Planning Institute Australia

National Office
Unit 16, Level 3
Engineering House
11 National Circuit
BARTON ACT 2600

PO Box 5427 Kingston ACT 2604

A.B.N. 34 151 601 937

Leading effective planning for people and places

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Natural Disaster Funding Arrangement
Productivity Commission
LB2 Collins Street East
MELBOURNE VIC 8003

Via Email: disaster.funding@pc.gov.au

Dear Sir/Madam

Inquiry into Natural Disaster Funding Arrangements

The Planning Institute of Australia (PIA) welcomes the opportunity to make a submission to the Productivity Commission (the Commission) on the public inquiry into Natural Disaster Funding Arrangements. PIA is the peak professional body representing 5,000 urban and regional planners across Australia and overseas, who work to create more productive, sustainable and liveable communities.

PIA supports the development of integrated and responsive policy and strategies that contributes to and develops a more prosperous and resilient Australia. In this regard the Inquiry into the Natural Disaster Funding Arrangements is welcomed.

We understand this inquiry is about the *effectiveness and sustainability of Australia's natural disaster funding arrangements*. From the outset the PIA contends that the existing arrangements are not effective and are unsustainable. In this regard, the PIA provides this submission to discuss key principles and suggestions that the Commission should consider in the context of the full inquiry.

The scope of Inquiry

The Commission has been asked to develop findings on the following:

- the sustainability and effectiveness of current arrangements for funding natural disaster mitigation, resilience and recovery initiatives
- the risk management measures available to and being taken by asset owners
- the interaction between natural disaster funding and federal financial arrangements
- options to achieve an effective and sustainable balance of expenditure on natural disaster mitigation and recovery
- how stakeholders can most effectively fund natural disaster recovery and mitigation initiatives
- how to ensure the right incentives are in place to support cost-effective decision making

- mechanisms and models to prioritise and evaluate mitigation opportunities
- the role of urban planning, land-use policy and infrastructure investment in supporting cost-effective risk management
- options to fund identified natural disaster recovery and mitigation needs.

The PIA welcomes this scope to the inquiry and the PIA has a specific interest in the *role of urban planning, land-use policy and infrastructure investment in supporting cost-effective risk management* and will focus on this matter in this submission response.

Changing world

The PIA contends that the world is changing and that there is a collective need to focus on adaptation measures to accurately deal with the consequence of this change. Every year, Australian communities face devastating losses caused by disasters. Floods, bushfires, cyclones, storms, other hazards and their associated consequences have significant impacts on communities, the economy, infrastructure and the environment.

Over the past four years Australia has faced unprecedented damage from record events. During the summer of 2010/2011, it was witnessed for the first time in Australia's history, the activation of *Natural Disaster Relief and Recovery Arrangements* (NDRRA) in every Local Government Area in Queensland as a result of statewide flooding and cyclone activity. Whilst Queensland was in record flood, New South Wales, Victoria, Tasmania and Western Australia were faced with bushfires and flooding events which also resulted in records being broken. These record events then continued in 2012 and then again in 2013.

The evidence and facts now exist as to the scale, cost and loss of life that has changed the face of a country known for its droughts and flooding rains. Australia has an incredibly long and well documented history of disaster events that have resulted in not only loss of life but also extensive property and infrastructure damage and impacts to other economic sectors such as agricultural and tourism. However these past four years in particular have shown that Australia's exposure to hazards is costly and the cost to reconstruct is simply unsustainable.

It is therefore timely that a National review is undertaken into the effectiveness of disaster funding. However PIA contends that building the resilience of Australia to the hazards goes beyond financial support. To deliver true resilience and an improved future state will require a holistic approach that considers data, governance, policy and strategy.

The role of land use planning

Planning for the future is critical to Australia's productivity and liveability. Our cities and regions are a vital part of Australia's economy, and are essential to our success as a nation. The PIA declares that good planning is the best way to:

1. Manage urban growth;
2. Secure necessary infrastructure investment;
3. Determine appropriate settlement patterns for our cities and towns; and
4. Generate economic development that contributes positively to the well-being of individuals and communities and the natural and built environments on which we rely.

Planning is an important tool in effectively managing the numerous and rapid changes facing our communities. As per the 2002 *Natural Disasters in Australia - Reforming mitigation, relief and recovery arrangements* its was stated that *Land use planning which takes into account natural hazard risks has been identified as the single*

most important mitigation measure in preventing future disaster losses in areas of new development. The PIA strongly supports that this finding remains current today. Effective land use planning is however dependent on a number of factors that support better decision-making through the planning framework. Critically this requires a combined understanding of the risk and the consequence of the risk to then be able to develop the most appropriate mitigation response.

PIA declares that having knowledge and understanding of hazards and risks is however of little use unless the information can be translated into relevant controls and mechanisms for dealing with them. Therefore for land use planning to play a role as a cost-effective measure in building disaster resilience, this understanding and principle of policy into practice does need to be improved.

Land use planning approaches and building controls that anticipate likely risk factors and the vulnerability of the population can reduce future possible impact of disasters. Responsible land use planning can prevent or reduce the likelihood of hazards impacting communities. Building standards can also mitigate the likelihood of loss of life, as well as damage to and/or destruction of property and infrastructure.

The strategic planning system is particularly important in contributing to the creation of safer and resilient communities. Locating new or expanding existing settlements and infrastructure in areas exposed to unreasonable risk is irresponsible. Land use planning policies can be used to reduce the number of people and assets in areas where risk profiles have increased over time or settled when these risks were not fully understood.

In response to the widespread flooding events of 2010/2011 events, PIA recognised the need to improve the understanding of flood risk and embarked on its own project to support Post Disaster Planning Program – Flood Affected Communities. The program is about better preparing remote area planners for natural disaster events.

The initiative aims to create a system that gives planners in the regions better access to valuable knowledge for disaster mitigation, preparedness and response. With many regional planners working on their own, the new system aims to provide them with access to other planning professionals with prior disaster experience and the tools to function better in a post disaster environment. This website resource, targeting planners and others involved in building community resilience, is focused on providing knowledge and mentoring support to those planners most at need. Whilst the program was developed for as a resource for dealing with floods the framework could easily be adapted for all hazards approach.

PIA therefore agrees that when carried out effectively, based on full understanding of the risk, that land use planning has a vital role to may in delivering cost-effective risk management.

Risk Management

Effective risk management can enable a community to become as resilient a practicable to the hazards exposed to. This is achieved through planning and preparing for, responding to and recovering from hazard events.

This requires a coordinated, multidisciplinary approach across all levels of government and between agencies with different responsibilities. It also requires the support of a range of non-government organisations and industry professionals in a wide range of activities and fields (including land-use planning) and the active engagement of the community. Without the engagement and participation of all stakeholders the management of the risk becomes imbalanced and the impact of the risk is likely to increase.

In order to better understand and manage risk, PIA believes there is a need for improvements and direction to natural hazard mitigation planning at all levels, including for all hazards;

- open data strategies that enables and improves mapping for natural hazard management having regard to climate change modelling;
- appropriate planning policy that guides practitioners to consider hazard management when developing planning policy and in undertaking assessment of development proposals;
- supporting legislation to allow for the release of hazard information and protection for Councils who release appropriate hazard information;
- better land use practices which are embedded in the strategic frameworks of planning schemes through to appropriate code provisions;
- the need for more appropriate management of land taking into consideration the consequence of the risk;
- better integration and collaboration between local and State/Territory governments, authorities and the community around the hazards they face; and
- awareness, implementation and enforcement of preparedness at the local level.

The Planning Context

The recent devastation caused by various disaster events across the country has highlighted the need for the meaningful integration and improved application of existing knowledge on risk mitigation into the planning and development system. Each State and Territory, though with varying degrees of comprehensiveness in their approach, has its own response for dealing with hazards.

By way of reference in 2012, the PIA was involved in the *Enhancing Disaster Resilience in the Built Environment Project*. Current PIA National President Elect, Brendan Nelson, co-Chaired the National Land Use Planning and Building Codes Taskforce who led the project.

The objective of the project was to address two key tasks from the implementation plan for the COAG-endorsed *National Strategy for Disaster Resilience*. The project addressed the implementation plan through the:

- Development of a built environment vision for addressing the subject into the future;
- Review of the current state of relevant legislation and policy in all Australian jurisdictions;
- Undertaking of a gap analysis of relevant legislation, governance, processes, technology and education for all Australian jurisdictions to determine areas for improvement and opportunities for enhancement; and
- Construction of a roadmap to guide the future of the matter across the jurisdictions.

This project is a good reference point for the Commission in understanding the role of both Land Use Planning and Building Codes across Australia in enhancing the resilience of the Built Environment. The PIA supports the findings of the review and the proposed roadmap.

Current Challenges to implement effective Land Use Planning

There is increased scientific knowledge of the mechanisms causing hazard events and the planning measures that need to be taken to minimise the risk of different hazards, from a land use planning and development control perspectives.

Knowledge bases and structural elements that are currently lacking within the national framework include:-

1. hazard mapping;
2. improved training and education of those within the planning profession to recognise and appropriately address and assess risks;
3. consideration of climatic zone differences (including changes anticipated to arise through climate change) and;
4. a national planning approach that addresses both the role of strategic and development assessment, in conjunction with appropriate authorities and scientific institutions.

With regard to the first point, risk mapping of hazard -prone land aims to take into account the hazard and vulnerability of the community to the hazard and may also include the likelihood and frequency of various events. The type of hazard ie. flood or bushfire will involve different methodologies to determine the risk. Funding for the collection of data for geo-spatial mapping is critical in enabling the development of hazard maps and in the identification of areas that are inappropriate for development.

In some jurisdictions, such as in NSW & Qld, Bushfire maps are required to be updated every five years. As development patterns change, however, risk maps should be updated accordingly, although resourcing issues may restrict more frequent updating in this regard.

There is a need for shared information systems to better record planning and development decisions in relation to disaster events in order to facilitate their future enforcement. This is of particular importance where there exists a divergence of agencies involved in the planning and decision-making processes and, while these processes are of greater relevance at the State/Territory and local levels, consideration should be given to a consistent policy framework at the national level.

A national framework will need to be implemented locally to be effective and will have to be tailored to the hazard profiles faced by each jurisdiction. Detailed profiling of the hazard profiles within each jurisdiction is included within the *Enhancing Disaster Resilience in the Built Environment Project*.

Further consideration should also be given to developing a national planning policy position regarding the location of new "vulnerable" land uses such as hospitals, aged care facilities, tourist facilities and schools, among others. That is, the establishment of these types of facilities should not be permitted within high or extreme hazard areas.

In turning to a State/Territory focus, the PIA considers that there is a need for a regional approach to settlement planning that comprehensively addresses regional risk profiles. In this regard, an effective system would require the identification of potential hazards, assessment of the vulnerability of the community to these hazards and determination of what development is permissible, where and under what circumstances. Furthermore, there is a need to distinguish between new and existing developments and how the planning system can better deal with each in the context of a risk management framework.

As a direct challenge to effective land use planning is the consideration of how planning is implemented. Whilst planning schemes are developed and regulated on a local government level, the impact of disasters is generally felt over a much broader area ie. flooding within a catchment. Therefore without consistency in approaches across Local Governments the management of growth, development and infrastructure may cause issues and unnecessary confusion during and post disaster events. In this regard, and to support effective risk management, the PIA supports standardised definitions, terminology and state interests that are consistency applied across all local governments. A positive example of this is the Tasmanian Planning Directive which requires the Bushfire Code to be applied the preparation of new planning schemes. Work is also underway to address coastal inundation and land slip in a similar manner through codes for the planning schemes.

There is also a need at the strategic planning level to formulate appropriate planning responses and policies with regard to allowing existing settlements and communities, within high to extreme hazard areas to continue to grow and develop and fundamentally to determine whether or not to permit the intensification of residential development within such areas.

It is the view of PIA that State and Territory Governments should be setting guidelines as to the circumstances under which further land use intensification is permitted, if at all, within such hazard areas in order to avoid putting more people and properties at risk. In this regard, a consistent approach across all hazards to the identification of 'vulnerable communities' is needed. It is pleasing to see that many of the State and Territory Governments, such as Queensland and Tasmania, are improving their guidance and planning frameworks to enable planning to be an effective risk management measure.

Ongoing Education

Physical planning is an important factor in mitigating the risks associated with hazards; however, it is only one response. This does not, however, diminish the fundamental need to adequately link planners and planning processes, relevant authorities and the community to assist one another and work collaboratively with the flow of information.

An examination of the broader role of 'management', which includes physical and social planning, emergency services and community awareness and response among others, is an important issue that requires a further analysis in terms of existing structures, systems and procedures to deal with hazard risk. The importance and effectiveness of ongoing community education and engagement, in the context of social planning, cannot be underestimated, for example, community awareness of what a flood map is and what it means. Evidence suggestion that participation and interest in disaster education is cyclic. That is, the community will be involved and keen for education post an immediate disaster but will quite often fade depending on the type of event.

While physical planning to minimise hazard risk is relatively clear, the social issues of community engagement – ensuring those at risk are aware, prepared and predisposed to take precautionary measures to stay safe - is less apparent. Social planning around safety includes existing links with the likes of the local disaster groups, but also includes the less formal but often critically important informal community networks. Social planning also includes the media and the information departments to numerous authorities. Ensuring fully functional social planning to maximise community safety can draw on the considerable existing research that links elements like the credibility of information sources, local information exchange and the speed with which authority-gathered information is passed out to those identified as 'at risk'. Sirens are supported in some communities as is electronic 'texting". However, it is important to note that the lack of mobile phone reception in some rural areas makes sole reliance on 'texting" untenable. It is PIA's submission that a reliable, trusted, multi-faceted approach to community safety must be taken, including internalizing the risk and being prepared and able to act early. Social planning requires consideration of the overlap with physical planning at all stages of risk vulnerability identification. Each and all of these issues forms and informs the decision matrix.

Professional Education and Training

PIA believes that there is a need to increase natural disaster mitigation training for land-use planners. More information, knowledge and awareness needs to be transferred from the on-the-ground experts to planners and authorities must also concurrently understand the planning context within which they operate.

PIA, as the peak body representing land use planners, may assist in bridging the gap of education and awareness. This could be achieved potentially through an accredited course on planning for hazards. However, like maps, training of planners in understanding hazards will be of little value unless appropriate planning controls exist within the relevant planning schemes and are legislated to be within planning schemes.

Conclusion

PIA believes that better planning for risk identification, risk management and mitigation of natural disasters requires actions at all levels of government. Specifically, the key actions relate to governance; development assessment, approval and compliance processes for subdivision, site planning and building; community education and engagement and professional education and training for those involved in planning processes across a variety of agencies.

While planning tools exist to assess risks and mitigate against natural hazards, the effectiveness of such measures is limited by the enforcement, management and communication between various planning regimes, authorities and the community that will determine the effectiveness of these tools.

In a planning sense, the major point that can be drawn from this submission is that an integrated planning response to the risk and threat of natural hazards is required. The extreme nature of recent disaster events has served to highlight a number of issues. In particular, the lack of awareness, understanding, integration and coordination between government, authorities and the community, largely in terms of risk identification, preparedness and risk management.

The role of land use planning and management, including urban and regional planning, requires each aspect of the planning process – from initial strategic planning and policy, to its legislative bases including development assessment, subdivision and the zoning of land – to take account of potential hazards and plan accordingly.

The additional role of planning in enforcement and broader management of land requires closer scrutiny in order to ensure adherence to hazard-related planning mechanisms, noting that improving planning practice will not prevent extreme events, such as those experienced across the country, from occurring again.

Collaborative efforts, including those mentioned above, in conjunction with the appropriate education and training of planning professionals and the community will go a long way to ensuring that the effects of the recent disaster events, as devastating as they were, prove a lesson for all.

PIA appreciates the opportunity to make this submission to the Commission and would be available to elaborate on any aspects raise. We would be happy to meet with directly with the Commissioners and bring together a group of experienced PIA members who specialize in natural hazard management to discuss further.

If you would like to discuss any of the matters raised please contact me

Kind Regards,

Yours faithfully,

Kirsty Kelly MPIA CPP
Chief Executive Officer

ATTACHMENT A

Award-winning work

The PIA has also recognised through its annual state/ territory and national Awards for Planning Excellence projects, work and individuals who are contributing to ensuring that land use planning remains an effective mitigation measure supporting more resilient communities. Key national award winning projects have included:

National Award for Excellence 2014 - *South East Coastal Adaptation - Coastal Urban Futures in South East Australia* – University of Canberra (Canberra Urban and Regional Futures), Australian National University and University of Wollongong

National Award for Excellence 2012 - *Planning for Stronger, More Resilient Floodplains* - Queensland Reconstruction Authority
http://qldreconstruction.org.au/publications-guides/land-use-planning/planning-for-stronger-more-resilient-flood-plains
The work of the Queensland Reconstruction Authority (QRA) has been recognised by PIA at both the Queensland and National Awards for Planning Excellence. In particular the work of the QRA's Land Use Planning Team has assisted in ensuring that the planning profession is better equipped to deal with and appropriately consider flood risk as part of planning practice.

This work has now translated into the new State Planning Policy ensuring that the role of planning as a mitigation measure is well documented and legislative.

National Award for Excellence 2011 – Strategic Planning for Adaptation to Climate Change in Regional Systems – A Case Study: South West Victoria – Department of Primary Industries