initiatives. Interviews showed that some community stakeholders are of the view that local council staff downplay the significant impact of their sustainability initiatives. According to some interviewees, at community meetings where they bring to the fore some of the sustainability initiatives, they deem necessary for their council area, councilors and council staff often do not show interest. Community stakeholders believe this sometimes accounts for the delays they face when seeking formal assistance from their councils to implement some projects. One interviewee noted that, whilst they may not have technical environmental knowledge to challenge expert views of council staff or university researchers, their local knowledge of their environments and how to resolve deal with issues of sustainability must be given more consideration.

4. ***Lack of congruence between Council programs/policies and local initiatives***

Councils as noted earlier are undertaking a number of sustainability projects. However there appears to be a lack of congruence between what the councils are doing and what local groups and individuals ae also implementing. To start with, most of the local people involved in these sustainability initiatives are not aware of the climate change adaption policies or strategies of their councils. Thus, with the exception of land care groups, most non-state stakeholders are undertaking initiatives that they do not know fits in with the plans of the councils. Most of the local sustainability initiatives are being undertaken outside of official climate change adaptation governance. There is thus a lack of local collective approach to tackling sustainability issues and climate change.

5. ***Aging volunteers and community Apathy***

The region has an aging population (fewer 20-34year-olds compared to 55-84-year-olds) relative to the South Australian population as a whole (ABS 2016). The aging population is a challenge. Especially for land care groups, a problem they are grappling with is an aging volunteer population. Most of these groups are made up of aged men and women who are mostly retirees. This obviously affects how much work gets done. Another concern is what will happen to the group as volunteers get older and become incapable of carrying out their voluntary tasks. Some community groups interviewed particularly those doing land care highlighted the problem of community apathy. According to them younger community volunteers are unwilling to participate in working bee events or take up membership of their land care groups/associations. This has significant impact on the amount of work they are able to accomplish as well as the future sustainability of the groups beyond the current active members.

3.3.2 Opportunities

In spite of the challenges identified above, there is the potential for sustainability initiatives to be harnessed. Currently, most of these projects as noted earlier, operate in isolation and most often outside of the formal sustainability strategy of councils. Through proper coordination, stakeholders can accelerate progress towards sustainability in the region through form main channels: Joint Projects, Resource pooling, consulting and Social Learning and trialing.

Figure 4: Opportunities to be derived from sustainability initiatives

These are opportunities regional authorities can strategically benefit from. Notably, there are similar projects being initiated by different councils and community groups that are similar in scope and objectives. Joint projects can, therefore, be explored amongst councils and community stakeholders. Such joint projects have the benefit of not only scaling up the impact of the sustainability initiatives but also offers the possibilities for cost reduction. For example, whilst some group of winemakers is exploring the idea of a recycling hub, the Department of Energy and mining is also investigating and seeking partners for a bio hub in the region. In the same manner, the Adelaide Plains Food Cluster is also thinking of mechanisms to recycle waste. Clearly, there is the potential for all these stakeholders to work together on a common project rather than in isolation. By initiating joint projects, resources, both financial and human capital, can be pooled to achieve more for the region. This is critical in view of the fact that both councils and community groups identified rising costs and lack of funds as impediments to sustainability in the region.

In addition, there are opportunities for social learning in the pursuit of sustainability. When community groups are properly coordinated and networked into communities of practice, they can learn from each other. There are individuals and groups with extensive experience in one area of sustainability practice or another that other groups can gain knowledge from. Through the processes of learning and sharing information, councils can be better informed about the concerns communities groups have with regards to sustainability initiatives. Social learning will provide a platform for the respective councils and local people to better appreciate the realities on the ground, brainstorm and come up with solutions to tackle these problems. This process will save valuable research time and funds expended on consultancy. Above all, the region can take advantage of the numerous initiatives to develop sustainability trails that can be unique to the region. Similarities in initiatives provide opportunities for coordination and mapping out of ongoing sustainability practices. When properly done, it can raise the profile of the region and drive up further economic opportunities.

For these opportunities to be fully realized however, strategies, structure, and processes are required to mobilize the various stakeholders and projects. A specialized vehicle that can drive the sustainability agenda of the region and engage with all the stakeholders by harnessing these initiatives would be beneficial. It is within this scope that a sustainability hub may be most useful.

3.4 From individual initiatives to region-wide sustainability: Sustainability Hub & Trails

The reaction of interviewees in the region in relation to the establishment of a sustainability hub in the region was mixed. Except for one council respondent who thought such a project was a mere ‘feel-good

project', most councils had some good suggestions for the project. The non-participation of some councils in the research may also be an indication of their disinterest in the sustainability hub project. The table below summarises some of the benefits of a hub as identified by council.

Table 3: Benefits of A Hub to the Region from the Perspective of Councils

Council	How the council can benefit from a Hub
Wakefield Regional	Regional-scale approaches. Access to visiting 'experts' and better practice models. Learning from our neighbors and sharing information. Network and relationship building.
Barunga West	It would be good to get initiatives like these happening in all of our neighboring councils to create a region-wide approach and enable more people to participate and/have the facilities available to them. Also, to hear of other initiatives our neighboring Council are implementing too
Yorke Peninsula	Sharing of knowledge, case studies
Copper Coast	Information, assistance with funding applications, working with communities.
Clare & Gilbert Valleys	Appear to be a feel-good exercise with some potential to raise awareness. A hub will better service individual households and community groups.
Orroroo Carrieton	Central repository for resources, information and data Conduit to climate change services and agencies
The Barossa	School and Community awareness and education Training and Development Landholder engagement
Adelaide Plains	Greater awareness of renewable technologies and practices will encourage economic opportunities in areas such as sustainable farming methods and recycling etc. Platforms to help facilitate communities and businesses to respond to climate change are necessary. The recently established Adelaide Plains Business Council could provide a good link between the hub and industry.

Most of the respondents view a hub as a mechanism that can spearhead a regional approach to sustainability and the management of climate change. The hub can also serve in particular the needs of the various stakeholders identified. This notwithstanding, community stakeholders whilst welcoming the idea of a hub expressed apprehension about the possibility of it coming with an added layer of bureaucracy. Most people just want to do something to help their communities and environment. The idea of a hub led by state actors and the bureaucracy it can bring raises concerns amongst community groups. They don't want to sit long hours in meetings over simple things they can get done by themselves. How the hub is established and how it connects with local community groups then is very important.

A regional approach to establishing a sustainability hub as is being pursued by regional partners is novel but at the same time complicated. Sustainability hubs traditionally are highly specialized, and context based (Meyer-McLean 2019). That is, they focus on specific sustainability issues and geographic areas. They are also established through community interest groups although in some cases, councils have

played a central role. From a regional partnership perspective, a prospective sustainability hub must be able to respond to the needs of all partners (in this case, the 15 local government councils). Establishing a series of hubs, across the region may seem desirable. Given the challenge of geographic distance from one community to another and the importance of hubs having a strong community connection to succeed, a good case can be made for the establishment of a series of sustainability hubs in the region. However, establishing a sustainability hub in each council seat (administrative community) for example will not be without its unique problems. For instance, if a sustainability hub is established in each council seat, there is no guarantee that surrounding communities whose locations can range from a few to many kilometres away will patronize it. Given the distance barrier in the region, there is a strong possibility that such hubs will not benefit entire council areas beyond the communities in which they are established. Besides, establishing such hubs must be community led (or council-led to some extent) in other to succeed rather than through the initiative of a regional organisation with very limited community connection.

In consonance with suggestions from the various councils therefore, the establishment of a regional sustainability hub is most desirable and practical. A sustainability hub from a regional perspective must be viewed differently from the 'traditional' sustainability hub concept. That is, its focus must extend significantly beyond the initiation of 'soft' sustainability projects. For example, if the hub is established at Clare, focusing on a community garden or a recycling initiative within the hub may look pleasing and show something is being done but would be of no significant use to the population outside Clare. A regional Sustainability Hub thus must have a strategic focus on taking advantage of ongoing sustainability initiatives (and opportunities identified) in the region as a whole and drive the sustainability agenda of the region. It should be modelled as a specialist regional unit with a focus on issues of climate issues of climate change and sustainability. In this regard, some core focus areas and activities for a regional Sustainability Hub are summarized in table 5 below.

Table 5: Strategic Focus Areas for A Regional Sustainability Hub

Regional Hub Core Areas	Activities
Project Development	✓ Incubate new ideas ✓ Scale-up existing projects ✓ Harness and normalize sustainability practices in the region ✓ Develop sustainability Trail in partnership with tourism authorities ✓ Create space and opportunities for businesses to share sustainability practices
Regional Research	✓ Establish linkages with universities (including organizing field research) ✓ Repository for existing research carried out in the region ✓ Identify and make available best practice case studies
Coordination	✓ An entry point for outsiders (liaising) ✓ Link community stakeholders with offices to reduce red tapes ✓ Link up community groups ✓ Develop repository of grants and opportunities community groups can benefit from ✓ Train community stakeholders ✓ Maintain a database of stakeholders
Strategy, policy and legislation	✓ Organize annual climate change conference ✓ Organize periodic training for non-state stakeholders ✓ Identify and canvass community issues into regional sustainability policies and legislations ✓ Relate regional sustainability strategies to community stakeholders ✓ Drive regional sustainability agendas (e.g. alternative energy adoption, recycling hubs, etc.)
Community Engagement	✓ Sustainability information sharing (virtual platform) ✓ Showcase sustainability solutions (e.g. alternative energy solutions) ✓ Establish communities of practice and local sustainability champions ✓ Training community groups

To succeed, the regional sustainability hub must be well funded with paid staff. The hub must develop strong connections with community stakeholders, businesses and government institutions with interest in sustainability of the region. If well established, the Hub face of the region's sustainability agenda in terms of developing partnerships, sharing information, building local capacity, showcasing innovative technologies and transforming local sustainability initiatives into regional economic opportunities including development of trails.

3.4.1 Development of Trails

The regional sustainability hub whilst located centrally can have a strong community focus within the region and increase the region's sustainability profile by developing sustainability trails in the region. This would also be a pathway to connect local initiatives across the region through the establishment of linkages. In this regard, at this point in time, a Garden-Food Sustainability Chain can be a useful starting point for the hub if established.

Garden-Food Sustainability Trail

There is a potential for the development of a network of sustainably produced garden-food trail in the region. Such a trail project will involve the mapping out and linking up of food gardens, wineries and eateries across the region. Thus, the trail will consist of gardens or farms producing food produce using sustainable methods such as permaculture and wineries with strong sustainability outlook such as the production of organic wines and the use of solar energy as well as restaurants that source produce and drinks from farms and wineries in the trail network. A consumer with an interest in sustainably produced food enjoying such a trail should have information in the form of a brochure (or online resource) with information about how the food produce was cultivated, details of the winery and the sustainability outlook of the restaurants. Stakeholders in the network such as the gardens and wineries should have the possibility to be opened to group tours where tourists can have first-hand experience of sustainable production. An Indigenous food version of this trail can also be developed.

A food trail that can appeal to both tourists and locals can potentially drive up economic opportunities in the region for more sustainable farms and restaurants to emerge. Such a Trail can provide users with a range of experiences, from learning about sustainable food productions in open gardens to enjoying nutritious food and drinks that had been sustainably produced. There is also the possibility for other economic opportunities to be opened in the region particularly in the hospitality industry. Besides the jobs that may be created through the promotion of such a trail, the region's sustainability profile can also be highly improved. Given local interest in such sustainable food production systems and the availability of agricultural lands, the region is well-positioned to emerge as a sustainable food-wine consumption hub. Some stakeholders such as Penobscot farms have given some indication of being interested in such a project.

4 Concluding Remarks

The results of this research suggest that a number of individuals, businesses and community-based groups are undertaking different types of sustainability initiatives in the Legatus Group region. These initiatives however are highly dispersed in the region which is a reflection of the vastness of the region and distances between communities. Differences in projects also reflect the interest of those undertaking them, the sustainability challenges faced in each location as well as the opportunities the locations present. These notwithstanding, there is a potential to develop resilient communities in the region by harnessing, scaling up and networking these sustainability initiatives across the region as well as empowering community stakeholders. Establishing a regional sustainability hub can serve as a mechanism for achieving this. As noted, such a hub would be significantly different from the traditional sustainability hubs or natural resource centres usually set up by community groups or local councils. This envisaged hub is to serve as a platform focused on networking stakeholders and exploring pathways to sustainability in the region. The Hub should serve as a link between the public institutions, businesses and community groups.

Such regional sustainability hubs are not commonplace especially within the Australian context. The regional partners thus have a unique opportunity to create a platform that can be a model for other regional areas. Being a novelty also means there are unforeseen challenges that may come up. Issues such as funding, interferences in operations by already well-established regional bodies, a lack of well outlined vision among others are envisaged. It is suggested that the regional partners outline a well-defined five-year funding plan for the running of the hub and its governance structure form the onset. The Hub should be modelled as a public-community institution with at least three paid staff positions (a coordinator, a sustainability policy and research officer, and a community liaison and administrative officer). The possibility of taking on volunteers and university interns can be arranged as the Hub evolves. In terms of funding and risk management, it is recommended that significant outlays on a hub building are not done in the first year. Instead, hub staff should be housed in an office unit within the 155 Main North road office precinct in the first year. The first year should be devoted to building relationships with stakeholders, scaling up already existing sustainability initiatives, organising events (trainings, conference, tours etc) and developing a sustainability research and information (including funding opportunities) repository for the region. This approach will ensure the hub takes off with minimal capital investment and without further delays. The success of regional cooperation through the Legatus Group, RDA, NRM and PIRSA alliance provides indication that cooperating with other stakeholders towards a sustainability hub is achievable.

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