

Social Capital for Energy Efficiency:

The Need of Partnership for Policy Integration and Implementation in the case of Bulgaria

Martha Djourdjin
Antoaneta Yotova

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The energy intensity in Bulgaria is much higher than the EU average. This has significant economic and environmental implications that could not be tackled by policymakers alone. Therefore, integration of energy efficiency policy at different societal levels is undeniably necessary. The State, municipalities, entrepreneurs, citizens, academia and NGOs have common interest in promoting and implementing energy efficiency measures. There is little doubt that they could and should work in close co-operation for this cause. However, there is no such partnership at present in Bulgaria. In order to test this hypothesis, the authors conducted a survey on the role of Bulgarian environmental NGOs in the promotion of energy efficiency measures. The results show that ties between actors barely exist and thus levels of trust and social capital seem to be very low. This leads to high costs and poor results in the implementation of energy efficiency policy. Based on the survey, the paper aims to answer the question why this co-operation is actually avoided by the different actors. It further provides some recommendations for the strengthening of social networks and the induction of communication and trust to assist fruitful partnership.

Social Capital, NGOs, and Energy Efficiency - The Connection

The civil society is supposed to be a strong player in a democracy's political, social and economic life, in its role of opinion maker and providing support and protection for the interests of the disadvantaged groups or the environment, that may not be well taken care of by the state or by the market. In this sense, it seems worthy analyzing the role of the NGOs in the defense of these interests on the topic of rational use of energy resources. This is a topic of high importance for Bulgaria, whose economy is highly energy intensive and also import-dependent in the production and consumption of energy. Thus, a relevant research question would be whether Bulgarian transition has come far enough as to allow for citizen in their associations to pursue effectively their interests in topics as important as the use of energy.

Civil Society

Bulgaria is a small country in South-Eastern Europe, classified in the group of the "Countries in transition". What does this transition refer to?

Firstly, it is a transition from a communist state to a democratic one. That involves changes in the constitution, in the political structure, the institutions and organizations that provide for social order. But most importantly - it implies changes in the values and beliefs that underlie the social order – values of freedom and public responsibility that are replacing the previously enforced communitarian and subject-oriented ones.

Secondly, it is a transition of the market, or rather to a market, from a centrally planned economy. It is, again, about the change in institutions and in the organization of economic activities. It is also, however, about the appearance of the spirit of entrepreneurship, of constructive competition, responsibility, and decision-making.

It is this change in values that is important in the transition, for the structure itself would neither be stable, nor adequately functioning, without the mentality for it.

The change of mentality to one of responsibility, freedom, and power of the individual is precisely the one that leads to a very important feature of a democracy. It is the area between the state and the market, independent of them, but still connected to both, in which people come together to execute their rights and freedom in the pursue of their common interests. It is a phenomenon pondered upon by Cicero and Aristotle in the antiquity, by Alexis de Toqueville in the 19th century, by Robert Putnam in the 1990s, to name just a few. It is called the school of democracy, or *civil society*.

Civil Society comprises all those associations of people that focus on poverty alleviation, human rights, environmental degradation, and other issues of social, economic, and political development. (Brown et al., 2000) They are called non-governmental (to be distinguished from the state) or non-profit (to be distinguished from the market) organizations, engaged in providing services for disadvantaged groups, building local capacity for self-help, analyzing and advocating policies, fostering research and information sharing.

There are many events the 20th century that's how the strength of potential of he civil society: the feminist movement; the anti-nuclear lobby, which managed to change the energy policy of several countries, Germany among them; the whole environmental movement, that revolutionized the way decisions are taken in any policy, just to mention a few.

Such associations of people are not possible, if the actors taking part in them would be atomized and self-interested. Firstly, it is necessary that there are multiple ties among them. Secondly, there needs to exist a common understanding that cooperation is beneficial for all parties, and thus is worthy investing time and resources in. These two concepts are actually the structural (social networks) and the cognitive (trust) components, necessary for the accumulation of social capital, or of "...various types of social, psychological, cultural, cognitive, institutional, and related assets that increase the amount (or probability) of mutually beneficial cooperative behavior, that is productive for others, as well as for oneself," (Uphoff, 2000). According to the sociological tradition, these assets come from and further lead to cooperation among actors and eventually to the development of a civil society. In other words, social capital is not simply the sum of the institutions, which underpin a society, "it is the glue that holds them together."¹ It makes the worth of the actions taken within the organization of the civil society much heavier than that of the sum of the possible actions of the social actors alone due to the accumulation of human and monetary capital. Thus, civil society is by no means an institution to be established or installed. It needs to develop on its own through the change of values and attitudes to take up its place of the force that corrects and rectifies the state and the market.

In this sense, whenever an issue is within the interests of the citizens themselves, it is important to turn one's attention not only to the natural development of the market under the conditions and rules set by the state, but also to what the civil society advocates. One such issue of public interest is certainly the rational use of resources.

¹ The World Bank, "What is Social Capital?" <<http://www1.worldbank.org/prem/poverty/scapital/whatsc.htm>>

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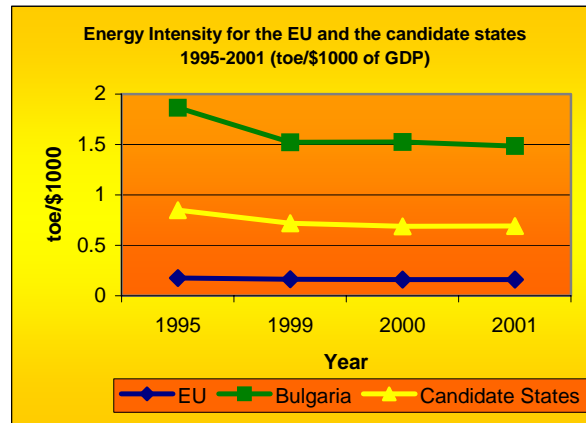
Energy Efficiency

Energy Efficiency (EE) comprises of "...all changes that result in decreasing the amount of energy used to produce one unit of economic activity (e.g. the energy used per unit of GDP or value added) or to meet the energy requirements for a given level of comfort. Energy efficiency is associated to economic efficiency and includes technological, behavioural and economic changes.

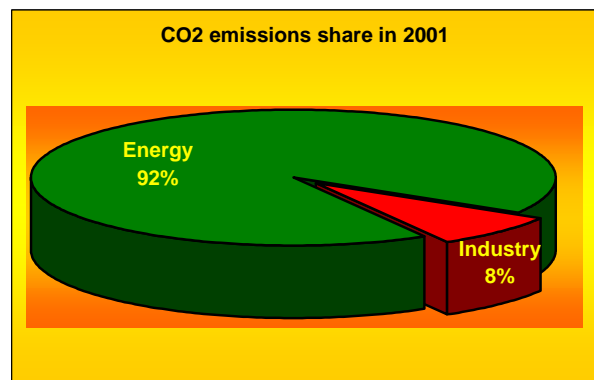
Energy efficiency improvements refer to a reduction in the energy used for a given energy service (heating, lighting...) or level of activity. This reduction in the energy consumption is not necessarily associated to technical changes, since it can also result from a better organisation and management (e.g. domotics) or improved economic efficiency in the sector (e.g. overall gains of productivity)." (World Energy Council, 2001) In this sense, EE is vital for the sound economic performance of a country, industry, household, building, etc. Moreover, as the energy sector is the most prominent emitter of carbon dioxide (CO₂), the rational use of energy resources should be in the basis of any attempt to combat climate change.

The energy intensity of the Bulgarian economy is very high in comparison to the average of the rest of the European countries. In terms of energy used for the production of \$1000 of GDP, Bulgaria uses 100% more than the EU15 average. If the measure is not corrected for inflation, this figure goes up to ten times as much. Moreover, the energy sector is the main source of emissions of different greenhouse gases, mainly CO₂. According to a study of the World Bank Group (World Bank, 2004), the most economically viable way of reducing these emissions is precisely through EE measures. This puts Energy Efficiency as a high priority for the country and presses for quick and effective measures towards its promotion and implementation.

The Bulgarian Energy Strategy, the Law on Energy Efficiency, and the establishment of an Energy Efficiency Agency are clear indicators that the Government has placed EE as a priority, at least on policy level. The implementation of the policy, however, does not lie in the hands of the governmental organizations alone.



Ministry of Energy and Energy Resources,
<<http://www.doe.bg/download/ind.xls>> Visited Nov. 8, 2004.



Ministry of Environment and Water
2002 Yearly report

The Bulgarian Context²

In order to link the discussion on civil society to the context of Energy Efficiency in Bulgaria, this section tries to present the state-market framework, in which the development of environmental NGOs dealing with EE promotion is to develop. It tries to provide a short overview of the position and interests of the two entities and show the internal differentiation in terms of role in the energy sector. Further, it includes the positions of the citizenry and the academia as two further important actors.

1. **The State** has various interests in the use of energy resources, firstly as the authority to set policies and regulations and enforce them, and secondly as the stakeholder in the ownership of natural resources, the production and the consumption of energy. Thus, the State's role and interests may be discussed in the following categories:

- a. **Central Government** is represented by its ministries and agencies with the following roles:
 - **Ministry of Energy and Energy Resources** – acceptance of policies and measures for improvement of energy efficiency in energy transformation, as well as for improved efficiency in transmission, distribution and consumption of energy; policies and measures for change of fuel mix to fuels with low or no carbon content; stimulation of electricity and heat from renewable energy sources.
 - **Ministry of Environment and Water** – general coordination of the country's advance on the obligations on intergovernmental environmental conventions (the Kyoto Protocol, The United Nations Framework Convention on Climate Change, the Aarhus Convention)
 - **Energy Efficiency Agency** – elaboration of programmes for assistance in implementation and control of measures for energy efficiency; programmes for public information and contacts with NGOs, programmes for improvement of energy efficiency at municipal level.
 - **Ministry of Economy** – elaboration of policies and measures by industrial sub-sectors, programmes for control of implementation and for encouragement of energy efficiency measures.
 - **Ministry of Finance** – ratification of the proposed financial measures and elaboration of new ones.
 - **Ministry of Regional Development and Public Works** – elaboration of plans for development of the regional infrastructure; regional programmes for development of transport and communications infrastructure.
 - **Ministry of education, science and technology** – preparation and updating of school curricula, coordination with research institutes

Many times these roles are poorly executed, as the statistics on energy intensity, for example, show. There seems to be ineffective coordination

² The section is based on the analysis of DHV et al. "Updating and Extending the National Action Plan on Climate Change. Institutional and stakeholder assessment report"

among the ministries, as well as between the central government and the other stakeholders in the issue of Energy Efficiency.

Further than its role of legislative authority, the Central Government has an interest in the issue of Energy Efficiency as the owner of energy resources, the national gas grid, and most importantly, all power plants, with the exception of some private industrial ones. These comprise of thermal, nuclear, hydroelectric plants, and district heating companies. Thus, the Central Government has the general interest of reducing the losses of electricity during transportation, which are exceptionally high (36% for 1998, WB 2001). The only conflict of interests may be the lowered consumption of energy and thus lowered sales of these plants, if EE measures are successfully implemented. However, this may result in the increase of electricity available for exports, which constitutes even now a large part of total Bulgarian exports.

b. Local Government

In Bulgaria there are a total of 263 municipalities, responsible for local level policymaking. They are accountable for a large part of the energy consumption, namely that in municipal buildings, schools, nurseries, shelters and other public buildings owned by the relevant municipalities, as well as for the street lighting, and district heating in the capital.

The poor financial situation at the municipalities impedes the implementation of EE measures. Moreover, if savings are made by municipalities through a more rational use of energy, they are reduced from their budget for the next year, e.g. there is no financial incentive for local governments to invest in EE. Another big problem is that Bulgarian municipalities do not have specialized bodies to work on climate change or EE. This is especially the case with small municipalities with only a handful of staff.

Local governments have the advantage of closeness to local businesses and NGOs, which may allow them to hold joint initiatives. However, the financial potential of all these players is generally very limited.

2. The Market

As the business field is rather extensive and heterogeneous, it would be more useful to divide it into at least two sectors:

a. Manufacturing - During the communist government (1945 – 1989) a large number of heavy industrial enterprises were built in Bulgaria. Many of them were closed down after 1989. Others were privatized and currently are owned by foreign companies. At some enterprises technologies from the year 1935 are still in use. The efficiency coefficient of these plants is very low and the energy intensity of the produced goods is too high. The owners of these plants have an interest in modernization of technological processes but this process develops slowly due to unfavorable economical and financial circumstances. However, if cooperation on policy level is provided (investment loans, credits and loan guarantees, possibly provided by the newly established Energy Efficiency Fund), the benefits of a more

rational use of energy for the manufacturing sector would be quite high: higher output, reduction of production costs, competitiveness at home and international markets, cutting down expenses on air pollution fines and taxes.

- b. Consultancy companies** – there are a number of private companies that offer energy audits and other types of consulting related to the introduction of EE measures. These services however are too expensive for most enterprises, industries, municipalities and citizens. Thus a policy stimulating more actively the introduction of these measures would be of great interest of these companies.

3. Citizens and the civil society:

The citizens are representatives of the residential, the commercial, and the transport sector, as owners of housing, offices, and vehicles. In general, the introduction of EE measures may lead to lower spending on energy (electricity and heating), improved living conditions, lower unemployment. The population is interested in the introduction of energy saving measures, however, only in cases when they do not need a high initial investment. Unfortunately, most measures are very expensive, even though they generally have a short payback period. The small scale of the natural gas grid is a further constraint in this sector. Mostly electricity is used for cooking and water heating, which is rather expensive and inefficient in comparison to the use of natural gas. In this sense, financial instruments allowing for the smoother transition to energy saving patterns of consumption (loans, funds, etc.) would also increase people's interest.

Even so, some people have privately started taking measures for the reduction of energy consumption, like improving thermo insulation of dwellings or switching to more efficient sources of heating.

4. Academia

The country has at its disposal a large number of scientists of all fields, within the dense network of institutes, universities, and other research institutions. The cooperation of these with the other stakeholders, however, seems to be very low. This results in the scientists' emphasis on fundamental research, detached from the current problems and issues discussed in the larger public. Moreover, even when practical research is done, it is rarely consulted by the state organizations or other decision-making institutions.

Even so, scientists are pointing out the importance of Energy Efficiency and have the capacity and competence to propose viable solutions.

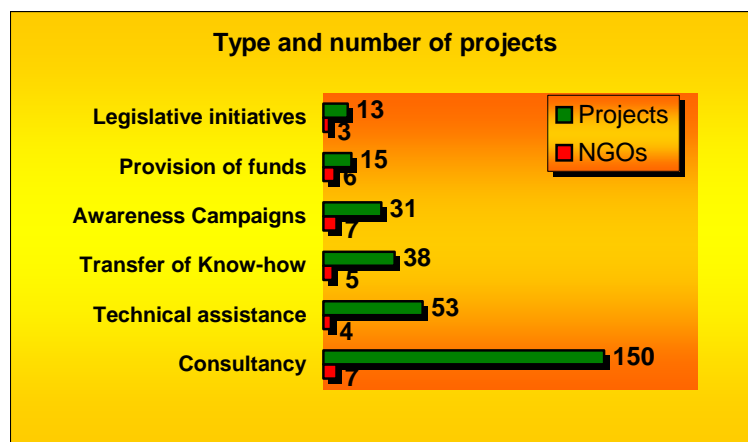
Non-Governmental Organizations in the field of Energy Efficiency

NGOs have an ideological, rather than an economic interest in promotion of Energy Efficiency. Given that the issue is of such importance to citizens, it should be the case that the civil society is rather active in pursuing their interests. NGOs have the role of opinion makers, in their human and technical capacity to collect, analyze and exchange information, to prepare educational programmes, to prepare and conduct information campaigns (Brown et al., 2000). In order to assess whether this is true in the Bulgarian reality, we conducted a study among the members of the civil society that are engaged with the topic. The survey consisted of two parts: questionnaires distributed to the NGOs nationwide, and talks with the ones that have offices in Sofia.

Apparently there are not many NGOs active in the field of Energy Efficiency promotion, and not all of them replied to the questionnaire. That left us with 11 questionnaires and 7 conversations/interviews. We believe, however, that the sample includes the most active organizations, and the ones that do focus on energy efficiency as a main or one of their main objectives.

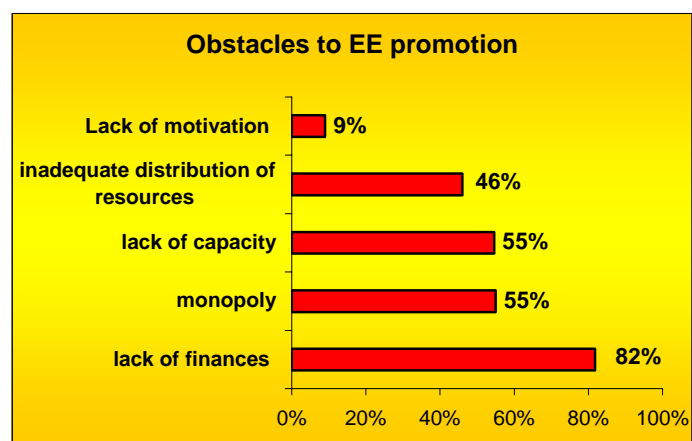
Questionnaire results

- Respondents consider EE important for Climate Change, Economic Efficiency mainly, less (but still 4-4.09 out of 5) for economic development, emissions trade, EU accession. Alternative answers classified EE as important for the quality or standard of life, or pointed out effects on biodiversity and environmental protection.
- The main activities of the NGOs are awareness campaigns, consultancy, and provision of funds for projects. Disappointingly, only three NGOs stated involvement in policy initiatives.
- Projects targeted at the spheres of the local governments and the businesses are the most common ones, with 91% and 73% of the respondents engaging in such activities. Politics are once again the least preferred.
- The scope of the projects varies greatly with even number of respondents claiming micro, small, average, and large-scale projects. No NGO has done a nation-wide Energy Efficiency project by now.
- It was hard for NGO to answer the questions on the approximate number of people directly/ indirectly influenced by their activities. Answers ranged from “3



firms" to over 5000 for direct influence, and from 200 to 10 000 to Sofia municipality for indirect effects.

- In terms of which stakeholders are aware of the activities of the respective NGO in the field of EE, the most common answers were the municipalities and the other environmental NGOs, followed by the ministries of environment and of energy. More than half of the respondents claimed the business and the citizens are well informed about their activities. Surprisingly there is no coordination between NGOs in the EE and the ministry of economics or the ministry of education, despite the importance of the topic and the efforts of the NGOs in both the economic and the educational sphere. Moreover, too few NGOs declare exchange of information with research institutions.
- The main channels for the spread of information on the activities of the NGOs are seminars/discussions and brochures/booklets describing the projects. Internet and the private broadcast media are used by about half of the respondents. Surprisingly, the environmental network Bluelink, which has a separate site on climate change, is used only by 3 of the respondents. Petitions and demonstrations are the least frequently used forms of communication.
- More than half of the NGOs do not declare any partnership with other NGOs. There is apparently one functioning network – the Association of the Bulgarian Energy Agencies, comprising of five NGOs that are closely linked together.
- When asked to evaluate the activities of the Bulgarian NGOs in the promotion of EE measures, most respondents rated them as insufficient or with a limited effect.
- In this sense, the accent in future should be, according to the survey, on awareness campaigns and fundraising, followed by more consultancy projects and more legislative initiative. One respondent proposed small demo projects as good option for promotion of Energy Efficiency measures.
- On the question of what the character of the obstacles to the realization of larger-scale and more successful promotion activities is, respondents attribute that mainly the lack of finances, the monopoly in the energy sector, lack of capacity, inadequate distribution of resources. Lack of motivation is certainly not an issue. Other answers given were corruption and private interests, disinterestedness of the government in the EE promotion, lack of adequate information, lack of understanding of the issue and inertia in the way of thinking.



- Too few people (usually only the specialists) are aware of the problems of EE and CC, according to the survey. One respondent suggested, however, that people have already started making changes to more efficient energy use due to economic constraints. These include for example thermo insulation in residential buildings, among others.

Main findings of the study

1. NGOs in the field of EE in Bulgaria are a good potential partner for the state in two respects:

Firstly, they are closer to the local problems of the actual implementation of the policies set by the state. They have a much better idea on what would and what would not be feasible when it comes to practice. Furthermore, their observations are more crosscutting, in the sense that they include policies of many departments of the central government (energy and energy resources, environment, finances, education, etc.). These policies are not directly related to Energy Efficiency, but rather have a complementary value, vital for its promotion. Thus, by providing their valuable feedback, they may well be of help for the horizontal integration of policy, and help for the smoother cooperation of these different departments.

Secondly, NGOs are in a good position to promote cooperation between the citizen, the businesses, and the local authorities and lead to adequate implementation of the policies.

2. This cooperation, however, is many times hindered by unfavorable policies.

Firstly, and not surprisingly, NGOs are suffering of scarcity of resources. Apparently the only way of obtaining resources for their projects is from international funding organizations, mainly the European Union, which generally provide only a part of the resources needed for the realization of the projects. The small number of people working at each NGO prevents them from realizing large projects that would attract more funding. The tax laws and regulations are far from favorable to sponsorship. This often leads to the closing down of previously very active organizations, due to the lack of resources.

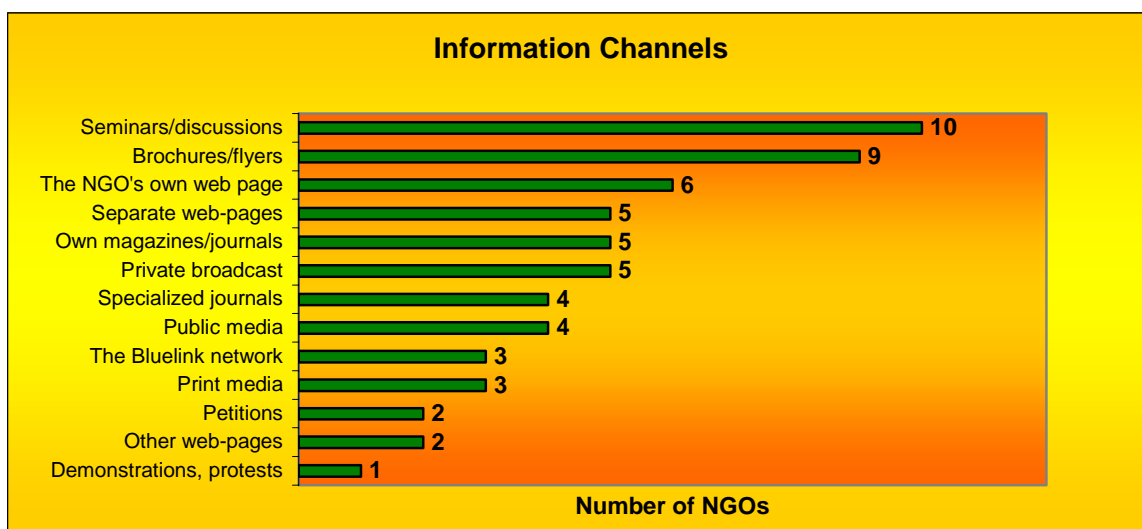
Secondly, there is a general pessimistic view on NGOs own actual capability to positively influence the current situation and path of development of that sector within the market and the state. That means very low level of involvement of NGOs in policy initiatives or policy reviews. Still in the interviews virtually all of them expressed criticisms with respect to the state policies: either to the fact that there are no normative acts to enforce the law on energy efficiency, or the tax laws mentioned above.

As many of the organizations work regularly on municipal projects, there is one topic that prevails in most conversations. Decentralization, or the autonomy of the local authorities to manage their incomes from taxes and investment is seen as absolutely necessary. Currently, local governments have no incentive to invest in energy efficiency projects, as explained earlier. Furthermore, NGOs and municipalities are seen as potentially more efficient than the organizations of the central government (ministries, the Energy Efficiency Agency, etc.), as they have a deeper understanding of the local problems and needs and generally obtain better results with less resources available.

According to most NGOs, the monopoly in the energy sector is detrimental not only to the promotion and implementation of EE measures, but also to the actual possibilities for bottom-up initiated reforms. The energy lobbies are exceptionally strong in the realm of nuclear energy or natural gas, where most of the economic interests are. Energy efficiency, as an issue involving less of concentrated economic interests is not on the legislative agenda, and the civil society appears to be too weak to push for its presence there.

As many respondents stated, there is a need for “maturity” in the perception and the attitudes towards NGOs is necessary. The Bulgarian NGOs in the field of EE have not yet become a strong actor in the processes of policymaking and policy implementation. They still have not managed to free themselves from the negative image NGOs acquired in Bulgaria in the beginning of the 1990s. This leaves them with few supporters from the citizenry and little power to enforce their position of opinion-makers and promoters of the public interest.

Moreover, and most importantly, there does not seem to be a coherent civil society, but rather a number of atomized organizations that have the same objectives, but do not work together for their achievement. This strips them from the opportunity to realize larger-scale projects, based on the human and financial capital of all of them combined. The atomization leads further to low salience of the NGOs in the media. The main channels of communication between the NGOs and the public, the state, and the market are seminars and brochures, which implies a very limited number of people receiving the information. Even the use of the Internet is very limiting, as the Internet penetration rate is rather low in Bulgaria (80.8 per 1000 people for 2002, according to the Human Development Report ³). Less than half of the respondents use any of the mass media (public and private broadcast, print, or the internet) for publicizing their activities.



This lack of prominence in the media is also an indicator of the failure of the NGOs in their role as opinion-makers (as indicated by the respondents themselves)

On the positive side, there is already some positive experience from partnership among the NGOs in the EE sector.

³ http://hdr.undp.org/statistics/data/indic/indic_116_1_1.html, visited 14.11.2004

Conclusions

There is a Bulgarian legend that everyone learns in his or her early childhood back home. The moral of it is written on the building of the parliament, on the coat of arms and on all symbols of the Bulgarian nation, so that no one forgets: Strength is in the unity.

The above discussion supports the righteousness of this proverb. To put it in the words of one of the respondents, "Much can be achieved through collaboration." To get to this cooperation would be very hard, however, given the lack of ties among most of the NGOs in the sector. Moreover, there seems to be neither an understanding of the possible effects of such collaboration, nor a will to engage in such. Thus there is a lack of both the structural (social networks) and of the cognitive (trust) components, necessary for the accumulation of social capital.

This lack of the essence of the civil society explains the poor performance of the NGOs in the promotion of Energy Efficiency. It explains the lack of nation-wide projects, of large-scale awareness campaigns, their rare appearance in the most popular media, the lack of "maturity" in the perception of their role by the other stakeholders. It also deprives the central government from valuable and reliable feedback on how policy integration should be realized. It deprives the municipalities and the businesses of strong partners in their attempts to improve their use of energy. It deprives the disadvantaged and the environment from a strong promoter of their interests, balancing the powerful forces of the state and the market.

It is a big mistake to underestimate the potential of the civil society. It is disappointing to realize that the NGOs themselves underestimate their own potential as a civil society, and overemphasize the activities they pursue on their own. Unless the democratic values of responsibility and freedom really substitute the present mentality, this potential would not be realized.

Acknowledgement

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