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**ВОСПРИЯТИЕ НАСЕЛЕНИЕМ ПРОБЛЕМ
РАЗВИТИЯ РЕГИОНА (НА ПРИМЕРЕ
ВОЛГОГРАДСКОЙ ОБЛАСТИ)**

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Статья посвящена оценке восприятия различными группами населения социально-экономических и экологических проблем развития Волгоградской области. На основе собственного социологического исследования, проведенного в 33 районах и 6 городах области, выявлены приоритетные вопросы развития для городской и сельской местностей. На уровне административных районов проведен пространственный анализ по степени удовлетворенности жизнью населением

Ключевые слова: УСТОЙЧИВОЕ РАЗВИТИЕ, КАЧЕСТВО ЖИЗНИ, СЕЛЬСКАЯ И ГОРОДСКАЯ МЕСТНОСТЬ, СОЦИОЛОГИЧЕСКОЕ ИССЛЕДОВАНИЕ

UDC 911

**LOCAL PERCEPTION OF REGIONAL
DEVELOPMENT ISSUES – THE VOLGOGRAD
CASE**

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The article is devoted to evaluation of local inhabitant's perception toward socio-economic and environmental problems of development in the Volgograd region. The most important issues for certain areas have been revealed based on author's sociological research held in 33 rural and 6 urban districts. The spatial analysis of level of life satisfaction is made for municipalities of the region

Keywords: SUSTAINABLE DEVELOPMENT, QUALITY OF LIFE, RURAL AND URBAN AREA, SURVEY

1. Introduction

Over 800 sustainable activity indicators were developed, mentioned in the Compendium of Sustainable Development Indicator Initiatives [Wallis et al., 2010], in order to estimate sustainable development. A.M. Wallis et al., regarding existed models of Sustainability Assessment, collated them into three groups, namely, the pillar models, the human-ecosystem models and the principles of sustainability. Each of these assessments is based on different

approaches. Human – ecosystem models grounded on the carrying capacity concept, which assumed that there are limitations to human influence on the environment. In the second method, indicators are chosen according to the principles of sustainability. The pillar models come from the early first definition of the concept of sustainable development, which was described in a report of the Brundtland Commission «Our common future» and defined as a *development that meets the needs of the present without compromising the ability of future generations to meet their own need*. There has been considered the two-pillar approach of environment and development. Since that time numerous modifications have been made to the interpretation of the concept and the current milestone is the three-bottom or three-pilar model that takes into account environmental, social and economic parts of development. According to Pope [Pope et al., 2004], sustainability is a multidimensional concept, where all the aspects must be considered and integrated.

The scope of sustainable development practices encompass a broad range of parameters considering facets of the concept, but complementary bottom-up approach taking into account local citizens' awareness, demands and attitudes are still absent. Relatively few studies touch community participation in defining concept, indicators, and goals for sustainability. Thus, Valentin and Spangenberg [Valentin, Spangenberg, 2000] hold the view of community participation in selecting indicators, which should be simple and relevant. The relevance can be defined from strategic policy documents, but vitally in accord with public opinion. Kain [Kain, 2000] described a prism of sustainable development in which one of the facets is mind as a social dimension of awareness of individual subject, forms of their knowledge, views and experiences. The Research Institute Ambiente Italia in a frame of the project ECI (European Common Indicators) developed a list of ten indicators, which represented answers of respondents [Tarzia, 2003]. A.M.Wallis together with his colleagues (2011) analysed models that had been used for developing

sustainability assessment indicators and concluded that there is a lack of stakeholder participation in a process of defining sustainability.

The underlying problem of measuring sustainable development is found in the fact that for social groupings (rural and urban population, population with different level of education and professional occupation) the perception and definition of sustainability components are variable. These variations can be defined only by conducting subjective investigations through surveys. A.A.Leiserowitz [Leiserowitz et al., 2006] says that there is no survey data on public attitudes concerning *sustainable development* as holistic concept, but some data is available for subcomponents of sustainable development. In England, frequently held research by DEFRA directed to monitoring and measuring attitudes and behaviours towards the environment [Thornton, 2009]. In the frame of concept *sustainable development* there have been established subjective indicators [Tarzia, 2003], the purpose of which was the monitoring of environmental sustainability at the local level.

The objective of this study is to measure attitudes and perceptions with regard to the components of sustainable development, to define the importance of environmental features among all the other factors contributing to quality of life and to examine how these attitudes differ according urban and rural living. As the case of this study Volgograd region is chosen.

2. Case study: Volgograd region

Volgograd region (Volgogradskaya oblast) is located in the southeast part of European Russia. The area of the region is 112.900 km² which is almost equal to that of Bulgaria (110.900 km²), greater than the Benelux countries (the Netherlands, Belgium and Luxemburg – 74.640 km²), double that of Croatia (56.590 km²) and three times greater than Switzerland (41.285 km²).

However, for such a relatively large area, the population of the region is only 2.6 million inhabitants, a mere tenth of the Benelux (27.5 mln) and nearly

equal to the population of Latvia (2.3 mln). The region consists of 33 rural areas and 6 cities (with a population 75.5% of all regional population).

Volgograd region is situated on both banks of the Volga river; as a transport node the region connects forest resources of the Urals with the woodless South, oil of the Caspian region with industrial centres in the North, coal of Ukraine with the Volga regions [Maergoyz, 1987]. Favourable geographical location contributes heavily to economic development. As a part of the economic region of Lower Volga it is widely associated with the chemical industry, metal manufacture, heavy engineering industry, oil processing and output of hydroelectric energy. More than 90% of the regional industrial production is from the large cities of Volgograd and Volzhsky. Regional agricultural production is very considerable for Russia; in 2008 the region was seventh for the volume of agricultural production, fifth for grain collection and the third for sunflower seeds collection [Kulikov, 2011]. In good crop years the production goes for export, but due to more inland location (in comparison with Krasnodar and Rostov regions) there are more transportation costs.

3. Materials and Methods

The method chosen to assess environmental and development of the region was subjective based on a sociological questionnaire.

Prior to conducting the survey, a pre-test consisting of open and closed ended questions was distributed among fifteen stakeholders, seven interviews were held with experts in the sphere of environmental and socio-economic research. The comment and information gained was used to moderate the questionnaire analysis.

The survey was carried out during the period November 2011 to February 2012. It is primarily composed of data gathered from a close-ended questionnaire with wide application of the Likert scale varying from 1 to 5 to demonstrate the degree of importance or consensus.

Information to be obtained from the questionnaire:

1. How do inhabitants identify problems?

-Which problems do they highlight?

-Which of them do they evaluate as more or less important?

-Are they satisfied with life?

2. Do individuals have a personal sense of responsibility for their environment?

- Do they participate to improve environment in their community?

- Do they have opportunities to change the situation?

In the first section, the respondents asked about the existence and importance of environmental and social issues. Among the problems respondents chose three the most important of them. The list of environmental issues includes air pollution, polluted potable water, increase of garbage, reduction of fish catch, decreasing of soil fertility, felling of trees, deficiency of greenery in public places, increase of tourists, increase of homeless animals on the streets. The list of social issues includes income, unemployment, education, medical service and others. This selection of issues has been made taking into consideration the latest resolution of the socio-economic development of the region [Inshakov, 2008] and state report on the environmental situation and strategic directions of regional administrations [Novikov, 2010].

It also investigated the level of awareness. Tran K.C [Tran, 2006] accomplished a study that is concerned with public awareness on regional development of a small island and suggested public perception as well as involvement could be a major factor in progresses at the regional level.

Wellbeing of citizens is an integral part of sustainable society, which can be determined by social, economic, environmental, cultural and other factors [Donovan, 2002]. It concerns the ability to live in existing environmental conditions, in particular, to be satisfied with certain personal issues such as question of health, income, job, environment and life in general [Anderson, 2009]. The list of European common Indicators [Tarzia, 2003] starts with a question: «How much satisfied, in general, are the citizens with the district as a

place to live and work?»

We adopted this question in our questionnaire, which gave us an opportunity to make a comparison with small, medium-sized and large cities of Europe.

In the second section, questions directed to know about participation of citizens in local events devoted to protection of environment. Public participation contributes to the increase of awareness, thus, highly significant in solving environmental issues [Cai et al., 2009]. Sustainability is a process where changes in behaviour, attitudes, consumption patterns, spending and purchasing habits, perception of environment play crucial role [Munier, 2005].

4. Results

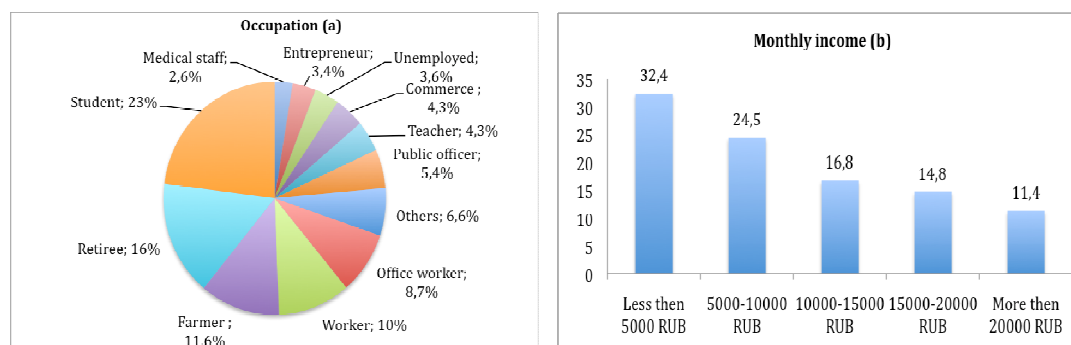
A key section of the questionnaire is devoted to the construction of a social portrait of the respondents (Fig.1). A breakdown of data gathered from the total 629 respondents reveals a gender division of 47.3 female and 52.7 male of whom 20% are living in urban and 80% in rural areas. Age grouping produces a breakdown 48.5% youth and 51.5% adult. Students compose the largest individual grouping being 23% of the total, 11.6% are retirees and 9 % are in full time work in the agricultural sector. Further analysis shows approximately equal distribution of respondents from the widely differing spheres of gainful employment: entrepreneurs 3.4%, public servants 5.4 %, commerce 4.3%, teachers 4.3 %, medical staff 2.6%. 3.6% of sample is unemployed (Fig.1a).

Figure 1b shows a wide range of monthly income per individual family member in the sample. The majority of interviewees, 32.5%, have a monthly income of less than 5000Rub, 24.5 have income in the range 5000 – 10.000Rub. Every sixth respondent (16.8 %) has an income of 10.000 – 15.000Rub, 14.8% have income of 15.000 – 20.000Rub. A minority has monthly income in excess of 20.000Rub. Data from official statistics (<http://www.gks.rugis/tables%5CUROV-6.html>) shows that the average

subsistence wage in the Volgograd region in 2012 is 5923Rub (Fig.1b), we can conclude that at least 32.5% of the respondents are on the poverty line.

Despite the very low and modest level of income, most of the respondents, 66.2%, consider their lifestyle to be average. We may assume that citizens of the Volgograd region are relatively satisfied with their lifestyle because they value non-materialistic advantages of the region, which may compensate for low financial income. Only 26.3% consider they have a very poor level of existence and only 7.5% with income of 20.000 Rub consider they have a high lifestyle (Fig.1c).

Future resident status of individuals is defined by the question, which asks if they would prefer to remain in their present homes for the next 5 years, 41.9% of inhabitants would prefer to remain in their present abode, 32.2% have the intention to leave their current place and 25.8% were unsure (Fig.1d). This may to some extent be explained by the bivalent outlook typical of many Russian people; on the one hand there are the patriotic emotions and traditional values of family, friends, environment but on the other hand - it is the wish to improve income, to have a better job and living conditions, improved education and prospects which causes the breakup of local social networks. It is noteworthy that country dwellers (39.9%) have a higher tendency to desert their locality than city dwellers (28.9%). This may be explained by the harsh conditions of rural life (Fig.1e).



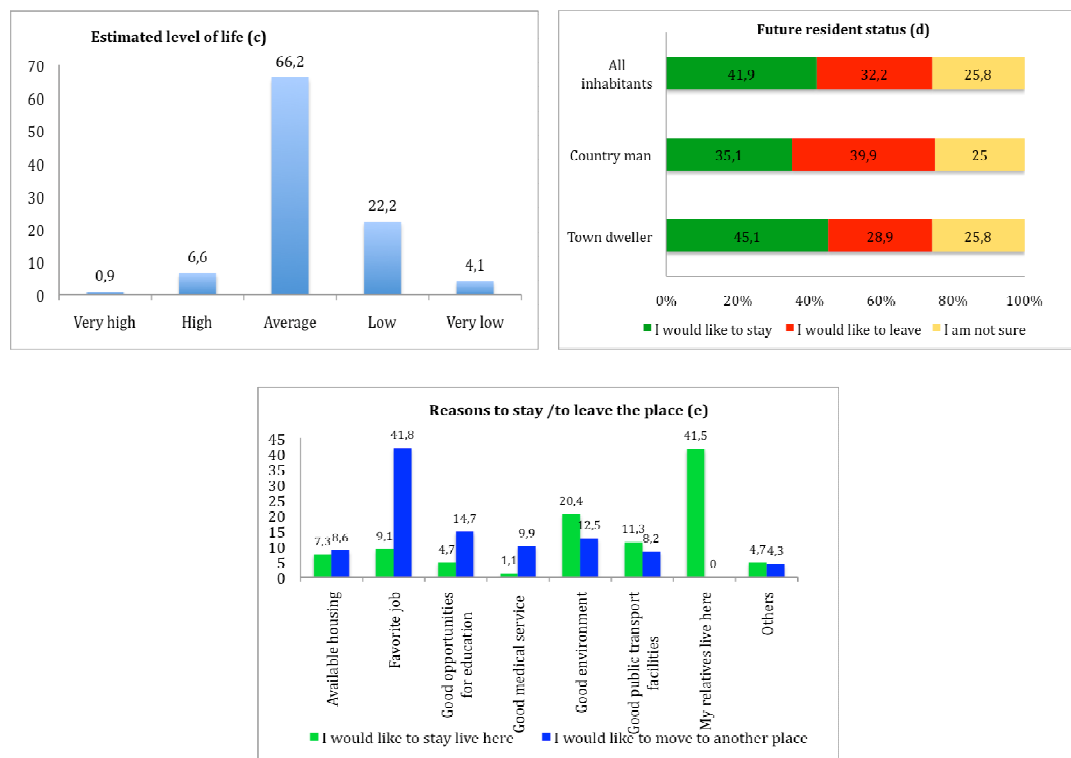


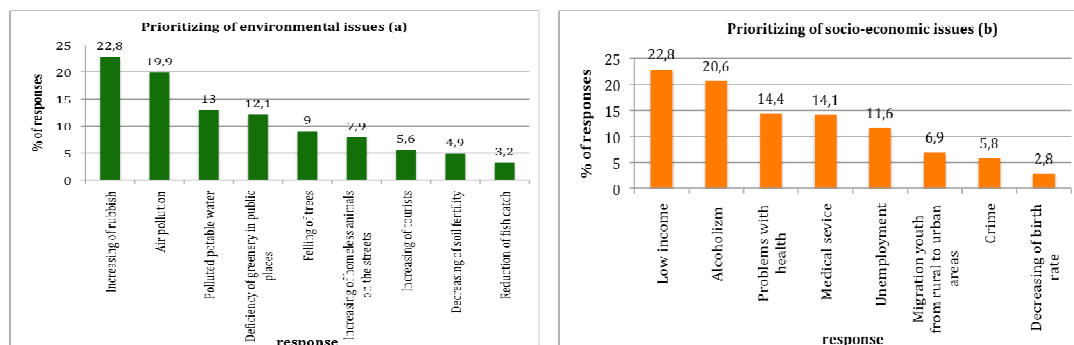
Fig.1 Social portrait of the interviewees: (a) occupation, (b) monthly income per one family member, (c) perceived quality of life, (d) future residence, (e) reasons to stay / to leave the place

For the main part of the questionnaire data has been analysed separately for each group according to environmental sustainability levels in Volgograd region.

Which problems do inhabitants highlight?

There is a high degree of consensus about environmental matters among the population of Volgograd region. The top priority problem is increasing rubbish 22.8%, than it is followed by air pollution 19.9% and polluted drinkable water 13%. It is very alarming data, because health of people, facilities of living and quality of life overall directly depends on these problems. Also people mentioned other significant problems: decreasing of greenery 12.1%, felling of trees 9%, increasing of homeless animals on the streets 7.9%, increasing of tourists 5.9%, decreasing of soil fertility 4.9%. The least important problem is reduction of fish catch 3.2% (Fig.2a).

Among social problems the most significant one is low income 22.8%, followed by social disease alcoholism 20.6% and then go problems with health 14.4% together with medical service 14.1%. Besides top-priority problems respondents mentioned problem of unemployment 11.6%, migration youth from rural to urban areas 6.9%, crime 5.8% and decreasing of birth rate 2.8% (Fig.2b).



**Fig.2 The most important issues of development:
(a) environmental issues, (b) socio-economic issues**

Which of the environmental and socio-economic issues do inhabitants evaluate as more or less important?

In order to estimate the level of importance of the environmental and socio-economic problems respondents were asked to rank each problem with the scale from 1 «not important at all» to 5 «very important». From the table 1 we can see that all the problems are important and very important (mean more than 4, except of the issue of increasing of homeless animals in environmental block and crime, decreasing of birth rate and migration youth from rural to urban areas in socio-economic block). It also necessary to mention that smaller standard deviation says about more consensuses among the respondents (Table 1).

Table 1. Level of importance of the environmental and socio-economic issues

| Environmental issues | Mean | St.Dev. | Socio-economic issues | Mean | St.Dev. |
|---------------------------------|-------------|----------------|------------------------------|-------------|----------------|
| Polluted air from industry | 4.44 | 0.75 | Crime | 3.78 | 1.16 |
| Polluted air from car exhaustes | 4.17 | 0.83 | Alcoholizm | 4.47 | 0.70 |

| | | | | | |
|---------------------------------------------------------|------|------|-------------------------------------------|------|------|
| Increase of waste from industry | 4.28 | 0.75 | Education | 4.37 | 0.76 |
| Bad food products | 4.43 | 0.76 | Income | 4.55 | 0.67 |
| Lack of greenery | 4.09 | 0.80 | Unemployment | 4.5 | 0.73 |
| Litter or rubbish in the streets | 4.39 | 0.36 | Medical service | 4.57 | 0.71 |
| Decreasing of birds, fish in your natural area | 4.19 | 0.84 | Decreasing of birth rate | 3.70 | 0.94 |
| Not clean drinkable water | 4.50 | 0.90 | Diseases | 4.41 | 0.75 |
| Polluted natural area (river, lake, forest) by tourists | 4.18 | 0.80 | Leisure activities | 4.17 | 0.85 |
| Increase of homeless animals | 3.97 | 0.96 | Migration youth from rural to urban areas | 3.79 | 1.00 |

Do inhabitants satisfied with life?

In order to analyze the attitude of the respondents to life in general and some of it's aspects it is offered to estimate five statements using five-grades scale from «very satisfied» and «very dissatisfied». 60% of the citizens are satisfied and very satisfied with life in general, only 5% dissatisfied and very dissatisfied.

Stick to the devision of urban districts on population, where large city is with population more than 350.000 inhabitants, medium-sized cities with a population more than 100.000 and less than 350.000 inhabitants, small cities with a popultion less than 100.000 inhabitants [Tarzia, 2003] comparison was made between cities in the Volgograd region of Russia and a range of European cities. Focusing on a selection of large, medium and small cities, comparison was made between cities of similar size based on level of population. Medium sized cities were further sub-divided to population levels of approximately 300.000 and 100.000 residents.

Volgograd with a population 1014.9 thousand of inhabitants compared to Coruna (1107.7) in Spain an в Birmingham (1017.3) in UK; Volzhsky with a population 304.7 thousand of inhabitants compared to Vitoria-Gasteiz (217.3) in Spain; Kamyshyn with a population 116.0 thousand of inhabitants compared to Maribor (115.5) in Slovenia and Reggio-Emilia (141.3) in Italy and Urupinsk

with a population 39.8 thousand of inhabitants compared to Blagoevgrad (78.8) in Bulgaria.

Data gained suggests that, in general, residents of medium and small sized cities tend to be more satisfied with their local environment than are residents of large cities (Fig.3). The greater level of satisfaction may be due to the fact that, in general, medium and small cities are not usually orientated on a large-scale industrial economy typical of large cities. This in turn suggests that living conditions and environment in general in medium and small cities is more pleasant than that of large cities. A further aspect for consideration is the fact that life in large cities tends to be more stressful due to the faster tempo in all aspects.

Reggio-Emila differs from the norm with an extremely low level of satisfaction. Lacking detailed information, the cause for this may be due to one or a combination of current local disadvantages in this otherwise pleasant small city; possibly lack of employment opportunities or perhaps a local disaster such as a motorway project.

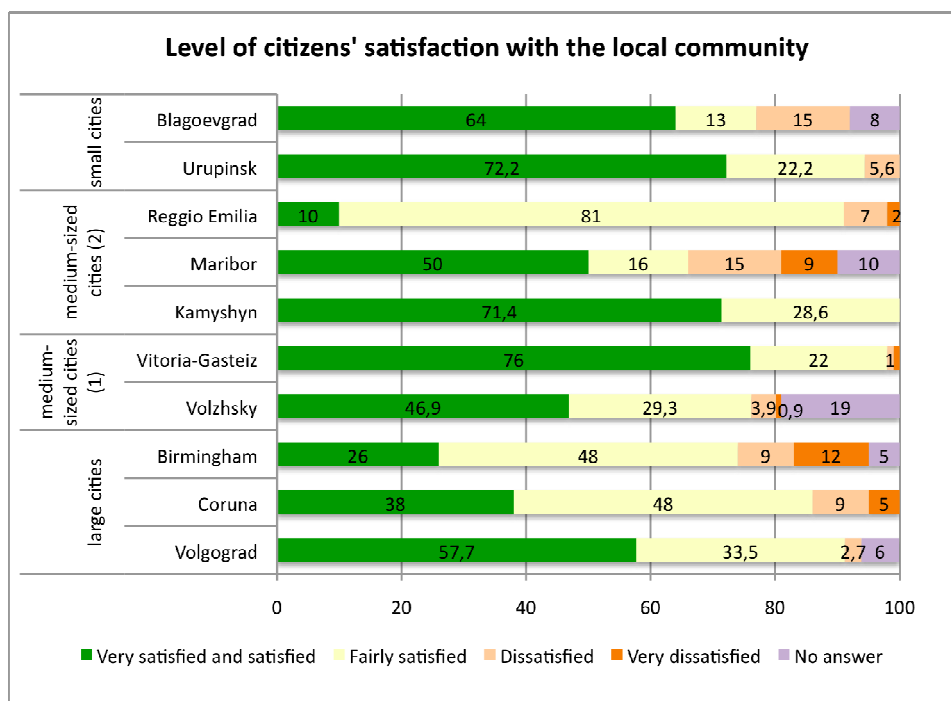


Fig.3 Level of citizens' satisfaction with the local community in cities of Volgograd region and some European cities (data from Tarzia, 2003 and author's research)

Spatial analyziz of Volgograd municipalities shows, that people form the south part of the region are less satisfied with life comparing with other municipalities. Western part of the Volgograd region is fairly homogeneous and the most satisfied population lives there. Exception is Kletskiy and Kalachevskiy regions – capitals of Cossacks, Cossacks are known for their essential attitude to life in general, nature and society, 59% of municipalities have average level of satisfaction with life (fairly and moderately satisfied) (Fig.4).

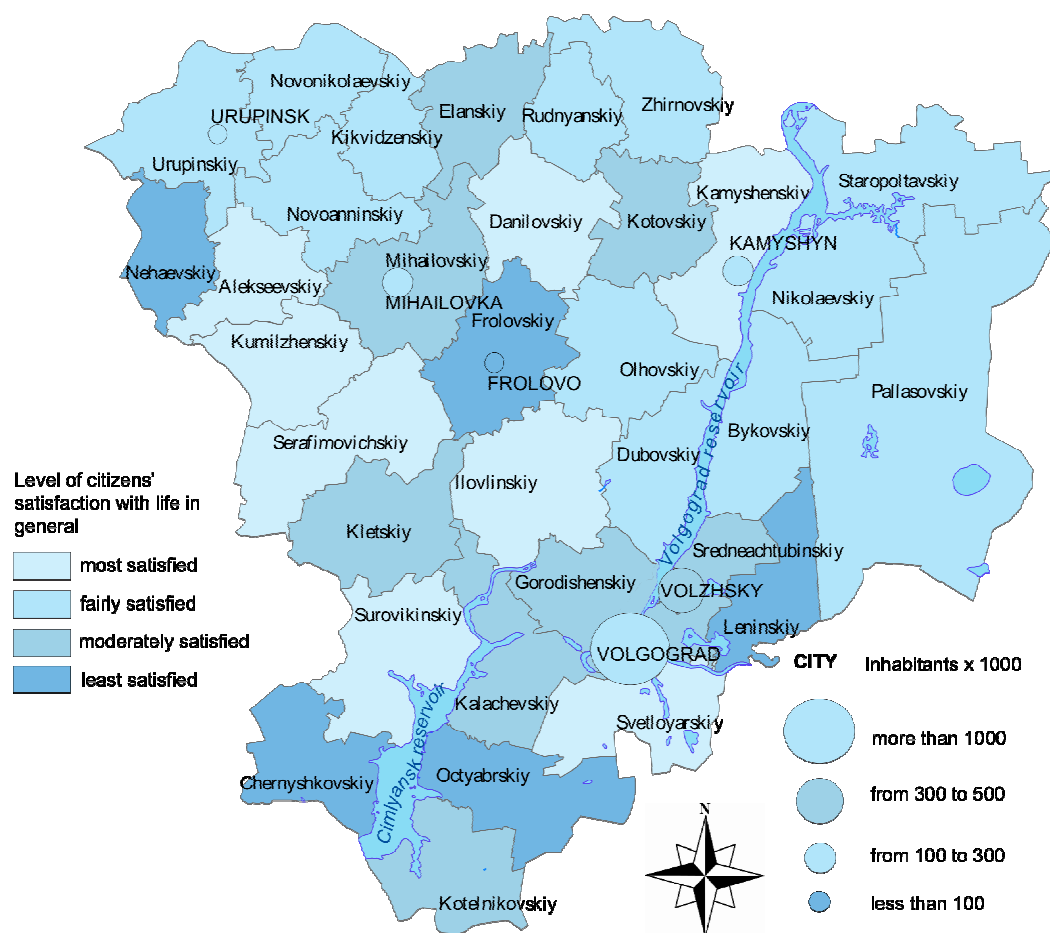


Fig.4 Level of citizens' satisfaction with life in general in municipalities of Volgograd region (data from author's research)

To find out if individuals have a personal sense of responsibility for their environment in the district people asked about their attitude to different environment related actions (Fig.5).

Do inhabitants participate to improve environment in their community?

Around 80% of people are switching off the light, TV or radio leaving the room (the highest mean is 4.24), 77.8% - are walking short distances and 75% - are taking quick shower. People do have a strong motivation for careful use of some resources such as electricity, water, because by doing that they can have considerable reduce of living costs. Making priority to walk short distances instead of using transport they reduce cost on transportation. These actions have visible effect. While practice of recycling or reusing items is not not introduced in Russia and people don't know real cost of plastic bags or glass bottles and how much resources (nature resources, but also economic one) they can save.

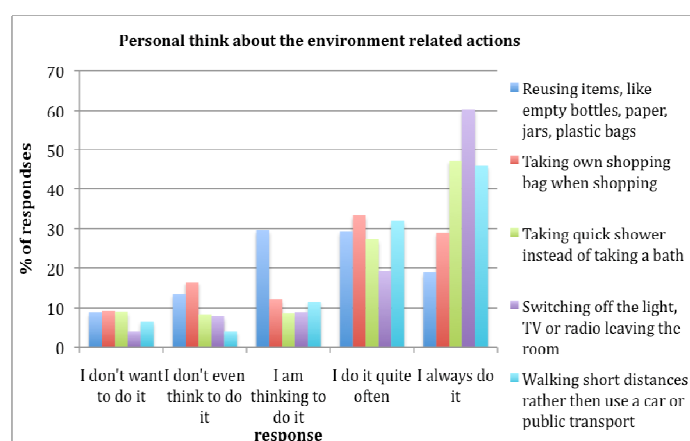


Fig.5 Responses to the question:

«What is your personal attitude about the environment related actions?»

Do inhabitants have opportunities to change the situation?

Nearly 60% of those interviewed agreed *personally* to influence in resolving problems associated with regional ecological situation, but at the same time 88,7% recognized that *every person* can influence the ecological situation. This difference can be explained, that people by every person mean the whole community. United with common ideas and aims the community can do more than just one person. Even so, governmental at all levels (local administration, regional deputies, and central government) ought to a play the most significant role in resolving problems (Table 2).

Table 2. Responses to the question:

«Who is responsible for resolving regional problems?»

| Stakeholders | % of responses |
|--------------------------|-----------------------|
| Local administration | 91.2 |
| Country government | 56 |
| Inhabitants of your area | 51.5 |
| Deputies | 44.8 |
| Commercial organizations | 19.8 |
| I am | 18.6 |
| NGO's | 9.3 |
| Scientists | 5.3 |
| Others | 0.5 |

5. Discussion

The problems generated by improved quality of lifestyle and the development of its qualitative content is building an environmental crisis at this present stage of Russian economic development. Continued development, particularly towards economic and political stability, is largely dependant on facing and resolving the above-mentioned problems. This demands objective governmental policy, at the centre of which must be mankind and his well-being in terms of physical and social health. Russian society is becoming increasingly sensitive to the impact of change and development on their real sense of well-being and this is leading to sceptical reactions across the social groupings.

The objective of sociological research is to discover the issues, which are central in the minds of people and then to resolve the problems associated with materialistic development of society. Confirmation of this was evident in our research.

By analysing data across all the districts of the Volgograd region it has been discovered (proved) that resolving environmental issues is becoming a priority. The scale of anthropogenic impact has increased to such an extent that negative issues are creating a barrier to real improvement in the quality of life.

Approximately 60% of the population is constantly aware of, or frequently think about environmental issues and 67.5% - aware of social issues, 34% think about environmental and 29% about social issues from time to time, 6% and 5% accordingly never thinks about it. There are no significant variations

in awareness levels according to rural/urban living. This data raises the question: Why does a relatively rich region of Russia experience such socio-ecological problems?

Knowledge and understanding of what is happening around them in the new *throw away* consumer society can only be achieved by informing, educating, warning the people affected, the individuals who make up that society, of the dangers which they confront. Although no immediate threat, it is already clear that the volume of domestic waste from the new and developing consumer society is increasing by quantum leaps; evidence shows that the people and the powers that be are totally unprepared for this state of affairs. Education of the risks and the alternatives is urgently needed for all parties, both common citizens and those in authority if we wish to pass on to our children a living space of the highest environmental standards. Education leads to understanding and then on to formation of beliefs and values. According to Russian sociologist Yadov (1979), values define thoughts and further decisions and action. By acting people get the desired results. This interpretation we represent with the pyramid «Beliefs and Values – Thoughts – Decisions – Actions – Result» (Fig.6).

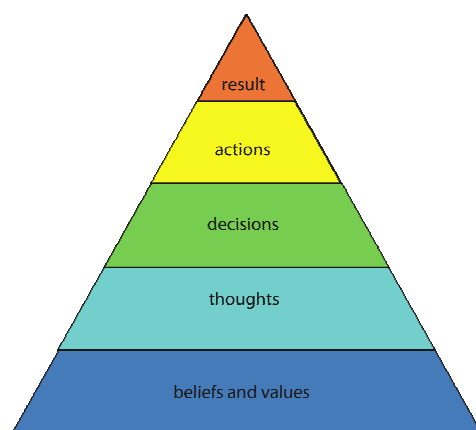


Fig.6 The pyramid «Beliefs and Values – Thoughts – Decisions – Actions – Result»

Our research sought opinions on certain development issues, which could affect the environment in which they live. Responses were related to several

categories: beliefs and values, thoughts, decisions, actions and were graded from a scale of 1 to 5 on which absolute disagreement represented by 1 and total agreement by 5. The smaller standard deviation indicates stronger consensus among respondents. The majority of respondents were strongly in agreement with recorded values of more than 4.5 (Table 3) regarding the desirability of imposing fines for dumping waste material on the streets or other public places and the existence of «natural» space including open countryside.

Further to this there was similar strong opinion that individuals must take a personal interest in care of the environment in which they live and exist and that nature reserves must be protected. This block of questions related to general beliefs and values. The statement that every person can improve the ecological situation from «thoughts», also received a score higher than 4. The sector «decisions is represented by the statement «I am prepared to participate in environmental events» has got 3.7 - and «actions» – «I am participating in environmental events» has got only 2.83.

Table 3. The level of agreement with some environmental matters

| Issues of development | Mean | St.Dev |
|-----------------------------------------------------------------------------------------------|-------------|---------------|
| It has to be imposed fines for dumping waste material on the streets or other public places | 4.7 | 0.58 |
| People should care more about environment | 4.62 | 0.64 |
| It has to exist nature reserves or open countrysides, where the activity of people is limited | 4.5 | 0.67 |
| Every person can contribute to environmental protection | 4.15 | 0.76 |
| I am ready to participate in environmental events | 3.7 | 0.86 |
| I can influence on solving environmental problems | 3.68 | 0.95 |
| I am participating in environmental events | 2.83 | 0.97 |

Sustainability demands not merely following laws and regulations, but also involvement of community in the management process with local authorities with regard to such issues as improving health, employment opportunities and care of the environment. It is a great challenge to bring this

into effect [Munier, 2005]. Only 25% of respondents are participating in environmental events. This may be due to a low involvement of people in regional life. At the same time 65% indicated a readiness to participate. To achieve improvement and make changes in environmental conditions it is necessary to get the co-operation and involvement of people; this may be achieved by forming community groups, which may lobby the local administration.

6. Conclusion

Much as our personal micro environmental behaviour in the home, workplace, street, town and countryside impacts on our neighbours, careless attitudes abound, the result being evident and our surroundings spoiled. Awareness can affect attitudes and attitudes affect behaviour, but the individual may be hard to convince if the big players focus only on financial gain. There is a price to pay; this may be reduced commercial profits or higher prices to the consumer. Localised success can become a focal point and influence the bigger picture.

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