

Women's Access to Energy in Georgia Challenges and Recommendations

Assessment and Concept

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WECF is an international network of over 100 women's and environmental organisations in 40 countries, implementing projects and advocating globally for a healthy environment for all. Sustainable sanitation demonstration projects have been implemented in Central and Eastern Europe, the Caucasus, and Central Asia by WECF and network.

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Acronyms

AGECC – Advisory Group on Energy and Climate Change

BOO models - Build-Own-Operate models

CEDAW - Convention on the Elimination of All Forms of Discrimination against Women

EE – Energy Efficiency

EU – European Union

EWA - Empower Women – Benefit (for) All

GEL – Georgian Lari (currency in Georgia)

GHG – Greenhouse Gas

HCFC - Hydro chlorofluorocarbon

HPMP - Hydro chlorofluorocarbon Phase-Out Management Plan

HPP – Hydro Power Plant

IFAD – International Fund for Agricultural Development

IWRM – Integrated Water Development Management

LDCs – Less Developed Countries

LEDS – Low Emission Development Strategies

MDG – Millennium Development Goal

NBSAP - National Biodiversity Strategies and Action Plan

ODS - Ozone Depleting Substance

RE – Renewable Energy

SIDS - Small Island Developing States

WECF – Women in Europe for a Common Future

WHO – World Health Organization

Aim of this assessment

This paper attempts to analyse how the gender concerns and perspectives in policies and programmes for sustainable development in Georgia, including those involving new and renewable sources of energy and access to sustainable and affordable energy technologies, are translated at community level, through the attitudes, approaches planning priorities and resources allocated to women's energy needs.

The purpose is to provide an overview of existing legislative barriers to gender equality in Georgia. It describes linkages between gender and energy access and provides recommendations for the government, national and international organizations on the issues of gender balanced energy development (concept).

At the community and household level further components of the analysis are: women's access to energy services; the availability of energy services; the security of energy services; the sustainability of energy services.

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A Introduction

1 Background

Energy is a fundamental component of daily life. Absence of sufficient energy can drastically and adversely affect every society across the world. On the one hand, the current energy cycle based on fossil fuels and nuclear often leaves a trail of devastation behind. Fossil fuel is one the main causes of global warming. On the other hand, the use of traditional biomass can have negative impacts on people, ecosystems and the planet. Another issue of concern is violent conflicts caused directly or indirectly by quest for energy resources, and the negative and often traumatic impacts on women and children. We, therefore, need to change the way we use energy, apply energy saving and energy-efficiency measures and utilize renewable energy. We also need to create access to safe and sustainable energy (Sustainable energy is the sustainable provision of sustainable energy development that meets the needs of the present without compromising the ability of future generations to meet their needs. Technologies that promote sustainable energy include renewable energy sources, such as hydroelectricity, solar energy, wind energy, wave power, geothermal energy, bioenergy, tidal power and also technologies designed to improve energy efficiency¹) all over the world as an essential driving force for sustainable development.

Energy is a key factor in economic and social development. Worldwide, more than 1.4 billion people have no access to electricity, and 1 billion more only have intermittent access. Some 2.5 billion people – almost half of humanity – rely on traditional biomass for cooking and heating². Limited access to energy is a problem that has a disproportionate effect on women, especially in rural areas. It is most often women who must expend large amounts of time and physical effort to supply fuel for their households and productive needs, using their own labour to carry heavy loads over increasingly long distances, at great risk to their health and safety. Other health hazards arise from the fact that women do most of the cooking. They and their young children are exposed to large amounts of smoke and particulates from indoor fires and suffer from a number of respiratory diseases. The reliance on biomass fuels has put considerable pressure not just on the safety of families, but on the environment as well, increasing both deforestation and greenhouse gas emissions.

One of the most critical development challenges is to overcome the energy poverty of billions of people in developing countries who face inadequate and unreliable access to modern energy services and rely on biomass for cooking and heating. People deprived of such basic energy services are less likely to earn a living, stay healthy and have time for learning and fulfilment. Energy poverty therefore undermines the realization of the Millennium Development Goals.

Women in most countries experience energy poverty differently and more severely than men. Without access to modern energy services, women and girls spend most of their day performing basic subsistence tasks including time-consuming and physically draining tasks of collecting biomass fuels. Access to energy is gendered: it is determined by intra-household decision-making, women's social position and the value attached to women's labour. Unequal gender relations limit women's ability to participate and voice their energy needs in decision-making at all levels of the energy system.

¹ See: http://en.wikipedia.org/wiki/Sustainable_energy .

² See: <http://www.unfoundation.org/what-we-do/issues/energy-and-climate/clean-energy-development.html> .

Lack of energy services is directly correlated with the major elements of poverty, including inadequate healthcare, low education levels and limited employment opportunities. Gender issues have come to the forefront in many development sectors including agriculture, forestry and water but the energy sector has been slow to acknowledge the links between gender equality and energy. Insufficient access to modern energy and existing patterns of energy use, processing, and collection affect women and men differently. Because of their socially determined gender roles, women and girls assume a higher proportion of the burden of unavailable energy services and inefficient energy use. Thus, greater attention to the needs and concerns of women in these areas could help governments and programs to promote overall development goals like poverty alleviation, employment, health, and education through improved energy policies.

Because of the concentration of poverty in rural areas of developing countries, and the disproportionate effect it has on women because of their low social and economic status, improving the situation of women through better energy services would promote MDG 1 (reducing poverty and hunger), MDG 3 (promoting gender equality and empowering women) and MDG 7 (ensure environmental sustainability).

Although a special focus on women's energy needs in development policies can help promote other goals relating to poverty eradication, gender equality, health, employment and education, the importance of bringing a gender perspective to energy planning, analysis and project design is still not widely understood or accepted. Gender equality is often viewed predominantly as a political issue, unrelated to technical concerns about energy production and supply. Women's concerns are treated as 'added on' factors or as not directly relevant to energy issues.

From a development standpoint, expanded access to energy services is needed especially for the poor, the majority of whom are women as their work, related to household, caring and farming is often not paid. Conventional energy policies have focused on energy supply, with little attention to social issues related to energy. Alleviation of poverty in accordance with the targets set out in the Millennium Development Goals will require greatly expanded access to energy services that are affordable, reliable and of good quality. Energy programmes should be managed so as not to aggravate existing social problems and in fact, sustainable energy strategies can contribute to the solution of many of these problems, including gender disparities, if they are part of an integrated approach focused on meeting human needs³.

Between now and 2015, national and international development efforts are expected to focus on the implementation of the Millennium Development Goals. Although there is no specific MDG on energy, it is widely understood that increased access to energy is an essential factor in fulfilling most of the MDGs, including combating extreme poverty and hunger and empowering women.

Strong international normative and legal frameworks exist for gender equality and sustainable development. Over 150 governments have signed and ratified the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) and the three sustainable development conventions: Convention on Biological Diversity, United Nations Convention to Combat Desertification, United Nations Framework Convention on Climate Change. These Conventions and their follow up protocols, decisions and action plans have established some normative connections between gender equality and sustainable development⁴.

As the world discusses and formulates a post-2015 global development framework, which is planned to integrate and be coherent with a set of sustainable development goals, it is critical to recognize and draw upon the existing policy frameworks. Continued support of spaces for participation and inclusion

³ Energy and Gender in rural sustainable development. Yianna Lambrou and Grazia Piana, Food and Agriculture Organization of the United Nations, Rome, 2006.

⁴ The case for gender equality and rights in the SDGs, Eleanor Blomstrom with contributions from Marcela Ballara. Gender Equality, Women's Rights and Women's Priorities: Recommendations for the proposed Sustainable Development Goals (SDGs) and the Post-2015 Development Agenda, September 2013, p.59.

of diverse women stakeholders who are advocates, organizers and experts must be brought to the forefront in these discussions; their leadership and participation are crucial to successfully developing and implementing a post-2015 development framework⁵.

2 Aim of the Publication

The publication is divided into an “assessment” and a “concept” part. The aim of the assessment is to analyse the situation on gender and energy in Georgia. The second part is aiming at providing a concept with recommendations to be used for advocacy work nationally and internationally in order to provide solutions tackling the challenges.

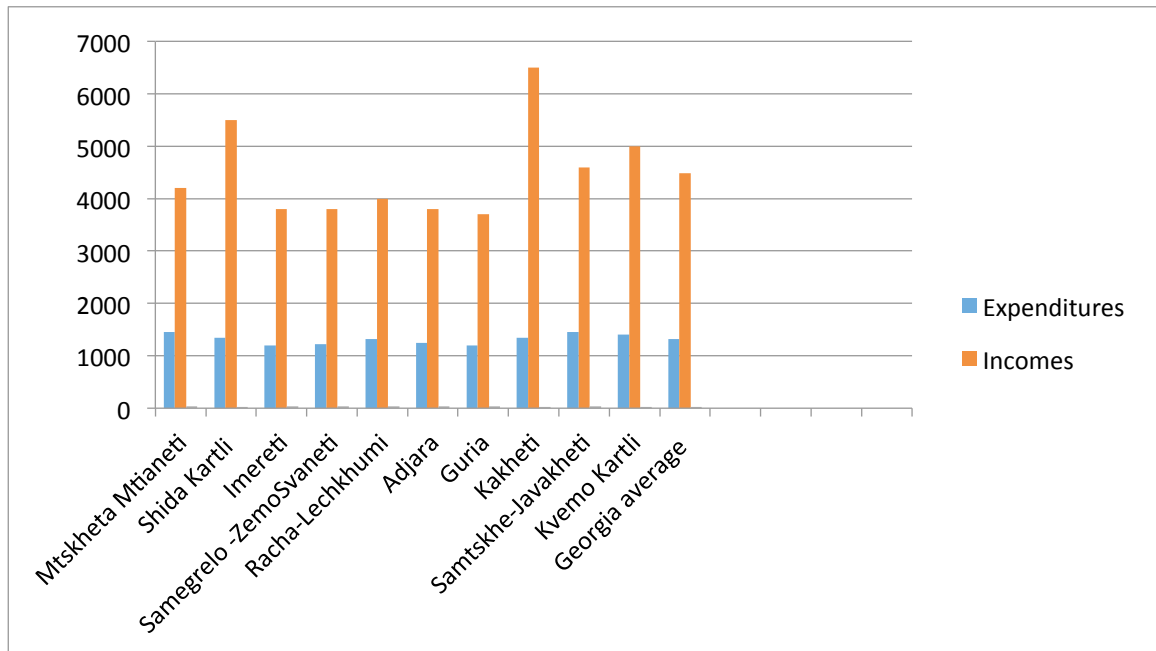
Access to basic modern energy services in Georgia means the ability to satisfy basic energy needs through the use of reliable, efficient, affordable and environmentally friendly modern energy services. It is important that a full energy mix should be considered for poor communities, such as grid and non-grid solutions for electricity supply, solar energy and biomass wherever it is appropriate; with different emphasis according to location and opportunities. Energy poverty is a widespread phenomenon throughout rural areas of Georgia, poor people living in rural areas can hardly pay the ever-rising energy costs (electricity, gas, fire-wood).

For the purposes of generating warmth, including warm water, cooking, and heating houses, village population mostly use fossil fuels (gas) or biomass (dried dung, shrubs, firewood, but also all kinds of waste such as plastic). In average households in the communities burn up 10 m³ of fire-wood per year. This has a severe impact on the environment, and causes big emissions of CO₂ (1.5 tons of emissions per 1 ton biomass), contributing considerably to deforestation and thus to land degradation, which in turn has adverse effects on quality of life and food security of the village population. Air pollution created by plastic and other types of inappropriate fuel leads to respiratory illnesses. Insufficient availability of warm water for hygienic purposes likewise adversely affects human health. And finally the energy spending (electricity, gas, and fire-wood) per household comprises 30% of their incomes on average. In addition to ecology, health and affordable sustainability, gender is a crucial issue when it comes to energy supply and energy access. Customary inequality between men and women results in women’s lack of time for productive activities, lack of ownership and control over productive assets and inputs, lack of professional skills, lack of access to finance and lack of decision-making power.

⁵ The case for gender equality and rights in the SDGs, Eleanor Blomstrom with contributions from Marcela Ballara. Gender Equality, Women’s Rights and Women’s Priorities: Recommendations for the proposed Sustainable Development Goals (SDGs) and the Post-2015 Development Agenda, September 2013, p.60.

Scheme1. Impacts of Energy Poverty⁶

To cover energy needs each household in rural areas of Georgia in average spends some 30% of their incomes. The expenses for gas, electricity and firewood tend to increase. That affects the livelihoods of rural population, further aggravating poverty situation.



Preparation of fire wood for the winter⁷

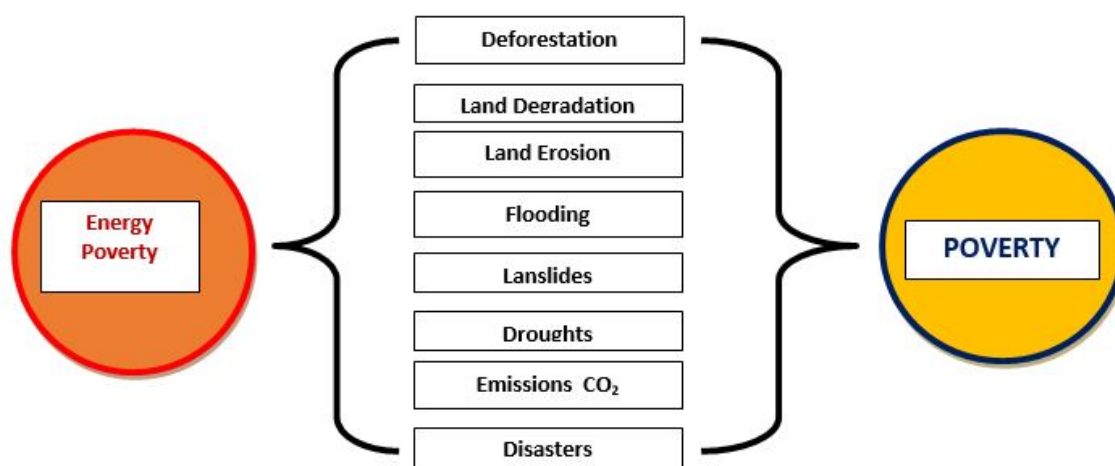
Scheme 2. Impacts of Energy Poverty

For purposes of generating warmth, including warm water, cooking, and heating houses, village population mostly use fossil fuels or biomass (dried dung, shrubs, firewood, but also all kinds of waste such as plastic). In average households in the rural areas burn up to 10m³ of fire wood per year. According to the assessment of the Ministry of Environment of Georgia around 90% of the rural population use fire wood for cooking and heating. The annual cutting rate accounts for 3.5 million cubic

⁶ Income and expenditure in GEL per year.

⁷ Photo by www.bpn.ge.

meters. As a result of forest destruction, landslides, floods, avalanches of catastrophic character have become frequent phenomena in the country. This has a severe impact on the environment, and causes big emissions of CO₂ (1.5 tons of emissions per 1 ton biomass), contributing considerably to deforestation and thus, to land degradation, which in turn has adverse effects on quality of life, food security and incomes of village population.



3 Linking Energy and Gender

Energy

Georgia, in general suffers from relatively high unemployment and self-employment rates for both men and women. Women, however, are further disadvantaged at the labour market, as demonstrated by the gaps in labour force participation rate, employment rate and salaries. According to official data, as of 2012, only 57.4% of women are considered as economically active, while the respective indicator for men stands at 78.2%. Accordingly, the percentage of employed women equals to 49.5% of the total female population, while the respective figure for men is 65.6%⁸.

The National Action for Implementation of Gender Equality Policy in Georgia for 2014-2016 which was adopted on 24 January 2014 includes a separate section on gender equality in the field of environment protection, the goal of which is to secure equal participation of men and women in environment protection issues. This includes keeping the gender balance in the decision-making process on the environmental issues and awareness raising. Under the Action Plan the government takes responsibility to promote gender balance in the process of discussion of environmental issues and participation in the relevant measures, pursuant to the rule provided for by the legislation; to promote gender balance in the discussion process of issues that shall be considered within the frame of Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Issues and to conduct trainings/workshops on environmental matters for the different vulnerable groups of people (different trainings for different groups) in observing the gender balance. The state

⁸ See GeoStat.

institutions responsible for the effective implementation of gender equality in the field of environment protection are the Ministry of Environment and Natural Resources Protection, Ministry of Energy of Georgia and Local self-government authorities.

The strategy for energy access should focus its attention on energy access for the poor as a global issue, necessary for the attainment of the MDGs. The main issues to be tackled on energy promotion for the poor is **Recognising the right to energy**. Despite the common acceptance of multilateral, bilateral agencies, governments and civil society that energy is critical for development, access to energy by the poor and particularly by women is not a high priority issue in policy debate. There are no specific objectives or targets within the MDGs on energy access. Therefore modern energy, being a critical issue for human development, should be considered a basic right, and should be provided on the basis of justice for the poor and should be gender balanced.

The UN's new Sustainable Energy for All (SE4All) initiative clearly recognizes that increased access to energy is necessary for creating economic opportunities for women in developing countries. It also recognizes that women's engagement is essential for the successful design, marketing and adoption of new energy technologies and climate-responsive innovations. The UN Secretary-General has particularly emphasized the impact of energy poverty on women's employment. "Women spend hours each day on routine daily subsistence activities—pounding grain, hauling water and gathering firewood. They have little or no time for earning income" (Ban Ki-moon, 2011a)⁹.

Taking challenges into consideration, many activities and initiatives have started that consider the next international development goals after 2015. The United Nations Secretary-General High-level Panel on the Post-2015 Development Agenda was launched in July 2012. At Rio+20, an integrated approach to balance economic, environment, and society was emphasised to achieve sustainable development and Sustainable Development Goals (SDGs) are developed. One of them is Sustainable Development Goal 7 "Ensure access to affordable, reliable, sustainable and modern energy for all" which aims to ensure universal access to safe sustainable modern energy services for all with gender-equitable governance of and ownership over energy sources, services and technologies by 2030; increase substantially the share of renewable energy in the global energy mix by 2030; double the global rate of improvement in energy efficiency by 2030; by 2030 enhance international cooperation to facilitate access to clean energy research and technologies, including renewable energy, energy efficiency, and advanced and cleaner fossil fuel technologies, and promote investment in energy infrastructure and clean energy technologies; by 2030 expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, particularly LDCs and SIDS.

Clean and safe energy needs to be considered an essential human right, taking into account that it is interlinked with the prevalent cultural and social norms that shape rights for women and influence legal frameworks. In 2010 the UN Secretary General's Advisory Group on Energy and Climate Change (AGECC) called for commitment and action on two goals; "universal access to modern energy services and reduction of global energy intensity through energy efficiency measures". A concerted effort from regional, national and global agencies to ensure equitable policy framework for fair disbursement and judicious consumption is needed. Advocacy among women in rural regions on equity, energy resources and options is most essential. Renewable energy technologies, which are also linked to income generation, should be further subsidized and popularized¹⁰.

⁹ Gail Karlsson, Senior Policy Advisor and Ana Rojas, Climate Change and Gender Expert, ENERGIA International Network on Gender and Sustainable Energy. The Benefits of Gender Balance in Climate Change Mitigation Investments and Sustainable Energy Initiatives, p.2.

¹⁰ Kalyani Raj, Nozipho Wright and Sabine Bock, Safe and Sustainable Energy for All – Gender Equality in Choice, Access and Control. Gender Equality, Women's Rights and Women's Priorities: Recommendations for the proposed Sustainable Development Goals (SDGs) and the Post-2015 Development Agenda, September 2013, p.45.

It is important that a full energy mix should be considered for poor communities of Georgia such as grid and non-grid solutions for electricity supply, liquid and gas fuels for cooking and heating, use of renewable energy resources (solar, biomass) wherever it is appropriate; with different emphasis according to location and opportunities.



Happy user of solar collector in Imereti region¹¹

Integrating energy projects into other types of development programmes can help to shift the focus from technology-driven energy interventions to more integrated initiatives that take into account community's social and economic development needs. In that context, it is likely that concerns about women's needs will seem more understandable. Promoting increased participation of women in energy decision-making – at the national, local and household level – is another way to help ensure that women's concerns are taken into account.

Women's access to energy fails because there is lack of recognition of the value of women's work (no economic value is attached to biomass collection by women), lack of recognition of the value of women's roles (investing in improved cooking technology is neither prioritized at household nor at national levels), and lack of recognition of women's multiple roles (women's work in agriculture and as entrepreneurs is not sufficiently recognized). More fundamentally, women internalize social norms that place a low value on their work and contribution, negatively affecting their access to modern energy services¹².

Women also face difficulties in benefitting from energy services because of inequitable access to resources. For example, women lack control over land and property (which limits their ability to benefit equally to men from energy facilities - such as solar systems, wind turbines, and bio-fuel plantations - that require land), women lack income (which is a barrier for investing in technology that improves the productivity of women's labour), women lack access to credit (which limits their ability to pay the up-front costs of improved energy technology or connection fees to the electricity grid), and women have limited access to extension service and education (which limits their abilities to become energy entrepreneurs and earn an income).

¹¹ Photo by Greens Movement of Georgia.

¹² Gender equality, women's rights and access to energy services: An inspiration paper in the run-up to Rio+20 By Katrine Danielsen, February 2012.



Woman collecting fire wood for house heating¹³

When women experience energy poverty and their energy needs are not met, the consequences are severe. As a result of time-consuming and physically draining collection of biomass fuels, women and girls' health conditions are poor, their options to earn additional income are minimal, the opportunities to improve their labour productivity are low, the options for social and political interaction outside the household are restrained, the chances of benefitting from training and extension are limited. Moreover these conditions create further barriers to women's ability to voice their energy concerns and claim rights, reinforcing women's exclusion and exacerbating the problems. All other members of the household, including men, are negatively affected when women have limited access to modern energy services.

Everyday, women and children in developing countries are exposed to pollution from indoor cooking smoke in the form of small particulates that are up to 20 times higher than the maximum recommended levels of the World Health Organization (WHO). Smoke from cooking fuels is estimated to account for nearly 2 million deaths, more than 99 per cent of which occur in developing countries. This means that cooking smoke causes a significant percentage of the annual burden of disease. This affects mothers and their young children more than any other household members because it is them who regularly breathe such cooking smoke¹⁴.

There is also a strong link between energy access and cost, depending on the geographical location, size, structure, income and expenses. In Georgia the cost of energy constitutes a significant portion of household expenditure, whereas, in other places energy is considered a part of overall rural existence and its access/cost is not identified as a separate issue. Biomass use is closely intertwined with poverty. As their incomes rise, households in developing countries generally switch to Liquid Petroleum Gas (LPG) fuel and various types of specialized electric cooking appliances. Thus, income increase is one obvious answer to the problems of biomass energy use in developing countries. However, a doubling of typical incomes in a country would reduce the number of people dependent on biomass energy for

¹³ Photo by www.ireporter.ge.

¹⁴ Household Cookstoves, Environment, Health, and Climate Change: A New Look at an Old Problem. May 2011. The Environment Department (Climate Change), The World Bank.

cooking by only 16 per cent, suggesting that the use of biomass fuel among developing country households will continue for years to come (one household in rural areas of Georgia spends on average 30% of their incomes to meet essential energy needs. In addition use of biomass, particularly fire wood leads to deforestation (*according to GFW –Global Forest Watch data every year 7700 hectares of forests are depleted in Georgia¹⁵*) and land degradation that affects the agricultural production and is reflected in low yields and incomes of rural people).

In terms of gender equality, the sectors of energy and water supply are not very different from other sectors in Georgia. For every country, energy sources and safe drinking water are those strategic resources, which determine the living standards of population and prosperity of each citizen. These resources maintain their strategic functions both in terms of entrepreneurial activities, as well as in terms of household consumption.

While in case of entrepreneurial activities the difference between demand and supply of these resources is equally manifested in gender perspective, in case of household consumption this difference causes even more inequality in gender perspective, thus directly causing rough violations of women's rights and affecting the conditions of their work. Such direct interrelation between household conditions and women rights is caused by the Georgian reality, where according to the lifestyle of absolute majority of population (regardless of their religion, ethnic, or social belongings) the leading role in conducting household activities (sanitary, hygiene, food, etc.) is the responsibility of women.

Despite the importance of this sector, the legislative framework regarding energy supply is very poor and old. There are following regulations in this sector:

1. Law of Georgia on "Electricity and natural gas"; 1997.
2. Law of Georgia on "Oil and natural gas"; 1999.
3. "Main directions of state policy of Georgia regarding energy sector".

These documents and their bylaws and normative acts do not consider measures for ensuring gender equality, declared by other documents.

As a result of implemented state policy, the rural population of Georgia has 24-hour electricity supply. But the high price of electricity proportional to the family income does not allow the population to consume as much electricity, as it is required.

The lack of the energy resources negatively affects daily life of women and men both in the private as well as in the public domains; the complicated household work (cooking, ironing, washing, cleaning) that has traditionally come to be sole responsibility of women in Georgia negatively affect their health, time-budgets i.e. self-development and leisure opportunities. Unstable and abnormal voltage of the electric energy destroys or prevents from the utilization of household electronic appliances that makes the housework even harder for many women.

Due to the lack in energy supply firewood is used as the primary heating resource in rural areas. Population is involved in massive woodcutting that causes diverse environmental hazards. It is mostly men and boys who are responsible for wood supply that expose them to different life threats, while in the female-headed households women have to either ask male relatives or friends or pay someone to help them with fire-wood supply or if they cannot arrange/afford it then they tend to subjugate themselves to heavy physical labour linked with diverse health problems.

¹⁵See: <http://www.globalforestwatch.org/map/8/41.92/43.69/GEO/grayscale/loss,forestgain?begin=2001-01-01&end=2013-12-30&threshold=30>.

Georgia has no legislative acts regarding ensuring energy efficiency or promoting reduced consumption of electricity. By regulating these directions it would be possible to supply cheaper electricity to the population but the government considers these measures as premature. Due to this approach the situation in Georgia significantly differs from other countries.

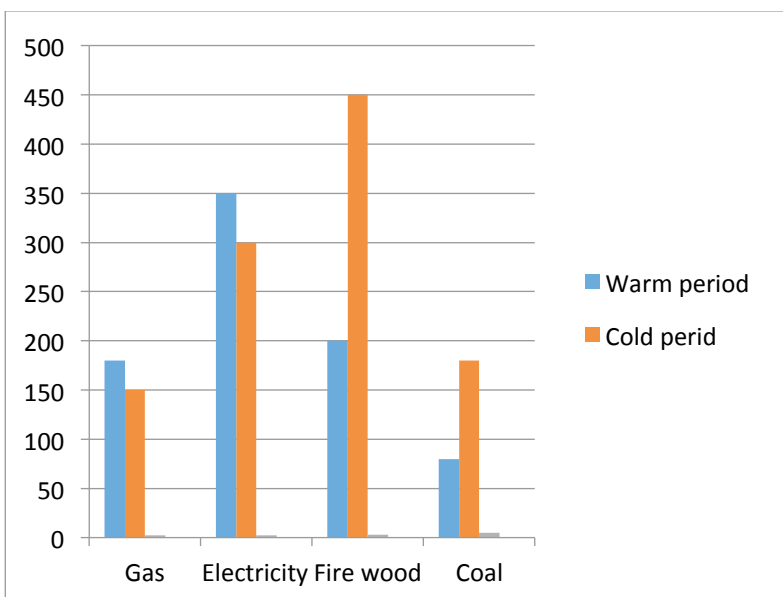
According to existing realities and economic conditions in the country, the average rural family can afford to consume 150-200 kwt*hr electricity per month (about 5-6 kwt*hr per day). To compare, 5 kwt*hr electricity is enough to warm up 70 l. water till 70-75⁰C assuming that the boiler is excellent. It is clear that even if the whole energy will be consumed for boiling the water, still this amount of water is not enough to satisfy requirements of 4-member family on warm water. As a “solution” of this situation, majority of rural population is not using electricity for water boiling at all. In rural families the electricity is mostly used (in limited quantities) for electric appliances (radio, TV, computer, etc.) and for lighting. Thus, the consumption of electricity in Georgian villages is strongly limited and is used only for specific purposes and in case of necessity.

Along to the electricity, rural population is also using natural gas, liquid gas, firewood and other biofuel, very rarely coal and oil-products. The state program of last years was considering complete gasification of every village in Georgia but the plan is not implemented yet and only part of villages are supplied with gas.

As for the supply with liquid gas, this sector is absolutely monopolized, which is reflected on the price as well (3,0-3,5 GEL for 1 kg gas). Therefore, in household conditions using liquid/bottled gas is considered as privilege.

Chart.1. Energy use of rural households in Georgia

Gas is used only in warm period for heating the water and cooking in rare cases. Electricity is used for heating the water in warm period and lighting the space. In cold period electricity is used only for lighting the space. Fire wood is used both in warm and cold periods. Fire wood is mostly used for cooking and heating.



During last years there were also several experiments regarding ensuring fair and equal distribution of firewood among rural population but all these experiments failed, thus posing even more threats to the Georgian forests that are endangered enough even without such approaches. Despite the fact that in

energy-balance of Georgia the part of firewood is more than 65% and this resource is mostly dedicated for rural population, still it is impossible to cover all energy-demands of rural population.

The existing situation regarding energy supply is negatively affecting social conditions and creates additional troubles both for men and women. While men are trying to find additional energy sources (apply additional finances and physical work), women try to fight with the problems arising from energy-deficit, such as:

- Worsening health of family members and therefore, work load of woman is raising
- Work conditions for ensuring sanitary and hygiene are hard and therefore, additional work for woman
- Hard conditions for preparing meals
- Hard conditions for washing, cleaning, etc.
- Hard conditions for other household activities, requiring additional inputs from the side of woman.

Despite of such social and gender backgrounds of existing situation regarding energy supply, the state is not supporting alternative sources of energy, even on individual level and even just for producing warm water; nothing to say about considering use of biomass, rich geothermal resources and creation of attractive financial and credit systems, etc. In Georgia there are 250-280 solar days per year and annual solar energy radiation per 1 sq.m. varies from 1250 to 1800 kwt/hr.

Georgia has vast resources of almost all types of renewable energy sources – solar, wind, geothermal, hydro, and biomass estimated to be able to provide the equivalent of one million tons of oil per annum. This is enough energy to meet over a third of Georgia’s annual energy needs. Yet adoption and implementation of renewable energy and energy efficiency has been lacking. Only a very small part of the potential is currently used; the share of renewable energy in Georgia’s energy balance is approximately one percent (excluding hydropower). Approximately 80% of Georgian energy needs depend on usage of wood or cow manure. 70% of the total primary energy supply in Georgia comes from imported resources. The biggest indigenous energy resource is hydro energy (18%), followed by firewood (12%). There exists no infrastructure or service for accessing affordable, alternative energy technologies in Georgia¹⁶.

Renewable energy can make an important contribution not only in the overall energy balance of the country but also have a positive impact on social issues. Renewable energy can play an important role in reducing women’s work by providing improved access to energy services for lighting, cooking, house heating, water heating and other household activities. Lessons learned worldwide demonstrate practical cases where women have taken the lead in implementing and operating renewable energy projects at the community level with great success. It is also obvious that women’s equal participation in the program is crucial success factor. The same considerations apply to the small and middle size energy efficiency projects that can be implemented by women at home and community. However, to ensure an active role of women in energy efficiency and renewable energy development, appropriate policy decisions and changes have to be made.\

¹⁶ Empower Women - Benefit for All, Gender Livelihood and Socio Economic Study, Baseline Report, July 2014, WEFC.



Happy users of solar collector in Samegrelo region¹⁷

According to the Georgian legislation the Ministry of Energy is responsible for the energy sector policies in the country along with the major policy making body of the country - the Parliament. Low level of women's presence and participation in both of these bodies (11% in the Parliament of Georgia and 11% in local self-government - Sakrebulo¹⁸) has resulted in complete absence of gender sensitivity in the diverse fields of the Georgian society's life and energy sector is no exception.

Gender

The Government of Georgia is conducting specific measures for ensuring gender equality in the country. Gender equality is guaranteed by the Constitution of Georgia and by the Law of Georgia on "Gender Equality". Furthermore, National Gender Equality Plan (or National Strategies for Equality) has been adopted in 2014.

In 1994 Georgia acceded to the Convention on "Elimination of All Forms of Discrimination Against Women" (CEDAW) and in 2002 Georgia acceded to the Optional Protocol to CEDAW. It is common practice that along with the official national reports, which have to be delivered on a regular basis by the Government, alternative reports are provided to the CEDAW Committee by NGOs for consideration. Furthermore, Georgia signed the Council of Europe Convention on preventing and combating violence against women and domestic violence on 19 June 2014.

Along to the above mentioned, there are also adopted following regulations:

¹⁷ Photo by RCDA.

¹⁸ Gender Monitoring of Local Self-Government Bodies and Strengthening Women Involvement in Political Life, International Society for Fair Elections and Democracy (ISFED), October 2014, p.3.

- Law of Georgia on “Gender Equality” (Parliament of Georgia; 26 March, 2010; #2844)
- State Concept of Gender Equality of Georgia (Parliament of Georgia; July, 2006; #3488)
- 2014-2016 Action Plan for Ensuring Gender Equality (parliament of Georgia; 24 January, 2014; #1945-□□).
- Law of Georgia on Elimination of Domestic Violence, Protection and Support of Victims of Domestic Violence (Parliament of Georgia; 25 May, 2006; #3143)

For ensuring gender equality the Government also conducted activities for establishing firm and permanently working governmental institutes (there is “Parliamentary Council of Gender Equality”) but no further developments in this direction were observed and similar structures were not established at every level of executive power (at the moment these functions are being added to the specific persons from existing staff).

As a result, declared legislative norms till today are being left as desirable wishes and no meaningful practical results have been achieved. Gender equality legislative norms have not been reflected in any sectorial policies, activities are not supported with budgetary or other kinds of financing, “gender budgets” have not been introduced, problems and their solutions are only monitored by NGOs, there is no state statistics, etc.

B Women’s Access to Energy in Georgia

1 Energy Infrastructure

Georgia is divided administratively into 9 regions and 2 autonomous republics. The communities further described belong to the regions of Samegrelo, Imereti, Kakheti, Samtskhe-Javakheti and Mtskheta-Mtianeti. In most of these communities, the inhabitants live under very basic living conditions, and running, warm water is a luxury good. For heating water, most of the villagers depend on wood or gas. Forests are rapidly shrinking due to deforestation because locals rely on firewood for energy use.

Most rural households rely on firewood as the main fuel, which is often illegally logged or with an expensive license, and sold at very high prices to the households. The labour burden on women is high due to them having no access to warm water and energy inefficiency in the houses, which impacts on their health as they mainly use cold water for household tasks.

Gas arrives in Georgia via Azerbaijani pipelines. But the infrastructure to supply gas is not built in every village and the population continues to rely on mainly firewood for energy that contributes to deforestation, which causes environmental concerns in the country. However, poverty is also a significant problem, which, alongside lack of knowledge, prevents villagers from gaining access to other forms of energy.

Georgia is rich with water resources and 11% of its territory is covered by water. Population of Georgia is consuming about 450-500 mln. cubic meters of water per year for all purposes (entrepreneurship, agriculture, household). 90% of this amount is being consumed by urban population and 10% by rural population.

2 Project’s Experience

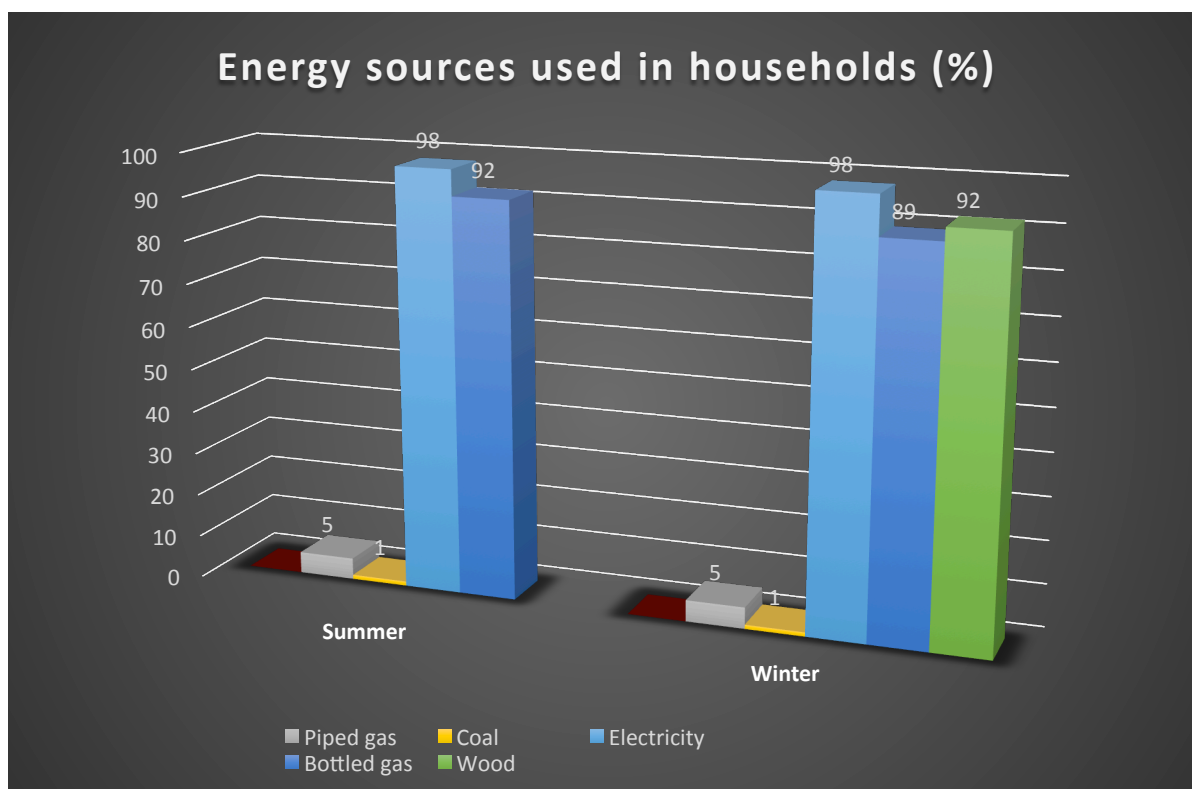
In July 2014 Women in Europe for a Common Future (WECF) has published the Baseline Report on Gender Livelihoods and Socio Economic Study conducted in Georgia.

Women in rural communities generally tend to sustain a significant share of farm work, including crop cultivation, attending to livestock, and processing agricultural and dairy products. However, inadequate social services and the unreliability of public utilities have made the burden on Georgia’s rural women even direr. What is more, due to the emigration of men in search of employment outside of Georgia, the quantity of homes, headed by women has grown considerably. On the whole, within rural communities,

homes headed by women who have children are most vulnerable to poverty. For instance, according to International Fund for Agricultural Development (IFAD), in certain rural regions of Georgia, such as Mtskheta-Mtianeti and Kakheti, women are four times more likely to be impoverished than in other, more urbanized regions. This is due to social and economic crises, which have led to a reversion of previous gains made towards gender equality. In spite of legislative gains that are designed to protect gender equality, families are largely patriarchal, especially within rural areas, where women are mostly expected to fulfil traditional gender roles as homemakers; women tend to have fewer opportunities for employment and when they do have employment within the formal sector, they receive lower wages than their male counterparts. Due to absence of men, or their inability to work, women have double burden for caring for the family and generating income¹⁹.

The analysis has revealed a scale of issues that concern rural households in Georgia, and how these hinder or foster the socio-economic situation.

In Georgia, villagers have several sources of energy, including: electricity, coal, bottled gas, piped gas, and wood. During the summer, five per cent of rural households that participated in the study utilise piped gas, and one per cent utilise coal. Of the interviewed households, all but ninety eight per cent of families utilise electricity. Ninety two per cent of households utilise bottled gas during the summer. Seventy eight per cent of households utilise wood during the summer. In the winter season, coal and piped gas remain rarely utilised – at one and five per cent of households respectively. Electricity remains the most common form of energy, and ninety eight per cent of households utilise electricity as an energy source. Eighty nine per cent of households utilise bottled gas in the winter, and ninety two per cent utilise wood. Wood is utilised more frequently during the winter than during the summer; bottled gas is utilised more frequently during the summer than during the winter. This is due to the fact that the wood heated oven has the function to prepare food and heat water, besides its function to heat the room²⁰.



¹⁹ Empower Women - Benefit for All, Gender Livelihood and Socio Economic Study, Baseline Report, July 2014, WECF, p. 7.

²⁰ Empower Women - Benefit for All, Gender Livelihood and Socio Economic Study, Baseline Report, July 2014, WECF. p. 19.

The average amount that villagers spend on energy annually is 430 euro, though the figure varies between families. Some families spend up to 1000 Euro on energy annually. This indicates high energy poverty; households spend 25-33% of their income on energy. One of the purposes of utilising energy is for heating water. Heated water is utilised for a multitude of purposes, including: bathing, food preparation, hand washing laundry, showering, and washing dishes. The overwhelming majority of families utilise heated water for food preparation, washing dishes, and showering. A large majority also utilise heated water for laundry and baths²¹.

Villagers acknowledge that pressure exerted on natural resources may lead to conflict amongst community members. They also agree that high competition over energy resources may contribute to a higher price for energy. At the same time, villagers are unaware of their own contributions to environmental degradation, such as the logging of nearby forests. Furthermore, the majority of the community members view expensive firewood as the most urgent and second most urgent problem in the village. Lack of gas is also acknowledged as the most pressing problem for the villagers²².

Furthermore, hot water and energy efficiency are identified as urgent problems.

The analysis has revealed a scale of issues that concern rural households in Georgia, and how these hinder or foster the socio-economic situation.

- The majority of the households explain that both partners in the households make decisions together and agree that men and women should cooperate together in making decisions regarding the home; although, there are exceptions. However there are gender stereotypes assigning different roles for men and women, with women usually having to carry a double burden with work in the house and income generation. There is a general lack in leadership of women.
- Energy is a significant problem for villagers especially due to poor insulation and the lack of renewable energy technologies. About 25-30% of the incomes are spent on energy, indicating high energy poverty.
- Wood is a main source of energy, contributing to deforestation within the region and poses high costs for the households. Every year 7700 ha of forests are depleted.
- Villagers are interested in utilizing new technologies to increase energy efficiency. If low interest credits were available, villagers would be willing to invest in renewable energy and energy efficiency.
- Forests are a safety net for the poor, but they continue to disappear at an alarming rate²³.

Georgia has vast resources of almost all types of renewable energy – solar, wind, geothermal, hydro, and biomass estimated to be able to provide the equivalent of one million tons of oil per annum. This is enough energy to meet over a third of Georgia's annual energy needs. Yet adoption and implementation of renewable energy and energy efficiency has been lacking. Only a very small part of the potential is currently used; the share of renewable energy in Georgia's energy balance is approximately one percent (excluding hydropower). Approximately 80% of Georgian energy needs depend on usage of wood or cow manure. 70% of the total primary energy supply in Georgia comes from imported resources. The biggest indigenous energy resource is hydro energy (18%), followed by firewood (12%). There exists no infrastructure or service for accessing affordable, alternative energy technologies in Georgia.

²¹ Empower Women - Benefit for All, Gender Livelihood and Socio Economic Study, Baseline Report, July 2014, WECF, p.23.

²² Empower Women - Benefit for All, Gender Livelihood and Socio Economic Study, Baseline Report, July 2014, WECF, p. 24

²³ Empower Women - Benefit for All, Gender Livelihood and Socio Economic Study, Baseline Report, July 2014, WECF.

Women in Europe for a Common Future is implementing another project in Georgia Building local capacity for domestic solar heating, hot water and insulation for rural and remote areas in the EEC region²⁴.

The project is contributing to improved health, reduced poverty and increased energy security in 22 rural communities in 7 EEC countries, through demonstrating domestic solar heating, hot water and insulation measures, based on available local capacities and materials, and creating institutional capacity for upscaling via certified trainers and craftsmen and women, while formulating lessons learned for effective financial, institutional and legal instruments for widespread replication of sustainable energy options.

Together with the local NGO partners, the Swiss organisation Centre for Development and Environment (CDE) and GERES from France, WECF has developed training modules that are used by local trainers for trainings in target communities. A special focus is on gender, and there are different training units for women and men such as:

- Construction, maintenance and use of solar collectors, including training of local trainers
- Insulation measures – technology adaptation and implementation
- Solar house heating

Solar technologies play a key role in empowering women. Devices such as solar hot water collectors, solar house heating systems, solar fruit and vegetable dryers, solar water distillators, insulation technologies have helped women to reduce the time and labour spent on productive activities, and resulted in women's increased income and status in the community.

Technologies, in particular solar technologies, have enabled women to play a more active role as citizens. An ongoing information campaign has raised awareness of the general public and particularly women about the opportunities of affordable sustainable energy solutions; addressing gender in all activities in a mainstreaming and promoting gender equality contributes to empowering women. Women are encouraged to participate in the trainings throughout the project cycle, and their levels of participation and leadership have been measured through gender-specific indicators in the baseline needs assessment and monitoring. Women make up 50% of those trained as constructors or maintenance specialists. Specific gender roles have been taken into account when designing the trainings and women undertake the role of monitoring of installed devices. As a result of these trainings women are becoming trainers on solar technologies and they become the biggest supporters of the technologies as they have positive impact on women's labor burden, income and quality of life. Once a year according to specially designed questionnaire and focus group discussions the Resource Center in Khamiskuri and Demonstration Center in Misaktsieli collect women's practical suggestions on how to improve the technology they use. Integrating gender analysis throughout all stages of technology development help to improve the products, and ultimately benefit both women and men.

²⁴ <http://www.wecf.eu/english/about-wecf/issues-projects/projects/localcapacity-eeeregion.php>



Training participant and user of solar collector in Imereti region²⁵

Women's capacities are built in different ways: their own technical skills and knowledge about RE and EE has been increased for all trained technologies (solar collectors, solar heating and insulation, solar dryers) regarding construction and maintenance so that they are able to act as knowledge and resource centers and contact points of information for citizens and local groups. Secondly their skills in co-conducting anticipatory needs assessments, gender, monitoring and evaluation have been improved. As for today number of women that took part in solar trainings comprise 50 among them as certified trainers 4.

Women are actively participating in the process concerning their energy situation, including all connected environmental, financial, social, and especially gender aspects. The overwhelming majority of solar collectors and other devices installed belong to women as they are the initiators of acquiring them for household needs. So, automatically they participate in the carbon mitigation projects. In the project measures are taken to integrate and measure women's empowerment and participation in carbon mitigation projects. The women owners of the solar and other renewable energy technologies are becoming key partners in providing their extensive experience with regards to helping to strengthen their livelihoods, by applying sustainable energy and agricultural practices, thus improving their climate resilience and mitigating their ecological impact.

As the coming years are crucial for future development WECF together with partners has implemented the FLOW+ project entitled "International Women's Empowerment" (IWE), WECF and partners has therefore focused on the policy process of SDG/Post2015 development goals. The project IWE, an addition to the existing EWA project, aimed, in particular, at women's mentoring and political empowerment and ran for the period of one year.

In the framework of the project 6 global women mentors were trained and then they coached and helped emerge 20 more local women's leaders in their respective countries and regions to understand the opportunities provided by the MDGs and Post-2015/SDG policy processes for advancing women's rights and political and economic empowerment in their own communities and thus advocate for their implementation.

²⁵ Photo by Greens Movement of Georgia.

These global women leaders have coached women from their regions, establishing continuous communication and involving them in national, regional and global policy processes and developed recommendations for the government assessing national MDG/development policies from a gender perspective and developing concepts and global examples for gender-sensitive national implementation strategies for Post2015/SDG goals.

3 Millennium Development Goals in Georgia

MDG 3. PROMOTE GENDER EQUALITY AND EMPOWER WOMEN

In 2000 Georgia along with the adoption of the Millennium Declaration made a commitment to integrate the Millennium Development Goals (MDGs) within its national development strategies and plans and to periodically report on the status of MDG platform implementation.

Since the integration of the MDGs in the national policies in 2004, there has been significant progress in the formulation of legislative and policy frameworks related to gender equality and the advancement of women's rights. State Concept on Gender Equality (2006), Anti-Domestic Violence law (2006) and its action plans (the most recent covering years 2013-2015), Anti-trafficking law (2006) and its action plans (2013-2014), periodic national action plans to achieve greater gender equality (the most recent 2014-2016), Gender Equality Law (2010) and last but not least the Action Plan on Women, Peace, and Security (2012-2015) are among the key documents regulating this important issue. The government has also undertaken the obligation to ratify the Council of Europe Convention on preventing and combating violence against women and domestic violence (the Istanbul Convention) in the Domestic Violence Action Plan for 2013-2015.

The progress towards the implementation of this comprehensive normative framework has been uneven and much remains to be achieved especially in the areas of women's political and economic empowerment - the two areas that have been the primary focus of the Millennium Development Goal 3 for Georgia.

High unemployment and self-employment rates for both men and women are key challenges for Georgia. As of 2013, 56.84% of women were considered as economically active, while the respective indicator for men stands at 77%. Accordingly, the percentage of employed women equals 49.8% while the respective figure for men is 64.5%²⁶.

The labour code of Georgia does not include explicit requirement of equal pay for work of equal value, however, the Constitution of Georgia mentions remuneration. Existing labour legislation generally provides space for elaborating more on aspects that would ensure equal treatment of men and women in all aspects of employment, including remuneration, promotion, representation in management and on boards, etc.

According to the National Statistic Office, in 2012 the average nominal monthly salary of women in all sectors of the economy was GEL 527.4, while for men it was 914 (difference over 40%), but the analysis of the causes for the pay gap, apart from obvious vertical and horizontal gender segregation of the labour market, are lacking²⁷.

In 2011, the Parliament, by the initiative of the Gender Equality Council adopted a voluntary quota for women's participation in lists of political parties. In order to provide incentives for a higher political participation of women, the voluntary quota constituted an additional 10% in budgetary financing for a

²⁶ Georgian National Report on Progress towards achieving the Millennium Development Goals in Georgia, 2014.

²⁷ Georgian National Report on Progress towards achieving the Millennium Development Goals in Georgia, 2014.

party that includes at least 2 representatives of different sex in every 10 candidates on the election list. The quota did not affect the nominations for the single-mandate majoritarian districts.

A main challenge of gender equality remains the low level of women's participation in political life of the state. According to the "global gender gap index", Georgia takes 97th place out of 136 states according to women's political participation. Representation of women at the Parliament of Georgia is 11%, at the ministers' offices 21%; while at the local self-government bodies 10%. It has to be mentioned that the participation of women at the local government level decreases after each election.

According to "global gender gap index", Georgia holds the 102nd place according to women's representation at the parliament, while according to Inter-Parliamentary Union, as of December 1, 2013, among 188 national parliaments, Georgia holds the 105th place based on statistics of women's participation.

Although, after 2012 parliamentary elections, women's representation at the legislative body increased by 5%, Georgia remains among the states, where women's representation at decision-making level is low.

Moreover, there is a lack of communication among different actors (political parties, state structures, non-governmental and international organizations), which hinders the strengthening of women's political participation. With this aim, in February 2014 the "Task Force" was established, which coordinates support to women's political participation in pre-election period and will mobilize existing resources.

For effective implementation of gender policy it is necessary to improve institutional mechanism in the legislative and executive branch. An issue of special importance is the establishment of permanent institutions in the executive branch at central, as well as at regional level – in local self-governments.

As of May 2014, women are heads of only 4 ministries – Ministry of Justice, Ministry of Environment Protection, Ministry of Education and Science and Ministry of Foreign Affairs, which constitutes 15.8% of total number of ministries.

Despite the significant progress, the achievement of gender equality is still a problem in Georgia. Even though in 2013, there has been a number of positive changes in Georgia in the legislative, institutional and civil society's actions towards promoting gender equality, the level of inequality is still high.

As practice shows, only gender neutral legislation and absence of gender discriminatory expressions in law do not always facilitate gender equality in the society; many other factors and obstacles affect the women's status and conditions. Hence, additional, gender oriented legislation is needed to achieve gender equality goal or at least to improve women's status. That is the main reason for integrating special legislation. Speaking about the laws that particularly aim to ensure gender equality in Georgia, one can conclude: it is necessary to strengthen the institutional mechanisms for enforcing the legislation, so that the state will actually protect gender equality.

The "Empower Women – Benefit (for) All" (EWA) Baseline Study by WECF²⁸ focused on the Influence of State Policy on Energy and Drinking Water Supply on Gender Equality in Georgia. It concluded: "For every country, energy sources and safe drinking water are those strategic resources, which determine the living standards of population and prosperity of each citizen. These resources maintain their strategic functions both in terms of entrepreneurial activities, as well as in terms of household

²⁸ http://www.wecf.eu/download/2014/September/BaselineGeo_EWA_July2014_fin.pdf.

consumption”²⁹. The lack of assistance and support from the State makes life very difficult for rural women in Georgia. Several NGOs working in the rural areas of Georgia have put a heavy emphasis on women’s empowerment trainings, agricultural skill and community development. Women are resourceful and are eager to make use of educational opportunities in order to learn about business skills and enhance their chances to develop³⁰.

Without access to energy, billions of women, men and children are denied the opportunity to improve their lives - to stay fed and healthy, earn a living and participate in education.

With access to energy, whole communities have the power to challenge their poverty, helping to realise the Millennium Development Goals in the process. Access to modern fuels lifts the burden on women and girls allowing more time to gain an education or earn a living.

In the national legislation of Georgia, there is no explicit language allowing for discrimination based on gender. Instead, it is the absence of legislation regarding specific references to women’s rights that is worrisome. There is no employment protection for pregnant women, women are not receiving equal pay to men – these are indicators that Georgia has many necessary changes to implement to ensure gender equality. The main findings, however, show that even when legislation comes into force, it is often ineffectively implemented. There is a lack of resources to support initiatives such as NGOs to protect women and teach them useful sustainable skills. These NGOs however, do not have financial support and lack the capacity to deal with all the challenges they face. The lack of state support in combating violence against women or ensuring gender equality on the ground is what fuels the continuous struggle for women to progress economically and politically. Even in urban areas, there is a concerning lack of women in higher positions and politics. In rural areas, women carry the burden of overwhelming household responsibilities and cannot manage to find the time for further education, employment or participation in the political arena. Women are often not aware of what their rights are, what their entitlements are and lack skills, knowledge and access to information. Additionally, the increasing challenges arising from lack of access to water and sanitation and other resources is driving women further into dire situations. While Georgia may be adhering to the recommendations put forth by the CEDAW Committee, it is undeniable that there is still a lot of work ahead in order to implement gender equality and enable women to enjoy their fundamental rights³¹.

MDG 7. ENSURE ENVIRONMENTAL SUSTAINABILITY

Human survival and prosperity are critically dependent on the environment. Complex ecosystems ensure a continuous supply of food and fresh water and provide wood and other natural resources for our use. They regulate our climate and protect us from floods and other natural disasters. Ecosystems have shown a remarkable capacity to accommodate more and more of our needs, yet, this very foundation of our existence is now threatened by population growth and the unsustainable use of natural resources.

2.4 billion people burn biomass fuels on a daily basis to boil water and to cook food. As a result 2 million tonnes of biomass are going up in smoke every day. This may not pose a problem where the growth of new trees outpaces human demand. Yet, where wood is scarce and the population is dense, wood

²⁹ Gender-based Direct and Indirect Discrimination in National Legislation of Respective EWA (Empower Women – Benefit for All) Project Countries (Georgia – Kyrgyzstan – South Africa – Tajikistan), WECF, p. 24.

³⁰ Gender-based Direct and Indirect Discrimination in National Legislation of Respective EWA (Empower Women – Benefit for All) Project Countries (Georgia – Kyrgyzstan – South Africa – Tajikistan), WECF, p. 25.

³¹ Gender-based Direct and Indirect Discrimination in National Legislation of Respective EWA (Empower Women – Benefit for All) Project Countries (Georgia – Kyrgyzstan – South Africa – Tajikistan), WECF, p. 28.

collection can put considerable pressure on forests³². Every year some 6500-7000 ha of forest are totally destroyed in Georgia because of energy poverty.

Introducing household energy practices that, in addition to decreasing levels of indoor smoke, save fuel and reduce greenhouse gas emissions can make an important contribution to achieving Millennium Development Goal 7.

The burning of biomass fuels in poor homes in the developing world does not convert all fuel carbon into CO₂ and water. Traditional stoves tend to be highly inefficient and lose a large percentage of the fuel energy as so-called products of incomplete combustion. These include the potent greenhouse gas methane (CH₄), which stays in the atmosphere for decades. When combining the emissions of CO₂ and other greenhouse gases in a single index, wood, crop residues and dung score much higher than fossil fuels, such as kerosene and liquefied petroleum gas (LPG).

According to the Georgia's Third National Communication to the United Nations Framework on Climate Change, the country's Greenhouse Gas (GHG) emissions in 2011 have constituted only 14.27 million t CO₂eq (about 29% of 1987 level). Per capita GHG emissions constituted 3.19 t CO₂eq in 2011, or 2.9 times less than the same one in 1987 (9.38 t CO₂eq/capita). In 2013 the development of a Low Emission Development Strategy (LEDS) was launched which will support Georgia on its efforts to pursue long-term, transformative development and accelerate sustainable, climate-resilient economic growth while slowing the growth of GHG emissions³³.

In 2012, the government approved the "Second National Environmental Action Programme of Georgia 2012-2016" (NEAP-2) that defined priority environmental issues, and set short and medium term goals for state administration and institutional development in the area of environmental protection and sustainable use of natural resources. NEAP-2 covers the following 11 priority sectors: 1. Water Resources, 2. Ambient Air, 3. Waste and chemical substances, 4. Black Sea, 5. Biodiversity and Protected Areas, 6. Land Resources, 7. Forestry, 8. Mineral Resources, 9. Disasters, 10. Nuclear and Radiation Safety, 11. Climate Change³⁴.

In 2011 the "2007-2009 National Report on the State of Environment" was adopted by the Minister of Environment and Natural Resources Protection (MENRP) complexly analysing the state of the environment of Georgia. "Environmental Education for Sustainable Development Georgian National Strategy and Action Plan 2012-2014" was prepared to establish a framework for Environmental Education (EE), coordinate on-going efforts and increase public awareness in regard to EE in Georgia by improving stakeholder communication and alignment of EE activities in Georgia with international goals and standards³⁵.

Environmental issues are reflected in other national strategic and policy documents as well, namely, in the "Socio-Economic Development Strategy of Georgia – Georgia 2020" and "Regional Development Program of Georgia 2015-2017".

In January 2013, Georgia submitted a full membership application to the European Energy Community; at the moment the country takes part as observer. Georgia is presently in the process of joining the Energy Community as a full fledged member, but the major areas of progress in the energy sector have been achieved through internationally funded initiatives rather than country-driven initiatives, and the elaboration of a law on energy efficiency and renewable energy has again been postponed.

³² Fuel for Life, Household Energy and Health. World Health Organization, 2006, p. 13.

³³ Georgian National Report on Progress towards achieving the Millennium Development Goals in Georgia, 2014, p. 45.

³⁴ Georgian National Report on Progress towards achieving the Millennium Development Goals in Georgia, 2014, p. 47.

³⁵ Georgian National Report on Progress towards achieving the Millennium Development Goals in Georgia, 2014, p. 47.

The major problems and challenges remain the same in Georgia's energy sector. In general, Georgia has no strategic development plan for the energy sector and since 2001 an energy balance has not been prepared. Despite certain positive changes over the past years, the sustainability of the energy system is still problematic in Georgia. Among the key problems are the safety of supplies; integration of environmental standards both in the process of energy generation and consumption; also development of competitive systems with the purpose of supplying power to consumers at moderate prices. Today Georgia is completely dependent on imported organic fuel which creates the danger of economic and political dependence for the country, while the parameters of energy intensity exceeds the parameters of EU member states by 2-3 times.

Without a proper analyses on how to address the legacy of the past, both the old and the new Georgian Government work to position the country as a future regional renewable energy hub and developed a number of Hydro Power Plants (HPPs). These are the highly controversial large dam cascades mainly in the mountainous areas of Georgia, including the Khudoni HPP (702MW, annual output 1.5 TWh) on Enguri, the Namakvani cascade (450 MW, annual output 1.6 TWh), Nenskra Cascade (438 MW, annual output 1.2 TWh), as well as divert ones such as Paravani (87 MW) and Dariali HPP (109 MW), as well as small HPPs all around the country with almost 1000 MW installed capacity³⁶.

The planned projects do not comply with the principles of sustainable development, and they may have serious negative impacts on the environment, drastically change the social and demographic situation in Georgia's mountainous regions and also lead to the destruction of cultural heritage.

There is no Millennium Development Goal on energy. Yet, energy poverty is one of the many manifestations of poverty and a prevailing feature of deprived rural and urban households in developing countries. Lack of energy, in particular lack of access to modern systems and electricity, already represents a bottleneck, holding back progress towards achieving the goals. Rather than squeezing through the bottleneck, the United Nations Millennium Project proposes to confront the energy issue directly. Improved energy services can reduce the time and transport burden on women and young girls, and lessen the pressure on fragile ecosystems.

In general, the environmental legislation is in place, but there are difficulties with its implementation and enforcement due to limited administrative capacities, financial resources and political will, especially at regional and local levels. Georgia can potentially achieve most of the MDGs by 2015; however, without a significant increase in political commitment, reaching the environmentally related MDGs (such as water supply and sanitation, and integration of sustainable natural resources use into policies) will pose a big challenge.

4 Conclusion

Clean and safe energy needs to be considered an essential human right, taking into account that it is interlinked with the prevalent cultural and social norms that shape rights for women and influence legal frameworks. In 2010 UN Secretary General's Advisory Group on Energy and Climate Change (AGECC) called for commitment and action on two goals; "universal access to modern energy services and reduction of global energy intensity through energy efficiency measures". It needs to be a concerted effort from regional, national and global agencies to ensure equitable policy framework for fair disbursement and judicious consumption. Advocacy among women in rural regions on equity, energy resources and options is most essential. Renewable energy techniques, which are also linked to income generation, should be further subsidized and popularized.

Energy needs should be considered within the overall context of community life, and energy projects should be integrated with other development efforts related to health, education, agriculture, and job creation.

³⁶ Monitoring report on the implementation EU - Georgia ENP action plan, Green Alternative, 2013, p. 7.

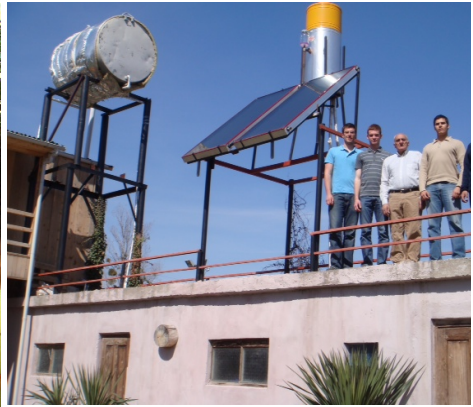
Given the linkages between environmental concerns and current approaches to energy production and consumption, it is important to seek sustainable energy solutions. Numerous energy strategies are available that are safer and more efficient at the local level but also have positive global impacts. Women's environmental priorities tend to be those with a direct link to health and poverty alleviation issues³⁷.

For the most part, policymakers do not take into account the differences between men and women relating to the distribution of, and power over, energy services. As a result, policies generally do not recognise that there is a gender bias in energy services, and women's energy needs tend to be marginalised in policy documents.

An engendered energy policy would recognise that women and men have different energy needs due to their differing household roles, responses to crises, and coping mechanisms and would offer energy technologies and services that match those needs. Engendered policies can be reached through gender mainstreaming, an approach that ensures that the concerns and needs of both men and women are considered in all planning and policy-making and that all policymakers are aware of the needs of men and women in relation to their roles and responsibilities.

³⁷ Gender and Energy for Sustainable Development, A Toolkit and Resource Guide. UNDP, 2004, p. 35.

Concept



C Recommendations

After analysing the state policy regarding energy in Georgia and its influence on the situation regarding gender equality in the country, it is obvious that the decisions taken by the Government of Georgia clearly facilitate a dynamic development of the process for the achievement of gender equality in the country. But the implementation of political decisions and international agreements, as well as the implementation of laws into practice are not promising and cannot guarantee the perspective for achieving those levels achieved by parts of the international community in this regard.

Taking into account all the above mentioned, following issues should be considered:

1 Local and National

- 1 The Government of Georgia should immediately prepare an Action Plan for 2020 for ensuring gender equality, in order to achieve specific levels till 2020, to overcome existing negative factors and ensure positive dynamics in this process.
- 1 A state regulatory legal entity with independent status should be responsible for monitoring and control of state structures' plans and activities for ensuring gender equality, including the budgetary sector.
- 2 Considering the fact that the banking system of the country and their credit resources are not affordable for the wider population, and even if available, these credits cause more social problems rather than their solution, the state budget should include significant credit resources which will be available for low interest rates and will be dedicated to women's issues regarding economic activities.
- 3 In order to increase the energy-independence of families and also mitigate results of global climate change, local and national governments should promote on the legislative level, as well as support materially and technically, the effective use of renewable energy sources (i.e. solar energy) in households. With the same goal to promote and facilitate the introduction of energy-efficient technologies in households without affecting living standards (comfort level).
- 4 Promote measures to increase the level of knowledge and awareness of the population regarding the efficient use of energy and drinking water resources.
- 5 Increase politicians' responsibility regarding the support of women's promotion in political life and within government entities in order to contribute to women's career development at regional and national level.
- 6 Promote the introduction of quotas or other mechanisms, as a temporary special measure for increasing women's political participation, in close cooperation with nongovernmental and international organisations.
- 7 Improve gender related institutional mechanisms in Georgia at central and local levels.
- 8 Coordinated work of legislative and executive structures and cooperation with non-governmental and international organisations in order to achieve better goals and results in the field of gender equality.
- 9 The energy policy-makers should consider the elaboration of an effective information strategy to ensure transparency and create a fertile soil for demand oriented energy policy in the country.
- 10 The respective energy policy-makers should elaborate comprehensive system of participation of citizens in the planning of energy policy and to provide equal space for

- women’s participation in the energy policy-making process as both women and men can offer insights and suggestions deriving from their experiences.
- 11 Include more professional women in the energy sector’s decision-making as along with professional insights they will bring knowledge and experience derived from their gender roles and responsibilities.
 - 12 Increase energy efficiency and renewable energy investments.
 - 13 Develop and adopt a national renewable energy programme.
 - 14 To review immediately the decree of parliament regarding “Main state priorities in the sector of energy” and according to the international agreements and public demands to adopt the energy policy of the country, which will have more power than the Parliamentary Decree and will adequately address the issues of energy efficiency.
 - 15 Based on the elaborated energy politics and German experience, immediately to adopt the following supporting legislative acts:
 - regarding effective use of renewable non-traditional sources of energy;
 - regarding energy efficiency;
 - establishing a codex of Georgia;
 - regarding production and import of energy efficient technologies, home and other types of appliances;
 - regarding technical regulations, where there will be considered reduction of energy loses, as well as the stimulation mechanisms for generation of renewable energy.
 - 16 Ensure balanced and fair protection of interests of all involved stakeholders in the energy sector.
 - 17 Improve the conditions of energy sector infrastructure.

2 International Level

- 1 Improve the access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services.
- 2 Recognise that energy services have positive impacts on poverty eradication, gender stereotypes and the improvement of standards of living.
- 3 Develop and disseminate alternative energy technologies with the aim of giving a greater share of the energy mix to renewable energy and, with a sense of urgency, substantially increase the global share of renewable energy sources.
- 4 Diversify energy supply by developing advanced, cleaner, more efficient and cost-effective energy technologies.
- 5 Assist communities, countries, and regions in placing themselves on a trajectory to energy sector transformation.
- 6 Promote energy efficiency working with countries to establish standards and labels for energy efficiency, introducing energy efficient building codes for new construction, improving energy efficiency of existing building stock through retrofits, reducing demand for energy services and increasing energy efficiency.
- 7 Support the developing countries to implement programmes to support sustainable, low-carbon, climate-resilient development pathways
- 8 Influence the Government of Georgia to ensure effective use of renewable non-traditional energy sources and ensure introduction of energy efficient measures.
- 9 Provide Georgia with necessary financial, material, technological and intellectual support in order to change the existing situation as soon as possible.

D Annex

List of Legislation

Law of Georgia on “Electricity and natural gas”; 1997.

Law of Georgia on “Oil and natural gas”; 1999.

“Main directions of state policy of Georgia regarding energy sector”.

Law of Georgia on “Gender Equality” (Parliament of Georgia; 26 March, 2010; #2844)

State Concept of Gender Equality of Georgia (Parliament of Georgia; July, 2006; #3488)
2014-2016 Action Plan for Ensuring Gender Equality (parliament of Georgia; 24 January, 2014;
#1945-).

Law of Georgia on Elimination of Domestic Violence, Protection and Support of Victims of
Domestic Violence (Parliament of Georgia; 25 May, 2006; #3143)