

# Assessing social impacts of urban land-use plans: From theory to practice

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The purpose of this article is to analyse the content and importance of social impact assessment (SIA) in urban planning. SIA can be defined as a systematic effort to identify and analyse social impacts of a proposed project or plan on the individual, on social groups within a community, or on an entire community in advance of the decision-making process. Social impacts of urban plans refer to various factors such as quality of housing, local services and living environment, gentrification or segregation, conditions of transportation etc. The article is focusing on the Finnish experiences, which are representing pioneering work in this field in the whole world. In Finland the new Land Use and Building Act, which came into force on 1 Jan. 2000, brought impact assessment as an integral part of urban planning. The SIA experiences in Jyväskylä City offer an interesting case. In addition, the paper presents a typology of various factors (dimensions of impacts) for different scales of land-use plans. It is important to understand what kind of impact typologies are relevant in various scales of planning such as detail plans, general plans or regional plans.

## Need for impact assessment in planning

What is the impact of planning? How does the planning matter? The questions of the impacts, effects and consequences of planning activities have become more and more relevant in urban politics and in the politics of planning.

The question of the impact of planning is many-sided. According to Rydin, there are at least three different ways of understanding the whole matter (*see* Rydin 1998). The traditional question in the debate has been to what extent the policy goals of planning have been achieved. How and in what way have the plans been implemented? Later, there have been presented questions about the effectiveness of planning as a set of procedures. Or rather, the potential

weaknesses in planning as a process have been outlined. Most recently the third view of impact has taken attention: what are the outcomes of planning in terms of environmental or social change and protection of nature and people's health and welfare. Much of this analysis highlights the inadequacies in the planning process in various parts of the system and the extent to which outcomes fall short of ambitions in many cases (Rydin 1998: p. 319).

The environmental and social impact assessment procedures (EIA and SIA) and participatory planning practices are one of the main policy tools and methods, which have been developed in order to satisfy the legitimacy qualifications concerning the environmental and social questions of planning. Impact assessment is a process having the ultimate objective of providing

decision-makers with an indication of the likely consequences of their actions (Wathern 1988: p. 6). The outcome of this process is usually a formal document, usually called an environmental impact statement (EIS). Very often the impact assessment procedure includes the use of alternative plans and citizen participation methods.

In the thirty years since its inception in the United States, EIA has become a widely accepted tool in environmental management (Wathern 1988: p. 3). EIA has been adopted in many countries with varying degrees of enthusiasm; this is why it has also been defined in various ways depending on the national context in which it is applied.

Impact assessment, in principle, can be applied to individual projects (a highway, a power plant, a harbour) as well as to broader plans, programmes and policies. In practice, however, EIA and SIA have most often been applied at the project level. This failure has been one of long-standing criticism of impact assessment systems, as it tends to preclude the discussion of generic issues and any serious consideration of alternative approaches. During the 1990s, the imperatives of sustainable development have stimulated attention to considering the environmental and social impacts of policies, plans and programmes in a number of countries. This kind of assessment has been called 'strategic impact assessment'. In this context, impact assessment of urban land-use plans has become relevant. Here, the Finnish experiences of using environmental and social impact assessment in urban planning have represented pioneering work in the world.

## What is social impact assessment (SIA)?

Social impact assessment has no single, universally accepted definition. However, its content and subject matter consist of distinguishable components that consistently appear when the SIA process is implemented. According to the International Association for Impact Assessment, "social impact assessment (SIA) includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned

interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions" (IAIA 2003).

Based on the writings of several SIA practitioners and researchers we can identify the following features characteristic to the SIA process (Dietz 1987, Burdge 1998):

- SIA is relative to environmental impact assessment (EIA).
- It is done in advance during the planning phase in order to offer a better knowledge base for the decision-making processes.
- It is a tool for developing alternatives and determining the full range of consequences for each alternative.
- It is a tool for developing mitigation, adaptation or compensation measures for the harmful social impacts.

There does not exist any general social theory through which we could identify and find very strict causal explanations about case-specific impacts. Very often, the social impacts have contextual features and they represent complex social relations or dynamics. Vanclay (2002) has made an important distinction between the concepts "social change" and "social impact". "An impact must be experienced (felt) by an individual, family or household, or a community or society, whether in corporeal (physical) or perceptual terms. To a large extent, social impacts are socially constructed — they are perceived differently by different people through socially-mediated understandings of what is 'normal' or 'natural', or 'to be expected' or even 'acceptable'. A social change process, on the other hand, is a process of change that may lead to the experience of impacts in certain circumstances depending on the social contexts (groups, nations, religions, etc.)." Thus social change refers to direct effects such as increase in population, job loss or conversion of economic activities. On the other hand, social impact refers to the effects resulting from social or biophysical change processes (need for day-care or new schools, increased poverty, neighbourhood satisfaction, changes in lifestyles).

The nature of social change will vary with the type and size of a development project or

plan, as well as with the nature of the community in which the project is located. For example, in urban planning the focus and content of SIA can be very different whether the plan is new concerning area, development of a city centre, urban waterfronts, brownfields or a new shopping area. Thus, in SIA we have to apply various kinds of theoretical frameworks, models or concepts and investigate the case-specific conditions.

When seeking causal relations, it is important to notice that causal models incorporate also the idea of multiple causality, that is, there can be more than one cause for any particular effect. On the other hand, social impacts refer to not only causal relations but also to social meanings and subjective (or communal) values. We have to understand that the social (as well as environmental) impacts are socially constructed. SIA must operate within the context of different perspectives and value sets of the various actors. In the social world there are all the time 'claims' and 'claims-making processes' going on and the impact assessment cannot avoid those processes. On the other hand, this means that SIA can provide methods for analysing social effects from the views of various population groups (social, age, ethnic etc.).

There is still one more factor that makes the impact assessment of plans generally speaking very difficult. We have to understand that only some of the impacts can be considered to be causally determined by plans. In standard impact assessment legislation, even indirect impacts (mediated by culture, such as changing lifestyles) should be assessed, but if they are not causally determined this kind of assessment cannot really be made. This happens when plans together with other changes are forming the context where individual and group decisions are made. The crucial question is: where does the borderline between the impacts of the plan and the impacts of other changes go? Thus, usually those impacts that can be assessed (e.g. noise, the need of new schools) are given the priority, while the others are left to the subjective, though informed, opinion of an expert.

All the above-mentioned factors make the SIA a complex and a challenging development task. The methodology of social impact assessment must favour a pluralistic approach, which

can use both quantitative and qualitative analysis (*see* Kohl and Sairinen 2004).

Because SIA aims to predict and evaluate the impacts and outcomes of planned actions in the future and in various social conditions, the issue of the "right" interpretation or the "truth" has no clear content. There can exist competing "truths" or "views". As such the SIA must always be understood within its local context (Närhi 2001: p. 58). The aim is to create an evaluation process that is capable of recognising and appropriating the different available bodies of knowledge.

### **Need for social impact assessment in Finnish urban planning**

The purpose of the SIA in urban planning is to assess in advance the effects of the land-use plan to people's welfare and quality of life. From the end of the 1990s, social dimensions of urban planning have become more topical issues in Finnish urban policy. There are several reasons for this, such as the changes in legislation, structural changes in urban development and the economic and social spatial differentiation (YM 2002, Mäkäräinen 2003). Also the debate on urban politics and citizen participation has created new fields for thinking the social sustainability of the cities. Social consistency of urban development has been seen as a precondition of the competitive ability of the city.

In the impact assessment studies and also in public debate it has been argued that the planning organizations can benefit from the SIA in many ways: the SIA can provide systematic analysis of 'participation data', better understanding on social conditions and impacts of the plan and the links between social and biophysical worlds, better management of urban growth or decline, tools for conflict management, tools for developing the quality of environment and improved understanding on the contents of social sustainability.

All the above-mentioned reasons have provided political support for developing social impact assessment in urban planning. Environmental impact assessment is quite a new policy instrument in the Finnish environmental policy

system (*see* Sairinen 2000). The EIA Act came into force in 1994. The Finnish EIA system included a comprehensive assessment procedure with wide participatory practices for the project level and also general aspirations towards social and strategic impact assessment.

There was made an amendment to the old Building Act already in 1994 about the requirements of impact assessment in land-use planning. The problem was that the planning practices did not take these requirements seriously (YM 2002: p. 30). We had to wait for renewing the whole planning legislation to make the impact assessment more real in urban planning.

The new Land Use and Building Act (132/1999), which came into force on 1 Jan. 2000, brought many reforms. It introduced new roles of different administrative levels of planning, specified and changed the quality criteria and verification procedures and added openness and communication requirements. One basic instrument for these purposes was impact assessment.

According to the Land Use and Building Act there should be adequate investigation of a plan's potential environmental impacts, including implications for the community economy, social, cultural and other effects. Thus social impacts are mentioned separately in legislation. According to the Land Use and Building Decree (1999) environmental impacts are understood as direct and indirect effects on:

- people's living conditions and environment;
- plants and animals, water, air and climate;
- flora and fauna, biodiversity and natural resources;
- regional and community structure, community and energy economy and traffic
- townscape, landscape, cultural heritage and the built environment.

After the new legislation, impact assessment practices have been developed gradually. The social dimension has also got more recognition. In some cities such as Jyväskylä, Järvenpää and Espoo the land-use planning offices have started experimental projects on SIA in certain plans. The initiatives have come especially from the side of local politicians.

There does not exist yet any guidelines for this matter, but the first guidebook is in progress (*see* Päivänen and Sairinen 2003). According to the Land Use and Building Act, when investigating the effects of a plan, attention should be paid to the plan's task and purpose, previously conducted studies, as well as other factors affecting the need for investigation. There are no standards for drafting a report. The method and content depend on the local characteristics of the planning area as well as the nature and significance of the plan.

### Case of Jyväskylä City

In Finland, Jyväskylä City has been the most active developer of SIA for land-use planning. The following description of the SIA-policy development in Jyväskylä is based on the studies made by Närhi (2001) and Mäkäraäinen (2003).

In Jyväskylä, SIA projects in urban planning were initiated in 1995, when a group of social workers and students of social work evaluated a town plan for a new housing area called "Lutakko" near the city centre (Närhi 2001). According to Närhi, the idea of the City Planning Office was to create a housing area that would be a symbol of modern city life. Lutakko was even called the "Manhattan" of Jyväskylä. The social workers had reason to expect that the area would not turn out the way it was originally planned.

Because there were no residents yet living in the area, social workers began to imagine and write fictional stories about future residents in the area in order to create some future visions about the quality of living environment. Although the stories were fictional, some important factors such as rent levels, access to the activities and services, importance of old buildings, noise and pollution came up. These points were presented to the landowner, the city planners and the constructors.

The voluntary SIA work continued after the time the first inhabitants moved into the area. In the summer of 1996, social workers and students of social work conducted three inquiries in which they asked residents about their views and experiences of living in the area. When looking back at the first assessment made by the social workers, it can be stated that they were

quite right in their evaluations. The same kind of issues came up, but now they were the problems of the planning area: paths on the lakeshore, parks and green areas were decreased during the planning, the old buildings were demolished, the heavy traffic concerns the families with children, the idea of the community centre was not realised as planned and there were no services in the area at that moment.

All this information on social aspects was available from the beginning of the process but was barely used at all in the development of the residential area. Närhi (2001) argues that the short-term interests of economic profits were given priority over the long-term interests of a sustainable living environment.

The first experiences of applying SIA in Jyväskylä City were not a great success story. But, gradually the idea of using SIA was anyhow rooted into the city planning. The City Planning Office wanted to develop the ideas further. On the one hand, the new legislation required some kind of impact assessment system. On the other hand, the SIA suited well to the new image strategies of Jyväskylä. Jyväskylä had adopted “soft values” as an instrument to compete with other Finnish cities. The new strategies in Jyväskylä used terms like “human wellness technology city”, “attractive little big city” and “city in the lap of nature”.

The general model of organising SIA as a part of city planning procedures was developed in January 2001. The model was published as a new guidebook for land-use planning process (Jyväskylän kaupunki 2001). In addition, Jyväskylä started a special SIA project for land-use planning in September 2001. The target was to develop an assessment model and to integrate SIA into planning process. The project was organised as a cooperation between the Office of Land-Use Planning and the Centre for Social and Health Services. The cooperation has been coordinated by a separate SIA-planner. The project was started by making the SIA in two detailed plans in Kortepohja residential area. In addition, social monitoring was made concerning the nearly completed housing area of Kortesusuo.

In this work, Jyväskylä has had five main principles for organising SIA in urban planning (Mäkäräinen 2003):

- SIA has to be a natural part of the planning process and practices of social- and health-center.
- A special assessing form helps the assessment.
- There has to be basic data available on social conditions of the planning area.
- The wideness of the SIA and the need for scoping is defined separately in each plan.
- The possibilities and risks concerning the implementation of the plan have to be presented already during the preparations.

### **Social dimensions in different scales of planning**

The substantial content of social impacts in urban planning is a question that needs more careful attention. The impacts of land-use plans are more complex and perhaps also more difficult to assess than the impacts of one individual building project (so-called project EIA). The land-use plan contains lots of different kinds of changes and aspirations concerning the community development. Thus, the impact assessment of land-use plan comes very close to the general analysis of community development.

When defining the content of social impacts, we need to develop some typologies of various possible impacts. This task is in close relation to the phase of identifying the impacts in the planning process.

In SIA literature, there exist lots of “check-lists” of possible impact categories. These categories serve as indicators of social impacts that may be applied in the various stages of the impact assessment and planning process. One of the most famous lists was made by Burdge (1994). He arranged the SIA variables (26) under the headings of population impacts, community/institutional arrangements, conflicts between local residents and newcomers, individual and family level impacts, and community infrastructure needs. Sairinen and Kohl (2004) have developed Burdge’s list further to the Finnish context by using five main impact categories: socio-demographic changes, functional conditions, characteristics of the area, impacts to the welfare and life style, opinions and disagree-

ments of people and the community. These categories have then 23 various variables.

What would be good impact categories or variables for land-use planning? One basic starting point for this is to look at which impact categories are relevant in each planning level. This kind of checklist should be done in cooperation between different professionals and local policy actors (urban planner, social worker, environmental authority, teachers, etc). In Finland, the spatial planning system is based on the hierarchy of three main planning stages: provincial, master and town plans. The impact assessment should be conducted in all these levels.

The studies and assessments carried out in connection with master plans are normally more comprehensive and thorough, but on the other hand more general in nature. In the case of town plans the master plan-level study functions as a basis for impact assessment, and this is refined where necessary in studies conducted in connection with the drafting of the town plan. What is important is that impacts and alternatives are investigated in sufficient time and at the broad planning level when alternative solutions are still in use. In cases where studies have not been carried out at the master plan level or have become outdated, then these are conducted according to the need for a more extensive manner than normal in connection with the town plan.

In Finland, the *provincial plans* are drawn up by the Regional Councils. These serve as the point of departure for planning of the city region. In this level, social impacts concern regionally relevant issues, which can have effects for example to the structural networks and regionally focused activities:

- welfare of growth areas vs. regional equity,
- identification of vulnerable groups,
- regional service structures,
- networks of public transportation,
- division of labour between different areas,
- siting of hazardous or polluting activities,
- differentiation of regional identities,
- networks of recreation areas,
- landscape and nature values.

*Master plans* provide a foundation and the prerequisites for implementing urban develop-

ment goals. Such plans specify the directions in which the city will grow, housing, the focal points and reciprocal location of jobs and services, traffic systems and recreational areas. Producing master plans involves wide-ranging surveys and collecting the initial data required for planning. From the view of residents and social issues, this level concerns the following area-specific issues:

- socio-demographic changes (age and family structures),
- identification of vulnerable groups,
- socio-economic structures of different housing areas (possibilities of mixing, segregation or gentrification),
- area-specific services (public, private, basic),
- routes of public transportation,
- possibilities for walking distances,
- quality of living environments,
- possibilities for leisure and recreation,
- area-specific environmental health risks,
- experienced place identity.

To facilitate detailed organization, construction and development of individual areas, a *town plan* is drawn up, the purpose of which is to allocate the necessary areas for various functions and to control building and other land-use in the manner demanded by local circumstances, cityscape and landscape, good building practice, promotion of the use of existing building stock and any other object of control in the town plan. From the view of residents and social issues, this level concerns the following neighbourhood issues:

- social balance in neighbourhood level,
- availability and quality of local services,
- integration of traffic routes and local services,
- accessibility in traffic and housing,
- neighbourhood satisfaction and security,
- potentials for privacy and social-interaction,
- important places (history, esthetics, nature, landscape, own activities).

## Integration of the SIA into planning process

Impact assessment generally takes place in a way that a planner him/herself assesses the impacts of

the plans on the basis of studies conducted and visits to the locations concerned. A vital element in the assessment process is supplied by other branches of administration and involved parties etc. If the person drafting the plan is a consultant, he/she is also generally responsible for assessing associated impacts. In particular areas of investigation demanding special expertise or in otherwise complicated assessment tasks a consultant is also frequently used.

It has to be also noticed that social impacts are not the social goals of the plan. Too often, the planners are just listing all the good social and welfare targets as the impacts of the plan. Surely if goals are realistic and successful, they will become impacts. But, normally there are also other effects, for example negative or positive side effects, cumulative or indirect impacts etc. The assessed impacts can anyway be compared to the targets of the plan.

Impact assessment is a part of the design of the plan, a way of conducting work. Assessing impacts does not mean simply recognizing impacts but also taking impacts into account in the planning process. Figure 1 illustrates the stages involved in the impact assessments and planning. Social impact assessment provides answers to questions: what will change, what will happen as a result, are there other options, what will be gained, what will be lost, who will benefit, who will suffer?

In Finland, the impact assessment is programmed in *the participation and assessment plan* drafted in connection with the initiation of the town plan. It lays out what impacts are going to be assessed and in what manner, as well as the boundaries of the area under investigation and the timetable for the job. In the participation and assessment plan efforts are also made to take a stand on what the key impacts are as regards this specific plan which will be subjected to in-depth examination.

One of the main principles behind both the EIA and the SIA is to connect different perspectives and professional options within the planning processes. The SIA studies in Jyväskylä during the 1990s have examined what the potential role of social workers in conducting SIA could be, and have also looked at what kind of “new knowledge” or information social workers

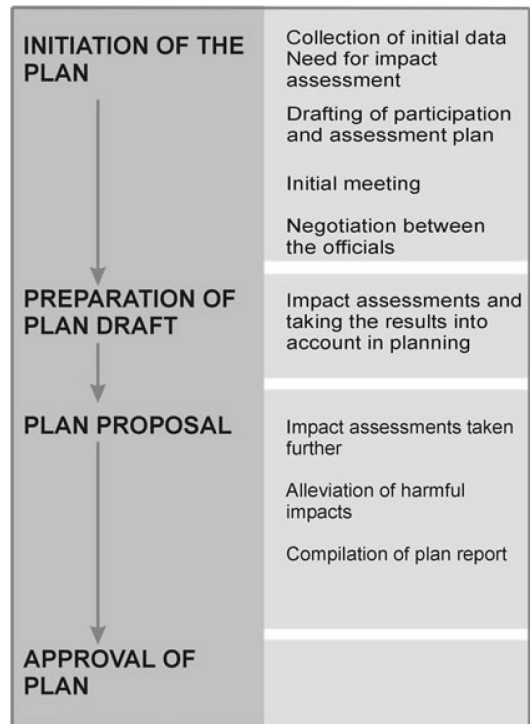


Fig. 1. The integration of impact assessment into planning process (Jyväskylä kaupunki 2004).

could bring to community planning. According to Närhi (2001), social workers gain knowledge of “social” issues from their educational experiences and within their everyday work. Thus, social workers are constantly confronted with the consequences of rapid social change and “short-term planning” on the everyday lives of people.

Jyväskylä has succeeded in integrating the SIA into the planning process in a formal level. But, according to the study by Mäkäräinen (2003) it seems that also the planners have been satisfied with the new practices. The following citations provide some ideas of what the practitioners think. Looking back to her own experience, one of the urban planners in Jyväskylä is stating: “SIA has become a very important tool for me. All the networking and cooperation in connection to it is an essential part of the planning process, and it has provided better argumentation and deeper understanding.” (Mäkäräinen 2003: p. 56).

In Jyväskylä, the role of social workers has been important in the SIA processes. From their

perspective the experiences are also positive: “When thinking about these matters (social impacts of planning), the importance of inter-professional cooperation has been stressed; and it is important that different policy actors are presenting their views by emphasizing their own professional competence. For my own work, it has been very nice to notice how much new information one has got about the area.” (Mäkäräinen 2003: p. 57).

## Public involvement and SIA

Public involvement (or public participation) and social impact assessment are (and should be) clearly interactive in a planning process. Burdge and Vanclay (2004: p. 285) have stressed that SIA practitioners must continue to integrate the “analytical” with the “participative” approach to SIA. In the analytical approach the emphasis is on quantitative data, e.g., population counts, infrastructure needs, input-output analysis, crime rates and disease statistics. In the participative approach we have a combination of empirical and participatory analysis where citizens understand and/or are actually involved in the assessment process.

The success in combining participation and SIA offers clear benefits for both the planners and the community. SIA raises consciousness and the level of understanding of the community and it puts the residents in a better position to understand the broader implication of the proposed action. Thus, the SIA can be seen as a tool for community empowerment and social sustainability. On the other hand public involvement provides an important information-gathering tool for SIA and develops the value information that is essential to the overall assessment (and planning) process (Creighton *et al.* 1983: p. 183). Interviews, surveys, workshops, etc. are all frequently used as public involvement tools and can be used also to study effects on local social structures.

But there are also some important differences between participation and assessment (Creighton 1983: p. 9). We have to remember that information about opinions is not information about social consequences. In addition, public involvement practitioners are likely to be more con-

cerned with organized interest groups and political power, while social assessment people place a greater emphasis on the entire society at large.

## Conclusions

In this article the Finnish experiences (especially from the Jyväskylä city) of using SIA in urban planning have been described and analysed. It seems that there is a clear need for developing social impact assessment in land-use planning. The benefits of the SIA for the search of social sustainability, for the land-use planning organizations and for the local communities are clear. But the challenge is to develop reasonable practices which can really redeem the expected promises. In this article, it has been argued that:

1. The assessment should be integrated to the processes of land-use planning and public involvement. The SIA can provide systematic analysis of ‘participation data’ and a tool for conflict management. The social targets and social impacts of the plan have to be separated from each other. The sectoral cooperation (especially with the social and health sector) is important for the success of social impact assessment in land-use planning.
2. The impacts of land-use plans are more complex and perhaps also more difficult to assess than the impacts of one individual building project. The land-use plan contains lots of different kind of changes and aspirations concerning the community development. Thus, the impact assessment of land-use plan comes very close to the general analysis of community development.
3. The identification of the impacts should be made according to the planning level (e.g. detail plan, general plan, regional plan) and also according to the planning target or substance (e.g. new housing area, city centre, urban waterfront).

We have to understand that plans together with other changes are forming the context where individual and group decisions are made. This means that only some of the impacts can be considered to be causally determined by plans.



Social impacts refer not only to causal relations but also to social meanings and subjective (or communal) values. This means that the social (as well as environmental) impacts are socially constructed.

The crucial question (and motive) for developing the SIA in land-use planning is how the planners, their organizations and also the politicians see the 'need' and the 'benefits' for this kind of assessment.

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