



final report

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Customising the Grazing Land Management Education Workshop to the Border Rivers Region of Queensland

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Abstract

This project supported the customisation of the existing Grazing Land Management (GLM) Education Package to the Border Rivers region of Southern Queensland. Meat and Livestock Australia (MLA) supported the initial GLM education package development in four regions, and subsequently has collaboratively funded the customisation of the workshop materials in other regions of northern Australia. The materials for the Border Rivers version of GLM, including PowerPoint presentations, participant workbooks and land type sheets, were customised through review of relevant research and other reports in consultation with local producers and technical experts. These materials have been tested and revised through a technical review workshop and project management committee feedback.

Executive summary

At completion of the joint Meat and Livestock Australia (MLA) and Queensland Primary Industries and Fisheries (QPI&F) and Queensland Murray Darling Committee (QMDC) sustainable grazing systems project, the Grazing Land Management (GLM) package development has been completed, piloted, reviewed and published for the Border Rivers (BR) region of Southern Queensland. The original project objectives specifically excluded the 'Traprock region' in the BR GLM customisation. However following consultation with the project management committee it was decided to include this area and its land types as part of the overall package. The BR GLM package is now applicable to a significantly larger area than initially planned, thus potentially resulting in improved grazing land management practices for the whole of the BR QMDC catchment area.

A new 'managing climate change risk' section has been developed specifically for the BR GLM climate section (within module 1). Flexible delivery options were also developed to make the workshop more available to landholders and to increase the time landholders are engaged in the 'learning experience'. The flexible delivery options were a new initiative for the EDGENetwork GLM series, and now may be offered as an alternative delivery option for all other versions across northern Australia. At completion of the project, the project management committee was satisfied with the final materials prepared and the successful pilot delivery of the workshop. More workshops have been planned in the coming months.

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1. Background

The Grazing Land Management (GLM) educational package was developed to support the adoption of sustainable, profitable grazing practices and strategies. Initial development customised versions for four regions of northern Australia. Since then, versions of GLM have been customised for most regions in northern Australia, and the materials have been valuable for both workshop delivery and as key resources for other extension activities.

The Queensland Murray Darling Committee (QMDC) and Queensland Primary Industries and Fisheries (QPI&F) funded a sustainable grazing systems project in the Border Rivers region between July 2008 and June 2009. The main objective of this project was to produce customised GLM workshop materials for the Border Rivers region i.e., to the region's climate, soils, vegetation, priority issues and enterprise types. MLA funding supported this process, in particular the desk-topping and publishing of workshop materials.

1.1 Project Objectives:

By completion of the project on 31st July 2009, the research organisation will:

1. Customise the GLM education package to the Border Rivers region (excluding the Traprock).
2. Produce the revised workbook, PowerPoint slides and facilitation manual and deliver them to MLA as desk-top published documents ready for use in workshops

2. Methodology

This project was conducted in a number of phases, including;

1. Collation of relevant publications, information, photos and data sets for the region under advice of the project management committee.
2. Development of land type framework for the Border Rivers, including the development of GRASP models to provide pasture growth estimates by land type, climate, land condition and tree-densities for the BR (including Traprock).
3. Development of a hypothetical case-study property, representative of a typical grazing enterprise in the BR. Including, analysis of the impact of a range of topical management issues using whole herd-economic modelling.
4. Modification of existing GLM packages and modules with Border Rivers data, photos and reference material and examples.
5. Customisation of a new section in module two (understanding the grazing ecosystem) to include more information on managing in a variable and changing climate.
6. Development and piloting of flexible delivery options of the BR GLM

Following development of the material, the workshop was tested as a pilot workshop. The workshop was assessed for its local relevance, language, technical accuracy and delivery flow. Material was then edited to address comments from this pilot workshop before being delivered for final desk-topping and editing prior to printing.

Following final editing, all material, including the workshop manual and PowerPoint slides were presented to MLA.

An outline of a Toolbox for workshop participants was also developed and reviewed amongst the project management committee.

All climate analysis was conducted using the Rainman package. Economic modelling was done using Breedcow and BreedEwe Dynama and pasture growth was modelled through the GRASP program.

3. Results and Discussion

A project management committee was established and first met on the 22nd September 2008. The management committee for this project consisted of one MLA representative, three QMDC representatives, two QPI&F officers, and two landholders (including one representing both the SQBRC and Traprock graziers). The project management committee oversaw the implementation of the project and provided advice, experience and contacts/resources to the project team.

As an additional component to this project the QPI&F project team developed and delivered Grazing our Catchment (GOC) one-day workshops. This workshop was designed to be a GLM “Taster” day giving participants an overview of the GLM workshop while still providing take-home messages for attendees. Three GOC workshops were run in the Border Rivers region between July and September (23rd July Wyaga, 11th September at Moonie and 23rd September at Texas) with workshops rating 4 out of 5 for overall satisfaction and relevancy for participants. The GOC day also helped to boost the profile of GLM in the Border Rivers region with greater than 60% of participants expressing interest in undertaking a full GLM workshop in the future.

The GOC field days have an open field day format and thus engage a wider audience than a GLM workshop, giving greater exposure to the GLM concepts and principles. They now form part of an alternative delivery option for the GLM package developed for this region.



Figure 1. Col Paton discusses land condition with members of the Yarrill / Wyaga Landcare group at the first Grazing our Catchment day, July 2008

The following steps were undertaken and completed as the customisation process for the *EDGEnetwork* GLM package:

1. The collation of relevant publication, information, photos and data sets for the region was undertaken under advice from the project management committee. As an ongoing part of the delivery and ongoing improvement of the GLM workshop, additional relevant research will be included in the workshop as it becomes available.
2. A land type framework was developed for the Border Rivers region (including the Traprock) in consultation with QMDC staff who were developing a land and soils framework for another project in parallel. The land types were chosen based on their vegetation and soil characteristics, and defined in terms that the landholders use to reference their units of management (e.g. Coolibah floodplains or Jump-up country). The collation of the land types for the catchment were derived from reference materials discussions with land holders, the project management committee and agency staff (QPI&F, Department of Environment and Resource Management (DERM) and QMDC). Given the variety of schemes used to describe land types for different purposes (e.g. regional ecosystem, Australian soil classifications and land units) a major task was to combine these schemas, in a practical way that landholders could identify with and that could be referenced back to other schema for further detail. The land types form the basis of the pasture growth simulation modelling, with these models now run for a number of climate locations in the region. These pasture growth output tables are the basis for long and short term carrying capacity and forage budget calculations in GLM and Stocktake. The output of the pasture growth table will continue to be refined (to calibrate the model) using producers expectations of long-term carrying capacities as commercial GLM workshops are delivered.
3. Hypothetical case-study properties (Gunsynd Farms; Gunsynd Farm and Traprock block) were developed with a range of topical management issues included. The case study properties are based on local land types, and include management scenarios with problems relevant to grazing land in the region, including overgrazing, sown pastures and weeds. The properties are used to demonstrate a series of likely scenarios, such as environmental and financial impacts of changing land condition and modifying grazing land management. Each case study scenario was analysed using the Breedcow steady state herd modelling and other financial analysis programs and calculators. Information for each of the scenarios was derived from discussions with landholders, agency people and research (particularly results from the Grain and Graze project).
4. A major component of the *EDGEnetwork* GLM education package consists of a series of PowerPoint slides and a participants workbook that demonstrate to the participants the principles of sustainable grazing practices, and then onto more specific areas of grazing management, such as sown pastures. Part of the customisation involved reviewing the individual slides in each of the six theory modules and finding opportunities to include local material that would further enhance the overall package and make it relevant for the Border Rivers region. A challenge has been to acquire information and data that is in a useable format and that has clear and succinct messages. Some of the locally researched information could not be incorporated as it did not provide a succinct message (which is important given the time limitations associated with the delivery of the workshop) or it did not meet the relevant learning

outcome required in the module. However, additional locally relevant information will be made available to participants through the participant's toolbox. This process is ongoing, with local materials and ongoing refinements part of the delivery of the workshop in subsequent years as new research is published, or old research emerges from the archives.

5. As part of the Border Rivers customisation a new 'managing climate change risk' section was developed for Module 2. Due to demand from participants in other regions and the increasing focus on climate change issues; this section was developed to address key questions about climate change. Information for this section was sourced from experts in the field including; Dr Greg McKeon and Grant Stone (Queensland Centre of Climate Change Excellence), Rhonda Toms-Morgan (QMDC), Rebecca Gowen (QPI&F) and Dr Jeff Clewett (Agroclim), as well as publications from the Bureau of Meteorology and CSIRO.
6. Through delivery of GLM workshops across northern Australia the need to provide more flexible delivery options for landholders has become apparent. As a result, within this BR GLM customisation process, the project team investigated and trialled a number of more flexible delivery options (see appendix 2). One of these options included the use of E-technologies such as webinars (web conferencing) and E-surveys to reduce travel time and time off-farm for participants. An added bonus of these more flexible delivery options is that the learning experience of participants is extended from three days up to 4 months, keeping people engaged with agency staff for longer and strengthening the outcomes of the workshop. The refinement of the webinar process is ongoing as technology improves and presenters become more familiar with the skills and techniques needed to deliver effective webinar sessions. Feedback from stakeholders is that the flexible delivery options should increase participation and reduce workshop running costs while not diminishing the effectiveness of the workshop process.
7. All materials were tested in a pilot workshop series. The pilot incorporated a GOC day, a webinar and a sit-in workshop delivered during February 2009 (see appendix 3). The pilot workshop GOC day was open to general landholders along with the pilot group and feedback from attending participants was highly positive. The next stage of the pilot process was the delivery of a section within module two via webinar (held on 12th February 2009). Participants found the webinar content and style "interesting and informative". Suggested changes in terms of content and delivery style have been incorporated into the GLM materials. The final stage of the BR GLM pilot was the 'sit-in' workshop (23-24th February) that demonstrated the remaining GLM materials in a workshop format. Within the workshop process 'print-ready' materials were reviewed by the stakeholders (including four representatives from QMDC). The workshop pilot and the BR GLM materials were given positive feedback from all pilot participants. The landholder representatives were also highly impressed with the package and commented that there is a good mix of local information and key principles. The resulting GLM package "offered a lot to graziers in the Border rivers region" one landholder said.

Changes suggested in the pilot were incorporated into the workshop materials during March (2009) and following review by the project team and MLA the materials were desk-topped and printed ready for workshop use. Further edits to

the materials will be done on an 'as-needs' basis as part of our continual improvement.

4. Conclusions and Recommendations

A recommendation for the delivery of this and other workshops in the future is to continuously evaluate every area of the material and delivery style to determine if there are more recent and/or applicable references or scientific results that could be incorporated. This ensures the producers in the region have the most up to date information from which to develop and enhance their grazing management practices. The flexible delivery options provide more opportunities for producers to engage with the GLM materials and these options should be presented to each group of producers prior to commencement of the workshop.

This project has provided the producers in this area a workshop package that helps them to understand and engage with the scientific principles, tools and technical support required to successfully plan and implement improved grazing management practices.

5. Appendices

5.1 Appendix 1. Flexible Delivery options for GLM

Aim: To provide a number of delivery options for GLM workshops, to make workshops more accessible and to maximise the learning experience for participants. Flexible delivery options could also reduce the amount of time GLM deliverers are out of the office and allow for other projects/agencies to be better integrated into the GLM process.

Option #1: Standard workshop delivery

½ day pre-workshop meeting, 3 day workshop, 1 day follow-up (6 months post-workshop) or ½ day pre-workshop meeting, 2 * 2 day workshop and 1 day follow-up (6 months post-workshop)

Option # 2: Interactive GLM delivery process (for want of a better name!)

Field day 1- GLM “taster” (see explanation in text box below) day combined with AgForward Computer Mapping Workshop (CMW)

6 * 1hr webinars – Webinars covering modules 2 (understanding the grazing ecosystem), 3 (managing grazing), 4 (combined tree-grass balance and fire module), 6 (weeds). Note: Care has been taken to plan modules that can be delivered via webinars, any of the activities or field sessions will be delivered as part of either of the two field days.

Field day 2 – GLM sown pastures and Grain & Graze day. On property field day talking everything sown pastures (module 5). Day is concluded with individual question and answers sessions. Where local and technical “experts” from the GLM team and G&G team will be invited to attend and participants can sit down with them for a period of time for one-on-one advice and discussions.

Field day 3 – Planning. Whole day devoted to planning. Planning for the groups future interests will also be undertaken at this session.

Note: The whole process is likely to be conducted over 2-4 months with any one group. Plans have been made to record webinars so people who miss a session can recap the module in their own time. It is also hoped that at the end of the training process the participants will go on to do some on-ground works, PDS type research, CQBEEF type activities etc.

Option # 3: Field day based workshop delivery

Field day 1- GLM “taster” day combined with AgForward Computer Mapping Workshop (optional)

Day 2 & 3 – Standard workshop delivery

Day 4 & 5 – Planning day 1 day follow-up (6 months post-workshop)

Note: Delivery of days 1-4 would occur over ~1- 2 months

Variations:

- With options 2 & 3 sub-catchment planning could be added into planning day.
- AgForward CMW are optional and could either be part of the pre-workshop or Taster day meetings. People who do not wish to “go-digital” with their maps can work on paper-based maps for the planning process.

GLM Taster – consists of a brief overview of all modules giving a snapshot of main concepts. For example, we start with an overview and then get participants to help with drawing a grazing ecosystem – starts dialogue and develops rapport with participants. Brief look at climate, soils differences, and an overview of land condition, which we reinforce with a paddock session.

We use the “Tale of 2 speargrass plants” photo to talk about grazing systems and basic concepts and move through each module quickly giving one or 2 key concepts.

The Tasters are very interactive, and a mix of discussions inside and paddock sessions. They are designed for field day type audiences with the idea of asking people for some indication at the end of the day as to their desire to follow on with a GLM workshop.

Recorded responses to the 4 Tasters we have run so far is very positive and we have enough interest to run GLM workshops in 3 districts of the Border Rivers

5.2 Appendix 2. Pilot workshop Agendas

Border Rivers Grazing Land Management Pilot

Details for pilot of Border Rivers GLM

10th February - Grazing our Catchment (GLM Taster)
'Kioma'. 9am - 3pm

Direction to Kioma from Goondi are attached in this email

Hosted kindly by Steve Wilkins & family. Field day - designed to cover the main concepts and principles from GLM.

This day is open to other people outside the GLM steering committee.

Please BYO Chair & hat. Morning tea & lunch provided.

12th February - Webinar

No more than 2hrs (likely to be around lunchtime).

Web based conference you will do from home using your phone & the internet. I will send you an email describing how and when to log onto the webinar, more details on the 10th.

Our webinar will cover our plans for flexible delivery and Module 2 (Understanding our grazing ecosystem).

23rd & 24th February - Workshop

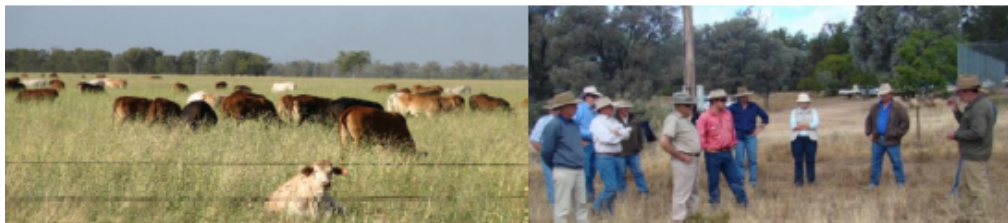
Goondiwindi Training & Technology Centre, 15-21 Russell St.

Monday 23rd—Start 12 noon (Sharp! With some housekeeping before lunch at 1pm)

Tuesday 24th - 8:30am till ~4pm. The Workshop will cover sections of all other modules in GLM and allow significant time at end of day two to collect thoughts and comments to value-add the package before release.

Morning tea, lunch and afternoon tea will be provided.

Please contact me ASAP if you would like me to book your accommodation for the Monday night.



Agenda – Border River Pilot 23rd and 24th February 2009

Day one:

12:00 – 12:30pm	Introductions Expectations Background Ground rules
12:30 – 1:00pm	Gunsynd Farms – scenarios module 2.
1:00 – 1:45pm	Lunch
1:45 – 2:15pm	Revision of module 2. What we covers, what we didn't have time to cover. Quick, questions or comments from the webinar and 'Taster' day
2:15 – 3:45pm	Module 3 – Managing grazing
3:45 – 4:00pm	Afternoon tea
4:00 – 5:00pm	Module 4 – Managing the tree grass balance & fire
5:00pm	Close day 1 Tennis for anyone who is keen!
7:30pm	Dinner

Day 2:

8:30 – 8:45am	Introduction to Module 5 & discussion on flexible delivery options
8:45 – 10:30am	Module 5 – Sown pastures
10:30 – 11:00am	Morning Tea
11:00 -12:00am	Module 6 – Weeds
12:00 – 12:30pm	Module 7 – Planning (overview)
12:30 – 1:15pm	Lunch
1:15 – 4pm	Evaluation / issues/ questions / comments <ol style="list-style-type: none"> 1. Grazing our catchment – Content - Delivery 2. Webinar – Content - Delivery 3. Flexible delivery options 4. Land types 5. Module 3 – Managing Grazing 6. Module 4 – Trees & Fire 7. Module 5 – Sown Pastures 8. Module 6 – Weeds 9. Module 7 – Planning 10. Final comments.
4pm (or earlier)	Close & thanks!