Introduction

The Rural Enterprise Program (REP) is an initiative of Country Noosa, which seeks to promote sustainable agriculture, horticulture and other rural enterprises in the Noosa hinterland through field days, workshops, and social events to support and strengthen community cohesion.

The program was delivered over a twelve month period from April 2018 to April 2019 and encompassed the following activities:

- Workshops to engage with the community to uncover rural enterprise opportunities,
- A comprehensive survey designed to understand current and future land use in the Noosa Hinterland area,
- Digital mapping of land use through a GIS mapping system to enable analysis of the current land use and identification of future economic opportunities,
- Consumer behaviour study to identify prevalence of and motivators for local food use and consumption,
- The development of nine concept papers, guided by community input to explore areas of opportunity, enablers and provide information. These papers are to assist greater Rural Enterprise activity and increase knowledge sharing about rural land use in Noosa, and in part function as 'how-to' guides for future enterprise.
- Networking and collaboration opportunities to discuss rural enterprise opportunities and partnerships.

Background

Historically, Noosa Shire's economy was founded on agriculture, with timber, beef cattle and dairying comprising major industries in the area, followed by significant fruit and vegetable production. There has been a decline in large grazing properties in Noosa Shire with many sub-divisions into smaller lots, typically 20 to 60 hectares. A significant proportion of this land has been cleared in the past for grazing. Although there are reforestation opportunities, they are unlikely to cover a large part of the cleared land for economic reasons. Only a few of the big cattle runs of early years remain.

Many of these smaller properties are now owned by new 'lifestyle' farmers who have decided to live in the Hinterland for the quality of life. Typically, they are looking to generate income from the property but supplement the costs with other income. This is necessary as land costs are high due to the popularity, natural environment, and convenience of the Noosa Shire. These contribute to the lifestyle quality we cherish.

Today, contemporary Noosa is a diverse community that maintains some historical industries and land uses, while exploring new ones. More recent history has seen less traditional avenues of agriculture emerge, with ginger, horticulture, macadamias and nurseries thriving across the region. In addition smaller, niche farms producing salad greens, herbs, garlic, native foods and tree nuts now supply the local markets and restaurant industry. Regenerative farming and permaculture practices are popular among a new breed of growers and producers in the region.

The Rural Enterprise Program (REP) is a collaboration between partners: Country Noosa, the University of the Sunshine Coast (USC), and Noosa and District Landcare. The program was funded by Noosa Biosphere Reserve Foundation (NBRF) and project managed by The Social Deck (since August 2018). Advisory services were provided by SOSJ Consulting.

The Noosa Biosphere Reserve Foundation seeks to support a variety of environmentally and economically sustainable rural initiatives and enterprise opportunities to build a positive future for the Noosa hinterland. A biosphere reserve is an area declared by UNESCO as having achieved a notable balance between environment and sustainable development. Biosphere reserves objectives are namely conservation, sustainable development and learning.

In keeping with Noosa Biosphere objectives, the REP aims to address knowledge gaps of the region's current land use and future capacity, and to identify the challenges, opportunities and next steps for sustainable progress.

Approach

Noosa Hinterland Land Use Survey

A land use activity survey was developed by Dr Claudia Baldwin (USC) and Dr Jeff Hamerlinck (UWYO) in collaboration with an advisory group from Noosa Council, NBR, and Noosa Landcare. Firstly a draft developed using Survey Monkey was piloted, refined, and circulated to the advisory group and other rural circulation lists. It was available online from 19 April to 30 September 2018. USC Urban Design and Town Planning Program students (Georgina Schramm and Jessica Swann) attended the workshops and other country events to encourage survey completion. Paper copies were also made available at four local convenience stores in Cooroy and Pomona. The survey commenced with an explanation of ethical components including confidentiality and de-identification of data.

The target survey respondents were those who live on or manage a rural property in the Noosa shire hinterland (greater than 1 ha in size), or those whose business services rural industry and is located in Noosa shire. Questions generally asked for the following information:

- Current rural land use activities, volume of production, for example, to understand how many people were full-time producers, what they are producing, and those who have common business interests and could collaborate in some way;
- Interest in future opportunities, barriers and constraints
- Identification of the property to determine if collaboration with others in the same vicinity is feasible
- Length of time on the property, age group, internet and mobile phone access.

Land Use GIS Mapping

The purpose of the land use mapping component was to explore the spatial nature of current land use activity patterns in the Noosa shire hinterland, with the goal of identifying patterns and trends beneficial to future economic development and diversification strategies. The primary product of this aspect of the overall study was development of an up-to-date version of Noosa Council's agricultural land use activities GIS data layer. This map had been enhanced by Noosa Shire Council planning staff in 2016, partly based on paper maps annotated in workshops run by Country Noosa in 2015 – those maps were discarded after data entry, and so could not be cross-checked for additional detail in this study.

The approach was to:

- Build on past work completed by Country Noosa and Noosa Council planning staff
- 2015 agricultural lands mapping
- 2016 agricultural land background report
- Collect new land use activity data via online survey and workshop participant and local expert input

The mapping built on Noosa Council's hinterland agricultural lands GIS layer, maintained as a component of the Noosa Council's ArcGIS Enterprise GIS system. Country Noosa contributed data to Noosa Council's mapping system in 2015 using local expert knowledge of the hinterland, captured by annotation of large-scale paper copy maps which were then digitized in 2016 by Noosa Council planning staff into a shapefile format GIS data layer using ArcMap GIS. The data layer was further enhanced through heads-up aerial imagery interpretation and on-screen digitizing. The layer identified the primary land use activities occurring on 373 rural and rural settlement freehold parcels greater than one hectare in size in the Hinterland. Four major agricultural activities were defined: beef cattle; horses; horticulture; other agriculture. Secondary attribute fields provided additional details for each use when available. For instance, several subcategories of horticulture were identified, including macadamia, and citrus. Examples of this mapping are found in the Agriculture and Agricultural Land in Noosa Shire 2016 (Noosa Council 2016).

As part of the current scope of work, data from both the land use survey responses and in-person input from workshop participants and Country Noosa staff were used to develop an updated agricultural land use GIS layer with a refined classification scheme to update and more accurately portray categories of major land use activities. Parcel-specific survey data concerning land use activities were mapped using respondent-provided address information and the geocoding utility in ArcMap 10.4. Additional land use activity information was provided by workshop participants and Country Noosa staff by annotating paper maps and carrying out on-screen attribute editing in one-on-one and small group settings.

The workflow followed for creating the updated hinterland agricultural land use entailed the following primary steps: (a) current Noose Shire LGA cadastral layer attributed with most up-to-date address information (available from QSpatial geospatial data warehouse); (b) freehold properties selected for hinterland portion of Noosa LGA and a spatial join performed to append 2015/2016 agricultural land use information to parcel polygons; (c) agricultural land use information updated with 2018 workshop and local expert input results; (d) parcel specific survey results geocoded and plotted against land use parcels to verify correct land use activity attribution.

Round 1 Workshops

Community engagement activities delivered in the previous reporting period included:

- Launch of the program via an information session on Country Noosa projects on 18 April 2018, with 18 people attending.
- An initial round of four workshops in May 2018 with a total of 33 people providing quality discussion and dialogue about rural futures in the Noosa Hinterland. Discussion included current land uses, opportunities for future land use, collaboration opportunities, constraints and needs, and potential topics for concept papers. The workshops were held in Kin Kin, Cooroy, Tewantin and Pomona.

Please see USC's *Rural Enterprise Plan Research Study Final Report* for detailed information on the Survey, GIS mapping and first round of workshops.

Concept Papers

Following the initial round of workshops, concept paper topics were developed to cover the key priorities and possible opportunities that were identified from the community, stakeholders and project partners. Nine topics were established and approved by the Country Noosa committee and included:

- Carbon farming;
- Eco-tourism, recreation and farm-based tourism;
- Mixed farming and holistic management;
- Small crop agriculture and niche produce;
- Sustainable grazing
- Permaculture;
- Pest and weed control;
- Marketing, distribution, collaboration and networks; and
- History of Agriculture.

Round 2 Workshops

The second round of workshops were held in Cooroy and Kin Kin from October to November 2018. The first two, on 15 and 22 November at Cooroy Memorial Hall, covered topics of sustainable agriculture, the first under the theme of new products and markets, and the second; collaboration and resource sharing. The third workshop was held at Kin Kin School of Arts Hall and featured a panel discussion on ecotourism, with representatives from Tourism Noosa and Noosa Council.

Invitations were sent to Country Noosa members, individuals and organisations involved in the concept paper research process. The workshop events were also promoted and shared effectively on Facebook via the Country Noosa page. A media release also promoted articles in the Cooroy rag, Noosa News and Noosa Today. Interested community members were guided to an Eventbrite registration page, where numbers were monitored, primarily for catering purposes.

At each of the workshops, presentations were given by experts and usually those who had authored the concept papers. The presentations were followed by a world café group activity in which participants gathered around four separate tables and discussed key actions and next steps for each topic area. These groups were facilitated by people with expertise and/or experience in the topics Ideas, opportunities and key points were noted by the facilitators on butchers paper as they rotated around each table, spending approximately ten minutes with each group, so that all participants had the chance to contribute to the topics. Participants then ‘voted’ (using sticky dots) on their top four priorities across the four topics.

Purchase Intercept Survey

Noosa Council’s Local Economic Plan 2015 identified rural enterprise as a priority sector which would ‘benefit from leveraging the clean, green credentials of the strong Noosa brand, the emerging Biosphere brand, and the sustainability aspirations of the region. There is also a global trend towards healthy eating, understanding the origins of local food and minimising food miles’ for sustainability

reasons (Noosa Council 2015, p.20). Currently the demand for local foods outstrips local supply. There is an opportunity to replace some goods from outside the region with locally produced food. The aim of the overall food miles study was to identify local food use, networks, calculate food miles, and issues regarding food wastage. Undergraduate nutrition students undertook an Intercept survey of shoppers at supermarkets and outdoor markets: Noosa Outlook IGA, Belmondos Organic Market, the Noosa Farmer's Markets and Woolworths Tewantin. Further work is being done to determine food grown at school gardens and school farms and how it is distributed; investigate local sources of food used at local restaurants and restaurants' interest in purchasing local food; and determine if locally produced food is used by local Food banks.

The aim of the intercept study was to:

- gain insight into the purchasing behaviours of Noosa residents in regards to local food,
- identify sources of food people buy at local supermarkets and outdoor markets in Noosa, and
- calculate associated food miles (please note that for the purpose of this project, 'food miles' refers to the distance travelled by the respondents to purchase food).

The survey design was developed by the students using Survey Monkey, with advice from their supervisor. It was pilot tested, refined, and the 5 minute survey was conducted face to face with shoppers at local supermarkets and outdoor markets in the Noosa Shire. The maps were used to provide an indication of respondents' place of residency to calculate food miles. The survey included 14 questions (9 closed and 5 open-ended) asking respondents if they intentionally purchase local goods; whether they were aware of locally produced food; and where do they usually purchase fruit and vegetables. Data was downloaded into an Excel spreadsheet. Quantitative data was produced using Survey Monkey statistics, and qualitative data was coded. A ruler and compass was used to calculate the distances travelled by respondents.