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Sustainable Local
Development From
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Citizens: Salaspils
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Case

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Sustainable Local Development From Perspective of Citizens: Salaspils Municipality (Latvia) Case¹

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Abstract

Conditions are very different in the different parts of any country, and the quality of life as well as the impacts produced on the environment depend on a variety of local factors of environmental, economic and cultural nature, and every action must cope with such local conditions, traditions, and attitudes. Thereby one of the approaches on assessment of sustainable development could be based on subjective evaluation of citizens of certain municipality. During 2010-2012 in Salaspils municipality (Latvia) the SPIRAL methodology for measurement of subjective well-being indicators using co-responsibility approach was approbated, which was the basis for establishing the more efficient dialogue with citizens. This research showed results related to sustainable development as well – the methodology provides alternative subjective sustainable development indicators which provides the reach material for local authorities in decision-making process. Taking into account all mentioned before the purpose of paper is to analyse the results conducted during this research related to subjective sustainable development indicators contrary to objective sustainable indicators of municipality.

In order to achieve the aim the tasks are formulated as follows:

- 1 to review theoretical background for responsible sustainable development at local level;
- 2 to analyse best practice of municipalities in ensuring the citizens' engagement in promoting sustainable development in the municipality;
- 3 to present the methodology of conducted empirical research at Salaspils municipality on assessment the well-being at local level and relation to sustainable development.

Research methods used: scientific literature studies, several stages of focus group discussions, statistical data analysis, SPIRAL methodology, scenario method.

The main findings of the paper – subjective evaluation of economic, social and environment differs from objective measures. It could be explained by the fact that subjective indicators capture the satisfaction of inhabitants by certain moment. In addition, objective indicators don't show the level of satisfaction what brings each measure unit (EUR, %, etc.). Also the subjective perceptions of inhabitants affects mentality, culture and other background factors. In addition, it is crucial for sustainable development of the territory to ensure that society is effectively involved in preparation of planning documents of the municipality. It is proposed to use co-responsibility approach in definition and implementation of activities towards sustainable development of municipality.

KEYWORDS: sustainable development, municipality, citizens's engagement, subjective well-being, SPIRAL methodology.

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The concept of sustainable development was formulated in response to a growing awareness that there are several important relationships between processes such as human and economic development, global and local environmental problems, increase in population and poverty, and changing political structure (Malkina-Pykh, 2002).

Local governments are instrumental in the judicious use of natural resources, providing public services and creating local jobs - through land use and transit planning, building and infrastructure construction and rehabilitation, investments in energy, water and waste management, and economic development strategies (Bercu, et al., 2015).

Salaspils municipality (Latvia) was one of the municipalities, which participated in URBACT II project "Together for territories of co-responsibility". During this project (2010-2013) municipalities were tested out the methodology for measurement and improvement of subjective well-being. This methodology provided opportunity for society to participate in decision-making process for more sustainable development of municipality.

The aim of this paper is to analyse the results conducted during this research related to subjective sustainable development indicators contrary to objective sustainable indicators of municipality.

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The concept of local development is defined as a particular form of regional development, one in which endogenous factors occupy a central position. The economic globalization, the international economic crisis, the increasing phenomenon of delocalization of enterprises, the evolution of internal structures of large industrial groups, institutionalization of local autonomy led to increased interest in local development (Nader, et al., 2008). For that reason the academics develop many definitions of local development.

As the process of local development includes intersection of several areas of intervention besides local economic policies and urban policies or the landscaping (Pike, et al., 2007), there is no homogeneous understanding of the concept. The particular understanding of "development" is defined by different groups in specific time periods and places. The concept of "local development" differs both within and between countries over time (Reese, 1997; Danson et al., 2000; Beer et al., 2003).

Referring to definition of "development", it had been noted that very difficult and contentious political and economic issues have been widely obscured by the apparent simplicity of these terms (Williams, 1983). Local development has historically been dominated by economic concerns such as employment, income and growth (Armstrong and Taylor, 2000). Development can even be wholly equated with this relatively narrow focus upon local economic development (Beer et al., 2003, p. 5). Stoper (1997) noted, that local prosperity and well-being depends upon the sustained increases in income, productivity and employment and integral to economic development.

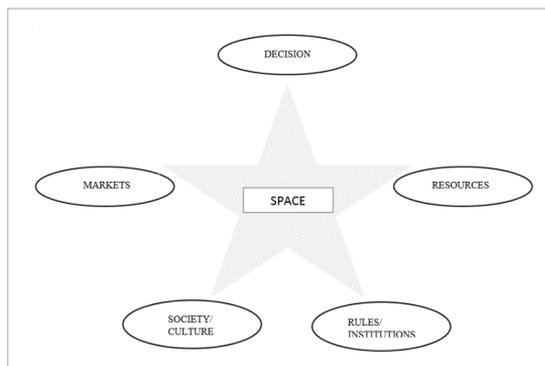
Council for Urban Economic Development in the U.S.A. defined local development as a process based on a "local activity designed and implemented by public and private agencies in the community through a set of programs and projects. This process is achieved increasing the welfare of members of communities and businesses (Boyko, et al., 2012).

Introduction

The concept of local development

Figure 1

The Star of Community Development
(Moldovan et al., 2013)



Shaffer, Deller and Marcouiller (2006) consider that the local development, and especially economic development, approaches are very difficult to operationalize from a theoretical and practice sense, so in order to tackle the difficult different views of community economic development, they decided to offer a paradigm embodied in a star diagram (Figure 1).

Figure 1 shows that besides the three typical elements – space, markets and resources,

there should be paid additional attention to society/ culture, rules/ institutions and decision-making process.

Sustainable local development

Sustainable local development is holistic in encouraging broader notions of inclusion, health, well-being and quality of life (Haughton and Counsell, 2004; Morgan, 2007) and incorporating understandings of the relations between the economic, social, ecological, political and cultural dimensions of development. Sustainability is potentially progressive if it prioritizes the values and principles of equity and long-term thinking in access to and use of resources within and between current and future generations.

Sustainable development seeks to recognize distinctive structural problems and dovetails with local assets and social aspirations to encourage the kinds of local development that are more likely to take root and succeed as locally grown solutions (Hirschman, 1958; Stoper, 1997). Heightened recognition of such context sensitivity has promoted diverse and sometimes alternative approaches to local and regional development. This connects to the recognition of the leading role of the state in more holistic, programmatic and systemic forms of local policy: environmentally sustainable development implies a more important role for the public sector, because sustainability requires a long-term – intergenerational – and holistic perspective, taking into account the full benefits and costs to society and the environment, not only the possibility of private profitability (Geddes and Newman, 1999). Depending upon the circumstances and aspirations of particular localities and regions and often very real constraints (Mainwarig et al., 2006), balances and compromises inevitably emerge from considerations of sustainable development when connected to holistic and progressive principles.

Making local development strategies of a community is a good way to drive local community in the desired direction. The local development strategy chosen should be inclusive and consider the relationship between private and public and citizen participation.

According to regulations No 628 of Cabinet of Ministers “Regulations on the local spatial development planning documents”, every municipality in Latvia elaborate Local sustainable development strategies where would be defined long-term vision of the municipality, strategic goals, long-term priorities, specialization areas of the territory and guidelines/ main principles for development and planning of the territory (spatial aspects). These guidelines include proposals for main infrastructure objects, development territories, spatial structure of nature areas and settlement structure (Latvijas Vēstnesis, 2014). In addition, the regulations provide instruction for ensuring the participation of society during elaboration of the strategy. Before elaboration of the strategy, there should be provided the plan for public participation. The responsible employee of the municipality ensures that society is informed and involved during the elaboration process. It is stated that there should be organized public discussion about the document (at least 4 weeks). In addition to mandatory obligations, many municipalities choose to involve society in formulation of long-term priorities of the municipality (good examples would be provided in following sections).

Measurement of sustainable local development

Widespread concern over the state of the environment and the impacts of anthropogenic activities on ecosystem services and functions has highlighted the need for high-quality, long-term datasets for detecting and understanding environmental change (Parr et al., 2003). In this context, chapter 40 of Agenda 21 urges the development of indicators for sustainable development. Especially, it asks countries and governments and non-governmental organizations (NGOs) at the international level to identify such indicators (Barrera-Roldan and Saldivar-Valdes, 2002). It is widely believed that public institutions cannot develop a strategy for sustainable development without a quantitative knowledge of the state of the system (Ronchi et al., 2002). Therefore, environment and sustainable development indicators can be used to improve multiple-objective environmental decision-making under conditions of unknown variability (Levy et al., 2000).

Several authors and international organizations provide many arguments for finding ways to standardize indicators and frameworks to compare sustainable development (e.g., Ambientitalia, 2003; Luque-Martinez & Munoz-Leiva, 2005; Mascarenhas, Coelho, Subtil, & Ramos, 2010; Pintér et al., 2005; Ramos & Caeiro, 2010; Tanguay, Rajaonson, Lefebvre, & Lanoie, 2010; Yigitcanlar & Lönnqvist, 2013). They mainly claim that standardization is useful to assess and compare data, problems, contexts, cities and policy options regarding sustainable development and to synthesize highly complex issues in a simplified and compact manner to spark debate and guide further in-depth analysis and policy-making (Yigitcanlar & Lönnqvist, 2013). Other arguments in favour of standardization are also linked to the strengthening of the capacities of cities, facilitating the evaluation of sustainable development policies (Flood, 1997), enabling the benchmarking of key indicators, and reinforcing informed and strategic decision-making (Luque-Martinez & Munoz-Leiva, 2005).

Several indicator systems have been designed by different institutions to provide quantitative and qualitative measures to assess and study the interrelation between social, environmental, economic and institutional development at local levels (Ramos and Moreno Pires, 2013). Over the past two decades the “indicator industry”, as some call the proliferation of indicator systems (Herzi & Hasan, 2004), has seen fruitful debates emerging in regard to the roles, achievements, gaps and uses of sustainable development indicators for cities. Sustainable development indicators aim to assess and benchmark sustainable development conditions and trends across time and space, monitor progress toward goals and targets, inform planning and decision-making, raise awareness, encourage political and behavioural changes, promote public participation and improve communication on sustainability (Holden, 2013; Moreno Pires & Fidelis, 2012). However, they are frequently set aside, manipulated or under-resourced and face major constraints, such as costs or data suitability. For this reason recently the qualitative approach for measuring local sustainable development has been used. The qualitative approach relates to the nature of local development, for example the sustainability (economic, social, environmental) and forms of growth, the type and “quality” of jobs, the embeddedness and sustainability of investments, and the growth potential, sectoral mix and social diversity of new firms. Qualitative approaches focus upon subjective concerns informed by specific principles and values of local development socially determined in context within particular localities at specific times. Although efforts have been made recently to quantify sustainable development factors, the approach still remains fundamentally qualitative. Research has tended to concentrate however, on the “success” stories of high productivity and/or high-cohesion forms of growth, neglecting other less desirable, but widespread, types of growth (Sunley, 2000).

In order to implement the Local Agenda for Baltic Sea Region, there were conducted research on the role of local municipalities in promoting sustainable development (project SAIL). There were provided analysis on different sustainable indicators available at local level and concluded that they should represent all 3 dimensions – economic, social and environment. For example, good indicators for economic dimension are income level per capita, employment rate, accomplishment of roads (km); for social dimension – unemployment rate, birth rate/ mortality; for environment dimension – quality of water and air, waste management, etc. (Baltic Local Agenda 21 Forum; 2012).

Best practice of municipalities in ensuring the citizens' engagement in promoting sustainable development in the municipality

Several sustainability indicator research projects that aimed to measure local sustainable development have been fostered over the past few years (European Commission, 2009; Moreno Pires & Fidelis, 2012). Already in 1998, in the report on "Sustainable Urban Development in the European Union: a framework for action", the European Commission urged all members to embrace the importance of integrating local sustainability measures and monitoring methods into its policies and, particularly, to monitor the progress of LA21 (Wong, 2006). As a result, two European research projects on local indicators emerged: "Making news for Monitoring Progress" (Mineur, 2007) and the "European Common Indicators" (ECI) project. The goal of those project was to develop specific SD indicators in 10 cities across Europe involvig the media, citizens and other stakeholders in the choice of indicators, collection of data and communication of results. Since then, several other EU funded research projects on the definition of conceptual frameworks or methods to develop local sustainability indicators, as well as on the evaluation of successes and failures of implementation, have been carried out (CAT-MED, 2012; Bhagavatula, Garzillo, and Simpson, 2013; Informed Cities, 2013); EC, 2009 and van Zeijl-Rozema and Martens, 2010).

Similarly in parallel to these research efforts, the European Environment Agency, DG Regio and Eurostat have also been committed to the development of urban environmental indicators through the "EEA Environmental Indicators" initiative and through quality of life indicators from the "Urban Audit" project. The "Urban Audit experience – Assessing the Quality of Life of Europe's Cities–" is of particular importance; the project is coordinated by Eurostat with the National Statistics Offices of member states and has been contributing to the development of a comparable database among the main European urban areas (EC, 2007). Since then, the project has evolved into a more focused list of variables, a larger program with more cities to improve coverage and comparability (covering over 370 urban European centres and all cities with more than 100,000 inhabitants) and an exercise to assess the perceptions of citizens on quality of life in different countries, through a questionnaire, to incorporate a qualitative evaluation (European Commission, 2005 and Eurostat, 2010).

Together, the efforts of the last 15 years demonstrate the overwhelming number of projects in Europe aimed at developing common indicators, methodologies and guidelines to assess local sustainable development. A more reduced number of research projects have been focusing on context specific indicator systems. Furthermore, a literature gap can be identified when assessing how useful these efforts have been for strategic decision-making at the European level or how distant scientific knowledge is from local practice or policy change (Sébastien & Bauler, 2013). Mascarenhas et al. (2010) further point at the lack of articulation between space, time and organizational complexity as a long standing and pressing problem to solve at the European and global levels.

The European Commission study on relevant funded research on sustainable development indicators (EC, 2009) identified other trends in the European research agenda and produced further recommendations. It underlined the tendency of EU indicator projects to reduce SD to its economic and environmental dimensions, disregarding social and governance aspects. Several recommendations were made, including the need to rethink and restructure the sustainable development indicators landscape in areas such as governance-related or long term cross-cutting dimensions of sustainable development and the need to further explore insights that can be derived from the use of indicators (EC, 2009).

The lack of official consensus, guidelines and systematic availability of common indicators for cities within EU institutions and entities remains and undermines their potential uses and real contributions to improve urban sustainable development.

As it was discussed before, sustainable local strategy is good instrument to direct municipality in right way. Many municipalities had chosen this platform in include society in decision-making process. For example, Jaunpils Municipality (Latvia) created citizens forum including main NGOs and

interest groups for elaboration of planning documents of the municipality. Particularly there was a focus on youngsters, as it was decided by the local authorities, this group is main target audience. Using different methodologies, there were collected data about priorities of development by the point of view by the citizens. At the end, participants also agreed on realization of some short-term activities that were identified during the process. All data were included in sustainable development strategy of the municipality (Mūriņš, 2013). In turn, Jūrmala Municipality created special Advisory board which included representative from all administration units in order to include society in elaboration process of territory planning documents. This Board was very active especially during the elaboration of Spatial plan that consists of mapping of territory by use. The opinion of this board is also topical regarding the environment issues (Jūrmala Municipality, 2013). The Sustainable development strategy of Balvi Municipality was created in 48 hours during 3-day-long doTalk. At first day employees of the municipality together with local activists jointly created and selected the key challenges for the municipality. Afterwards they identified specialization vision, goals, and priorities. The second part of the day was dedicated for territory spatial perspective. After this event, experts created “zero” version of strategy which was presented on the second day for the participants, inviting them in completing and improving the unveiling version of the document. At third day, a team of experts sent first version of the strategy to the local representatives (Balvi Municipality, 2013).

One of good examples how to ensure citizens' engagement in promoting sustainable development of the municipality was provided during the URBACT II programme project “Together for territories of co-responsibilities” where 8 EU municipalities (Salaspils, Latvia; Debica, Poland; Botkyrka, Sweden; Mulhouse, France; Braine-l-Alleud; Belgium; Pergine, Italy; Covilha, Portugal; Kavala, Greece) were approbated innovative methodology for measurement and improvement of well-being indicators (URBACT, 2009). The methodology (SPIRAL) was elaborated by the experts of Council of Europe. The methodology is aimed at improvement of the dialogue between society and municipality using so-called co-responsibility approach (Council of Europe, 2008). The idea behind this approach is to foster social inclusion and improve the well-being of members among the municipality thanks to a close cooperation between public authorities, citizens and private stakeholders (URBACT II, 2012). During the research, the subjective evaluation of well-being of inhabitants are grouped by 8 well-being dimensions: (1) Access to means of living; (2) Living environment; (3) Social balance; (4) Personal Balance; (5) Attitudes and initiatives; (6) Feelings of well-being and ill-being; (7) Personal relations; (8) Relations with institutions. After collection of all data, they are analyzed by designed software ESPOIR. On the bases of inhabitants responses the subjective well-being indicators are developed. Next steps includes development Local Action plan, which aims to improve the indicators that are in bad situation commonly by authorities and citizens in co-responsive way. In this way citizens have opportunity to participate in decision-making process for more sustainable development of the municipality.

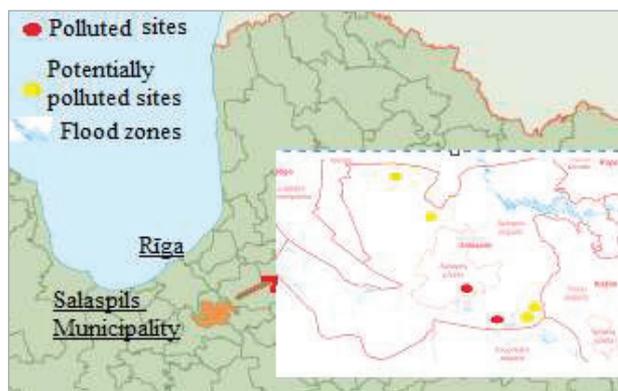
In the next section there would be analysed the results of this research related to sustainable indicators on the base of Salaspils municipality.

Salaspils municipality is located in central part of Latvia. It is suburban of the capital city of Latvia – Rīga. The municipality was formed in 2004 by reorganization of Salaspils town and its countryside territory, the administrative centre being Salaspils. In 2010 the countryside territory was renamed Salaspils parish. About 23 thousand inhabitants are living in the administrative centre, other 2 thousand inhabitants – in rural territories. The administrative centre of the municipality is densely populated – during the Soviet Union times many block houses were built for the builders and workers of the Hydroelectric Power Plant, Thermoelectric Power Plant and Nuclear Power Plant and different factories. Salaspils is the most densely populated municipality in Latvia, according to statistics, average population density in Latvia is 33.8 inhabitants per km²,

Research results

Figure 2

The Territory of Salaspils Municipality: Potentially Polluted and Polluted sites



Source: Latvian Environment, Geology and Meteorology Centre database.

plant, mechanical workshop, former Nuclear Power Plant), municipality is one of the most polluted municipalities in Latvia.

Further is provided analysis of different objective indicators related to sustainable local development. Taking into account the availability of data at local level, as well as theoretical background provided before, the sustainable development is analysed from economic, social and environment perspectives.

In context of economic dimension, Salaspils could be described as one of the wealthiest municipalities in Latvia, its' inhabitants have relative high salaries, as well as personal income tax revenues to the municipality budget per capita is higher than average in country. However, in Salaspils are not many enterprises – the number of economically active market sector statistical units per 1000 population is significantly lower than on average in Latvia. This could be explained by the fact that Salaspils could be described as high-rise area, namely, significant number inhabitants work in Riga.

Table 1
Comparison of Sustainable Development Indicators of Salaspils Municipality, Rīga Municipality and Latvia

Indicators of Sustainable Development	Territory		
	Salaspils municipality	Rīga Municipality	Latvia
Economic dimension			
Number of economically active market sector statistical units per 1000 pop. in 2013	47,9	86,8	68,6
Personal income tax revenues to the budgets of local municipality per capita in 2013, EUR	606,10	600,8	489,40
Average salary in 2013, EUR	959.00	895.00	783.00
Social dimension			
Unemployment rate in 2014, %	4.7	4.3	6.6
Number of criminal offences per 1000 pop., 2014	11	30,3	22
Municipal budget expenditures on health, education and social protection EUR per pop., 2014	478,9	468,5	527,6
Environment dimension			
Urban waste t per km ²	64,05	747,79	25,22
Urban waste t per pop.	0,32	0,39	0,81
Hazardous waste t per km ²	14,44	14,44	0,61
Hazardous waste t per pop.	0,07	0,006	0,01

Source: Latvian Environment, Geology and Meteorology Centre database, Ministry of the Interior Affairs database, State Treasury database, State Employment Agency database, CSB database.

however in Salaspils it is more than 200 inhabitants per km². In addition, Salaspils is one of few municipalities where is positive population change (1,2% from 2009 to 2014) in situation when on average population change in Latvia is –3,9% in the same period. Because of the comparative overpopulation, intensive traffic connection with capital city (Rīga is only 18 km away), as well as some contaminating objects (See Fig.2; asphalt plant, mineral

Analysing social indicators, it could be concluded that unemployment rate in Salaspils is relatively low, in addition, municipality is safe – in 2014 there were registered 2 times less number of criminal offences per 1000 population than on average in Latvia. Speaking about municipality budget expenditures, Salaspils municipality spends on education, health and social protection on average less than other municipalities of Latvia. It could be explained by the fact, that during last years the priority of municipality was improvement of infrastructure, as well as during these years some mayor buildings were constructed (sport hall, easement to school, boiler house, etc.).

As it was written before, research on indicators of subjective well-being in Salaspils municipality was conducted using SPIRAL methodology. The research comprised participants from 25 different homogeneous groups (8 – 10 participants) which represented NGOs, interest groups and different organizations of Salaspils. Figure 3 shows the results of the research indicating the dimensions of well-being and their importance by the point of view of inhabitants.

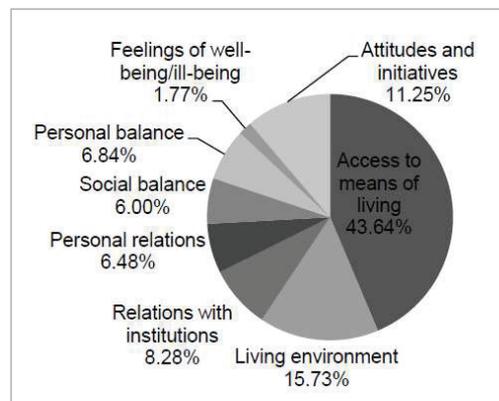
Inhabitants of Salaspils municipality as main well-being dimension defined "Access of means of living" (answers like "to have a good job", "to have a big salary", "to own a house", "good education", etc.). Next well-being dimension was nominated "Living environment" (responses like "green environment", "safety at roads", "parks where to walk", "no waste", etc.). As third post popular dimension was defined "Attitudes and initiatives" (answers like "to express myself", "to participating in decision making process", "to be in NGO", etc.). The research showed that well-being is complex concept and different it aspects are crucial for inhabitants. For more analysis of results see Jēkabsone & Sloka (2014) and Jēkansone et al. (2013).

In order to see what situation is at each indicator of all subjective well-being dimension, all results of the research were presented to the leaders of the homogeneous (focus) groups which participated in the research of data gathering. Afterwards they needed to agree on which situation every indicator is (possibilities: "very bad situation", "bad situation", "medium situation", "good situation" and "very good situation").

Following was provided analyses of subjective well-being indicators that corresponds to sustainable local development from economic, social and environment aspects (see Table 2).

The economic dimension of sustainable local development is described by following indicators: "Access to essential resources in general", "Purchasing power" and "Employment/ work". The leaders of homogeneous groups agreed that all economic indicators are described by bad situation. Leaders agreed that the level of income is not sufficient, prices are increasing, and for many families it is difficult to ensure all their needs. It should be explained that the research was conducted during the winter of 2011, in this period was still topical saving measures by public and private sectors. In addition, during this winter there were relatively high rates for heating. Despite the fact that objective measures of economic activities analysed before showed that inhabitants of Salaspils lives in relatively better economic conditions, still subjectively they are not satisfied with their economic situation.

Further, the social dimension of sustainable development is described by following indicators: "Physical security", "Leisure, culture, sport" and "Social balance". Inhabitants admitted that physical security is medium – municipality is safe, the safety at roads, especially pedestrian areas,



Source: Results of analysis of 25 homogenous groups in Salaspils – results gained from 3 meetings. September, 2010 until May 2011 (from 2867 answers).

Figure 3

Indicator synthesis from responses of all homogeneous groups in Salaspils municipality in 2011, %

Table 2

Main Subjective Well-being Indicators Related to living Environment in Salaspils Municipality

Dimension	Well-being indicator	Very bad situation	Bad situation	Medium situation	Good situation	Very good situation	Situation at Salaspils municipality
Economic	Access to essential resources in general	Insufficient level of income.	No possibility to take care by themselves with no help.	Sufficient level of income. No credits. You can take care by yourself.	Secured aging. Secured future. Confidence about pension.	High pension. Income at competitive level. Pension at appropriate age.	Bad situation
	Purchasing power	You can't pay for your rent. Prices are increasing. High taxes. Bankruptcy.	Disorganized tax system. Continuous price increases. There is no possibility to help others.	Possibility to feed the children. There are no financial obligations. Responsible borrowing. Good living conditions.	Financial stability and independence. Good reward. Investments in foreign funds.	The opportunity to buy qualitative products, without paying attention to the price.	Bad situation
	Employment/ work	There are no opportunities to work in your country. There is no developed industry. Citizens do not have access to jobs. Young people are not working.	Inadequate salaries. High taxes. Not enough money for family.	Opportunity to work in well-paid and interesting job. Doing a job that you like.	Possibility to create jobs. Financial stability.	There is enough spare time, you can dedicate yourself and family.	Bad situation
Social	Physical security	There is no security on the streets. Unsafe environment. Alcoholics and drug addicts abundance. High crime rates.	Possible violence. It isn't safe to walk on foot and by public transport. Unsafe road conditions.	Road safety is increasing, taking into account the safety of pedestrians. Salaspils is safe.	People have a high level of safety in Salaspils.	I am not afraid to go out at evenings. Responsible drivers. Low crime rate.	Medium situation
	Leisure, culture, sport	There is no need for culture.	There are no cultural and sport events. There are no opportunities to travel, to attend entertainment events and to do sports.	There is opportunity for creative expression (interest groups). It is possible to travel. There are cultural and sport events.	The opportunity to attend the events that you like.	There are many organizations you can join according to your interests.	Good situation
	Social balance	There are no social guarantees, low standard of living, low social status, drug addiction.	There is no social security, stable guarantees, as well as mutual understanding. Lack of literacy at decision-making.	Happy people, there is a mutual kindness. People involved in social work.	Mutual kindness, satisfaction. Culture level rises.	High quality of life, a better future for children.	Medium situation
Environment	Cleanliness/ pollution/ noise	The big noise from the train. There are no adequate pedestrian crossing over the railroad tracks. Untidy environment. Bad smell. Daugava is dirty.	The environment is not safe and free from harmful contaminants. Disorganized environment.	Clean, tidy, well-maintained environment. There are parks and paths, where you can ride a bike, run and walk. Clean, fresh air free of odours. Clean home fences.	There is no radioactive waste. Good food with no preservatives. Eradicated modified crops. Pure agriculture, which provides a clean food.	There are used the latest technology to reduce pollution in the city, more people are moving on foot.	Bad situation
	Ecological balance	Saulkalne is incinerated waste and emitted poisonous smoke. The area is not well-maintained.	There are obtained injuries. Dust from the quarry. Devastated environment.	Material recycling. Not battered car driveway. Ecologically clean environment. Access to clean water reservoirs with the possibility of swimming.	Opportunity to participate in forest planting. Natural resources are conserved. Joint clean ups.	Promoted ecological products and limited unhealthy products. Established public policy on the environment and the sustainable use of natural resources.	Bad situation
	Living environment in general	Polluted environment. You don't live in balance with nature.	Disorganised environment. Selling land to the foreigners.	Participating in cleaning environment and nature conservation activities.	Not building of the objects which negatively affect the nature.	Optimal spatial planning. There is no difference between areas in terms of pollution and development.	Bad situation

Source: Results of analysis of 25 homogenous groups in Salaspils – results gained from 3 meetings. September, 2010 until May 2011 (from 2867 answers).

is improved. Also inhabitants agreed that there are different culture and sport events, there are many possibilities how to spend their free time. That is why was agreed that indicator “Leisure, culture, sport” is on good position. Indicator “Social balance” was evaluated at medium situation that means that people are happy and there is mutual understanding.

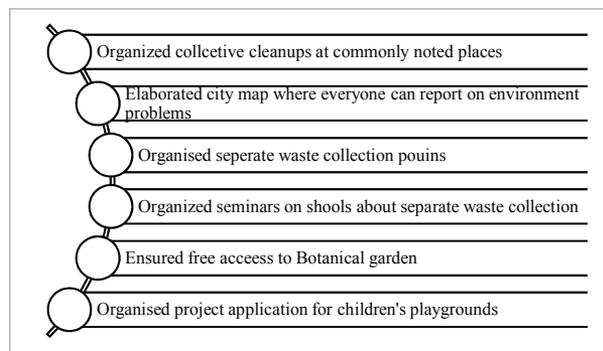
At last, the environment dimension of sustainable development was analysed by following indicators: “Cleanliness/ pollution/ noise”, “Ecological balance”, “Living environment in general”. All indicators were described as bad – inhabitants admitted that environment is disorganized, there are problems with waste management and pollution.

In order to improve indicators, which were evaluated in bad situation, the next step was the elaboration of Local Action plan. As description of indicators already consists of certain problems and possible solutions, it was the base for developing the activities to achieve higher results in future. In co-responsible manner there were elaborated the list of activities which aims improvement of certain indicators. The co-responsibility approach means that the activities are defined jointly by administration of municipality and members of society. In addition, the implementation of the activity is also common – both partners – municipality and society – provides their resources to improve some problem. The improvement of indicator “Living environment in general” is provided at Fig.4.

All identified activities were defined in terms of needed resources (financial, administrative), timeframe and responsible person. In order to ensure the sufficient implementation of defined activities, they were incorporated in short-term planning documents of municipality – work plans of administration and municipal institutions and municipality budget. In this way, it is ensured that defined activities would be implemented and monitored.

In order to implement the sustainable development principles in more co-responsive way, involving society into decision-making process, it is proposed to involve them in all development planning documents (see Fig.5.). For example, in long-term planning documents like Sustainable Development strategy and Spatial plan should be incorporated the principles of social inclusion, sustainable development, citizen engagement and co-responsibility approach. In medium-term planning document Development Programme should be incorporated the results of the research of subjective well-being indicators, describing the situation at main indicators related to different dimensions of well-being. At last, in short-term planning documents like municipality budget and work plan should be defined concrete activities addressed to improve the well-being indicators.

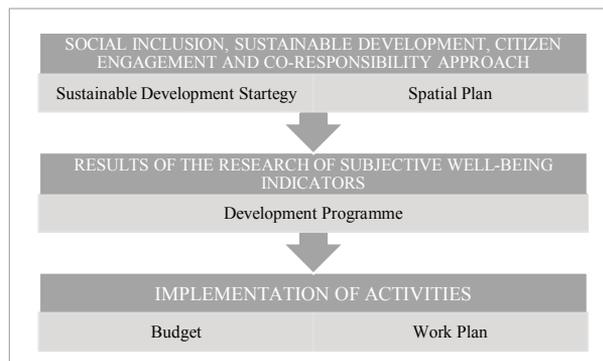
Using the existing frame for planning documentation, it would be ensured that the sustainable development principles and concrete activities would be implemented and assessed.



Source: Elaborated by the authors.

Figure 4

Defined activities for Local Action Plan for improvement indicator “Living environment in general”



Source: Elaborated by the authors.

Figure 5

Incorporation of the methodology for researching and improving well-being in municipalities within different planning documents

Conclusions

- Taking into account that local governments are instrumental in the judicious use of natural resources, providing public services and creating local jobs - through land use and transit planning, building and infrastructure construction and rehabilitation, investments in energy, water and waste management, and economic development strategies, there is increasing role the of them in insuring the sustainable development of the territory.
- In order to evaluate the sustainable development of municipality, there were used objective measures of sustainable development (statistics on average salary, unemployment rate, etc.) and subjective well-being indicators (like “Social balance”, “Access to essential resources in general”, etc.) by economic, social and environment dimension.
- The analyses showed that subjective evaluation of economic, social and environment differs from objective measures. It could be explained by the fact that subjective indicators capture the satisfaction of inhabitants by certain moment. In addition, objective indicators don't show the level of satisfaction what brings each measure unit (EUR, %, etc.). Also the subjective perceptions of inhabitants affects mentality, culture and other background factors.
- In order to ensure the sustainable development of the municipality, it is suggested to engage the society in decision-making process. In this way would be ensured the awareness of society, optimal use of limited resources and satisfaction by realization of initiatives and expression of attitudes.
- In addition, it is crucial for sustainable development of the territory to ensure that society is effectively involved in preparation of planning documents of the municipality. It is proposed to use co-responsibility approach in definition and implementation of activities towards sustainable development of municipality.

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