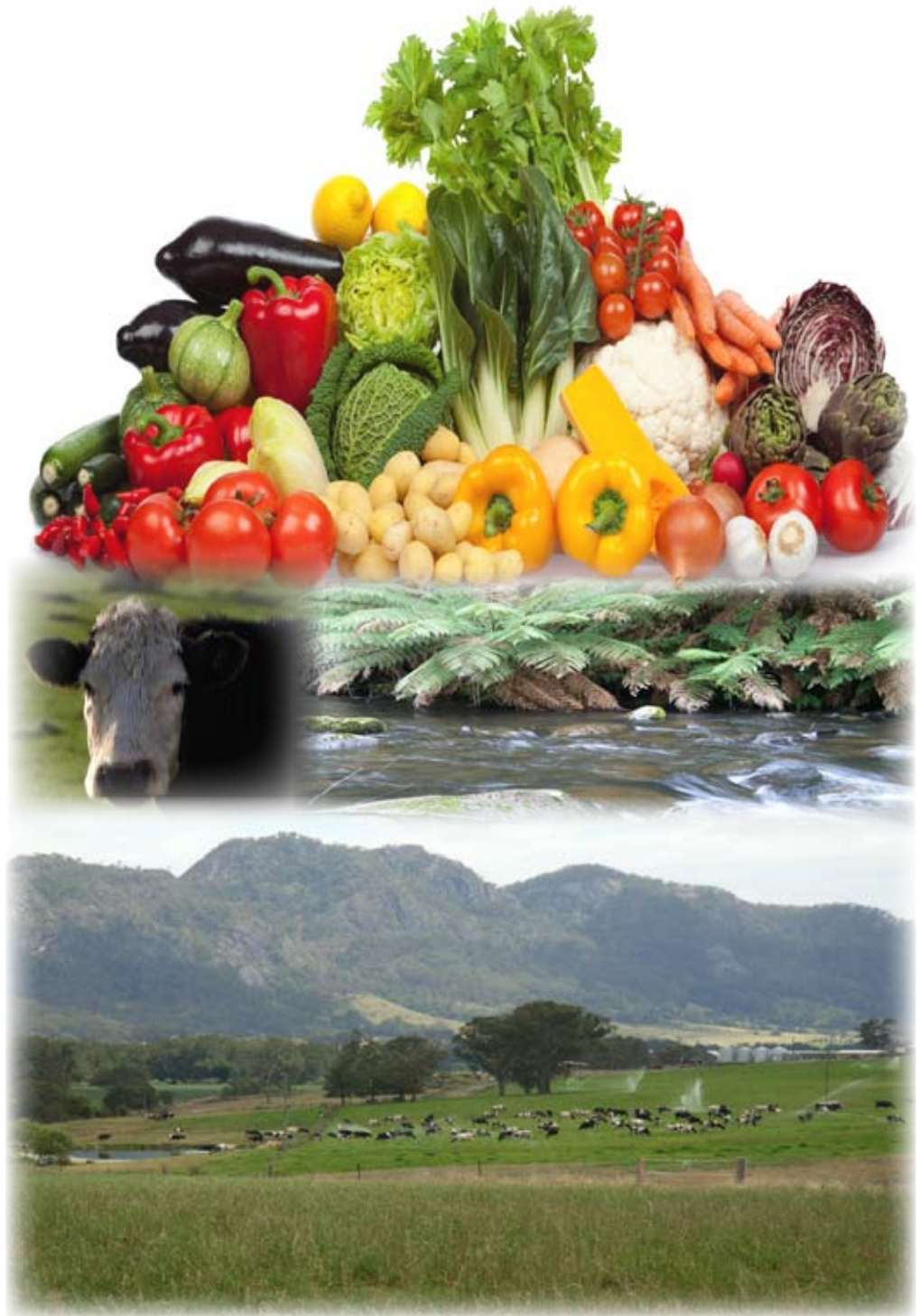




The Gloucester Project



THE PEAK BODY FOR REGIONAL ARTS ACTIVITY IN NEW SOUTH WALES



1. This document is based on a powerpoint presentation to a group of like-minded government and private people at Kempsey, NSW in 2010. It was used to summarise the Gloucester Project, its background, stages of development, relationship with its area, progress to date & possible relationships outside our area.

It is now available for others interested in the Project and to communities everywhere. Please note that other information is available on our websites
< www.thegloucesterproject.org.au > and < www.tuckergardenpatch.com. >

Please send us any comments and information. We will all benefit from any exchange of information.
(email: thegloucesterproject@ipstarmail.com.au)

Best wishes,
Ken Johnson
President, The Gloucester Project,
12/8/10



2.

Gloucester NSW is essentially a rural area with the basic economic activity of food production. Gloucester's food production areas are to be found in broad river valleys, with dairy farming, fodder cropping and a great potential for diversification into horticultural cropping. Beef grazing is common as we get further towards the high country of the Barrington and Gloucester Tops which is also famous as a tourist area.

Sustainable water management practices are critical issues in this area.

Gloucester is typical of the coastal hinterland on the east of the Australian continent. With the advent of European occupation, it became a timber harvesting and food growing (dairy, beef, fruit and vegetable) area. In recent decades timber extraction became regulated, dairying on smaller farms became victims of marketing strategies based on large capital investment.

The Gloucester Project began with an review of the characteristics of the area and an assessment of its future options in relation to local needs and the needs of the nation in the face of predicted economic and climatic changes.

The area depicted here is also under a mineral exploration and mining licences for coal, gas and gold. (See supplementary slides and notes).



3.
Beef production areas, again with well watered, alluvial river flats and hilly pasture land, are common as we move further upstream.

Rivers and river flats have attracted mineral exploration and extraction attention. Companies seeking gold, rubies, sapphires specifically target the river beds and flats. (See supplementary notes and slides). Current laws give mineral companies rights of access and exploitation over the rights of other food producing companies and landowners.

Subdivision has resulted in some larger properties being broken up into smaller holdings. The photo is taken from one such subdivision and shows, on the other side of the Gloucester River, two other subdivisions. This had implications for land use, rural population density, water storage and use, and for the impact of mineral industry displacement of populations.

The Gloucester Project has responded to these characteristics and also their implications for national food and water security.



4.

Another feature of the area is the proliferation of smaller acreages arising from subdivisions. At this stage, food production is being promoted by TGP with these landowners. Market access for small consignments of food products is severely limited. However TGP is developing marketing strategies to give access to smaller consignments, and to aggregate produce for transport to major markets.

As larger properties go out of rural production there needs to be an adjustment of food growing techniques and market access to accommodate these smaller acreages. The new occupants bring capital, a range of skills and experience and enthusiasm to the community.

It only requires local stimulus and opportunity to create, in them, a new class of rural industry. In this way we build the sustainable use of the land and water resource and create the economic viability of a denser, non-urban population. (See also comments on Localisation . . . Slide)

Food Products currently produced in Gloucester Region

Beef
Dairy products
Wide variety of vegetables
Wide variety of fruits
Pork
Lamb
Poultry -eggs, meat
Preserves

Goat -milk, cheese, meat
Wine
Olives
Herbs
Garlic
Berries
Nuts
Plant & seedling nurseries
Fodder crops

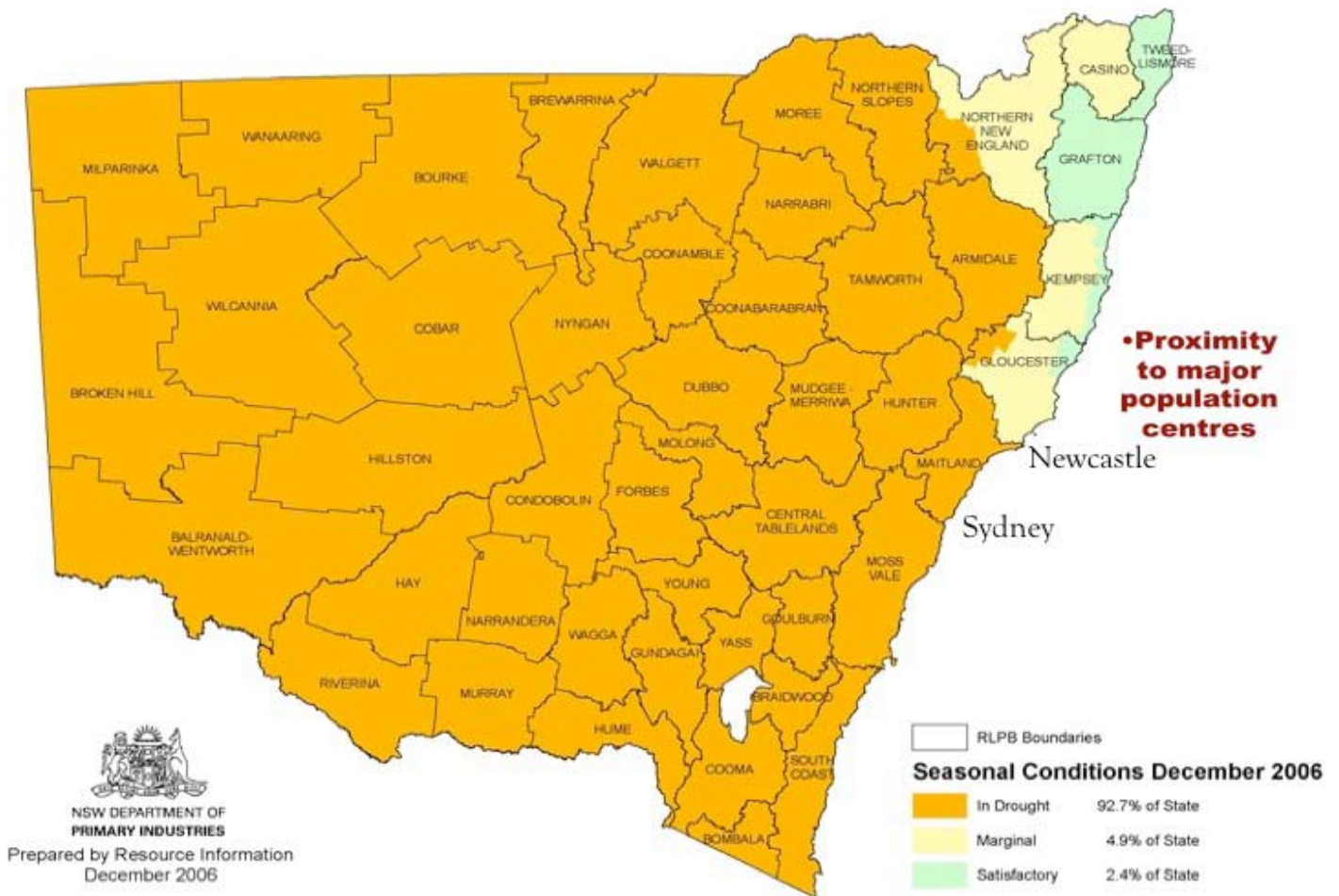
..... & potential for many more, as well
as value adding industries

5.

The variety of microclimate conditions, with elevations from near coastal to the highlands of the Barrington and Gloucester Tops, and very diverse topography has resulted in a very significant range of growing conditions. Climate changes have already begun to change the potential of some areas.

So we have a demonstrated capacity for the expansion of horticultural productivity as well as the maintenance and economic enhancement of the established beef and dairy industries.

Many of the food products listed have potential for value adding enterprise development.



6. Analyses by Newcastle University meteorologist Martin Babakhan, and the Regional Climate Change Impacts study by Dr Karen Blackmore and Prof. Ian Goodwin offer very positive predictions of rainfall and temperature changes, conditions that are already presenting .

Analysts also indicate that fuel supply and cost issues are already impacting on food distribution and marketing. The indications are that this will become even more significant.

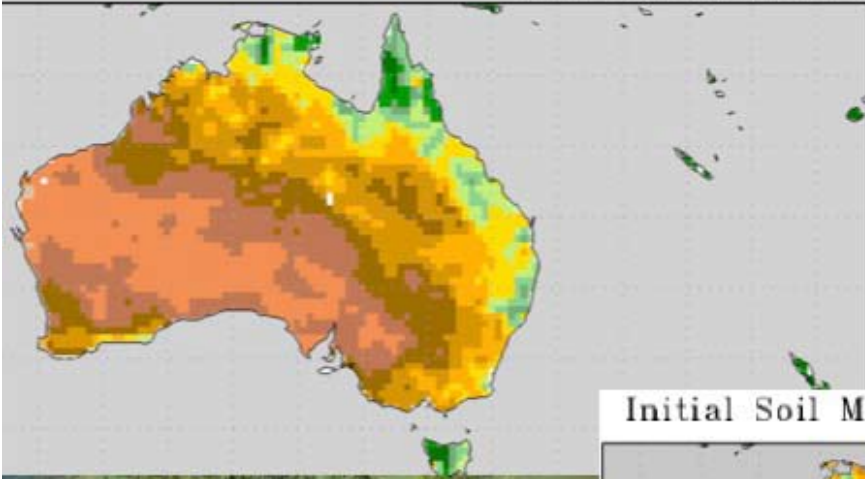
This slide shows that our areas have already shown relative advantage in severe drought periods.

Gloucester also has the major advantage of proximity to our major population centres. This has cost implications as well as the nutritional advantage to consumers reduced time between picking and consumption.

As the closest centre to the metropolitan areas, of the north coast production areas, Gloucester can also offer advantages as a transport, logistics and distribution facility between producers and consumer outlets.

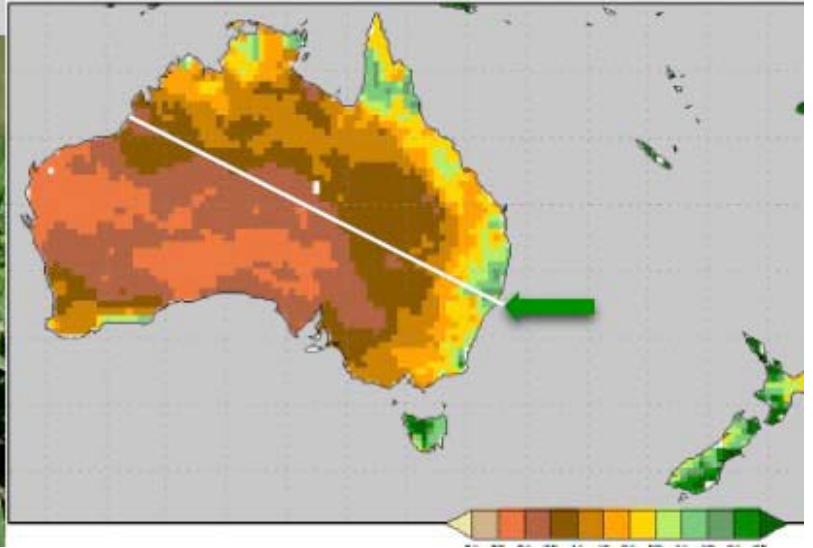
Initial Soil Moisture

Liquid Water in top 2 meters of soil
Valid time: Tue, 13 APR 2010 at 00Z



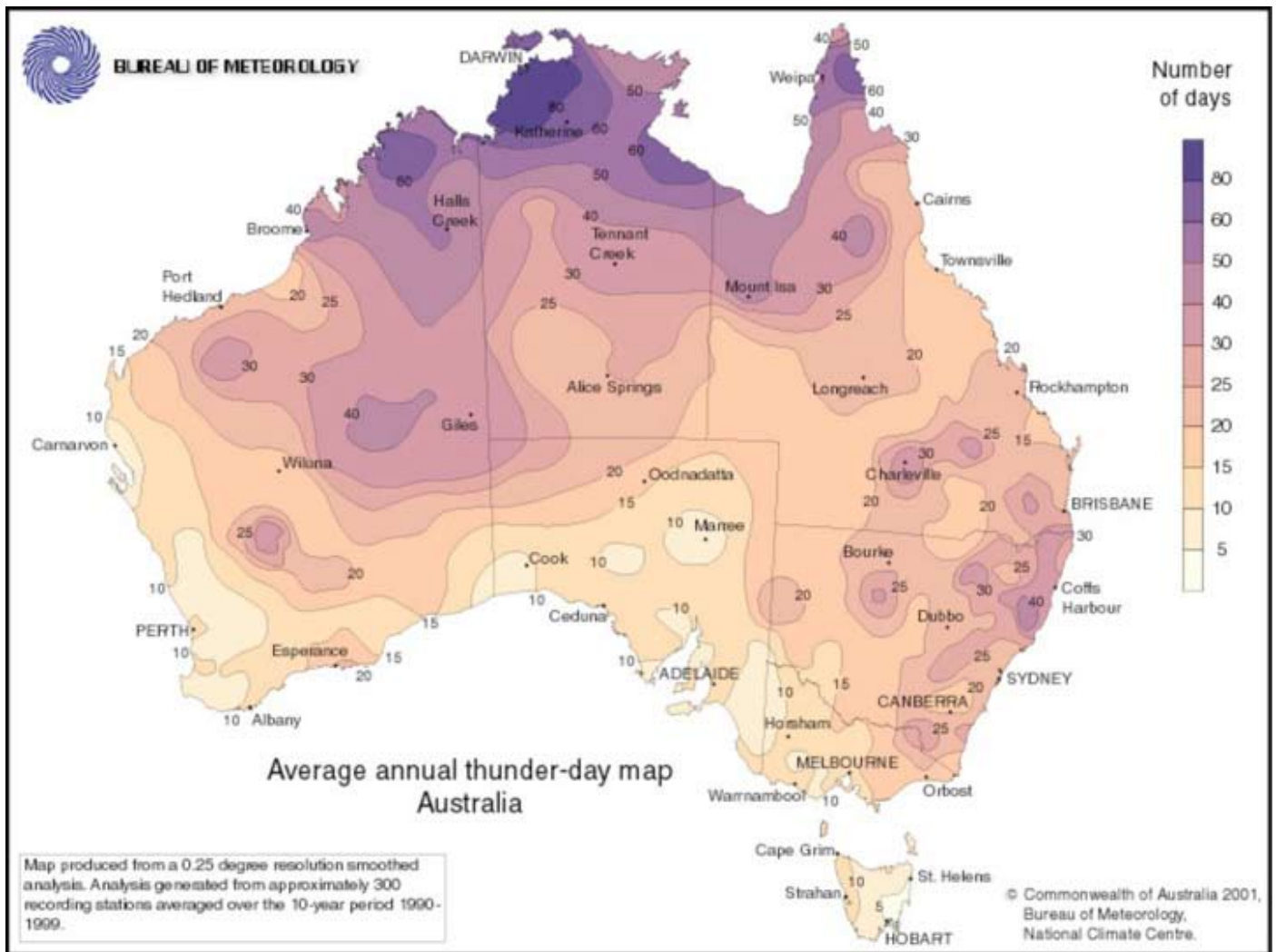
Initial Soil Moisture

Liquid Water in top 2 meters of soil
Valid time: Tue, 01 JUN 2010 at 00Z



7.

Other data relevant to horticultural development shows our relative advantage. Superimposed on the lower map is the new boundary between summer rain and winter rain regions. Together with el Nino/ la Nina influences. it can be seen that Gloucester's potential for relatively reliable rainfall is superior to practically anywhere in the nation.



8. Although it is predicted that the amount of annual rainfall will be sustained, it is likely that Gloucester will get more storm events and less snow on the high country, making for significant water collection, storage practices and evaporation issues.

TGP, on its Tucker Garden Patch, demonstration plot, is showing how to retain moisture in soils, and to minimise evaporation. Water security, for primary producers and downstream users, has become a major issue.



The region has **potential** for a long term, sound economy based
on
extending the current beef and dairy industries into
vegetable and fruit growing
Supported by a healthy
tourist industry

9.
All the data on localisation emphasises the economic resilience of communities based on diverse wealth creation sources rather than reliance on single major industries. The Gloucester Project's program brings into the economic structure of the area, more income streams and employment in the food production, value adding and tourist industries. Gloucester has major advantages in all categories.

The literature demonstrates that capital created and reinvested in an area as is planned for Gloucester, has an economic multiplier effect.

Summary

- Validated model
- Established food production
- Reliable high quality water sources
- Wide variety of ecosystems
- Outstanding climatic advantages
- Expanded marketing system
- Proximity to large population centres
reducing costs
- Established tourist industry
- An opportunity to provide alternative
economic benefits

10.

The Gloucester Project recently won the ABC/FRRR award for NSW. TGP's model is seen as having potential for more than just the Gloucester area.

TGP is seeking the support of governments to have this area preserved for food production, for now and in the future. Such a proposal fits current policies supporting climate change adaptation, food security in the face of the loss of horticultural land adjacent to cities and due to water restrictions in irrigation areas.

Population decentralisation goals are addressed by encouraging economically viable, denser rural occupation.

The principles of localisation ensure that economic considerations re employment and capital retention are addressed in this model and its application in this location. (See slides 21. & 22.)

The Gloucester Project

- Establish a Climate Change Research & Development system
- Develop a model which can also be of use elsewhere and can exchange information with other communities



11. Responses to climate changes have centred on major central actions such as carbon pollution reduction and investment in alternative energy sources. Such responses are reasonable, however climate changes ultimately impact on where the people are . . . their communities. It is widely acknowledged that food production and distribution are already being fundamentally affected, as rainfall and temperature patterns change.

The Gloucester community has all the attributes of an ideal climate change research and development location, where the lessons learned can be available to other communities. While it is doing this, it will be demonstrating how to bring underutilised land into production, how to make better use of water, how to absorb a denser population in a sustainable economic system. At the same time, it will be contributing to the replacement of horticultural products for our major population centres where fruit and vegetable supply is already a casualty of climate changes and population spread. It was recently disclosed that Australia is nett importer of fruit and vegetable products.

We are now at a stage where public acclaim for the Gloucester Project model needs to be matched by formal government recognition. We must move from dependence on volunteers. There is a need for planned development, and investment from government and non-government sources. Dependence on grants where predetermined criteria do not match the systematic development needs of this innovative model, is limiting the benefits that are available from this model and locality.

The Gloucester Project

Food Bowl Initiative



12. The Gloucester Project has embarked upon a number of initiatives based on an assessment of the region, how best to prepare the region economically and socially for anticipated changes and ways to contribute to national needs.

Of these initiatives, the Food Bowl Initiative has taken a central position.



13.

TGP's Tucker Garden Patch.

On leased land just south of Gloucester is our patch where we

- demonstrate horticultural crops which are suitable for the area,
- use methods which increase and maintain the productivity of the soil,
- show methods of watering , reduction of evaporation
- bed alternatives
- trial crops with commercial potential
- demonstrate small and large acreage techniques
- link production to marketing

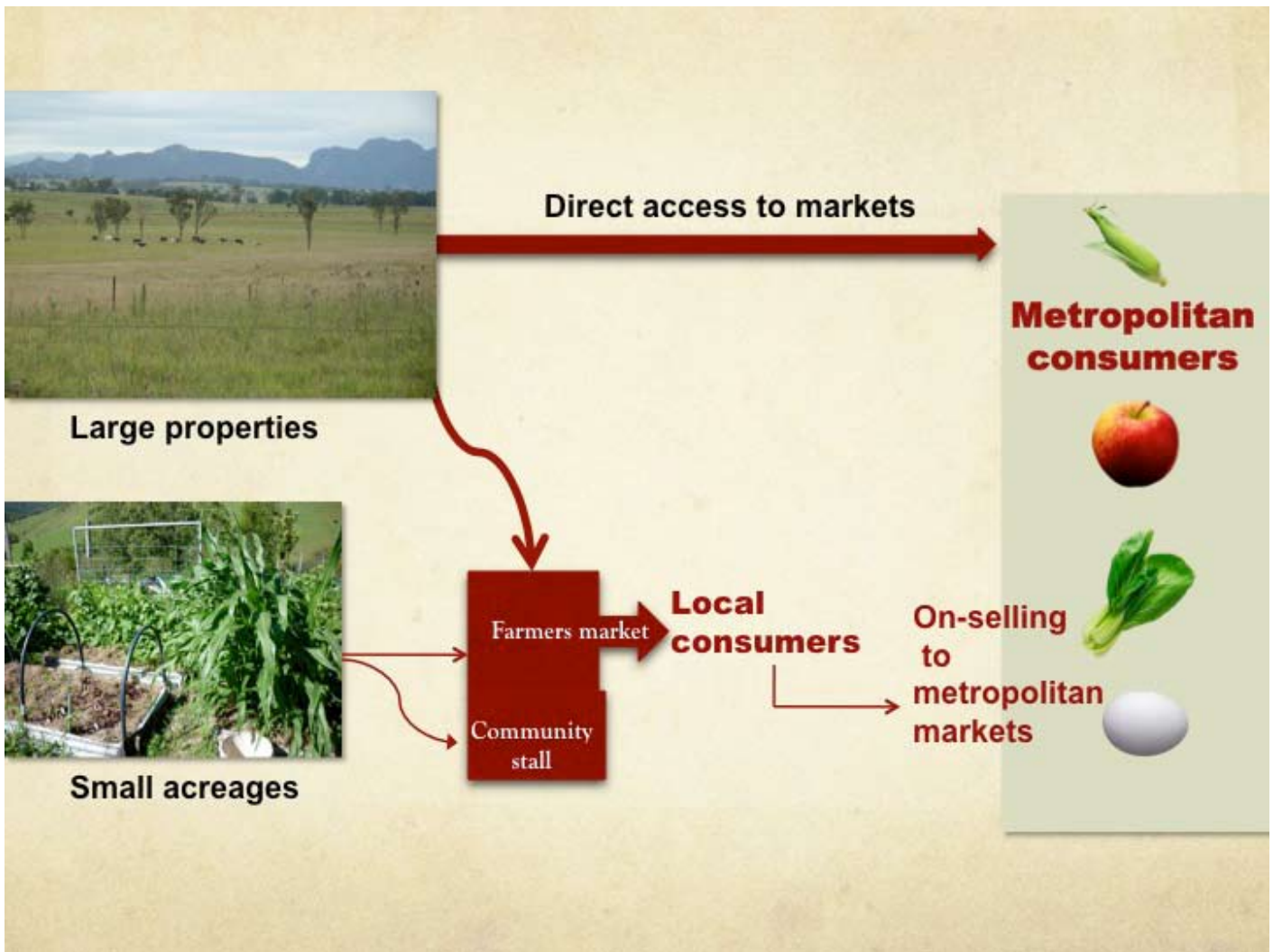
Further, we enjoy. . . .

- support by e.g. ABC/FRRR, CMA , other agencies, grants which have provided finance and validation
- support from local organisations, individuals, TGP members and volunteers.



14.
Here we are running a garlic workshop at The Tucker Patch. Garlic is a commercial crop which grows well in the area. It also has potential for developing value adding industries.

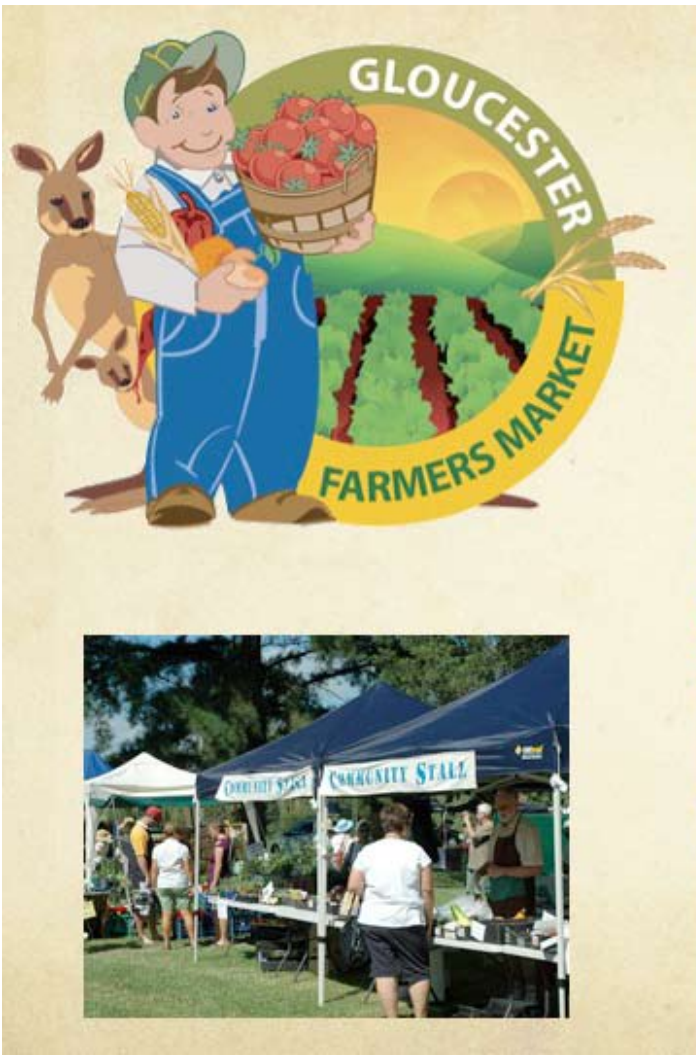
On the right we are shown with a group of primary school children preparing to set up their own beds at school (and home), using our design, standard beds. These beds allow for some climate management, soil build up and retention, weed and pest control.



15.

Market linking is essential if we are to encourage horticultural expansion.

- Under current conditions, small acreage producers cannot get market access. TGP has assisted in establishing a Growers' Market.
- Larger property owners need to be able to get ready access to markets if they are to diversify
- Our marketing support system can reduce grower risks and bring returns earlier
- Gloucester council's Economic Development Officer, Tim Weeks, has been a prime mover in establishing and managing the Growers' Market. TGP is a major collaborator in market management.
- TGP is working to encourage links to retailers and metropolitan markets so that local market capacity does not limit the volume of product grown in the area.



16
TGP's system for bringing smaller acreage producers into the market system uses a Community Stall.

Growers who cannot produce enough to support a stall bring their produce to be sold on commission through the Community Stall. TGP volunteers have developed a recording and financial management system. Returns to growers and value adders are remitted directly or by post before the next market.

The Community Stall innovation is attracting attention from other regions.

Next Stages

- **Continue extension of food growing**
 - scale
 - varieties
 - value adding
 - market linking
 - brand identification
- **Networking**
 - CET
 - Regional integration
- **Funded expansion**
 - Co-ordination
 - Employment
 - Attracting investment
 - Attracting and accommodating skilled horticulturists

17.

TGP continues to expand its Food Bowl Initiative by encouraging producers (See our Report on The Gloucester Horticultural Initiative via our website < www.thegloucesterproject.org.au >). We continue to trial and demonstrate new products suitable to the area. We are introducing technology to assist with microclimate and soil analysis on sections of properties. We are encouraging local initiatives to establish wider market contacts. We are supporting a program to establish recognition of the area as a producer of clean, nutritious food, with a regional brand name.

TGP's model is now recognised as a significant influence in the assessment of the future direction of the region's economy.

It is essential that we move from a dependence on volunteers and grant-based funding.

It will be important to develop models for the involvement of both landowners and non-owners in horticulture in the region. In support of this, we are exploring models for having available work teams with skilled and qualified agricultural workers.

Is there progress?

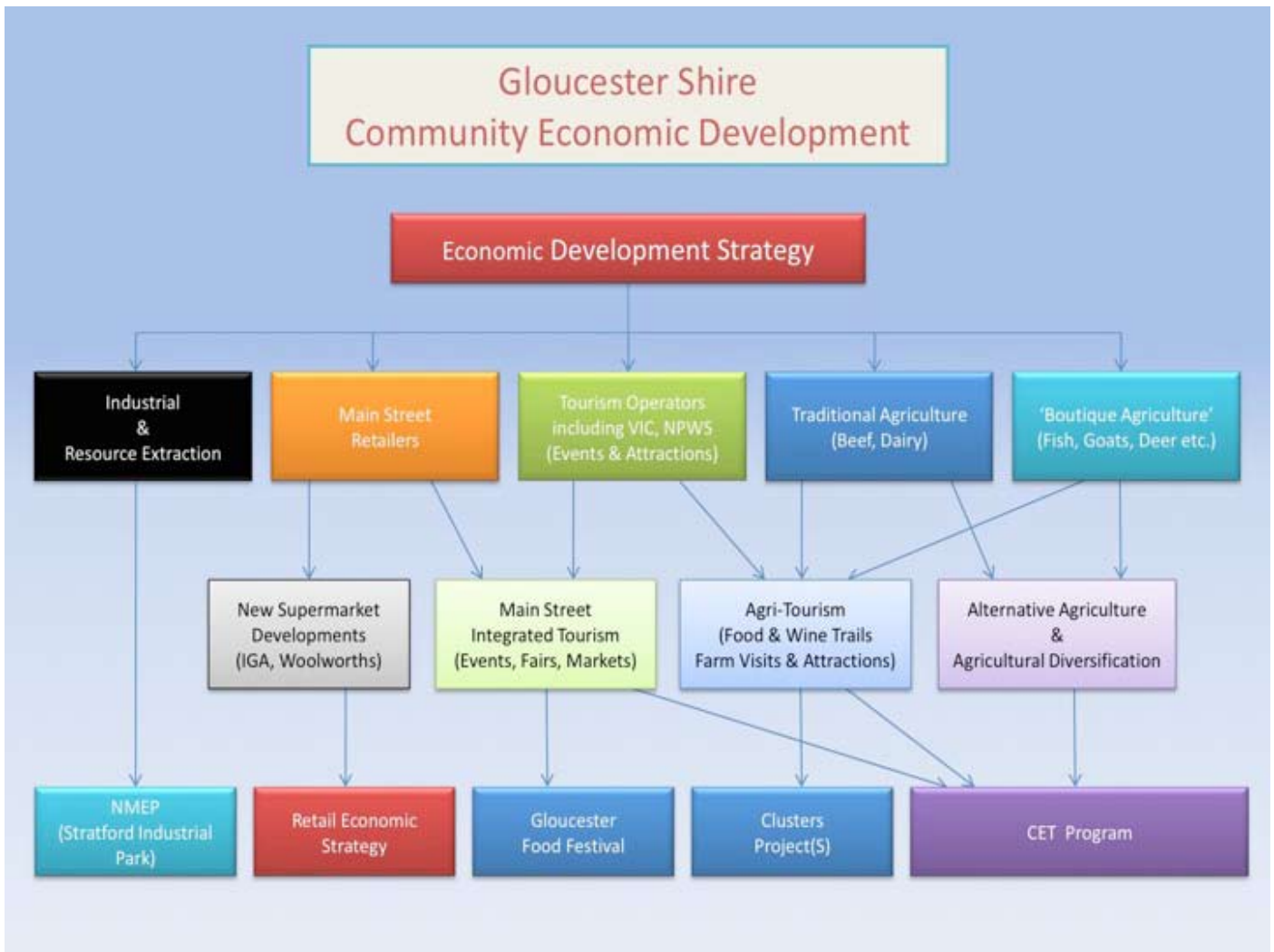
- **Demonstration sites**
- **Market chain**
- **Increasing membership and volunteers**
- **Increasing interest & validation**
- **Government support, private industry, research bodies**
- **Direct funding needed**

18.

The interest from the media and groups outside the region indicates that The Gloucester Project is seen as a valid and useful approach to a number of immediate and anticipated problems.

Since TGP was established, we have found that the Transition Towns movement in UK and NZ is also moving to adjust communities to the demands of climate and economic changes.

The Localisation movement in USA and UK offers a great deal of economic and cultural support to TGP's model. (For further comment, see Slides 21 & 22.)



19.

This as a draft being used to demonstrate the range of economic activity and development potential of our area.

It is possible to identify the position of our Food Bowl Initiative and possible interconnections. TGP is a whole of community approach and so can relate to almost every element in this diagram.

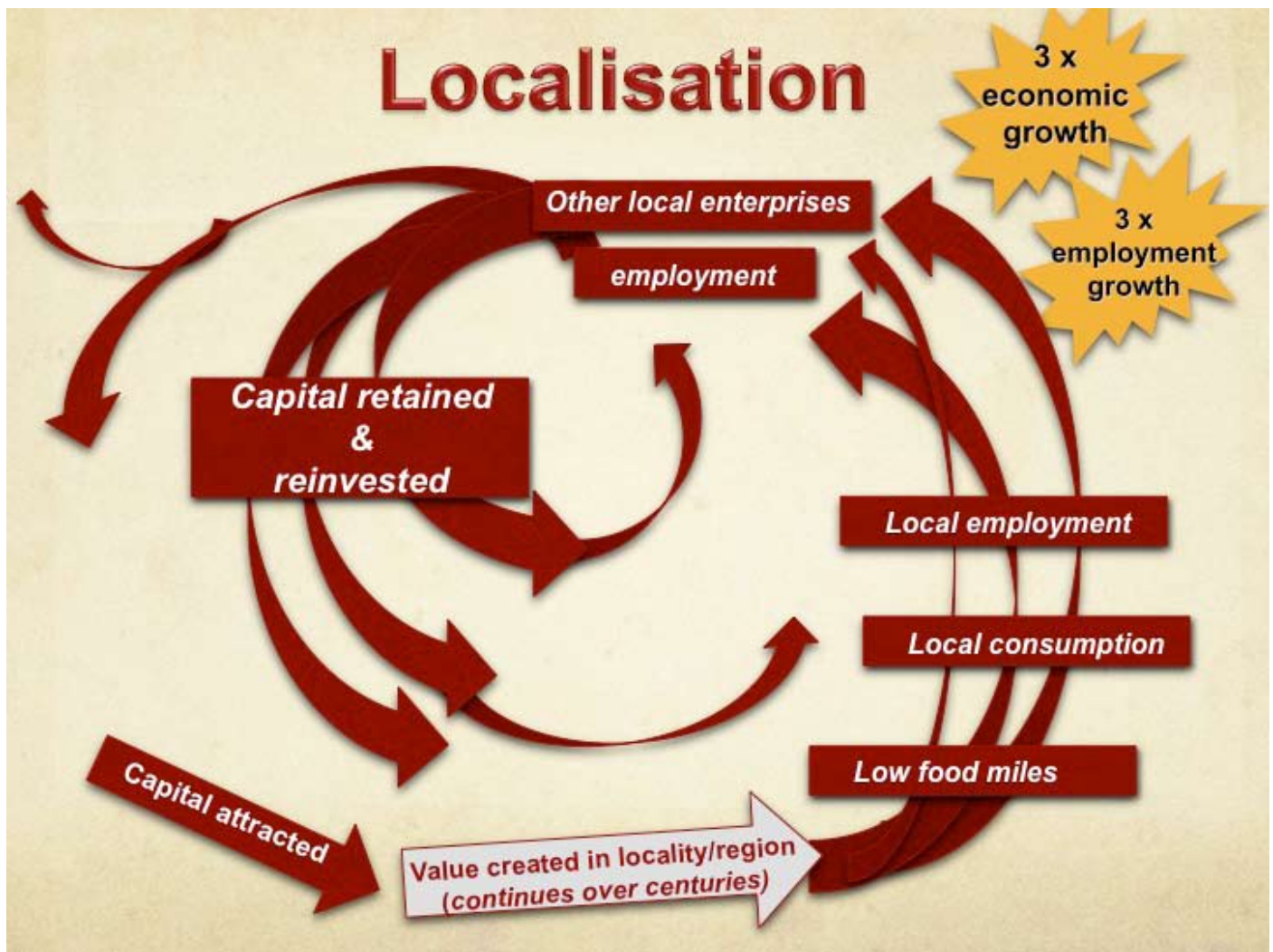
who benefits?

- ***Locality***

20.
It has been recognised that as Australia's population increases, and as some rural areas become marginal because of climatic changes, urban areas are becoming stressed in copinw with the population influx. Serious problem also emerge and will increase as demands for land, services, food and water rise.

the Gloucester Project offers a model for increased population absorption away from the urban areas. TGP's program for small acreage food production, value adding industries and integrated local development means that we are not only moving people, we are simultaneously creating an economic structure which will support them in their non-urban environment.

This system will be facilitated by the proposed improved electronic communication systems.



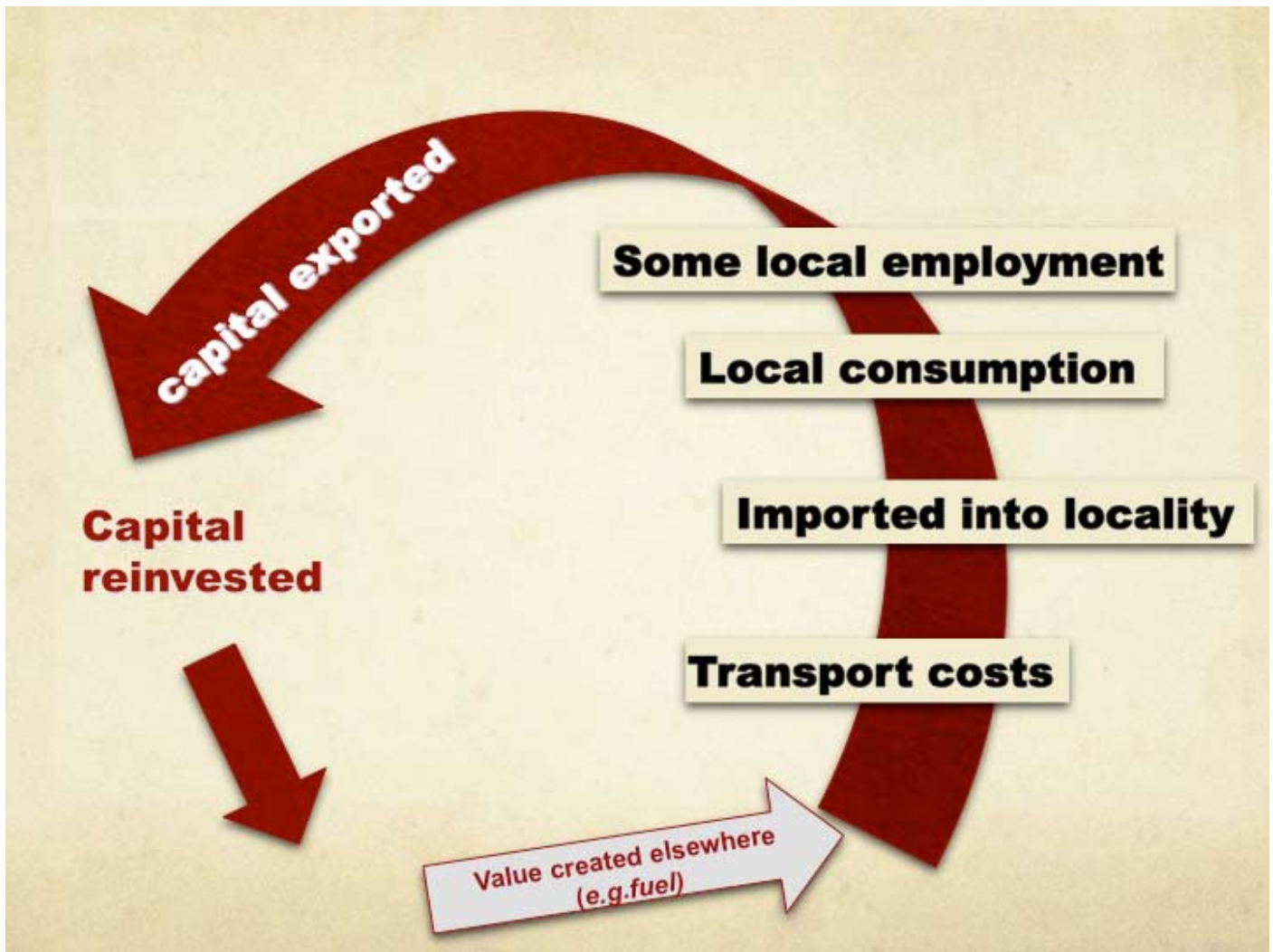
21. When we first assessed the potential of our area and how we could enhance its economic future, we worked in isolation, and from first principles. Since then we have found that there is a comprehensive movement called the Transition Towns movement, where localities are on the move to adapt to changing climatic conditions.

Gloucester's relative insulation from the major drought also drew attention to our favoured climatic conditions and reinforced the views of meteorologist Babakhan and the Regional Climate Change Impact study.

Now we find that the economic models reacting to the serious impacts on communities arising from globalisation and which promote "Localisation", are demonstrating that TGP's model has widespread international relevance and economic significance.

This slide shows how capital generated within a region, and invested in local enterprise links production, distribution and consumption within the locality. This has a multiplier effect on economic and social factors, leading to substantial economic benefits, employment stability and growth and genuine intergenerational and environmental sustainability.

Michael H. Shuman, attorney and economist has written widely on localisation. He reports on studies which demonstrate the economic benefits of a local production-consumption basis. "Greater local spending means a higher "economic multiplier", the much-desired circulation of a dollar many times in a community. The study suggested that every dollar spent at the local store contributed three times the jobs, income effects and tax benefits to the local community. Nearly a dozen other studies have confirmed these results elsewhere and for other kinds of businesses, suggesting that for every dollar of spending, a local business will contribute roughly two to four times as much economic benefit for a community as an equivalent non-local business."



22.
 The circumstances of local production-distribution-consumption depicted in slide 21. with its accompanying retention and reconstitution of capital, contrasts with the leaching of capital when the community is treated as an area where goods created elsewhere are imported and consumed. Whereas imported capital can create some employment the major economic benefits go back to the source of the imported capital. Thus, capital growth is exported with little opportunity for the multiplier effects that make for sustainable economic growth in the community This rationale has significance, not only for many rural and other communities, it has particular relevance to the Gloucester situation where we have such high potential for a sustainable economy as depicted in Slide 21. However, Gloucester is being offered, as an alternative, the mining option which can be depicted in Slide 22. (The only difference to the scenario in Slide 22. is that in our case, the imported capital is used to export a local resource, the mineral, along with the exported capital.)

When the local capital is invested into creating a product as essential as food and water, there is the added advantages of market demand, sustained over generations of citizens, both locally and nationally. When the natural resource being tapped (soil and water) can be sustained and improved by sound practice, then the community has, returned to its control, a guaranteed basis for long term economic and social stability .

who benefits?

- *Locality*
- *Region*

23.

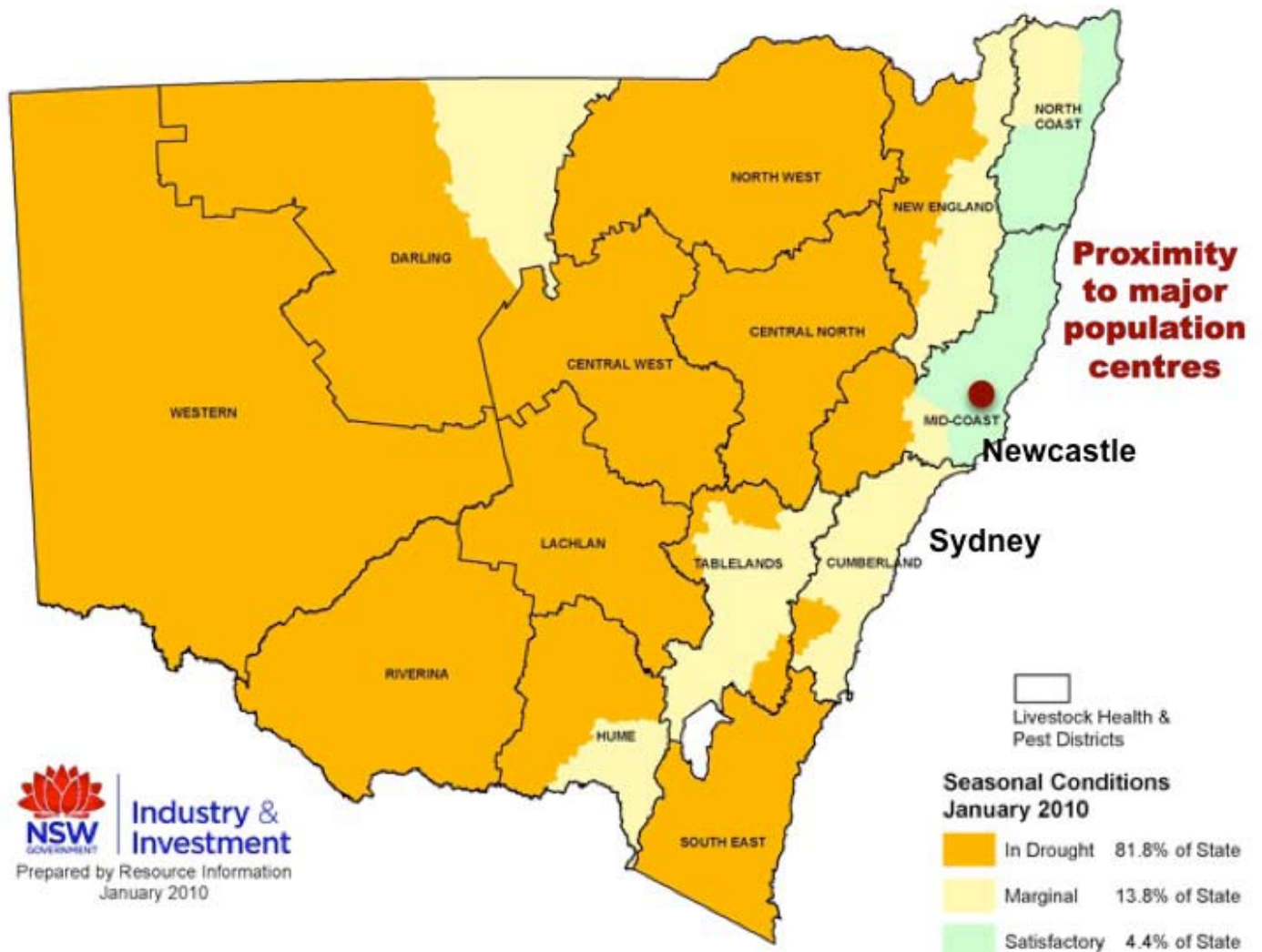
It is clear that the Gloucester Project model has significance to many similar regions where there is a need for.

- Economic security
- Climate change adaptation
- the food crisis preparation
- the fuel crisis adjustments

Many communities throughout the world are moving in similar ways

- In the region, there are geographical similarities from Gloucester north along the coast.
- There are potential benefits for this north coast region, in co-operating in the production and marketing of an enhanced range of food products. (See next slide)

We have some proposals in this regard.



24. The Sydney-Newcastle conurbation is rapidly developing and overwhelming its food sources. Gloucester's climatic advantage is further enhanced by its proximity and rail & road links to the nation's largest population centres.

TGP's Food Bowl model is also highly relevant to the coastal areas to the north. A product assembly and distribution centre at Gloucester would be both economically feasible and logical.

who benefits?

- *Locality*
- *Region*
- *Nation*

25.

Australia is the driest continent.

We have just recorded the hottest year on record after a series of record hot and dry years.

As a result, national food and water security is assuming major significance.

Regions like Gloucester must be preserved to serve the nation's interests in these difficult times

It is believed that changes in Europe and Asia will have profound effects on food production and distribution. So it is in the interests of humanity, in the interests of our own economic and social well being, and in the interests of mitigating the conflicts and population displacements that are already happening, to produce as much food product as is consistent with maintaining the integrity of our communities.



26

When we set up the Gloucester Project, we were operating in isolation. It was in part a response to what we saw as the grossly inappropriate use of prime agricultural land in our area. We became aware that people all over the world have been exploring similar issues and proposing similar solutions.

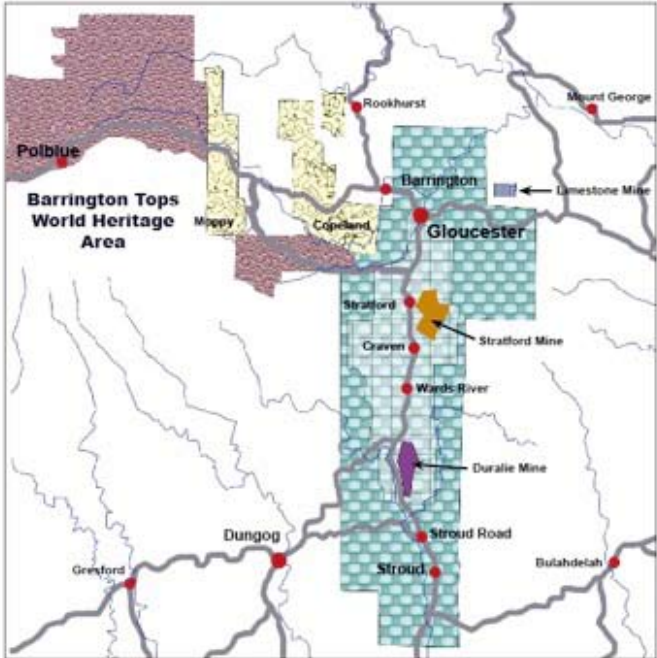
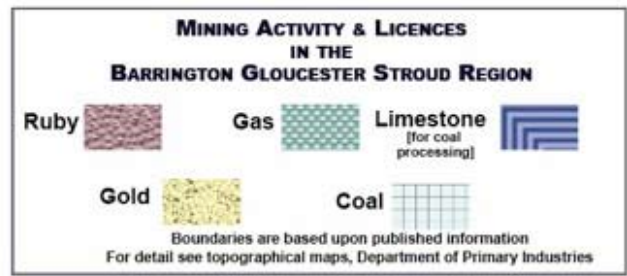
So far we feel that, what we are doing is not unique, but we certainly seem to have some unusual features, largely because we are tackling a range of related issues simultaneously, taking a whole of community position.

We would be pleased to develop more, mutually beneficial co-operation with our neighbouring regions and with other regions addressing similar issues.

The Gloucester Project wishes to thank The Foundation for Rural and Regional Renewal (FRRR), ABC Rural & ABC Sport, and The Hunter-Mid North Coast Catchment Management Authority (CMA) for their support. We deeply appreciate the assistance of the other agencies, local organisations, businesses and individual citizens who have given assistance. We especially acknowledge the countless hours of voluntary involvement of TGP members and friends.

The Gloucester project will continue to promote and depend upon partnerships. We are, of course, willing to co-operate further with government, private industry and research bodies.

Ken Johnson, BA, OAM.
President,
The Gloucester Project,
August, 2010.



Supplementary Slides:

S1. Areas covered by mineral exploration and mining licences in the Gloucester Region, 2006

It is not our purpose, in this presentation, to get locked into the coal Vs agriculture debate. However, it would be misleading not to make certain matters clear. In the debate which brings to common ground, such protagonists as environmentalists and conservative farmers we need to show that there can be no valid argument, in the Gloucester situation, that mining and agriculture can co-exist. A choice has to be made as to which is in the region's and the nation's best interests. The simple situation is as follows:

Coal underlies the main Gloucester-Stroud valley. See Slides 1. & 2. for typical country.



S2.

In the Gloucester Basin, most coal extraction is by the open cut method. This was country similar to the farmland in slides 1 and 2.

The effects on streams and the water table, from wholesale excavation are obvious. The introduction of toxic materials from exposed coal beds, and from coal washing can be seen. The leaching of toxic water from the extensive heaps of overburden continues for decades.

The replacement of some soil and the planting of trees and pasture does not constitute restoration to the state where safe food farming will be possible in the foreseeable future. The disposal of mine water over pastures has unmeasured consequences. Some of this deposit is of marine origin and is likely to have higher saline content.

Acquisition of this farmland required the displacement of farming families from over 90 land titles. What was commenced as a “boutique” mine of limited duration has grown and continues to grow, consuming hundreds of hectares of farmland and displacing more farmers. Many more farmers just outside the buffer zone of current land acquisitions, feel threatened, have no certainty about the future, are reluctant to invest in their properties. Coal dust related, and stress related health problems rise.

It is clear that there are direct impacts and indirect impacts that make it impossible for mining and food production to co-exist in the Gloucester Basin.

This is not a “not in my back yard” issue, although people are entitled to reject the mining option. It is a matter of national significance given the climatic and economic circumstances and Gloucester’s potential to play a major role in securing our future.

It is also relevant that deeper coal seams in this same area are being tapped by gas extractors. Under ideal circumstances, gas wells seem to make a much smaller impact on farmland and food growing potential. In fact, in certain circumstances gas extraction could complement food growing. However, several matters remain unanswered.

Gas wells penetrate the upper aquifers and draw coal bed water from the lower aquifer. Despite technical efforts to secure the drilled gas well, no one can guarantee that the water of the upper aquifer, the groundwater that farming depends on, will not flow down to replace removed coal bed water.

When coal mining and gas extraction co-exist the geology is disturbed by excavation and blasting. This increases the potential for movement in the area, in turn increasing the possibility of accidental damage to gas wells. Such fracturing leads to methane migration and damage to the impervious layers that hold the aquifer. Again, a threat to food-producing farmland.

Other associated disadvantages are well documented, but there is sufficient here to assert with confidence, that in this area which is an essential resource for food and water security, mining and food production cannot co-exist. Government has to make a choice based on proper assessment.



S3.

Farmers away from the coal area have felt that they might be able to run their business without the interference of mining. Not so! The most fertile parts of farms are the river flats with their alluvial soils with good organic content. The alluvial river flats also hold the water-deposited gold and shiny stones which attract miners with capital.

These miners have the same rights of entry and access to the land of other citizens as do the coal miners. In general, precious metal extraction requires that the deeper gravel beds in the flats and rivers have to be dredged, washed and, with the help of introduced chemicals, separated. The photograph above is of a ruby and sapphire mining operation under an “exploration” licence in Gloucester’s Barrington Tops area. The impact on rivers and river flats is obvious.

It is foolish to talk of compensation and market pricing for compulsory acquisition of properties. When an invading industry can pick the best pieces of a property and turn them upside down, we have to acknowledge that the effect on the property is such that it can cease to be a viable operation.

There may be places where it may be reasonable to damage the land in order to extract some material.

Gloucester is not one of those places. It is needed by its people and by the nation because of its outstanding potential to produce good food and pure water in these critical times.