

**SEA Implementation and Practice:
Making an Impact?
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How is SEA Addressing Sustainability Principles?

**Lydia Lamorgese and Davide Geneletti
Dept. of Civil and Environmental Engineering
University of Trento**

SEA AND SUSTAINABILITY

- deals primary with environment
- a shift toward sustainability could help to integrate the key issues related to sustainability of both human and ecological systems
- has the potential to become a much stronger tool for dark green sustainability, challenging the links between quality of life and economic growth (Partidario, 2010)

GENERAL OBJECTIVE

Understanding if and how current SEA practice is addressing sustainability principles.

FOCUSING ON:



methods, criteria and indicators used in the assessments

the extent to which they provide suitable information to promote sustainability, or at least environmental sustainability

inclusion of key concepts, such as intra-generational and inter-generational equity, and associated analysis of trade-offs through time and space

RESEARCH QUESTIONS

- a. How can we systematically evaluate to what extent SEA reports address sustainability principles?
- b. Is sustainability promoted in spatial planning as an organizing concept or some principles are more promoted than others?
- c. How are sustainable principles addressed in current Italian SEA practise?

METHODOLOGY

PHASE 1

Literature review on sustainability

PHASE 2

- Identifying and selecting sustainability criteria and questions
- Developing of a framework for integrating sustainability principles into SEA

PHASE 3

Testing the proposed method to selected SEA reports in spatial planning

PHASE 2

Construction of the Review Framework

PRINCIPLES

Gibson (2006)

- 1 – Precaution and adaptation
- 2 – Inter-generational equity
- 3 – Ecological integrity and biological diversity
- 4 – Equity and quality of life
- 5 – Efficiency
- 6 – Democracy and governance
- 7 – Immediate and long-term integration

FRAMEWORK FOR SUSTAINABILITY ASSESSMENT

Morrison – Saunders and
Hodgson (2009)

Sustainability principles
converted into guidance
statements

PROPOSED FRAMEWORK FOR INTEGRATING SUSTAINABILITY PRINCIPLES INTO SEA

Adapted starting from the Morrison – Saunders and Hodgson's scheme and modified and integrated with other relevant criteria and questions on sustainability gathered from literature

PRINCIPLES	CRITERIA	QUESTIONS
<p>Gibson (2006)</p> <p>PRINCIPLE 1 – Precaution and adaptation</p> <p>Respect uncertainty, avoid even poorly understood risks of serious or irreversible damage to the foundations for sustainability, plan to learn, design for surprise and manage for adaptation .</p>	<p>Angus Morrison-Saunders and Nicole Hodgson (2009) and other authors</p> <ul style="list-style-type: none"> ▪ err on the side of caution in contentious or uncertain aspects of development proposals. ▪ seriously consider ‘not proceeding’ as an option where there is too much scientific uncertainty about particular aspects of a proposal or where the negative consequences of the proposal outweigh the benefits. ▪ clearly demonstrated how negative impacts of a proposed development would be managed. 	<p>Angus Morrison-Saunders and Nicole Hodgson (2009) and other authors</p> <ul style="list-style-type: none"> • Does the proposal err on the side of caution in contentious or uncertain aspects of development proposals? • Does the proposal seriously consider ‘not proceeding’ as an option where there is too much scientific uncertainty about particular aspects of a proposal or where the negative consequences of the proposal outweigh the benefits? • Does the proposal clearly demonstrate how negative impacts of a proposed development would be managed? • Does the development scheme for the area take into account the maintenance of available capital of non-renewable resources in the long term? (Brandon and Lombardi, 2010; Clive, 1999) • Are environmental standards or limits defined? (Therivel et al 2009) [also targets or ranges]

PHASE 2

THE PROPOSED FRAMEWORK: Principle 2 - Intergenerational Equity

PRINCIPLES	CRITERIA	QUESTIONS
Gibson (2006)	Angus Morrison-Saunders and Nicole Hodgson (2009) and other authors	Angus Morrison-Saunders and Nicole Hodgson (2009) and other authors
<p>PRINCIPLE 2 – Intergenerational equity</p> <p>Favour present options and actions that are most likely to preserve or enhance the opportunities and capabilities of future generations to live sustainably.</p>	<ul style="list-style-type: none"> ▪ demonstrate enduring value for future generations; ▪ clearly outline the future negative impacts (local, regional and cumulative) of the proposal and how they will be managed, and by whom, and how future liability will be managed; ▪ hold proponents accountable for commitments (for example through mechanisms such as development bonds); ▪ demonstrate that the proposal will not impact on the long-term performance of existing significant local or regional land use activities. <hr/> <ul style="list-style-type: none"> ▪ adopt a strong sustainability perspective, demonstrating how the proposal biases decisions in favour of not decreasing the level of natural capital passed onto future generations (Beder, 2000) and combines environment, social and economic consideration in a more objective way (Eales and Sheate, 2011). <hr/> <ul style="list-style-type: none"> ▪ demonstrate how the proposal biases decisions against irreversible choices (Connelly and Richardson, 2005). 	<ul style="list-style-type: none"> ○ Does the proposal demonstrate enduring value for future generations? ○ Does the proposal clearly outline the future negative impacts (local, regional and cumulative) of the proposal and how they will be managed, and by whom, and how future liability will be managed? ○ Is it demonstrated that the proposal will not impact on the long-term performance of existing significant local or regional land use activities? ○ Will a particular development be economically viable in the future? ○ Who will have responsibility for managing negative impacts of a development in the future? ○ Will commitments by proponents be acted upon in the future? <hr/> <ul style="list-style-type: none"> ▪ Does the proposal adopt a strong sustainability perspective, demonstrating how the proposal biases decisions in favour of not decreasing the level of natural capital passed onto future generations (Beder, 2000) and combines environment, social and economic consideration in a more objective way (Eales and Sheate, 2011) ▪ Does the proposal identify positive and negative effects and the duration of effects? (Therivel et al 2009) ▪ Does the proposal identify who is affected by the impacts and when? (EC, 2009) <hr/> <ul style="list-style-type: none"> ▪ How does the proposal undertake climate change adaptation and mitigation measures? (Eales and Sheate, 2011; Brandon and Lombardi, 2010; EC, 2009a)

PHASE 2

THE PROPOSED FRAMEWORK

Principle 4

PRINCIPLES	CRITERIA	QUESTIONS
Gibson (2006)	Angus Morrison-Saunders and Nicole Hodgson (2009) and other authors	Angus Morrison-Saunders and Nicole Hodgson (2009) and other authors
<p>PRINCIPLE 4 – Equity and quality of life</p> <p>Ensure equity of opportunity for everyone, particularly the poorest and most vulnerable members of the community and seek to create a good quality of life for everyone.</p>	<ul style="list-style-type: none"> provide a range of community amenities and services available to all in the community. ensure that any affordable housing initiatives are provided and protected into the future. 	<ul style="list-style-type: none"> does the proposal provide a range of community amenities and services available to all in the community? are proponents held responsible for commitments in the area? how the proposal will create a cohesive community, based on issues such as: the social implications of high-rise developments, likely transport use patterns, and facilities provided for communities
	<ul style="list-style-type: none"> reduce ecological footprint while improving quality of life. (Pope, 2004). demonstrate fairness in the distribution of gains and losses (Beder, 2000) (equity implies fairness no equality). assure environmental justice (Agyeman 2002; Beder, 2000 Maschewsky 2005). 	<p>How does the proposal:</p> <ul style="list-style-type: none"> assure acceptable quality and standard of living? (Beder, 2000) assure equivalent living conditions?(Beder, 2000) narrow the gap between the most deprived areas and the rest of the city so that no-one is seriously disadvantaged by where they live? (Brighon & Hove City Council, 2010) identify all groups or individuals affected by the plan? (distributional analysis, Walker 2010) demonstrate how needs, values and expectations of stakeholders are taken into account? (Haughton, 1999) operate without ignoring external impacts of decisions? (from the neighbourhood level to the global) Geographical Equity (Haughton, 1999) build up community and regions, 'sense of place' and heritage protection? (Pope, 2004) promote social inclusion? (EC 2009) explicitly assess distributional consequences? (Connelly, 2005; Walker 2007; Boone 2010) guarantee access to transport and services and other facilities? (accessibility and mobility) (ODPM 2005) assure no resettlement of local population? (ODPM 2005). assure no permanent disruption to the livelihood of the local population? (ODPM 2005). reduce the need to travel? guarantee open space /access to natural greenspace? (ODPM, 2005) guarantee proportionate distribution of environmental goods and bads?(Agyeman 2002; Beder, 2000) <ul style="list-style-type: none"> equity of exposure, which requires the presence of a level playing field to allow groups an equal chance of being targeted for significant environmental change (Maschewsky 2005); avoid iniquities in the distribution of exposition to health risk (Beder, 2000) equity of impact, in which groups should experience a proportionate share of the costs and benefits of such change after it occurs (Maschewsky 2005) avoid inequities in the impacts of environmental policies, differences in regulatory enforcement (e.g. sectors of communities who are imposed additional costs; increasing the price of certain goods, (Connely, 2005; Beder, 2000) biases decisions in favour of offering special protection to those who are especially vulnerable to our actions and choices? (Connelly and Richardson 2005; Boone 2010) take into account human exposure to harm and the differential sensitivity of social group to harm and differences in adaptive capacities to respond or "bounce back" after the harm occurs? (Cutter 2003 in Boone 2010)

Selection
criteria



- Urban plans of Italian regional/provincial capitals
- representative of different territorial realities in Italy
- available on the web

PHASE 3

SELECTION OF CASE STUDIES

9 ITALIAN ERs IN
URBAN PLANNING



3 Regional and 6 provincial capitals that differ in number of inhabitants, geographic and environmental characteristics, economic conditions and social peculiarities

PRELIMINARY RESULTS: General considerations

- In 8 out of 9 ERs **sustainability principles** are **explicitly mentioned** and sustainability is considered as a pivotal concept
- In all cases:
broadly identification of critical issues
beneficial effects on the quality of living and the environment strongly highlighted
- ERs sensibly differ in **levels of detail, methods** and **types of data** used for demonstrating the benefits of the choices
- 6 ERs are based on the use of environmental indicators
- 3 ERs include environmental standards, target thresholds or ranges

- Sustainability objectives are peculiar to the specific urban context
- In all ERs, **mobility** and **open space** are treated in detail with respect to quality of life, social cohesion and reducing impacts on the environment
- In 6 out of 9 the approach aims at minimising the negative effects of proposed choices rather than achieve a true sustainability
- **No elements** were found to answer **more specific questions**, such as the ones concerning:
 - carrying capacity in the long term
 - intra and inter-generational equity
 - net environmental benefits

- 6 out of 9 disregarded long-term implications
- All ERs define sustainability concerns only in terms of **local scale**. 2 out of 9 do not ignore external impact on neighbouring regions (ecological network, mobility systems and wastewater management, etc.)
- Only 3 ERs include scenario analysis (for mobility only).
- Only **1** ERs include a **comprehensive analysis** of alternative **scenarios** (resource consumption, waste production, mobility)

- Information on Intra-generational equity is very limited
- Social dimension is addressed in general terms without exploring the implications for different social groups
- 5 cases refer to equity issues but only in term of **specific actions** (e.g. reducing needs to travel, increasing services facilities at level of districts to take into account needs of older people).
- 2 cases explicitly identify different groups of affected people
- 6 out 9 address **distributional consequences** indirectly, e.g. by protecting place frequented by vulnerable people (air, noise pollution for schools, hospitals and residential areas).
- **Environmental equity is not discussed** at all

Two different approaches:

- ❖ involving public and stakeholders according to **formal requirements** (typical of smaller cities - 5 cases)

- ❖ promoting a **more active engagement** of public in the assessment procedure and in decision making (eg. Town Forum, public conferences, dedicated meeting for different stakeholders, focus group with stakeholders and neighboured municipalities, questionnaires, dedicated web site, on line discussion)

- In 7 out of 9 ERs trade-offs for the main negative effect are justified.
- all proposals seek to **reduce environmental pressures**: improvement of the public transport, creation and restoration of parks, reduction of water consumption, rain water reuse, soil sealing reduction
- only two cases include scenario analysis for different time horizons
- mitigation and compensation measures are in general broadly addressed
- 7 out of 9 avoid significant adverse effects rather than maximise net gains.

FUTURE DEVELOPMENTS

- To refine and optimize the proposed framework
- To apply systematically the revised framework to the whole Country (20 case studies, representatives of the Italian Regions)
- To carry out a similar study selecting case studies in other countries
- To identify criteria and questions that can be used to improve the sustainability outcomes of spatial planning

Thank you for your attention!

Lydia Lamorgese - lydial@tin.it

PhD Student Doctoral School of Environmental Engineering

University of Trento - Italy