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Risk management as policy. The experience of Australia's National Drought Policy

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Abstract. In 1989 the Australian government announced an important change to the way in which it responded to the impact of drought. It removed drought from the events eligible for support under the country's natural disaster relief arrangements and set up an inquiry to recommend an appropriate framework for a national drought policy. Following negotiations between the Federal and state governments, a new National Drought Policy was announced in 1992. It was based on principles of risk management and self reliance, and a recognition that drought is a normal part of the Australian farmer's operating environment. The policy came into effect in 1993 and since then has been subject to regular changes to the way in which it has been implemented. This paper argues that, while the underpinning principles of the policy remain appropriate, its implementation has been disappointing and has drifted away from the policy's objectives. A recent review of the policy provides an opportunity to refocus drought response in Australia on adapting to climate variability and to adopt the risk management approach originally intended by the policy's authors.

Keywords. Drought – Policy – Australia – Risk management.

La gestion des risques comme politique. Les expériences de la politique nationale australienne sur la sécheresse

Résumé. En 1989 le gouvernement australien a annoncé un changement important dans sa façon de répondre à l'impact de la sécheresse. Il a décidé de retirer la sécheresse de la liste des catastrophes naturelles entraînant un support financier, et il a mis en place une enquête pour définir un cadre approprié à une politique nationale sur la sécheresse. Suite à des négociations entre le gouvernement fédéral et ceux des états, une nouvelle Politique Nationale sur la Sécheresse a été annoncée en 1992. Elle était basée sur des principes de gestion des risques et d'indépendance, et sur une reconnaissance du fait que la sécheresse fait partie normale de l'environnement d'exploitation du fermier australien. La politique est entrée en vigueur en 1993 et depuis lors elle a été régulièrement soumise à des modifications dans sa mise en application. Cet article soutient que, bien que les principes de base de cette politique demeurent appropriés, sa mise en œuvre a été décevante ; elle est allée à la dérive par rapport aux objectifs de la politique. Une révision récente de la politique fournit une occasion de recentrer la réponse à la sécheresse en Australie sur l'adaptation à la variabilité du climat. C'est aussi une occasion d'adopter la méthode de gestion des risques qui était à l'origine l'intention des auteurs de cette politique.

Mots-clés. Sécheresse – Politique – Australie – Gestion des risques.

I – Drought and agriculture in Australia: Background

Australia has one of the driest and most variable climates on the planet. Australia's indigenous people adapted to water scarcity, managing the resource with "care and restraint" (Rose, 2005, p. 37). As Rose (2005, p.40) points out, "Aboriginal people spaced themselves across the continent in densities that reflect the rainfall of a given area". Europeans arriving in the late eighteenth century brought with them their own conception of climate, based on the relative reliability of Europe where rainfall is seasonal, unlike Australia's rainfall patterns which are heavily dependent on ocean currents. The colonists set about establishing the style of

agricultural activity they had brought with them from their places of origin. An early note of warning was sounded by John Bigge in 1823 when, observing the "uncertain climate", he reported back to Britain that the future of the colony

"...will be that of pasture rather than tillage, and the purchase of land will be made with a view to the maintenance of large flocks of fine-woolled sheep; the richer lands, which will generally be found on the banks of the rivers, being devoted to the production of corn, maize and vegetables" (Bigge, 1966 [1823], p. 92).

In spite of this advice, a strong agricultural industry developed in Australia with high productivity growth and considerable ingenuity as farmers adapted to the Australian conditions. Droughts of varying magnitudes troubled agricultural producers on a regular basis and the policy response was to treat drought as a natural disaster, in the same category as cyclones, floods, bushfires and earthquakes.

Under Australia's federal system of government, land management is a state responsibility and until the 1930s, disaster relief was provided by state governments. In 1939, the Commonwealth (national) government provided the Tasmanian government with £1000 to assist with the aftermath of severe bushfires in that state. For the next several decades, the Commonwealth augmented state disaster relief efforts, including drought responses, on an *ad hoc* basis. In the mid-1960s, specific legislation was passed to assist the Queensland and New South Wales governments during a period of severe drought. By the early 1970s, cost sharing between the Commonwealth and state governments had been formalised in the natural disaster relief arrangements (NDRA), with a formula setting out each government's responsibilities in the event of a disaster.

II – A shift in the policy paradigm

1. The development of the National Drought Policy

In 1989 the Commonwealth government announced that drought was no longer to be covered by the natural disaster relief arrangements. This was a major policy change and occurred for several reasons: the cost of drought-related disaster relief, apparent misuse of the scheme by the Queensland government and advances in scientific understanding of the determinants of Australia's climate, including the El Niño phenomenon and the Southern Oscillation. The NDRA continues to exist and provide a framework for governments' responses to natural disasters other than drought.

Following the 1989 decision, the Commonwealth Government established a Task Force to report on an appropriate drought policy for Australia. The Task Force concluded that drought is a normal feature of the Australian climate and not a natural disaster but is one of a number of risks to be managed by farm businesses. It recommended that the government's role should be limited to supporting farmers adapt to this new environment of self reliance and risk management, and that a National Drought Policy should be introduced based on these principles (DPRTF, 1990, p. 18, Volume 1).

Following receipt of the Task Force report, the Commonwealth commenced negotiations with the states to develop a National Drought Policy and agreement was reached in July 1992. Ministers decided that a National Drought Policy would be implemented "based on principles of sustainable development, risk management, productivity growth and structural adjustment in the farm sector". The Policy explicitly stated that

"Under the National Drought Policy, farmers will have to assume greater responsibility for managing the risks arising from climatic variability. They must integrate business management with production and resource management to ensure that the financial,

physical and productive resources of their businesses are used efficiently" (ACANZ, 1992, p 13).

The policy approach was based on the understanding that farming was a business and, like any business, faced risks. Climate risk was one of these, along with interest rate risk and commodity price fluctuations. Government had a role under the policy, to "create the overall environment which is conducive to this whole farm planning and risk management approach" (ACANZ, 1992, p. 13). This was to be achieved through several key policy measures: grants to subsidise the interest payable on commercial loans, tax effective income smoothing measures to increase self-reliance, funding for research and development, and social support for farmers and rural communities.

2. An important caveat: The exceptional circumstances provisions

Although the policy was based on the principle that drought was a business risk to be managed, an important caveat was introduced into the policy relating to "severe downturns" during which support would be provided to "those with sound prospects who are temporarily in difficulty" (ACANZ, 1992, p. 13). This was given effect in the concept of "exceptional circumstances" and delivered through the Rural Adjustment Act 1992. The exceptional circumstances (EC) provisions were based on the idea that on rare occasions a drought occurs of such severity that even the best manager could not be expected to cope. Although developed largely in the context of drought policy debate, the EC provisions were not originally limited to drought events; they were intended to provide additional support to farmers faced with any type of exceptional event that was beyond the capacity of good management. Under these conditions, the government offered enhanced support.

EC support was triggered almost immediately that the Rural Adjustment Act 1992 came into effect in January 1993 – for excessive rain in the states of South Australia and Victoria. It was also triggered the same year following a collapse in wool prices and to support farmers affected by worsening drought in the eastern states. Since that time, there have been exceptional circumstances declarations in place almost constantly, with some areas experiencing multiple years of declarations and, therefore, government assistance. The conditions under which exceptional circumstances declarations have been made have not been consistent and it is arguable that some areas that have been receiving support have not been experiencing rainfall deficits of an "exceptional" nature – rather they have experienced the normal variability of the Australian climate.

EC support is based on geographical declarations and this raises the problem of defining exceptional circumstances in a manner which is scientifically justifiable across time and space. Given the size of the Australian continent, developing an equitable definition that encompasses exceptional conditions in the high rainfall areas of the wet tropics, the temperate climate of Tasmania and the conditions of the arid inland is clearly challenging. In addition, separating drought conditions from other agricultural factors is difficult. As Heathcote observed "the same rainfall which gave a bonanza wheat crop [...] in the 1880s, would be classed as a drought in the 1980s" (Heathcote, 1994, p. 100). The challenge of defining drought is of course not unique to Australia (see for example Dracup *et al.*, 1980; Wilhite and Glantz, 1985; Wilhite, 2000). Further differentiating between "normal" and "exceptional" drought compounds the problem; particularly when the declaration that such an event is taking place brings with it substantial government financial support.

III – The pitfalls of implementation: The policy in practice

The timing of the introduction of the new drought policy paradigm could not have been worse. As explained above, the policy called for a shift from treating drought as a natural disaster to

recognising it as a normal feature of the Australian climate, to be managed along with the other risks facing the farm business. The new policy came into force on 1 January 1993 at a time when drought in the eastern states of the country was worsening; the 1990s drought came to be regarded as the worst drought of the twentieth century. As a result, farmers had no time to adapt to the risk management approach by undertaking drought preparation or accumulating financial reserves to see them through. The exceptional circumstances provisions were put into effect almost immediately, exposing the fact that "exceptional circumstances" had not been defined in legislation, nor had agreed processes been put in place for deciding when such circumstances existed. This meant that the definition of an exceptional circumstance and how it was to be measured was contested from the outset.

1. Changing the emphasis: The welfare dimension

By mid-1994, a further shortcoming of the drought policy was becoming evident – the lack of sufficient welfare support for farm families (for a more detailed account of Australian Government responses to farm poverty see Botterill, 2007). The National Drought Policy was focused on providing support to farmers with a long term productive future in agriculture and that support was provided in the form of interest rate subsidies. Although the criteria for calculating eligibility for interest rate support included reference to household expenses, this proved to be inadequate in ensuring families had sufficient resources to meet day to day requirements. Farmers who were not considered to have long term prospects were not eligible for support. Some welfare support was available for this latter group but this was tied to leaving the farm; a tough decision for farmers under normal circumstances but even harder in the face of severe drought. Mainstream welfare programs were often inaccessible as a result of the introduction of assets testing in Australia in the 1980s. Although income-poor, many farmers remained asset-rich, so even if they or their spouses were available for off-farm work, the value of the farm asset often left them ineligible for the unemployment benefit. By mid 1994, welfare groups and drought relief agencies were pointing to growing welfare problems in drought-affected areas. The political heat was increasing on the government and in September 1994, the Prime Minister Paul Keating visited drought-affected farmers in southwest Queensland. On his return, he announced the establishment of a Drought Relief Payment. The payment was available to all eligible farmers in an area declared to be in an exceptional circumstance, irrespective of the health of their businesses. This marked an important departure from the intent of the National Drought Policy in that it provided support to farmers who were not considered to have long term prospects in agriculture as well as those who were.

Over the course of the National Drought Policy, Agriculture Ministers from the Commonwealth and State governments have initiated a number of reviews of the EC program (Productivity Commission, 2008, p. 92-100). Of the changes made to the process for declaring EC, one of the most significant was the decision in 1999 to shift the focus of the policy so that *"The key indicator [of the existence of an EC event] is a severe income downturn, which should be tied to a specific rare and severe event, beyond normal risk management strategies employed by responsible farmers... The severe downturn should be for a prolonged period and of a significant scale"* (ARMCANZ, 1999, p. 63). This change placed the income impact ahead of meteorological or other physical considerations, effectively undermining the risk management message of the National Drought Policy.

This decision was compounded in 2005 when the Commonwealth government announced changes to the eligibility criteria for the EC-linked welfare payment. The government increased the amount of off-farm income that could be earned before welfare payments were reduced. This opened a significant gap between the level of welfare support available to drought-affected farmers and that available to other members of the Australian community through the welfare system (Botterill, 2006). This gap was widened further in September 2007, when the income test was again relaxed. This change was explained by the Minister for Agriculture as follows:

"Given the length and severity of the drought, we now link off farm income to the farm

business itself. After all, these farm businesses are earning no income themselves, and yet they've got costs such as fixed water charges, local government rates, or lease payments on machinery or the like" (ABC Radio, 2007).

This statement revealed how far drought policy had shifted from its original intent. No longer did it only support those with a long-term sustainable future in farming but the welfare system was now apparently being used to subsidise farm business operations.

In practical terms, the existence of the exceptional circumstances provisions has set up perverse incentives for farmers experiencing a drying spell. Where the National Drought Policy was aimed at supporting farmers in managing dry periods as part of normal climate cycles, the existence of the exceptional circumstances program provides an incentive for farmers and their representatives to focus on making the case that they are experiencing particularly bad conditions. This has had the unfortunate effect of reinforcing the perception that drought is a natural disaster, in direct contrast to the policy intent of the National Drought Policy.

Because of the difficulties associated with developing an accepted, scientifically based definition of an exceptional circumstances event, the process for declaring EC has been politicised. Multiple entry points in the declaration process are provided by Australia's federal system of government. The way in which EC support is financed has reduced the incentives for state governments to act as effective gatekeepers for dubious applications for EC declarations. The declaration of EC during election campaigns outside of the established declaration processes has also given the impression that the program is open to political interference, further undermining the scientific integrity of the process.

2. One area of success

The National Drought Policy was comprised of a number of program elements, the main one being the subsidy on interest payments mentioned above. As part of the shift towards supporting a risk management approach to drought, the government also provided two tax-related savings mechanisms to encourage farmers to build financial reserves. These were rolled into a single program in 1997. The current scheme, called Farm Management Deposits, has proved to be a popular and effective mechanism for farmers to accumulate financial reserves during high revenue years for use during downturns. It attracts favourable tax treatment which reduces the farmers' tax burden and encourages savings in high income years, thus providing financial reserves for future downturns.

3. The future of the National Drought Policy

After a change of government at the Commonwealth level in 2007, the new Minister for Agriculture, Fisheries and Forestry announced a comprehensive review of the National Drought Policy (Burke, 2008). The review was in three parts. The first report received by government was a climatic assessment by the Commonwealth Scientific and Industrial Research Organisation and the Bureau of Meteorology of likely future climate patterns and the current Exceptional Circumstances trigger of a one-in-20-to-25-year-event (Hennessy *et al.*, 2008). The report concluded that

"The current EC trigger, based on historical records, has already resulted in many areas of Australia being drought declared in more than five per cent of years, and the frequency and severity are likely to increase. The principal implication of the findings of this study is that the existing trigger is not appropriate under a changing climate" (Hennessy et al., 2008, p. 1).

The climate assessment was followed by a report by an expert panel on the social impacts of drought on farm families and rural communities (Drought Policy Review Expert Social Panel, 2008). This second report marked an important change to the nature of the policy debate about

drought by explicitly including social issues. The social impact report avoided the term "drought", preferring to use "dryness". The panel outlined its approach as follows:

"There needs to be a new national approach to living with dryness, as we prefer to call it, rather than dealing with drought. Governments should focus future policy on facilitating the social wellbeing of farm families, rural businesses and communities to improve their capacity to live with dryness. Better social outcomes are most likely to give better economic and environmental outcomes. The new approach reaffirms the fact that Australia will face periods of prolonged dryness in the future and acknowledges that dryness has an adverse impact on the wellbeing of farm families, rural businesses and communities" (Drought Policy Review Expert Social Panel, 2008, p. 5).

This approach was essentially suggesting a return to the original intention of the 1992 policy, but with a call to put the wellbeing of people and their communities as the top priority.

The final report received was an economic assessment of drought support measures undertaken by the government's Productivity Commission. The Commission's Terms of Reference were to:

- (i) Report on the appropriateness, effectiveness and efficiency of the Commonwealth, State and Territory governments' business support and income support measures provided to help farmers, farm businesses and farm dependent rural small businesses manage drought. [...]
- (ii) Identify impediments to farmers, farm businesses and farm dependent rural small businesses improving self-reliance and preparedness for periods of financial difficulty.
- (iii) Identify the most appropriate, effective and efficient Commonwealth, State and Territory government response to build farmers', farm businesses' and farm dependent rural small businesses' self-reliance and preparedness to manage drought (Productivity Commission, 2008, p. V-VI)

188 submissions were made to the inquiry by individuals, lobby groups, government agencies and academics. A draft report was released in October 2008 and 81 meetings and 24 roundtables were held across Australia (Productivity Commission, 2008, p. 287). The Productivity Commission delivered its final report to the government in February 2009, recommending the "termination of the EC declaration process and the various programs it triggers" (Productivity Commission, 2008, p. XL). It supported the principles underpinning the drought policy with an emphasis on self-reliance and climate adaptation, and proposed that government act in the areas of research, development and extension; the provision of information and advice; and education and training. It supported the continuation of the Farm Management Deposits as a risk management tool. The Commission also proposed a temporary income support program (Productivity Commission, 2008, p. XL-XLIII).

At the time this paper is being written, the Australian government has not responded to the three reports. In the meantime, exceptional circumstances declarations remain in force and continue to be made. 2010 is a federal election year in Australia and although rural policy issues rarely feature in election campaigns, there is some potential for the policy to become enmeshed in electoral politics.

IV – Implementing risk management as policy: Lessons from Australia

The principles underpinning Australia's National Drought policy are sound. They recognise that Australia's climate is uncertain and that human activity needs to adapt to climate variability. Engineering solutions such as "turning the rivers inland", cloud seeding, or building more and bigger dams, are largely discredited in contemporary drought policy debate. The problems with the Australian approach relate to implementation and there are three key lessons.

First, and most simply, timing is everything. The policy was introduced at the beginning of the worst drought of the twentieth century and this was unfortunate. Farmers and their communities did not have time to build financial reserves or give effect to risk management strategies. In the early 1990s, farmers believed they were being abandoned to the vagaries of the weather by governments. The triggering of the exceptional circumstances program almost immediately undermined the concept of the "exceptional" event and reinforced the idea that drought is a disaster and not a normal feature of the Australian climate.

Second, the implementation of the National Drought Policy was arguably undermined by ongoing changes to the rules. The changing definitions and shifting emphasis of the exceptional circumstances program indicated that the policy was open to lobbying and negotiation. One of the great strengths of the natural disaster relief arrangements is their predictability. Once a State government has declared a natural disaster, it is clear what type of support will be available and which level of government will pay for it. The National Drought Policy has been characterised by disagreements about when an exceptional event occurs, what support should be available and who should fund it.

Third, the focus of the policy on triggers and "exceptional" events is flawed. A risk management approach needs to provide farmers with a series of tools to support them as they adapt to climate fluctuations. Programs such as the Farm Management Deposits described above provide mechanisms for the accumulation of financial reserves. Other possible policy instruments include the use of income contingent loans to facilitate income smoothing over the climate cycle (Botterill and Chapman, 2006). None of these requires declarations or triggering events and a move away from identifying particularly severe droughts will reinforce the message that drought is a normal part of the farmer's operating environment.

One of Australia's popular bush poets described the country as a "land of droughts and flooding rains" (Mackellar, undated). Australia's National Drought Policy is based on the recognition of this reality; that the Australian climate is inherently uncertain and prone to extremes. Climate forecasters suggest that Australia's climate will become hotter and drier over the next century (Hennessy *et al.*, 2008, p. 19). The Australian government is now faced with an opportunity to re-affirm the risk management principles underpinning the National Drought Policy and support farmers in adapting to climate variability and change.

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