



Australian Institute
of Landscape Architects

AILA NATIONAL RESPONSE

A sustainable population strategy for Australia

The Australian Institute of Landscape Architects (AILA) wishes to thank the Department of Sustainability, Environment, Water, Population and Communities for the opportunity to comment on the Issues paper, and also to offer the expertise and experience of our collective membership base in developing new ways forward for the planning and development of more sustainable Australian environmental and community outcomes.

Please don't hesitate to contact us if you have any queries relating to the issues raised in this submission, or if there are any other matters relating to the development of the Sustainable Population Strategy on which we might be able to provide further assistance.

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The following responses are structured in relation to questions highlighted in the Issues Paper, but it is AILA's position that there are key opportunities to further strengthen any proposed National Sustainable Population Strategy by:

- Recognising that healthy ecosystems provide the fundamental support system for life on earth – and that planning and design for sustainable population & settlement outcomes requires ongoing monitoring, aimed at managing a balanced relationship between human and natural systems.
- Acknowledging that historic effects of population growth have negatively impacted on ecosystem health and functionality, and that any future sustainability strategies will need to move beyond merely protecting/conserving existing environmental capacity, towards *proactively aiming to enhance and regenerate* natural resources.
- Providing an agreed and transparent framework for the setting, monitoring and review of appropriate regional and national population targets – in line with existing and future ecological carrying capacity.
- Clearly articulating the shared objectives and implementation measures proposed for linkages between a National Sustainable Population Strategy and other closely related Government policy documents and processes – most notably the National Urban Policy, Australia's Biodiversity Conservation Strategy 2010-2030, and current and emerging Climate Change mitigation & adaptation initiatives.

SUSTAINABLE POPULATION STRATEGY

Q.1. What issues do you think a Sustainable Population Strategy for Australia should address?

Key issues which should be addressed within this strategy include:

1. The need for evidence-based decision-making on demographic distribution and population targets based on:
 - Comprehensive, collaborative and systematic national resources & asset base accounting – including examination of regenerative (green¹) and non-regenerative (grey) infrastructure & capacity.
 - Future resources asset base prediction & potential – across social, economic and environmental domains.
 - Carrying-capacity analysis under different resource management scenarios.

Resource base accounting and analysis should be carried out in an integrated and ongoing manner across a range of scales and settlement types, and incorporate methodology for evaluation and revision of sustainability indicator sets in response to changing conditions.

2. The need for integrated decision-making across all levels of government, and across all sustainability parameters. Population targets must be developed in relation to broader sustainability goals - such as energy, water, food, climate change, health, land management, transport, education and housing – and implementation strategies articulated which address multiple sectoral objectives.

¹ The term 'green infrastructure' describes the network of natural landscape assets which underpin the economic, socio-cultural and environmental functionality of our cities and towns – i.e. the green spaces and water systems which intersperse, connect and provide vital life support for humans and other species within and between our urban environments.

Green infrastructure is fundamentally different from other aspects of built infrastructure in that it has the unique, inherent capacity to enhance and regenerate natural resources, rather than simply minimize the damage to environmental systems. <http://www.aila.org.au/greeninfrastructure/>

POPULATION AND THE ENVIRONMENT

Q.2. What do you think are the key indicators of an environmentally sustainable community?

The Australian Institute of Landscape Architects believes that an environmentally sustainable community is one which respects the value of landscape and healthy ecosystems, and which creatively balances the understanding and expression of natural and cultural processes to support a higher quality of life for all. ²

Key sustainability indicators therefore need to span across social, economic and environmental domains, and will differ according to local needs and capacity. Given the urgent nature and scale of the threat of climate change, monitoring of indicators of ecosystem stress should be prioritised over the evaluation of other resources and ecosystem services of management interest.

The AILA recommends that all indicator sets relating to the proposed Sustainable Population Strategy should be developed via a comprehensive, inclusive and collaborative consultation process with relevant stakeholders from local and regional communities, and reflect local and regional community aspirations and capacity.

Q.3. How have changes in the population impacted on your local environment?

Across Australia, population growth has historically proceeded in tandem with economic growth –resulting in increased levels of environmental degradation at local, regional and national scales.

Increasing population concentration in urban centres – coupled with reduced access to quality environmental experiences due to competing land-use demands – results in greater disconnection between people and the broader environment which supports their daily lives. Local impacts therefore influence attitudes and behaviour towards stewardship of landscape and environment at regional and national levels.

It is AILA's position that environmental and social sustainability goals should be a precondition for framing population growth targets and economic opportunities at local, regional and national scales.

Q.4. How might technological or governance improvements mitigate the environmental impacts of population growth?

Technological advances need to focus on protecting, enhancing and regenerating ecosystem services provisioning capacity – i.e. boosting regenerative services provisioning and efficiencies, rather than simply reduction of resource use & wastage.

Government can drive progress through incentives-based programs (including carbon-pricing initiatives) to increase this capacity.

² AILA Vision Statement: *Resilient, engaging and healthy urban, regional and rural environments, designed in balance with natural and cultural systems.* <http://www.aila.org.au/about/>

(The vision statement is the long term aim of what the AILA wishes to be achieved for present and future generations)

Q.5. How do population driven changes in your local economy affect your environment?

Overall population growth affects overall levels of consumption – and resultant overall levels of environmental degradation. The per-capita impact of a growing population may remain the same – or even with appropriately targeted actions, diminish - but unless we address environmental resource *regeneration* capacity in line with population growth, overall environmental resource availability and quality will continue to diminish.

Q.6. What lessons have we learnt that will help us to better manage the impacts of population change on the environment?

"...the basic challenge remains that the current economic system relies fundamentally on economic growth that disregards its impact on natural resources" (Millenium Ecosystem Assessment, 2005).

The lesson to be learnt here is that the value of natural resources, (historically regarded as an externality to economic growth and population planning), must now be factored in as a leading concern in decision-making for a sustainable future.

In order to address this challenge effectively, a Sustainable Population Strategy must ensure that all future productivity and growth opportunities identified therein are aimed at redressing this imbalance - & not merely by seeking to reduce the draw-down on existing resources, but by proactively aiming to enhance and support their capacity for future regeneration and renewal.

Improved environmental management practices will be a key opportunity for future productivity and growth, and the incorporation of integrated land management and green infrastructure strategies into urban & regional planning and design frameworks will be a crucial indicator and enabler of future urban sustainability and resilience.

POPULATION AND THE ECONOMY

The Issues Paper identifies several important aspects of economic growth, prosperity and sustainability that may be affected by a changing population, including:

- interaction between the economy, and urban and natural environments
- rates of innovation
- the responsiveness of government, social and market institutions to changing circumstance
- obesity and other health concerns
- the social implications of ageing
- green space areas in and around our communities
- community liveability and infrastructure opportunities relating to the above factors

Integrated approaches to Green Infrastructure cut across all these issues. For a more detailed examination of the role of Green Infrastructure in enabling improvements to economic productivity, liveability, sustainability and innovation, refer to AILA's response to the National Urban Policy Discussion Paper (attached to this submission).

AILA recommends that the draft definition of infrastructure within the existing Issues paper (pg.17) would be greatly strengthened by articulation and incorporation of the significance of the regenerative capacity of Green Infrastructure, in line with current scientific and design practice understanding.

Q.7. What do you see as the defining characteristics of a flourishing and sustainable economy?

Refer response to Q2. above – the characteristics of a flourishing and sustainable economy will be those which are proactively supportive of, and consistent with, the characteristics of a sustainable community.

POPULATION AND COMMUNITIES

Q.13. What sustainability issues need to be addressed in order for your community to accommodate a changing Australian population?

Australia's cities, urban centres and communities should continue to form and evolve in tandem with our development and maturity as a culture and society. A mature community vision would be one which aims towards *a resilient rural, regional and urban condition* - i.e. where integrated design and decision-making across public realm, urban composition, built form, land use, population density, affordability and mobility contributes to good health, social equity and inclusion, lower energy consumption and production, water minimization and full re-use, and respectful stewardship of social and ecological systems.

Scope and development of key sustainability indicators to support this condition should be addressed as outlined in Q.2 above.

ATTACHMENT



AILA NATIONAL RESPONSE

OUR CITIES: building a productive, sustainable and liveable future 2010

It is AILA's position that our cities are amongst Australia's greatest resources. They are not just short-term political game-boards. They are complex, social and ecological systems facing huge challenges. With creative thinking, careful planning and good design the cities of our future can promote the health and wellbeing of all Australians. They can enhance our quality of life and support a renewed economic prosperity based on innovation.

The proposed National Urban Policy – informed by consultation and the above Discussion Paper - will play a central role in realizing this potential, and the following suggestions are intended to provide further information and support to the main aims of the Discussion Paper in some critical areas.

SIGNIFICANT CHALLENGES & DRIVERS OF CHANGE

The Discussion Paper identifies the most significant challenges and drivers of change in our cities as *population growth and ageing, climate change and the environment* (pp.6-9).

The Discussion Paper examines impacts of these on buildings & infrastructure as well as social and economic systems - and the need to improve productivity & efficiency and reduce consumption of land and natural resources in response to these challenges.

It is AILA's position that there is a significant opportunity here for a truly forward-looking National Urban Policy to extend this examination to ***address links between consumption patterns and economic growth in tandem with increasing capacity for enhanced performance and regeneration of natural resources*** in future urban sustainability solutions - rather than merely aiming towards a damage-limitation model of reduced consumption of land and natural resources.

The AILA believes that the National Urban Policy could further be strengthened by clearly articulating linkages with other policies such as *National Sustainable Population Strategy* in a way which supports integrated implementation of broader national policy and program objectives. For example, the Discussion Paper (pg. 3) states that the National Urban Policy will “*complement*” work on the *Sustainable Population Strategy* and have “*strong links to the Government's regional policy agenda currently being developed*”, but it doesn't spell out what this means in terms of any identified common objectives or actions.

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ASPIRATIONS FOR OUR CITIES

The Discussion Paper identifies the three main aspirations the Australian Government has for cities – that they become more **productive, sustainable and liveable** (pg. 12).

As the AILA National Policy Framework makes clear - <http://www.aila.org.au/policies/> - Landscape & Green Infrastructure¹ performance cuts across all three of these aspirations, making it central to the urban policy agenda. It is the AILA's position that in any future National Urban Policy the role of Integrated Design and Green Infrastructure needs to be articulated and integrated as a key mechanism for addressing these aspirations, as follows:

Realising Productive Capacity

The Australian Government's aspirations for realising the **productive** capacity of our cities (pg. 12) include:

- *reforming infrastructure assessment and pricing* – a key aspect of which should be baseline accounting of existing Green Infrastructure assets and potential.
- *providing a robust economic setting in which industry can invest with a high degree of certainty* – carbon pricing can also assist in supporting the development of innovative funding mechanisms for investing in Green Infrastructure provision, including planning, design and maintenance of Green Infrastructure assets.
- *Improving labour and capital productivity by facilitating economic activity* – which should include the contribution of Green Infrastructure to emerging green economy (through education & knowledge transfer as well as 'green' collar jobs & industries to support increased Green Infrastructure capacity).
- *Reducing impacts of climate change on infrastructure to avoid associated reductions in GDP (pg. 12)* – there is an urgent need to assess the potential contribution of Green Infrastructure to building greater urban resilience, not just in terms of material infrastructure, but social infrastructure as well. There is a significant opportunity for science, government and industry to drive progress in this area through collaborative research and development projects – testing and evaluating 'on ground' approaches and outcomes, and an appropriately framed National Urban Policy would play a major role in supporting such progress.

¹ The term 'green infrastructure' describes the network of natural landscape assets which underpin the economic, socio-cultural and environmental functionality of our cities and towns – i.e. the green spaces and water systems which intersperse, connect and provide vital life support for humans and other species within our urban environments.

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Improving Environmental Sustainability

The Australian Government's aspirations for our cities are for them to make a significant contribution to improved environmental **sustainability** (pg. 13) by:

- *encouraging planning and development of more energy efficient, low carbon urban forms and transport systems* - a key aspect of which should be incorporation of integrated design of building and landscape systems at neighbourhood and metropolitan scale, targeting multifunctional performance objectives across transport, energy, landscape & building domains.
- *working with stakeholders to introduce a price on carbon* – this needs to be linked with pricing impacts of environmental enhancement or degradation on social outcomes – i.e. linking mitigation approaches with adaptation opportunities which offer direct and positive co-benefits beyond merely emissions reduction or carbon sequestration. For example, enhancing and extending Green Infrastructure networks at neighbourhood and metropolitan scale offers significant opportunities to integrate mitigation and adaptation objectives while simultaneously addressing community health concerns, transport efficiency, urban heat island moderation, biodiversity impacts, social health and well-being, air and water quality and many other urban sustainability imperatives. In short, putting a price on factors which contribute to environmental degradation (carbon emissions) also provides opportunities to appropriately value approaches aimed at *improving* environmental and social outcomes.
- *Encouraging innovation and investment in renewable energy* – which should include examination of the potential for Green Infrastructure networks to augment biomass production & supply as an integrated component of local renewable energy generation solutions.
- *Working with stakeholders to establish appropriate sustainability standards for buildings and infrastructure* –The Commonwealth Department of Climate Change & Energy Efficiency is currently developing a new Australian standard through Standards Australia – “*A Principle-Based Climate Change Adaptation Standard for Settlements and Infrastructure*” - in which the definition of ‘infrastructure’ accommodates the role and value of green infrastructure in urban sustainability & climate adaptation:
*“The Department recognises the value of landscape or green infrastructure in urban settlements and the importance of this infrastructure in responding to climate change. It is envisaged that (the new Standard) would address landscape or green infrastructure as a component of the ‘buildings and settlements’ category of infrastructure”*²

The National Urban Policy should reflect this current understanding. Progress in this area would also be assisted by referencing recent work by AILA/IFLA and the CSIRO – <http://www.aila.org.au/catss/> - examining the relative merits of current sustainability assessment and climate adaptation tools for cities and settlements, and highlighting ‘best-practice’ approaches.

² Addenda to RFT DCC 391/2009 Development of a Principle-Based Climate Change Adaptation Requirement Standard for Settlements and Infrastructure – 6 January 2010, Aust. Govt. Department of Climate Change.

- *Providing national data and best practice examples of reducing resource consumption and managing risks* – which should include landscape-based approaches to urban sustainability at neighbourhood, precinct and metropolitan scale – as well as the links between these and broader regional/national strategies for biodiversity conservation, energy efficiency and water management.
- *Investing in technology and infrastructure which delivers services and goods to communities and businesses more sustainably* – and which in a carbon-constrained future will necessarily accommodate ecosystem services provisioning capacity of Green Infrastructure networks - both within and between urban settlements.

Improving Liveability

The Australian Government's aspirations for improving the **liveability** of our cities (pg. 13) include:

- *Ensuring equitable access to.....natural and recreational space.*
- *Improving public health outcomes.....by fostering urban planning and design of the built form that encourages active lifestyles and social interaction, improves air quality and reduces risks to personal safety....*
- *Improving transport options...*
- *Improving social inclusion.....*

Integrated Design and Green Infrastructure approaches offer a positive strategic framework for addressing all of the above aspirations, in a manner which complements and adds value to existing government policy and program investment.

What also needs to be stressed here is the role of Green Infrastructure as a component of both the public and private realm, and its contribution to multiple urban sustainability performance outcomes.

PRIORITY AREAS FOR GOVERNMENT ENGAGEMENT

The bulk of the Discussion Paper (pp.15 – 55) is structured around a number of priority areas which the Government has identified for its engagement in cities – again framed through the lens of **productivity, sustainability, liveability and governance**.

Areas which directly relate to Green Infrastructure provision & performance (& against which benchmarks and targets can be established to assist government objectives) are underlined and italicised:

PRODUCTIVITY:

Improving labour and capital productivity

Integrating Land use and infrastructure planning

Protecting corridors, sites and buffers

Investing in urban passenger transport

Improving economic infrastructure

Utilising smart infrastructure

Enhancing connectivity through the National Broadband Network

Supporting education, research and innovation

SUSTAINABILITY:

Protecting and sustaining our natural environment

Improving water, energy and food security

Reducing resource consumption

Reducing greenhouse gas emissions and improving air quality

Increasing resilience to the effects of climate change

LIVEABILITY:

Balancing infill and greenfield development

Facilitating the supply of appropriate housing

Supporting affordable living

Improving transport options and reducing our dependence on private motor vehicles

Improving the quality of the public domain

Improving public health outcomes

Redressing spatially concentrated social disadvantage

GOVERNANCE:

Improving the planning and management of cities

Streamlining administrative processes.

Given the clear linkage of Green Infrastructure potential across multiple priority areas, there is a strong rationale for the use of landscape-based case studies to illustrate benefits of Integrated Design/Green Infrastructure approaches across social, economic and environmental domains. This is currently a major gap and the policy document would be very much enhanced by its inclusion.

THE ROLE OF GOVERNMENT & THE PRIVATE SECTOR

The Australian Government has a limited but important set of tools and levers that can influence outcomes in cities. These include direct investments in:

- *defence operations and transport networks*
- *transport networks of national importance*
- *social infrastructure such as hospitals, schools and universities. (pg.10)*

It is AILA's position that any future National Urban Policy should assist such investments to be structured to support their capacity to function as hubs for broader Green Infrastructure networks - serving as best-practice examples of planning, design and management for improved landscape performance across a range of scales.

The private sector can also be assisted in its increasing role of providing critical city infrastructure by government tax incentives for Green Infrastructure development/design and maintenance – to contribute to GHG emission targets or as part of carbon tax schemes, for example. There is also significant, and currently underexploited, potential for superannuation funds to examine the benefits of private investment in public Green Infrastructure within emerging economic frameworks.

SUMMARY - Key Drivers & Benefits Of Incorporating Integrated Design & Green Infrastructure Strategies Within Urban Policy And Development Processes:

- **Maximising resource efficiency** – Integrated Design and Green Infrastructure co-benefits include positive feedbacks for health, social equity, amenity and cohesion, water & air quality, education, housing, infrastructure, biodiversity, transport and energy efficiency.
- **Economic growth and sustainability** - positive feedbacks of all of the above on economic outcomes across a range of scales. Integration of current environmental externalities (including landscape 'performance') into financial mechanisms provides new opportunities to develop innovative products & services for an emerging green economy – including capacity to develop 'steady state' economic frameworks at local and regional scales, relating to resource capacity.
- **Climate Change & Adaptive capacity** – the need for developing adaptation strategies which work to support and leverage co-benefits from mitigation efforts across multiple sectors and domains within the built environment. Green Infrastructure as a concept inherently encompasses an integrated approach to urban design and development – thereby reducing the potential for 'perverse outcomes' of single-sector-only mitigation strategies.
- **Intergenerational equity** – need for development of strategies which can deliver benefits for existing as well as future generations (research and evaluation of economic, environmental and social benefits of Green Infrastructure is particularly important here, so as to deliver optimum outcomes in the future in the context of ongoing change).