



FULL VERSION

Energy cooperatives

**Comparative analysis in
Eastern Partnership countries and Western Balkans**

Armenia, Belarus, Bosnia-Herzegovina, Croatia, Georgia, Moldova, Serbia, Ukraine

Potential of energy cooperatives to meet emission targets and supply society with affordable, safe and renewable energy and gender-sensitive participation opportunities



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SUSTAINABLE DEVELOPMENT GOALS



Energy cooperatives in the context of the SDGs

In 2015, the 193 member states of the United Nations (UN) adopted the 2030 Agenda with its 17 Sustainable Development Goals (SDGs). With the help of the Agenda, the world community wants to tackle global challenges such as poverty, hunger and climate change. Gender-just energy cooperatives offer an equal and democratic solution for women and men (SDG 5) to benefit from and boost access to affordable and clean energy (SDG 7), become skilled entrepreneurs (SDG 4, 8 and 9) and improve their standard of living (SDG 1, 2 and 3), while protecting the environment (SDG 13 and 15).

About this publication

This publication aims to provide analysis for politicians and energy stakeholders.

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LONG VERSION

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Armenia

Belarus

Bosnia-Herzegovina

Croatia

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Potential of energy cooperatives for meeting emission targets and to supply the society with affordable, safe and renewable energy and gender-sensitive participation opportunities

Summary: Key findings

All target countries have ratified the Paris Agreement. Their national climate and energy goals as well as the European Union targets for renewable energy (RE) – a share of 27% and increase in energy efficiency of 30% by 2030 – are still not enough to reach (supra)national climate goals. Energy communities, and thus energy cooperatives, can have an essential role in supporting national governments and the EU to achieve their climate and energy objectives of a fossil free and socially sound transformation. This movement is helping to drive the development of local decentralised energy networks, contribute to public acceptance of the energy transition, enhance energy security and provide opportunities for local economic growth. If appropriately supported, the potential of energy communities can incentivise local implementation of energy and climate targets, sustainable development goals (SDGs) and the Paris Agreement. This study focuses on energy cooperatives as one important instrument for energy communities. Key findings are:

- There is a high need to strengthen public energy administrations to implement policies: market regulation, energy efficiency, energy security, energy poverty and ecological impact of energy use: Energy cooperatives can act as intermediaries for a broader public consultation.
- Available data on energy citizen projects in the target country is rather limited. Identifying good practice cases and measuring their impact requires platforms and knowledge transfer.
- The few identified best practices show that in almost all target countries, energy cooperatives could be established as a successful democratic and socio-economic business model.
- There is insufficient knowledge to understand the extent to which this organisational form is able to unify a broad group of actors to promote an RE system (societal power), to gather capital for elaborating renewable energy supply structures (economic power) and to meet international climate and SDG targets (ecological power).
- The operational phase, in addition to the preparatory stage, are both very important for the success of energy cooperatives.
- Important factors for energy cooperative development are governance and actor variables:
 - Support mechanism for RE and legal and political framework
 - Planning policies and administration
 - Attitudes towards the cooperative model
 - Cultures and local energy activism
- The main barriers are the lack of an appropriate support framework, lack of financing, lack of knowledge and cooperative pilots and the strong power of monopolistic energy utility companies adhering to fossil and centralized energy systems.
- The legal and political framework is very important for RE systems, but with cooperation, capacity building and support schemes, energy cooperatives can be pushed from bottom-up.
- Cooperative structures encourage strong commitment, they reduce transaction costs and also mistrust in authorities and they encourage individual actions for sustainable development. Property rights in the hands of citizens are likely to enhance the cooperative model's credibility and trustworthiness. Cooperatives improve cohesion within communities by building trust and confidence.
- Energy cooperative projects do not stand alone, rather they are part of a comprehensive 'community developing' policy, fostering a wider diffusion of new energy structures as technical, economic and societal models.
- A transformation of the energy system towards a renewable and decentralized energy supply needs a European dimension. Decentralized citizen's power could significantly reduce system peaks and strengthen a European-wide power grid.

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List of Abbreviations

ADA	Austrian Development Agency
BAU	Business as usual
BOS	Belgrade Open School
BiH	Bosnia and Herzegovina
BiH/RS	Bosnia and Herzegovina/Republika Srpska
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CHP	Combined Heat Plant
CSO	Civil society organization
DGRV	Deutscher Genossenschafts- und Raiffeisenverband
e-coop	Energy cooperative
EE	Energy efficiency
EEG	Erneuerbare Energiegesetz = Renewable Energy Act
EECCA	Eastern Europe, Caucasus and Central Asia
ESCO	Energy Service Company
FBIH	Federation of Bosnia and Herzegovina
EU	European Union
FiT	Feed-in tariff
FiP	Feed in premium
GCF	Green Climate Fund
GEA	Gender Equality Agency
GEF	Global Environment Fund
GEM	Gender equality mechanism
GHG	Greenhouse gas
GRB	Gender responsive budgeting
GW	Gigawatt
IEA	International Energy Agency
INDC	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
kW	Kilowatt
LGBT	Lesbian, gay, bisexual and transgender
LCDS	Low Carbon Development Strategy
LGE	Law on Gender Equality
MoSP	Ministry of Social Policy
NAP	National Action Plan
NDC	Nationally determined contributions
NEEAP	National Energy Efficiency Action Plan
NGOs	Nongovernmental organizations

NREAP	National Renewable Energy Action Plan
OECD	Organisation for Economic Cooperation and Development
OP	Optional protocol (to CEDAW)
PPA	Power Purchase Agreement
PV	Photovoltaic
RE	Renewable energy
REIC	Regional Education and Information Centre
REN 21	Renewable Energy Policy Network for the 21st Century
RPS	Renewable portfolio standards RPS
RS	Republic of Srpska
SDGs	Sustainable Development Goals
SHPP	Small hydropower plant
SIDA	Swedish International Development Cooperation Agency
SWH	Solar Water Heaters
TWh	Terawatt hour
UN	United Nations
UNDP	UNDP - United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNFCCC	United Nations Framework Convention on Climate Change

1. Introduction (background and regional scope)

This paper estimates the potential of energy cooperatives to meet emission targets and supply society with decentralized, affordable, safe and renewable energy and gender-sensitive participation opportunities in Eastern Europe and the Western Balkans. In the map below (Figure 1), the countries explored in this analysis are shaded orange



Figure 1: Geographical overview

The five EU Eastern partnership countries explored in the following are: **Ukraine, Georgia, Armenia, Moldova and Belarus**. Those countries belong to the Eastern Europe, Caucasus and Central Asia or in short EECCA region. All the countries in this region (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine and Uzbekistan) declared independence over two decades ago. Since then, the levels of national sovereignty and the development of political and economic structures of these countries vary, with some countries maintaining regulated structures and others designing more liberalised economies. Moldova, Ukraine and Georgia signed an EU Association Agreement in June 2014; and Kazakhstan and Belarus opted to establish the

Russian Federation-led Eurasian Customs Union in 2010, joined by Armenia from January 2015 and soon to be joined, Kyrgyzstan and possibly Tajikistan (IEA 2015a).

Both the IEA in a 2015 analysis on EECCA countries and REN 21 in their 2016 Global Status Report on Renewables spotlight the region in their research. Both institutions find that despite sizeable renewable sources of energy, the contribution of modern **renewable energy** technologies, except hydro power remains marginal across the region. The share of modern renewable technologies for heating and cooling is pretty low. While solar water heating could be deployed economically in all countries, projects and installations exist in only a few regions. Mostly in the power sector exists supporting policy framework, feed-in tariffs are the most commonly applied. Although most support policies in the region have been enacted at the national level, an increasing number of city and local governments are promoting RE. Though targets and regulatory policies to advance energy efficiency are in place, most commonly in the building sector, followed by transport and industry, the region's potential for **energy efficiency** gains is vast and remains largely untapped. As **barriers for development**, the reliability of energy supply, affordability and a market environment that is not considered as stable enough by investors have been identified. Poorly maintained Soviet-era infrastructure is the main obstruction to supply reliability, however, the need to replace ageing infrastructure also presents an opportunity to better integrate renewables and improve energy efficiency. Many low-income rural households still lack access to clean, affordable fuels for cooking and heating, and they often rely on traditional biomass (straw, wood or coal) for open-fire cooking bearing the risk of degradation of local biomass resources. Even subsidised energy prices can create difficulties for consumers, resulting in increased non-payment for electricity. In many cases, legal frameworks are not considered stable and transparent enough to trigger large-scale private investment. Market entry remains a challenge in countries that have not fully liberalised their energy markets yet (IEA 2015a; REN21 2016).

The dominant model of energy infrastructure has historically been conceived as very centralized, even more in the post-soviet countries. Citizen involvement and other public participation is hardly existent. Now a few numbers of citizens, NGOs and policy-makers advocate the transition towards a more decentralized configuration, involving geographically dispersed and small-scale generation units located close to consumers. Decentralized systems are said to present several advantages over centralized ones, including reduced costs for transmission and distribution systems, reduced grid power losses, more efficient data management systems and a larger share of zero-carbon technologies (Sims, Schock 2007).

Whereas this energy transition with energy cooperatives and community energy projects shows different models in Germany, Denmark and Belgium, it is almost non-existent in the target countries of the study. Some formal or informal citizen-led initiatives show the feasibility of such democratic and decentralized small-scale projects. In this context it is important to study the conditions and factors likely to foster energy cooperation and citizens' participation to increase the share of clean, decentralized and socially sound energy production. The Western Balkan countries examined in this analysis are: **Bosnia and Herzegovina, Serbia and Croatia.**

2. Citizens' energy and community energy

The term “**citizen's energy**” is often used to describe this combination of civic participation and decentralized energy generation (based on renewable energy sources), sometimes combined with energy efficiency. It implies that citizens previously have not been involved in the energy value chain and that organisational forms of citizen's energy radically change that fact (Hauser et al. 2015). Citizen's energy or community energy can be organised by private persons as individuals, or they can unite to plan, invest in and implement RE projects in different corporate forms.

Projects organised in forms of Citizen's Energy or Community Energy have a positive impact on integrating citizens in sustainable economic processes, acceptance of newly built RE power plants, increase of social and citizenship commitment, participation and transparency in projects as well as tying citizens to their community and region which has positive effects on democratic structures in society. For a successful transition towards sustainable energy, acceptance at all levels of society is needed. Citizen's or community energy projects have this capability to design and change society. Energy cooperatives often have the explicit target to be tied to their regions and establish functional regional value chains (George 2012). There is evidence that those value chains grow even stronger in regions that foster a decentralised energy production (Aretz et al. 2010). Regional economic strength can be boosted through two effects. First, the use of renewable energy resources reduces dependency on imports of fossil energies, which poses risks to political stability in both import and export regions. Second, the transition towards a sustainable energy production system can help to alleviate the effects of demographic change in rural regions which are especially affected of the loss of jobs, infrastructure, migration into cities and an aging population (Staab 2015). Energy cooperatives open a chance to boost a „regional confidence“, using regional value chains, direct visibility of investments and knowledge of local circumstances (Energieagentur Rheinland-Pfalz GmbH 2015).

Furthermore, within a decentralised energy transition the cooperation between citizens or other actors like cooperatives and local municipalities plays an important role. In 2014, almost two thirds of German energy cooperatives used roofs or other properties provided by local municipalities for the production of renewable energy. In almost 60% of these cases, the local municipality is a member of the cooperative.

The establishment of 50% of German cooperatives was initiated by municipalities. Only in a few cooperatives (13%) the municipality is not involved at all (13%) or even critical towards the cooperative (2%) (DGRV 2014).

These initiatives are increasingly seen as key stakeholders in the transition towards fossil-free energy systems in Germany, Denmark, UK and Belgium (Seyfang, Park, Smith 2013). While incumbent actors suffer a lack of trust from the citizens, the implementation of decentralized RE projects and smart metering technologies as well as many energy efficiency measures need to be steered by trustworthy individuals and organisations rooted in local communities. Citizen energy enhances social acceptance of technologies at the local level. Moreover, it is linked to identification processes in rural areas and can be interpreted as an expression of more participation in decision-making on this vital infrastructure (MacArthur 2013).

The use of renewable energy resources in contrast to fossil energy sources has especially for municipalities various socio-economic benefits (Staab 2015).

3. Energy cooperatives – a general overview

3.1. One model for citizens' energy and energy communities

Definition:

“A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise”. This means that a cooperative is a form of business owned and run by and for their members. The core values are the principles of **self-help, self-responsibility, democracy, equality, equity** and **solidarity** (International Cooperative Alliance 2017).

Organisational structure:

The cooperative has a lean and functional organisational structure, consisting of three bodies: The **General Assembly**, the **Executive Board** and the **Supervisory Board** (Figure 2). The Executive Board runs the cooperative under its own responsibility, while the Supervisory Board monitors these activities. The General Assembly is the supreme legal organ of the cooperative, which elects the Supervisory Board, decides on changes of the charter and other fundamental questions. The charter specifies whether the General Assembly or the Supervisory Board is responsible for the election of the Executive Board. Every cooperative has a **charter** as an internal constitution, which complements the statutory provisions and determines the structure, competences and objectives of the cooperative.

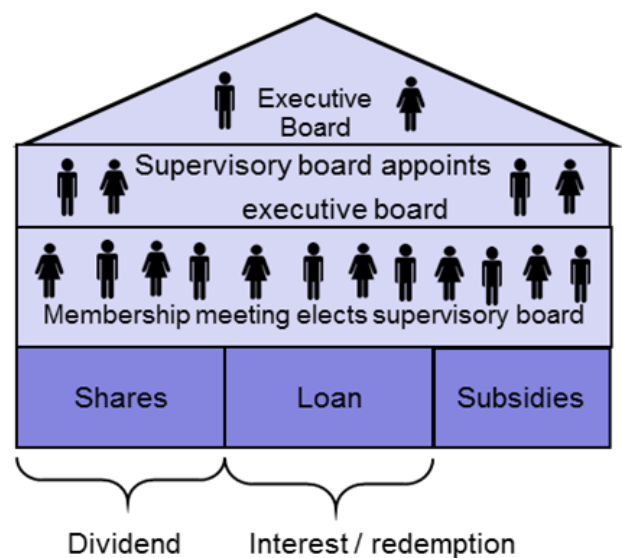


Figure 2: Organisational structure of a cooperative

Cooperatives that are established for the purpose of producing and distributing energy, mostly from renewable resources such as wind, solar power or biomass are called energy cooperatives.

Energy cooperatives are a suitable model to plan, finance and implement renewable energy projects and offer many advantages:

1. Balance of interests: Enabling of different actors to get involved in the decision-making process on a local level and to combine economic, social and communal interests;
2. Acceptance: Increasing citizen's acceptance for the implementation of renewable energy projects through active participation;
3. Regional added value: Strengthening of the local economy through citizen's joint investment in projects that are realized with local companies and banks, craftsmen and projectors. In addition, municipalities profit from tax revenues and the unemployment rate decreases;
4. Social justice: Reducing social injustice, since also women and citizens with low incomes can actively participate in the energy transition as cooperative members.
5. Needs-based energy industry: Enabling the energy supply to be tailored to specific needs, which is based on the support of the members instead of a high return for shareholders;
6. Long-lasting commitment: Energy cooperatives are not an entirely capital-based participation of the citizens, but regional enterprises that have the potential to shape the regional energy supply in the long term and are part of a comprehensive 'community developing' policy. (DGRV Bundesgeschäftsstelle Energiegenossenschaften 2007).

The formation of energy cooperatives allows a de-monopolization and democratization of expert knowledge and the entrance of new actors – women, men, youth, etc. - into the energy sector and demonstrates an alternative to the existing fossil and wood energy industry. Becoming energy "prosumers" – meaning simultaneously producers and consumers - in a local context is a political process of learning and development with as broad and diverse representation as possible from all parts of society. The experience of women being responsible for heating and cooking in the households is explicitly considered and helps to tailor the renewable energy solutions in an appropriate way. The increased knowledge and experience about renewable energy raises the acceptance with the broader public, which is important for the transformational process to move towards a decarbonized economy and society.

3.2 Energy cooperatives – interlinked with other cooperatives

A huge number of cooperatives are globally active in a broad range of sectors within the economy. For the annual World Co-operative Monitor, published by the International Cooperative Alliance, a database of 2.370 cooperatives across 63 countries was used. As displayed in Figure 3, the majority of them, 26% are active in the field of agriculture and food industries, followed by insurance (22%), banking and financial services (16%), wholesale and retail trade (14%), other services (9%), health and social care (7%), industry (6%) and other activities (1%) (International Cooperative Alliance und Euricse 2016).

Energy cooperatives are of course closely interlinked with other actors in the cooperative sector. First of all, cooperative banks play an important role in financing. As the use of renewable energy sources is predominantly bound to rather rural regions, and especially in the field of biomass production offers income opportunities for farmers, there are also many touching points with agricultural cooperatives.

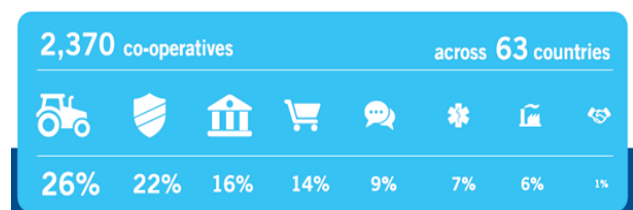


Figure 3: Fields of Cooperative activities worldwide
[Source: Internat. Cooperative Alliance und Euricse 2016]

3.3 Recent development in Central and Western Europe

In Western Europe, energy cooperatives have turned into important supporters of renewable and decentralised energy structures, due to their strong growth for more than 10 years, their participation in local renewable energy projects and their democratic awareness. The cooperative form of coordinating local renewable energy projects applies to a decentralised energy system that is managed by many smaller firms - a system concept that is preferred by the majority of the citizens.

Denmark's historic leadership in decentralised renewable energy has come from cooperatively-owned and managed wind turbines powering local homes and businesses. **Germany** has developed rapidly with more than 800 energy-cooperatives appearing in the past 5 years alone (Figure 5). Citizens' energy projects make up the majority of renewable energy production in Germany. Such projects are mostly small with installed capacities of only a few Kilowatts, however, due to their high number they have significant impact on the energy transition. Without citizens' investments, the increase of renewable energy power plants in Germany would be much lower (Leuphana Universität Lüneburg und Nestle 2014). Citizens own 34 GW (46.6%) of a total installed renewable energy capacity of 73 GW in 2012, and represent the biggest group of actors next to utilities and institutional or strategic investors (trend:research und Leuphana Universität Lüneburg 2013). However, the growth of renewable energy cooperatives has decelerated, largely due to recent changes in Germany's energy policy (REN21 2016). Cooperative projects have mainly focused on Solar PV, as risk and investment are easier to handle than with wind power projects. Especially through cuts in the guaranteed payments for electricity out of RE installations, the development of energy cooperatives has slowed down since 2012 (Müller und Holstenkamp 2015). The EEG 2017 (Renewable Energy Act) with its transition towards tendering to determine the amount of compensation for the promotion of renewables together with only limited reliefs for citizens' energy will have significant impact.



[Source: DGRV 2016]

Figure 4: Growth of energy cooperatives in Germany

Energy cooperatives have not taken off much in central and Eastern Europe, partly because of the connotations with their communist past. Yet, change is happening, with pioneers in Estonia relabelling cooperatives. The UK's energy-coop sector is small but growing, with more than 40 now either trading or soon-to-be launched.

The primary reasons for the success of energy cooperatives is a stable and favourable framework in both corporate and energy legislation. Especially existing FITs make it attractive to establish renewable energy projects as their profitability is easy to predict.

3.4 New cooperatives in the context of (post) socialist experience

Social and cooperative structures are fragile and embossed by a profound distrust towards authorities in former USSR countries. People have little experience with setting up and managing organizations that are economically successful and at the same time democratic. Structures and project opportunities for citizens' participation and political involvement are missing.

Cooperatives are vehicles for broad democratization and empowerment in developing, former USSR countries: they instill basic democratic values and methods, foster self-reliance through collective action and shape relationships between institutions and civil society that encourage participation and conflict management. The resulting framework is the foundation stone for a more secure society and for economic growth. Successful cooperatives promote democratic values by instilling:

- Democratic member control (one member, one vote);
- Participatory management practices;
- Transparency in decision-making and financial accountability;
- Devolution of power;
- Collective action and bargaining power.

Democratic governance, participation and local control are put into practice through the commonly accepted cooperative principles. One of them is democratic member control. Through cooperatives, strong local, state, and national leadership can emerge. Members learn how to resolve problems together and, among those who learn democracy in local, cooperative "laboratories", are some who will become political leaders in their nations. In emerging democracies, cooperative members learn entrepreneurship and market principles. Cooperatives enable people with limited resources to pool them so as to competitively participate in the mainstream of a nation's economic and political life. As democracies emerge, decisions become subject to the "push and pull" of different groups. Cooperatives create an economic pressure group that often transcends caste, class and religion, drawing together a constituency that has a vested interest in progress and policies that enable economic growth. Sustainable development is achieved because cooperatives integrate economic and social objectives by fostering collective local action, which, in turn, builds and reinforces communities. For example, they reduce inequalities and empower marginalized groups by developing local organizational knowledge and management skills such as literacy, numeracy, advocacy and communications. Such factors can impart a notable influence in the political sphere. Cultural, organizational and technological change is fostered by cooperatives in communities and, because of their organizational form, they have outperformed private and state enterprises in commercial activities in more sustainable ways. Many of those locally controlled institutions carry strong links to social movements focused on poverty alleviation, social justice and environmental issues. In this manner, cooperatives may be able to better address negative impacts of globalization than large international corporations.

3.5 Tool for women's empowerment and gender justice

20 years have passed since 1995's World Beijing Conference on Women placed a focus on closing the gender gap, but deeply-rooted gender-based inequalities have continued beyond the 2015 target. Women are still under-represented as political and economic decision-makers; suffer from lack of access to decent, fair-waged, safe employment; and are more likely to work as informal and unpaid labour. Given this reality, the United Nations have agreed to prioritise gender equality and women's empowerment by creating a stand-alone Sustainable Development Goal (SDG) - SDG 5 - to increase gender equality. Due to their core values cooperatives are an appropriate legal form to address many of the issues that negatively impact women.

Collectively members own their cooperative, and through democratic arrangements they participate in its governance. They run the cooperative as elected members of the management and supervisory board. Governance is key. Cooperatives are governed by their members who typically invest in the cooperative and have an ownership stake in it, as well as a voice in how the firm is run. Decisions are often made on a one-member, one-vote basis, so in many societies, cooperatives provide a much-needed example of democratic governance amid otherwise inequitable conditions. Thus, cooperatives offer an alternative to the shareholder model of business ownership. In many sectors they show very successful and continuous positive economic results while also considering social and environment impacts.

Overall:

- Cooperatives have an increasingly positive impact on women and their inclusion in the labour force and formal economy
- Cooperatives can empower women by collaborating with civil society and gaining government recognition
- Cooperatives can continue to develop policies that support women from within
- Democratic processes require shared decision-making between women and men
- Contribution towards gender equality by expanding women's opportunities to participate in local economies
- Strong links between women's cooperative involvement and poverty reduction

Cooperatives can be powerful vehicles for social inclusion and political, economic empowerment. "Shared influence and responsibilities are the key to cooperative excellence" (*ICA-resolution on Gender Equality in Cooperatives*). Overall global obligations for gender equality are required by UN resolutions like the SDG N° 5 and the Lima-Work-Programme on Gender of UNFCCC.

How Cooperatives Contribute to Gender Equality and Women's Economic Empowerment		
<i>Economic empowerment</i>	<i>Improved work conditions</i>	<i>Social empowerment</i>
Equal access to paid work	Fair and adequate earnings / equal pay for equal value of work	Learning opportunities such as technical skills improvement and management training
Transition opportunities to the formal economy through cooperation	Decent work in safe working conditions	Affordable and accessible goods and services
Access to business capital, financing, and market places	Collective bargaining power	Improved self-esteem and confidence
Access to opportunities to gain skills and knowledge for economic activity	Increased levels of participatory democracy in the workplace	
Economic development in rural areas		

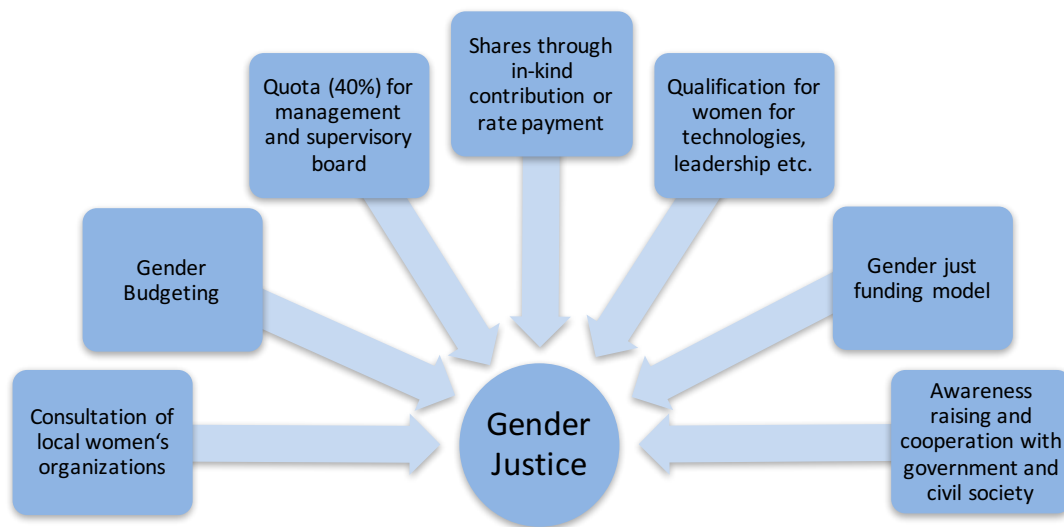
Source: [COPAC 2015]

Figure 5: How cooperatives contribute to gender equality

Gender-just energy cooperatives could:

- Provide equal access to women throughout the energy value chain: technologies, jobs, funding, dividend
- Reduce workload: save cost and time
- Ensure control over energy production and consumption
- Foster women's empowerment and leadership
- Engage for cooperative gender and energy policy

The beneficiary and people-centred approach pays particular attention to small-scale and community-based actions, where women are under-represented. It can be an inclusive way to boost women’s empowerment and the renewable energy business. Within cooperatives women are members, managers, investors, producers, consumers and beneficiaries. They have a say in the sustainable energy production and they become entrepreneurs at community level with up-scaling potential. The world of work changes and a key prerequisite is that the turnaround is inclusive and sustainable. Gender-just energy cooperatives are a way to guarantee women and men an equal voice in the development of energy production, in particular renewable energy. It enables women to become economically active and thus empowered. It contributes to the implementation of the Agenda2030 by addressing the various SDGs (in particular N° 5, 7, 8, 10 and 13).



Source: WECF

Figure 6: Applying gender strategies fosters equality for women and men

3.6 Driver for decentralized renewable energy supply with public participation

As mentioned, a key element of the organisational structure of a cooperative is democratic participation, creating a row of positive socioeconomic effects. Members are simultaneously owners of the common organisation and users of the commonly organised services or products. This embeds cooperatives firmly in a real economy, contrasting to opaque financial markets. Cooperatives can act effectively and with low transactional costs throughout the energy value chain (Energieagentur Rheinland-Pfalz GmbH 2015). While the return of investment is still important, it definitely is not the key element. Business activities of energy cooperatives often aim for a bigger goal, for example pushing a “citizens’ energy transition”, or changing attitude and behaviour of members and potential customers (Energieagentur Rheinland-Pfalz GmbH 2015, Leuphana Universität Lüneburg and Nestle 2014). Thus, cooperatives often act different to purely profit-oriented corporations. What drives their members’ decisions are strategic, social as well as economic elements. Projects are directly visible and immediately useful, and offer a possibility to combat demographic change in rural areas. The formation of cooperatives enables its members to take local actions and pushes their self-confidence, leading to stronger identification with themselves, their work and their region.

4. Situation analysis per country

4.1 Methodology

4.1.1 National climate and energy policies

In this section, the respective country's energy and climate targets will be examined. The database for this assessment will be the country's INDCs or NDCs as submitted to the UNFCCC in the frame of the Paris Agreement. Furthermore, existing national laws and policies concerning the energy sector or climate protection are analysed. Table 1 shows an overview of the status of ratification of the Paris Agreement in the examined states.

Table 1: Status of Ratification of the Paris Agreement

Country	Signature	Ratification / Acceptance (A) / Approval (AA)
Albania	22 Apr 2016	21 Sep 2016
Armenia	20 Sep 2016	23 Mar 2017
Belarus	22 Apr 2016	21 Sep 2016 (A)
Bosnia and Herzegovina	22 Apr 2016	16 Mar 2017
Croatia	22 Apr 2016	24 May 2017
Georgia	22 Apr 2016	8 May 2017 (AA)
Moldova	21 Sep 2016	20 Jun 2017
Serbia	22 Apr 2016	25 Jul 2017
Ukraine	22 Apr 2016	19 Sep 2016

[Source: United Nations 2017]

4.1.2 Degree of gender equality in the countries

The enabling environment is the given framework of a country encompassing the political system as a whole as well as other related internal and external circumstances. An active civil society with NGOs, being capable and financially well equipped, is a determining factor of a balanced political system.

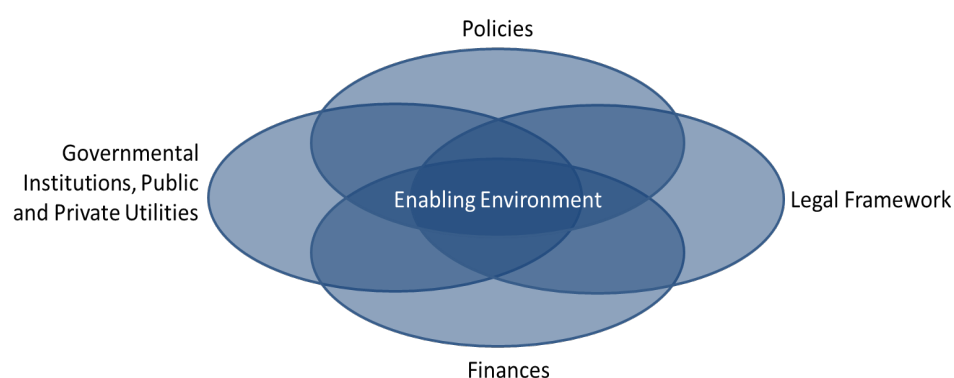


Figure 7: Enabling Environment for gender equality

An enabling environment for gender equality consists of four elements: legal framework, policies, governmental institutions, public and private utilities and finances.

a) Legal framework

In general, the national and regional legislation (laws and regulations) need to address discrimination based on the grounds of gender and should aim for gender equality (i.e. obligations under international treaties such as CEDAW). A further developed environment will need mainstreaming, where legal frameworks and regulations governing climate change adaptation and mitigation already addressed gender-based discrimination and gender equality. When assessing the legal situation in a respective country, a specific sector it is at the same time important to evaluate if the implementation of the legislation is already advanced at the national and regional level. This does not only include administrative procedures and regulations, but also the judiciary and the question of access to justice (i.e. legal aid).

b) Policies

A gender policy or a national gender action plan is an indicator of a certain level of awareness of tackling gender issues at the national level, as well as a parameter on how to handle it on levels below. However, without proper implementation, including a sufficient allocation of budget for gender-related activities, any policy is meaningless. Furthermore, the collection of sex-disaggregated data goes hand-in-hand with developing proper gender policies. National action plans and policies need to include and mainstream gender equality. Mitigation and adaptation plans have to bring together all policies and to look beyond stand-alone plans and strategies. Policy areas (e.g. environmental policy, industrial policy) have to be informed by gender equity and climate mitigation/adaptation policies and programmes.

c) Business, governmental and public institutions

The proper implementation of legislation and policies requires gender awareness as well as capable and committed management and staff in relevant governmental positions. Thus, gender mainstreaming in decision-making is key and awareness raising and trainings on gender issues within the ministries and subsequent departments should be implemented. A determining factor is also the ratio of men and women working in the relevant ministries/departments.

d) Finances

Budgeting policies referring to public revenues but also pertaining to economic policy – in particular to climate change mitigation and adaptation - should be gender equitable. A detailed analysis following this enabling environment matrix can be found in Annex I of this paper.

4.1.3 *Situation and power of civil society*

For assessing the situation and power of civil society, seven factors are taken into account:

- 1) People's cultural propensity to take part in civic activities such as:
 - a. National, World Values Survey (2005-2007);
 - b. European Values Survey (2008);
 - c. CIVICUS' Enabling Environment Index (EEI): global composite index to assess the capacity of citizens to participate in civil society. Three dimensions: (1) Socio-Economic Environment, including education, communications, equality and gender equality, (2) Socio-Cultural Environment, including people's propensity for participation, tolerance, giving, volunteering and trust, and (3) Governance Environment, including civil society infrastructure, policy dialogue and corruption (CIVICUS 2013).
 - d. Balkan Matrix;
- 2) Priority of sustainability, ecology, climate and renewable energy;
- 3) Legal framework regulating NGOs;
- 4) Public funding;
- 5) Allocation of non-financial support to NGOs;
- 6) Current policies on practice of volunteering;
- 7) Number of CSOs and number of members, international NGO-networks.

4.1.4 Legal framework for cooperatives

Analysis will be conducted to assess whether there is a cooperative law existing in the respective countries and if energy cooperatives exist under this law. It will be explored further which public authorities are in charge of dealing with cooperatives. Correlations with other cooperatives, as well as success factors will be identified.

4.1.5 Existing pilots, business models and technologies

Assessment per county for best practice examples of cooperatives will be conducted. Likewise, other citizens' energy initiatives producing renewable energy with technologies such as photovoltaics, wind, geothermal, biomass or hydropower will be included in the analysis. Their business models and experiences will be documented.

4.2 Croatia

4.2.1 National climate and energy policies

National Energy Strategy: 2009-2020

Croatia adopted the National Energy Strategy 2009–2020 due to its international obligations outlined in Kyoto Protocol, as well as from preparation process of entering into the European Union in 2013. The Strategy has three basic objectives: (1) increase security of energy supply, (2) develop competitive energy system and (3) ensure sustainable energy sector development. These objectives are particularly important due to Croatia's heavy dependence on energy imports, which results in country's vulnerability to energy prices volatilities.

Targets were set as follows:

1. decrease by 20% greenhouse gas emissions by 2020 taking emissions level of 1990 as a baseline;
2. increase share of renewable energy by 20% in annual gross energy consumption of the country by 2020;
3. cover 10% of energy used in all transport sectors with energy derived from renewable sources by 2020;
4. decrease final energy consumption by 9% by 2016.

National Low-carbon Strategy: 2030 and Outlook to 2050

New Croatian Strategy, developed in 2017, sets the path for transition to a sustainable competitive economy to attain economic growth at low greenhouse gas emissions. It underlines the importance of active citizen involvement and the development of innovative financing models for locally initiated RE projects. The strategy follows an action plan of implementation defining immediate steps, priorities and guidelines for a period of five years.

INDC: 2021-2030

In the Paris climate negotiations, the multilateral community has decided that all countries should submit [Intended Nationally Determined Contributions \(INDCs\)](#). The INDCs represent each country's contribution to the collective effort against climate change. They are part of a global climate agreement.

The EU and its Member States are committed to a binding target of at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990. This target will be fulfilled jointly, as set out in the conclusions by the European Council in October 2014. Croatia announced its contributions to the global climate change mitigation effort in March 2015.

Investment framework for renewable energy

Electricity in Croatia is generated from fossil fuels (e.g. gas, coal and oil-based thermal sources) and large hydropower plants. About 2.2 GW of hydropower and 1.8 GW of thermal power plants are currently installed (IRENA 2017). The share of wind power has become larger in the last few years, and Croatia has already achieved its 2020 target. Croatia, as with most of the Western Balkan countries, is very dependent on energy imports. Its electricity demand is still expected to rise further.

The novation of the Law on Renewable Energy and High-efficient Co-generation in January 2016 resulted in the abandonment of the pre-existing feed-in system. Moreover, transition to a premium support scheme was introduced. The development of solar PV under feed-in tariffs (FIT) support was stopped at 52 MW. Subsequently, hundreds of megawatts projects were cancelled. Solar PV for self-consumption in industry is developing without FIT support because of a 40% investment subsidy available from the Environmental Protection and Energy Efficiency Fund, which leads to a payback period of less than eight years (IRENA 2017). Changes to the support scheme in Croatia, introduced by the 2016 Law include (IRENA 2017):

1. Feed-in Premium (FIP) to be allocated through an auctioning system and for a predefined quota for each technology;
2. Feed-in Tariff (FIT) to be maintained for plants of up to 30 kW and allocated through an auctioning system and predefined quota for each technology;
3. Self-consumption scheme for prosumers with installations of up to 500 kW, with monthly calculation of production/consumption.

In the past years, the allocation of FIT support was perceived as non-transparent. Trust in the institutions was compromised, with many lawsuits filed (HROTE 2015). The quota model for wind and solar affected negatively the development of renewable energy in Croatia. Current subsidy scheme has become an obstacle to expansion of renewable energy. Thus, new methods are necessary for energy transition to be successful. Public interest in RE is quite strong, but citizens' participation is mostly limited to roof-top solar power. Cumulative installed solar power accounts for only 6% of all RE in Croatia. On the other hand, energy cooperatives and citizens are not engaged in wind power, which accounts for 83% of renewable energy source in Croatia. The Croatian Law on Renewable Energy from January 2016 has brought a positive shift (i.e. net metering scheme). But some important elements are still missing for RE development.

4.1.1 Degree of gender equality in the countries

According to a study commissioned by the European Parliament's Committee on Women's rights and Gender Equality (FEMM, 2017), the EU gender equality acquis has been properly transposed in the existing legislative instruments in Croatia. Article three of the Croatian constitution states that Gender equality, along with freedom, equal rights, national equality, peace-making, social justice, respect for human rights, inviolability of ownership, conservation of nature and the environment, the rule of law and a democratic multiparty system, as one of the highest values of the Croatian constitutional order and a ground for interpretation of the Constitution. In horizontal anti-discrimination laws, like the Gender Equality Act and Anti-Discrimination Act, sex discrimination is explicitly prohibited.

Practice shows that prejudices that can lead to severe cases of discrimination are sometimes present. For example, gender discrimination is considered the third most common ground of discrimination in the labour market by employed and unemployed persons (Franc 2010). According to the FEMM, the root of the problem could be traced to Croatia not having a sex education class in the educational curriculum. Therefore, generations are left of their own, aggravated by insufficient home education about sex and gender equality.

According to the Constitution and the Gender Equality Act, everyone who experiences discrimination are protected and have a basis to a legal complaint. Financial instruments are available to civil society organisations that focus on gender equality from both public and private sources. There are some financial opportunities that exclusively target women, while other are rather unbiased about gender.

4.1.2 Situation and power of civil society

The Republic of Croatia as full-fledged member of the EU has at its disposal EU funds. However, in practice, a number of factors that make absorption of disposable means difficult for civil society organizations still occur (Balkan Civil Society Development Network, 2016). The main responsibility for this problem lies in untidy administrative procedures run by state authorities in charge of distribution of disposable funding. Balkan Civil Society Development Network (2014) reported the following:

1. Insufficient public perception on potential situations of conflict of interest and insufficient knowledge of Prevention of Conflict of Interest Act by public officials;
2. State authorities are late with preparing strategic and operative documents for absorption of EU funds;
3. Encouraging self-censorship by penalizing freedom of speech and expression;
4. There are no clear criteria for selection of project evaluators and committees for evaluation of projects are not transparent in relation to their structure;
5. Criteria for allocation of state incentives put CSOs in unfavourable position;
6. Inadequate implementation of Access to Information Act.

Croatia holds 39th place, with a score of 0.60, in the Enabling Environment Index ranking. According to a country report on the Transformation Index BTI of Croatia (2016), civil rights are codified by law, but these are not properly respected and protected. Mechanisms and institutions to prosecute, punish and redress violations of civil rights are in place. However, these are not consistently effective. National minorities are guaranteed civil and political rights that are commonplace in liberal democracies. In practice, however, some groups (e.g. especially Roma and Croatian Serbs) still face discrimination. NGOs are growing and have become more prominent. They are usually present at public hearings on certain social issues, and even launch protest actions. The political leadership permits civil society participation. The prime minister and cabinet members frequently met with representatives of NGOs and social organizations, such as trade unions, employers' associations, churches and veterans' organizations. Freedom of expression is occasionally subject to interference, despite constitutional guarantees of freedom of media as well as citizens' right to information and prohibitions of censorship.

Overall, cultural participation in Croatia is below-average, as seen from its low scores in cultural industry and cultural infrastructure and equality of access to cultural sites and events. It appears that Croatia's strength lies in the various aspects of its cultural policy. It has a stronger score on cultural education, especially intercultural education. It also stands average on cultural funding and diversity support.

Funding for CSO's in Croatia is available at a national level (e.g. Ministries, Civil Society Foundation) and local level (e.g. cities, municipalities). The National Strategy (Creating an Enabling Environment for Civil Society Development 2012-2016), provided guidance to further improve the legal, financial and institutional support system for CSOs. These are recognized as important factors of socio-economic development in Croatia. National Foundation continuously supports numerous CSO activities in various fields, including economic activities and social entrepreneurship. The activities are conducted through a very efficient network such as the Knowledge Centres for Social Development, Regional Support Centres for Civil Society and Local Community Development, and via decentralized models of financing CSOs.

According to a study on Social Economy Development in the Context of the South East Europe 2020 Strategy (Regional Cooperation Council Secretariat, 2015), there were 51,290 associations in Croatia operating in 2015. Most of them being sports organizations (33.5%), cultural organizations (15.3%) and economic associations (9.1%). Croatian associations are small on average, rely on volunteer work, and lack knowledge, organizational and management skills. They have limited access to financial resources and mostly work in local communities, primarily addressing issues and responding to the needs of specific groups.

Volunteering, as regulated by the Croatian Volunteering Law has been recognized as very useful. In practice, volunteering is a standard practice and mostly lack adequate funding for operational expenses of NGOs. It is not uncommon that companies use volunteers to cut down costs by hiring young work force in short periods.

Social entrepreneurship

The national strategy for Social Entrepreneurship Development, adopted in April 2015, introduced an official definition of social enterprise and provided several criteria for its identification. The criteria are the following:

1. Social enterprises achieve a balanced set of social, environmental and economic goals;
2. Social enterprises are engaged in the production of goods and/or the delivery of services or are generating revenues on the market; They have a favourable impact on the environment and contribute to the development of the local community and society at large;
3. Social enterprises create new value and ensure their own financial sustainability in such a way that three years after the establishment of the business, at least 25% of the income is being planned or realized by its entrepreneurial activities;
4. Social enterprises invest at least 75% of their profit/surplus in the development of their activities and the achievement of their primary business objective; Social enterprises are characterized by voluntary and open membership and a high degree of business autonomy;
5. The Republic of Croatia, a local and territorial (regional) self-government or a public authority may not be the sole founder of a social enterprise;
6. Social enterprises are characterized by a participatory decision-making process, or the decision making is not exclusively related to the ownership or membership structure but includes other stakeholders (e.g. employees, members, consumers, other relevant organizations);
7. Social enterprises monitor and evaluate their social, economic and environmental impact, and they use the results of this evaluation for future planning;
8. If a social enterprise terminates its activities, the assets must be transferred to the ownership of another social enterprise with the same or similar goals.

Despite this recent development, conceptual clarity and a broadly accepted understanding of the concept of social enterprise are still seriously lacking in the field. In Croatia, terms such as civil society organizations (CSOs), non-governmental organizations (NGOs) or non-profit organizations are more common than social entrepreneurship or social enterprises; they also have a longer tradition in the country (Vidović 2016). Cooperatives meet many of the criterion of social entrepreneurship.

4.1.3 Legal framework for coops

At present, the Croatian Cooperatives Association reported that there are less than 1,200 cooperatives operating in Croatia. Like other European countries, cooperatives are most common in the agricultural sector (40% of all cooperatives). This is attributed to Croatian tradition and approach to agricultural production.

However, in terms of industrial, service, housing and finance sectors, Croatia considerably lags behind European trends in the utilisation of a cooperative model. Due to systematic neglect, the number of cooperatives and their members and employees continued to decline over the last few years. In 2013, there was a slight increase due to a new wave of cooperatives such as in social media and engineering. However, the cooperative sector is still very small and underdeveloped. For example, more than half of registered cooperatives do not have a single employee.

In 2014, the first Croatian energy cooperatives were set up within the UNDP project “Renewable energy cooperatives”. Today, there are around 100 energy cooperative members in Croatia. This number is expected to grow rapidly as new legislation is in place. Few thousand citizens are members of agricultural cooperatives, generating big potential for building competitive business by implementing renewable energy solutions on their family farms. Renewable energy and agriculture are natural choices, recognized and simulated by EU agricultural fund. Projects like these are already implemented in some areas and could introduce the features of circular economy in Croatian national economy.

According to the “Manual on setting up energy coops”, developed by UNDP and HBS Croatia in 2013, energy cooperatives can organize their activities to deliver energy service in several ways. It often fit one or few of the business models listed below:

1. Craft and Service Business Cooperatives;
2. Consumer-Owned Cooperatives;
3. Investment Cooperatives;
4. Agriculture Energy Cooperatives;
5. Group Financed Energy Cooperatives.

Legal framework for cooperatives in Croatia could be described with three key points as follows:

1. According to the Law, members of cooperatives cannot be regarded as unemployed persons. Thus, excluding cooperative members from all rights, which unemployed people possess. Thus, heavily discouraging citizens to join cooperatives.
2. According to the Law, after the coverage of expenses, cooperatives are required to set aside a mandatory 20% of profits for the development of cooperatives, requiring them to pay income taxes. At the same time, economic entities, except cooperatives, are exempt from income tax on reinvested capital.
3. All profits of energy cooperatives are distributed in accordance with Croatian law on cooperatives. According to which, 30% of the profit cooperatives is allocated for the development of cooperatives, 5% of the profit is distributed in reserve until they reach the stake members. Whereas, the remaining 65% is distributed to members of the cooperative.

Therefore, it can be concluded that cooperatives in Croatia meet many legislative barriers. For example, hindrance to receiving unemployment benefits or any other help can be very discouraging for an unemployed cooperative member.

The Croatian Ministry of Environment and Energy has published the white book of the Croatian Low Carbon Development Strategy (LCDS) in July 2017. Since 2009, the LCDS is the scientific backbone and vision for updating the Energy Strategy. Its key messages and conclusions could prove quite relevant for the future of energy in Croatia. The Strategy introduces the matter of active participation of citizens in energy sector. It encourages citizen participation in renewable energy and other low carbon development projects through cooperatives and similar innovative platforms that would put green energy in the hands of local communities.

4.1.4 Existing pilots, business models and technologies

In Croatia, renewables are developed almost entirely by big companies, with minimal engagement from citizens and the local community. Public interest in RE is quite strong, but citizens' participation is mostly limited to roof-top solar power. Cumulative installed solar power accounts for only 6% of all RE in Croatia. The main cause for the current situation is the unfavourable attention in the Croatian legislation for active citizen participation in the development of renewable energy. In addition to aforementioned legal barriers, high connection charges often discourage consumers to install small PV on their family roof, thus discouraging them to become prosumers.

Green projects in local communities create positive trend in the local economy, and the potential in Croatia is huge. As an example, Croatian islands have extremely high insolation level of 2,300-2,800 hours of sunshine hours per year. Thus, a vast solar energy potential stays locked-up caused by unfavourable energy policy. Therefore, energy cooperatives as a business model present themselves as an excellent opportunity for citizens to organise on a local level, which will benefit them directly and help drive the transition to a low carbon society.

Community energy models possible in Croatian context can be divided into five groups:

- 1) individual investments (e.g. installing rooftop PV);
- 2) energy cooperatives (local communities working together, investing and getting direct benefits);
- 3) public-private partnership (usually jointly-owned RE project by local authorities and a private partner);
- 4) municipal ownership (EE or RE projects for public buildings: educational facilities, hospitals etc.);
- 5) crowdfunding (investment or donation based).

Some of these models have already been implemented, and few good practice examples are listed below:

- 1) **Green Energy Cooperative**, models for successful implementation of community energy projects in Croatia is currently being developed by the Green energy cooperative with a goal of increasing citizen participation in renewable energy investments through enablement of crowd-investment;
- 2) **Island of Krk Cooperative** managed to decrease the investment costs (for obtaining the required permits and for PV equipment) for more than 50 households in 2013. The Cooperative's recommendation for allowing construction of wind farms on island has been accepted by the Government, they issued comprehensive feasibility studies, and are currently pursuing new projects;
- 3) The elementary school in Kaštel Lukšić is a member of **Energy Cooperative Kaštela** and its rooftop is covered by solar panels. Small solar power plant (22 kW) makes them the first energy independent school in Croatia. This is one of the first examples of the local citizens forming an energy cooperative to realise specific RE project in the country. Moreover, the project was funded without government subsidies. The first Croatian crowd funding campaign was carried out, and new business model was introduced that can be applied in other Croatian schools;
- 4) **War Veterans Cooperative Kapela** was founded in 2007 with a goal to spark entrepreneurship in the abandoned area. This initiated a project of collecting and processing forest biomass. Future plans include 1 MW of energy production being used for powering and heating of the local school, kindergarten and several surrounding buildings. The initiative was supported by the authorities on the national level, as well as from the local private sector;
- 5) **SHPP Pleternica** is a small hydropower plant on the Orjava River (Požega-Slavonia County) and the first SHPP owned by local government in Croatia (city of Pleternica). It is also the first SHPP built after Croatia's independence from Yugoslavia. The project was initiated in 2006, which lasted for six years. It generated a power capacity of 220 kW and annual production of 1.1 million kWh.

4.3 Georgia

4.3.1 National climate and energy policies

NDCs

Georgia has signed the Paris Agreement on 22 April 2016 and approved on 8 May 2017 (United Nations 2017). The country plans to unconditionally reduce its GHG emissions by 15% in the framework of its NDCs (Nationally Determined Contributions), or even 25% subject to a global agreement addressing the importance of technical cooperation, access to low-cost financial resources and technology transfer below the Business as usual scenario (BAU) by 2030. The 25% reduction below BAU would ensure Georgian GHG emissions stay 40% below 1990 levels by 2030 (Figure 9) (Ministry of Environment and Natural Resources Protection of Georgia 2015).

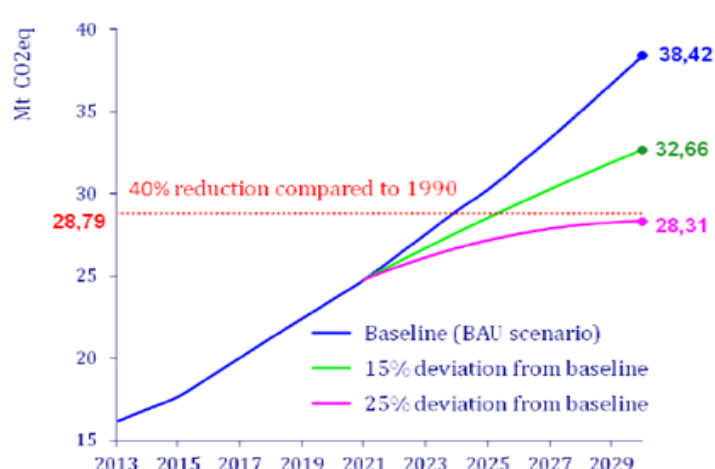


Figure 8: GHG emissions by 2030 in Georgia

The country's INDCs cover a broad range of sectors and GHG and are summed up in Table 2.

Table 2: Georgia's INDCs

Type	Deviation from baseline, business as usual scenario
Coverage	All sectors excluding LULUCF
Sectors	Energy, Industrial processes, Agriculture, Waste
Scope	All greenhouse gases not controlled by the Montreal Protocol: Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF ₆)
Base Year	2013
Period	1 January 2021 - 31 December 2030
Reduction level	Reduction of GHG by 15% below BAU for 2030. The 15% reduction target will be increased up to 25% subject to a global agreement addressing the importance of technical cooperation, access to low-cost financial resources and technology transfer.

[Source: Ministry of Environment and Natural Resources Protection of Georgia 2015]

Georgia's INDC is described as fair and ambitious. Despite the fact that the country's national GHG emissions represent only approximately 0.03% of global emissions, Georgia states that it is committed to contribute in joint efforts to combat climate change by transforming its economy to low carbon and climate resilient pathway (Ministry of Environment and Natural Resources Protection of Georgia 2015).

National Policies

Georgia's energy policy has undergone an orientation change towards domestic energy resources with the Rose Revolution and the accompanying change of government in 2004.

In 2006, the resolution "Main directions of state policy in energy sector of Georgia" was passed, including goals as the development of a tariff policy, meeting the local energy demand and the long-term goal of covering the whole amount of the national energy demand by national resources, which emphasized renewable energies due to a lack of natural gas and oil reserves in Georgia.

The government programme "Renewable Energy 2008" focussing on the liberalisation of the energy market was published. A Renewable Energy Act and a National Renewable Action Plan are in progress. Prioritized access to the power grid is in planning. The country is focussing on wind energy due to the geographical situation of the country (Deutsche Wirtschaftsvereinigung 2014; Sumbadze 2014).

According to the INDCs, the most intensive pre-2020 mitigation action should happen via voluntary reduction of GHG emissions committed by thirteen self-governing cities and municipalities joining the EU initiative "Covenant of Mayors" (CoM). Three Nationally Appropriate Mitigation Actions (NAMA), including Gender-sensitive NAMA for sustainable energy in rural areas, NAMA for Low Carbon Buildings in Georgia as well as Vertically Integrated NAMA (V-NAMA) for the Urban Transport Sector, are under preparation and, in case of international support, are expected to be implemented prior to 2020. The NAMA-programs are considered as larger-scale mitigation actions for the post-2020 period.

An action plan "climate 2021 – 2030" defining legal instruments, activities and other relevant issues is intended to be finalized in 2018 (Ministry of Environment and Natural Resources Protection of Georgia 2015).

A Low Emission Development Strategy (LEDS) was developed by USAID (United States Agency for International Development) and the Government of Georgia to combat climate change by increased energy efficiency and the use of clean energy, to be achieved amongst others through support and promotion of private-sector investments in energy efficiency and green buildings. The framework of the 5-year programme "Enhancing Capacity for Low Emission Development Strategy (EC-LEDS)", supported by USAID, includes activities improving Energy Efficiency in Georgian municipalities, Green Building Rating and certification systems, as well as advisory assistance to the national LEDS development process (EC-LEDS 2017).

Georgia's first National Energy Efficiency Action Plan (NEEAP), documenting the plans for implementation of energy efficiency measures, which have significant mitigation potential for the period before 2020 and beyond, was launched in June 2015. The first period of implementation is from 2017 – 2019, with indicative targets set for 2020, 2025 and 2030. Horizontal measures will inter alia comprise financing schemes for setting up an Energy Efficiency Fund and the introduction of energy audits and management systems, combined with sector measures e.g. concerning energy transformation, transmission, distribution and demand response, lighting, buildings and transport (Ministry of Environment and Natural Resources Protection of Georgia 2015; Arabidze 2016).

4.3.2 Degree of gender equality in the countries

Legal framework

Art. 14 of Georgia's constitution has a provision for gender equality. Georgia ratified CEDAW since 1994 and CEDAW Optional Protocol since 2002. The Convention on Prevention and Combating of Violence against Women and Domestic Violence was signed on June of 2014, but is still not ratified. A law on the prevention of domestic violence, including protection and assistance for victims, was adopted in 2006 in Georgia. The adoption of this law, however, may be insufficient to overcome the problem. The success of state policy in combating the domestic violence depends on the way in which the state perceives the problem. A new Gender Equality Law was passed in 2010, which provides for the establishment of a national women's machinery in the legislative branch (Parliament), the enhancement of women's security, equality in the labour market and the strengthening of women's political participation. The draft Non-discrimination Law was adopted in 2014. This Law clearly states the unacceptability of discrimination on the basis of one's gender identity and sexual orientation along with race, colour, language, national, ethnic or social belonging, sex, pregnancy or maternity, marital or health status, disability, age, nationality, origin, place of birth, place of residence, internal displacement, material or social status, religion or belief, political or any other ground (OECD Development centre, 2014, Article 2, of draft Law). The Law includes the principle of equality established by the UN Convention on the Elimination of all forms of Discrimination against Women, according to which temporary special measures developed in order to achieve factual equality shall not be considered discrimination. The law aims at equal enjoyment of rights already determined by the Georgian legislation. Ombudsman will oversee and ensure the implementation of this law. In general, Georgian legislation is not discriminatory, but is mostly gender neutral, which does not mean gender equality in existing cultural reality. Women have equal rights to inheritance in Georgia, as wives and as daughters, but employed women are the victims of different forms of discrimination. The danger of discrimination is not only created by direct interference, but also by the absence of supportive conditions that women require following their social role. The execution of these mentioned positive measures in the public sector is a direct obligation of the government. As for the private sector, experts assume that this should be regulated by law. In practice, the existing labour code remains insensitive towards the needs of employed women. Again, especially vulnerable groups experience double or even triple discrimination in the workplace. As about inheritance, in most Georgian families, men have significant privilege in terms of inheritance management. Even though legislation gives men and women equal rights to inheritance, Georgian families give privilege to men and transfer a significant part of the parents' property to men (especially immovable property). The legislative intervention has not been enough to eradicate traditional forms of violence against women. Commonly, male privilege is explained with the logic that they are continuers of a patrimonial lineage (Jalagania and Nadareishvili 2014).

Policies

The Government of Georgia has approved the National Action Plan on the Implementation of the UN Security Council resolutions on Women, Peace and Security, and the National Action Plan on the Measures to be Implemented for Combating Violence against Women and Domestic Violence and Protection of Victims/Survivors, both covering the 2016-2017 period. Additionally, the government of Georgia has developed and approved Human Rights Strategy for 2014-2020 and respective Action Plans for 2014-2015 and later for 2016-2017. Sector policies, e.g. for climate change, integrate gender mainstreaming formally, are not in practice. At schools, there is civil education and very small information about what is gender and sex, but gender analysis of other school books shows that they are not gender sensitive at all, when women's role is ignored and men are presented as dominant. In general, sex disaggregated data and statistic is very limited in Georgia with no detailed information in climate change reporting (UN WOMEN Georgia, 2014).

Governmental Institutions

Various ministries in Georgia do not have their own gender action plans, as the country always has one action plan for the government. There is no monitoring of the implementation of action plans and most of the activities are not implemented. There is no information available about gender trainings for governmental employees or external players. Concerning workplace rights, The Law on Gender Equality of Georgia stipulates that “free choice of occupation or profession, career promotion, vocational training” is guaranteed without discrimination. “Everyone has the right to freely choose the profession and specialty based on his/her abilities.” (OECD Development centre 2014)

Finances

Gender budgeting is not common. There is a lack of information on whether other areas of public finance, such as tender procedures, funding schemes or subsidies for CSOs or for green technologies are gender sensitive.

4.3.3 Situation and power of civil society

When Georgia was part of the Soviet Union, possibilities for Civil Society engagement were restricted in favour of state-controlled organisations. This came out with limited involvement of non-state actors with mainly informal networks. There was no real change after Georgia’s independence in 1991. The post-communist society in the early years is characterised by a failing state with emerging nationalism and ethnic conflict. Under the presidency of Shevardnadze after 1995, Georgia went through a remarkable transformation towards a vibrant civil society sector, facilitated by the breakdown of weak state structures that had replaced the soviet administration. This development was in line with the government’s plans to demonstrate its democratic achievements to foster receiving further international aid. In the further course, this growing class of Anglophone NGO workers increasingly criticised Shevardnadze’s rule, leading to the Rose Revolution in 2003 (CIVICUS 2010). The new government under Saakashvili who became president after the revolution, extensively recruited state servants amongst civil society actors (Rommens 2014). However, the euphoria of the Rose Revolution has turned into socio-political frustration and disillusionment. The progress achieved by the new government in the first post-revolution year has shown to have stagnated or even reversed in some areas. Democratisation could not be developed due to an inefficient government, a pervasive executive branch and a missing strong opposition. Cooperation between civil society and government has weakened and the government became less transparent since 2007, when election processes have become less fair and less democratic. Local self-government in Georgia is still not truly independent. The level of mass corruption has reduced overall, however high-profile corruption continues. Next to CSOs, the Georgian Orthodox Church is regarded as one of the most influential institutions and as a ‘guardian of traditional values’ such as ‘motherland’, ‘language’ and ‘faith’ in the country. Further actors from civil society are the media, radical and patriotic opposition parties, other churches and groups representing the interests of ethnic minorities (Caucasus Institute for Peace, Democracy and Development 2010).

CSOs in Georgia participate in the development of policy and legislation when the government or parliament needs their expertise or input. Most of the more developed CSOs are concentrated in the capital city, Tbilisi, and only a handful of them operate in the regions. Financial viability continues to be a challenge for regional organizations, due to limited access to funding, networks, qualified professionals, and other critical resources (USAID 2017). In the EEI’s socio-cultural dimension that measures social cohesion and trust, post-Soviet States are amongst the worst performing. Trust (including trust in non-profit) is low in post-communist countries and may not have been helped by the post-communist influx of non-indigenous forms of civil society.

Georgia has a socio-cultural score of 0.46, below the global average of 0.52. Besides the socio-cultural dimension, there is strong correlation between socio-economic development and the overall enabling environment for civil society. The only sub-average countries in Europe in socio-cultural respect are Macedonia, Montenegro, Georgia and Kosovo whose low results can be attributed to a failure to tackle gender inequality (CIVICUS 2013).

4.3.4 *Legal framework for cooperatives*

The legal frameworks of Georgia do not include specific laws for energy cooperatives, in comparison for example to agricultural cooperatives. The legal process of establishing an energy cooperative is basically not different from the process of establishing other legal entities. In addition, experience from other countries can be used.

During the founding process, the following main steps are required:

1. **Appointment with local authorities:** Before founding a cooperative, intent and purpose of the cooperative should be specified in agreement with local authorities.
2. **Development of business plan:** The development of a business represents an important component of the founding process, including information on:
 - Products and services that are going to be offered as well as detailed descriptions;
 - A market analysis, including current and future demands;
 - A transparent marketing strategy;
 - Calculations for the amortisation of the products;
 - Ideas for possible establishment support.
3. **Founding assembly:** The founders of the cooperative must hold a first general meeting to develop the charter and to elect the bodies. The agenda should include the approval of the charter, election of the bodies as well as the discussion of the membership fee.
4. **Development of name and logo:** It is mandatory to include the term “registered cooperative” or “RC” in the name. In addition, it should include the objectives and have recognition value.
5. **Development and signing of charter:** In the charter everything that must be specified more precisely or is not determined by Georgian law can be stated. General provisions are made in the “Entrepreneurs Law of Georgia”.
6. **Certification of documents by a notary public:** The charter and other documents needed for the registration should be signed by the founding members and ideally certified by a notary.
7. **Opening of a business bank account and payment of membership fees:** The founders of the cooperative should open a bank account at any commercial bank, so that every member can pay the membership fee.
8. **Registration:** Required documents should be transmitted to the relevant authority.

Georgia’s legislature knows two types of cooperatives: the **agricultural cooperative** and the **consumer cooperative**. Not mentioned in the Civil Law, they are subject of the “Entrepreneurs Law of Georgia”, the “Law of Georgia on Consumer Cooperation”, the “Law on Agricultural Cooperatives” as well the “Draft Law on Farmer’s Cooperation”. For energy cooperatives, as already mentioned, no specific law exists.

An **agricultural cooperative** is “a legal entity organised under private law and legally established as a cooperative according to the Law of Georgia on Entrepreneurs, which carries out agricultural activity and which has been given the status of an agricultural cooperative under this Law”, that carries out the following

activities: “production, processing, packing, packaging, storage, transportation, and marketing of agricultural products by agricultural cooperatives” (Law of Georgia on Agricultural Cooperatives 2013). Using the status of an agricultural cooperation with a differing activity is not advisable, as the responsible authority carries out extensive controls to prevent abuses to get state aid (FAO 2014).

A **consumer cooperative** is “an association of natural and legal persons to be created on voluntary principles by generation of shares of joint activity for the purpose of satisfaction of economic and cultural demands of its numbers, attraction and efficient use of material and financial resources on the basis of mutual aid.” (Act of Georgia on Consumer Cooperation 1997). They often offer services for the daily needs and thus enable the participation of a broad and heterogenic public. In consumer cooperatives, women’s membership tends to be much higher than in other cooperative forms (ILO 2015).

Founding process

In line with the general steps for the establishment of an energy cooperative, article 60 of the “Entrepreneurs Law of Georgia” provides detailed founding requirements.

Members of the cooperative can be both natural and legal entities. The cooperative is established by paying the minimum amount, set by the founding assembly, whereby each member has the same share if it is not otherwise specified in the charter. The liability is limited on its assets, whereby the cooperative itself assumes liability; members are only liable with their contributed amount of money. The **general meeting**, the **supervisory board** and the **executive board** carry out the management (Entrepreneurs Law of Georgia, Art. 60; Rödl and Partner 2016).

The founders of the cooperative must hold a **first general meeting** to develop the **charter** and to elect the **bodies**. The provisions for the **charter** are the same as for every other legal entity is regulated in the “Law on Georgia on Entrepreneurs”.

It must contain the written form as well as the following information:

1. **Name** of the cooperative, including the word “registered cooperative” or “RC” and if possible according to the subject of the activity. No imaginary name or a name without additions that may lead to misunderstandings concerning the form and scale of the activity should be chosen;
2. **Legal form**, which is the form of a cooperative;
3. **Legal address and e-mail address**;
4. **Object of the cooperative**;
5. **Management body and decision-making procedure**;
6. **Name and surname, residential address and personal number of the founders**.
7. **Receipt evidencing payment of registration fee**.

The “Law of Georgia on Entrepreneurs” includes provisions necessary for the **registration** of a cooperative. For agricultural and consumer cooperatives, there are specific laws existing, in contrast to provisions for energy cooperatives. In every case, a cooperative is a legal person and subject to the following regulations:

The **registration** in the Entrepreneurial Registry is obligatory and is being conducted by the National Agency of Public Registry. The application documents shall be submitted and signed by the founders. In addition, a **notarisation** is necessary if not signed in person by the authorized persons at the registration authority. The registration process can be completed within one day (100 GEL) or immediately with an accelerated procedure (200 GEL).

The following documents are required for the registration:

1. Decision of the founders on the creation of the cooperative;
2. Charter;
3. Certificate of Registration;
4. Decision on appointment of the director;
5. Passport photocopies of the founders and director(s);
6. Notarised permission of the company's legal address owner or rent agreement;
7. Document evidencing the payment of the registration fee;

Anything that is not determined by national law can be specified in the charter.

4.3.5 Existing pilots, business models and technologies

Good practice examples

So far, energy cooperatives have been established in four Georgian regions. As a business model, they produce, sell and install solar thermal collectors and energy efficient stoves. All citizens can become members of those cooperatives, entitled to a vote in the general assembly and can co-design the cooperative's strategy. Figure 10 shows the structure with the four currently existing cooperatives, **Green Energy**, **Zrudi**, **Switch to the Sun** and **R-Clean Energy** and the umbrella cooperative "Clean energy Umbrella cooperative" established in October 2017. Through the umbrella cooperative, they are bundling purchase of materials and production of collectors and stoves, organising the production of technologies most efficiently. With local and international investors, it will finance and run a first production site for solar collectors. Further, the umbrella cooperative guarantees a standard in quality of the products through a certification mechanism and offers marketing and training (e.g. leadership training for women) for the local cooperatives. On a political level, it supports a policy framework for renewable energies.

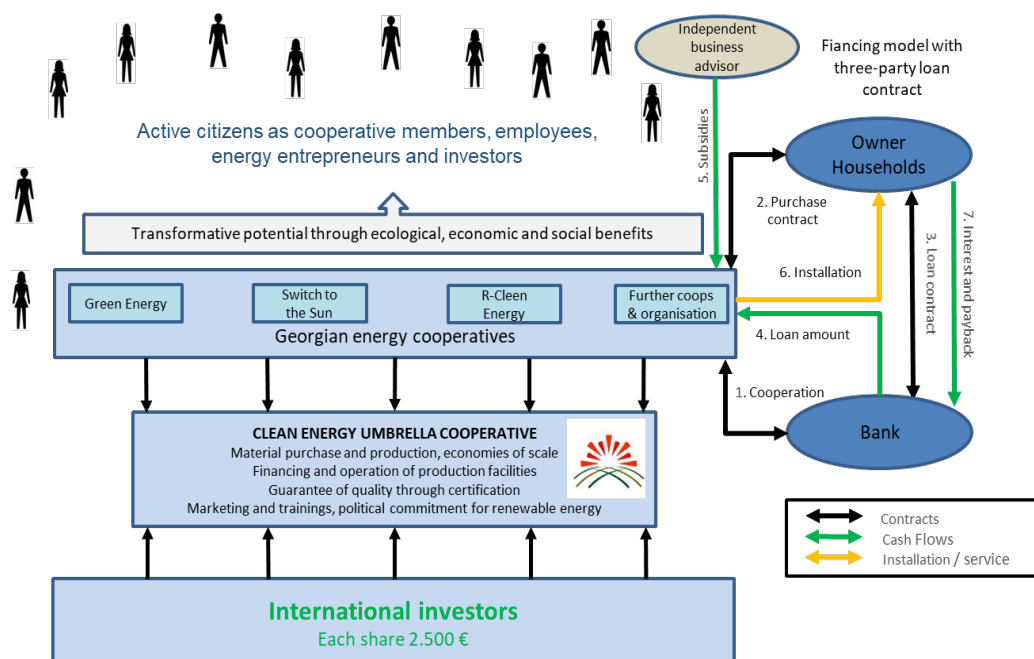


Figure 9: Georgian Energy cooperatives and financial mechanism

[Source: WECF]

Jobs are created along the whole value chain – beginning with purchasing material until installation – and both women and men can participate in the local economic cycle. The bottom-up approach with shares available for a small price enables a broad public to participate. The indicative business plan (Table 3) for the umbrella cooperative shows the planned investments, revenues and potential for job creation.

Table 3: Indicative business plan of umbrella cooperative

Umbrella Coop in € - Indicative business plan							
September 2017							
Share	2.500	1	2	3	4	5	6
Number of shares	10	2018	2019	2020	2021	2022	2023
Equity	25.000						
Bank loans	15.000						
Dividend	5,00%						
Interest for bank loan	8,00%						
Number of sold collectors of umbrella coops		100	350	500	700	900	1.200
Income							
Investment of members		25.000					
Bank loan		15.000					
Selling of collectors		17.906	130.358	193.674	281.989	377.060	522.857
Trainings							
Other							
Total income		57.906	130.358	193.674	281.989	377.060	522.857
Expenses							
Dividend for members			1.250	1.250	1.250	1.250	1.250
Interest payment for bank loan		1.200	1.200	1.104	720	480	240
Repayment bank loan			3.000	3.000	3.000	3.000	3.000
Material cost for SVWH		20.375	74.165	110.188	160.434	214.523	297.472
Repair cost for collectors		2.000	2.000	2.000	2.000	2.000	2.000
Salaries		8.750	27.300	39.000	54.600	70.200	93.600
Marketing / selling		6.938	10.693	3.177	4.626	6.186	8.577
Trainings / technological development		4.000	4.000	4.000	4.000	4.000	4.000
Insurance		600	600	600	600	600	600
Other		500					
Salary for manager to build up the coop and production unit		5.000	2.000				
Production unit / material / etc.		10.000	5.000	5.000	5.000	35.000	5.000
Total expenses		59.363	131.208	169.319	236.230	337.238	415.739
Profit / Loss		-1.456	-850	24.355	45.760	39.822	107.118
accumulated profit/loss			-1.456	-2.306	22.049	67.808	107.630
reserves			0	0	0	0	0
Annual earning *)		-1.456	-2.306	22.049	67.808	107.630	214.747
Created jobs in local and umbrella coops		2	3	4	6	7	10

*) taxes are not considered

This successful example points out the ecological, social and economic advantages of the democratic cooperative model: Creating access to financing mechanisms and to energy for all groups in society, reducing energy poverty, achieving lower cost and time effort for energy supply, a higher standard of living, sustainable growth, climate protection, cooperative and democratic structures that enable a social and cultural transition.

4.4 Armenia

4.4.1 National climate and energy policies

NDCs

The Republic of Armenia has signed the Paris Agreement and ratified on 23 March 2017 (United Nations 2017). The country plans to achieve ecosystem neutral GHG emissions by 2050 with necessary and sufficient international financial, technological and capacity building assistance (Ministry of Nature Protection of the Republic of Armenia 2015). Table 4 sums up the key points of Armenia's INDCs.

Table 4: Armenia's INDCs

Sectors	Energy, Transport, Urban development, Industrial processes, Waste Management, Land use and forestry
Scope	Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), Hydrofluorocarbons (HFCs)
Period	2015 – 2030 with a period of voluntary preparatory contributions from 2015 – 2019
Reduction level	Ecosystem neutral GHG emissions in 2050

[Source: Ministry of Nature Protection of the Republic of Armenia 2015]

National Policies

Armenia's energy policy focuses on development of indigenous energy sources. As a landlocked country in a region with political instability, Armenia plans to strengthen its domestic energy supply and reduce reliance on imports to improve energy security. Development of renewable energy is key for the government. However, nuclear energy, which accounts for nearly a third of electricity supply, is of strategic importance. The country's existing reactor is old but with an extension of service life to 2026. The government is planning to build a new reactor of about 1,000 MW by then, if financing is secured. There is an ample opportunity for energy efficiency improvement, but it is not a focus of current policy (IEA 2015a). The RA Law on Energy Efficiency and Renewable Energy, which was adopted on 9 November 2004, aims to identify mechanisms of state policy principles for development of energy efficiency and renewable energy and the mechanisms of their implementation.

It is targeted at strengthening the economic and energy independence of Armenia, raising the economic and energy system security and reliability, creating new industries and organising services to promote development of the energy efficiency and renewable energy, decreasing negative impacts on environment and health of people (WECF 2017). Power generation from renewable sources is supported through purchasing power agreements (PPAs) and with a feed-in tariff scheme introduced in 2007 and updated in 2015. Indicated renewable technologies, small hydro power, wind and biomass, since then have been able to benefit from a 15 year-long guaranteed, technology specific feed-in tariff, submitted to yearly updates (IEA 2015b; R2E2 2017). Table 5 indicates the Feed-in tariffs for renewable energy in Armenia provided by the Law on Energy in the year 2013 per technology in USD/kWh. The tariffs are specified on an annual basis to take account of exchange rate fluctuations of the Armenian dram to foreign currencies (IEA 2015a).

Table 5: Feed-in tariffs for RE in Armenia 2013 (USD/kWh excluding VAT)

Small hydro power stations	Natural water streams	0.05
	Irrigation systems	0.03
	Drinking water supply systems	0.02
Wind		0.08
Biomass		0.09

[Source: IEA 2015a]

There is a main focus on small hydropower plants. In 2014, 150 small hydropower plants were in operation, generating 650 gigawatt hours (GWh) from 260 MW of installed capacity. Wind power development has not much progressed with an installed capacity of 2.6 MW and utility-scale solar PV has not been taken up under the current framework (IEA 2015a). Main barriers are high costs and uncertainty about economic risks after the 15-year feed-in tariffs period (IEA 2015a). There is experience in the installation and operation of PV installations in Armenia, but their total power does not exceed 200 kW. The development of PV-installations is hindered by relatively high prices and insufficient ingredients in plants for the purchase of electricity tariffs (WECE 2017). Further, poor availability of financing, cumbersome administrative and regulatory requirements, and insufficient data and analysis of the resource potential hinder RE development. The government attempts to overcome these barriers with the Renewable Energy Investment Plan, meant to attract the necessary investment in renewables over the next two decades. It includes low-cost financing and grants, streamlining administrative and regulatory procedures, fast-tracking small projects for licensing, and extending the term of power purchasing agreements to 25 years for solar and geothermal, and 20 years for wind. If achieved, these changes could attract more investment in renewables. However, implementation may be challenging as the required changes are substantial (IEA 2015a).

From a share of 16% RE of all primary energy in 2015, the country targets to reach 21% by 2020 and 26% by 2025. This shall mainly be achieved with the increase of installed generation capacity of small-scale hydropower, also of geothermal, solar PV and wind power (REN21 2016). The concrete targets for installed capacity per technology for the years 2020 and 2025 are shown in Table 6.

Table 6: Targets for renewable energy installed capacity Armenia

Technology	Target
Hydropower (small-scale)	377 MW by 2020; 397 MW by 2025
Geothermal power	50 MW by 2020; 100 MW by 2025
Solar PV	40 MW by 2020; 80 MW by 2025
Wind power	50 MW by 2020; 100 MW by 2025

[Source: IEA 2015a, REN21 2016]

Relevant public institutions regulating the energy sector are the Ministry of Energy and Natural Resources (MENR), responsible for the development and implementation of energy policy, the Ministry of Nature Protection, overseeing conservation and protection of natural resources and responsible for Environmental Impact Assessments (EIAs) as well as serving as the designated national authority for projects under the Kyoto Protocol's Clean Development Mechanism (CDM). The independent Public Services Regulatory Commission (PSRC) is responsible for tariff methodology and review and licensing procedures. Lastly, the Energy Saving and Renewable Energy Fund (R2E2) is responsible for the implementation of renewable energy projects. There is no dedicated agency for RE policies in Armenia (IEA 2015a).

4.4.2 Degree of gender equality in the countries

Legal framework

Art. 14.1 of Armenia's constitution has a provision for Gender equality. Armenia has joined CEDAW since 1993 and the Optional Protocol since 2006. Women have equal inheritance rights as widows and daughters under Armenia's Civil Code. Inheritance is governed by civil law only.

Governmental Institutions

National-level quotas of 20% are in place to promote women's political participation in Armenia. There are no quotas currently in place at sub-national levels of government, with the exception of a 20% quota for Yerevan City Council.

Generally, very little information on this issue could be found during online and literature research. On other issues, such as Policies and Finances, no information concerning the existence of gender action plans, the use of gender mainstreaming, gender budgeting or gender-responsive design of processes could be found. This lack of information indicates that overall gender is an underrepresented topic in the country and needs to be treated with more attention by both civil society and authorities.

4.4.3 Situation and power of civil society

In 2016, economic conditions in Armenia deteriorated, in part due to a dramatic reduction in remittances from Russia and a decline in retail trade (USAID 2017). Already in June 2015, after the third increase of electricity prices in two years in a country where many live below the poverty line, protests rose. These protests, known as Electric Yerevan, however were about much more than the price of fuel. Protests are nothing new in Armenia, and Electric Yerevan could be seen as building on informal networks developed during earlier campaigns. What was new was the international attention the 2015 protests commanded. As with Moldova, Ukraine and indeed all former Soviet and Warsaw Pact states that are not members of the EU, the country faces pressure from both sides to pivot east or west. But aside from questions of national identity, corruption was again a key driver of public anger: another popular banner of the movement was 'No Plunder'. Armenia's electricity supplier, which is entirely owned by Russia, was accused of being mismanaged and run for the benefit of its senior officials (CIVICUS 2016).

According to a USAID publication, CSOs are proceeding in national and local level advocacy. In general, the central government increasingly acknowledges CSOs' expertise, research, and opinions. It has become more open to collaborating with CSOs and providing requested information, though the extent and impact of such collaboration often depends on the attitudes of individual officials. Also local authorities in many regions are also more open to CSO participation (USAID 2017).

4.4.4 *Legal framework for cooperatives*

According to the data of State Register, till January 1st, 2013, 3737 producer and 307 consumer cooperatives have been registered (Based on the study of the "Guidelines for legislative reforms of Cooperative in Armenia"). How many cooperatives actually work on production and what is the share of agricultural production cooperatives – this number is difficult to ascertain. More consumer cooperatives are registered in Aragatsotn (10.4%), Ararat (11.7%), Armavir (12%), Gegharkunik (12.4%) and Tavush (11.4%) regions. The State Register Agency of Legal Entities of the Ministry of Justice and the electronic program (www.e-registr.am) data are available.

The **Republic of Armenia law on the consumer cooperatives** defines a cooperative as following: A cooperative is meeting the needs of no less than 5 consumer members (participants) by goods and services, represents and protects their interests, it is a non-profit legal entity established on a voluntary basis. Consumer Cooperative Participants (members) can be the citizens and (or) individual entrepreneurs and citizens engaged in (agricultural) production who have signed a contracted on joint activities. The current legislation does not fully regulate the formation of cooperatives, and the relationship of the liquidation process and the need for improvement and replenishment. Legislative reforms will be essential for the stability and development of cooperatives.

There is no any complete, comprehensive law on cooperatives in Armenian legislation. Cooperative sector is regulated by the following **primary legal acts: The Civil Legislation** (HO -239, adopted on 05.05.1998, in force from 01.01.1999). According to the paragraph 3 of Article 51 - "Types of Legal Person"; "Cooperatives, depending on the nature of their activities, can be profit -seeking (commercial) or non-similar (Non Commercial) organizations." Articles 117-121 of the Legislation (paragraph 3) fully apply to cooperatives. Article 117 of the Legislation refers to the basic provisions of the cooperatives, where the definition of cooperatives, contents of cooperative charter are given, as well as reference is made to the characteristics of different types of cooperatives and other laws defining the legal status. Article 118 of the Legislation applies to the management of the cooperative's property.

From the problems the agri-food field in Armenia faces, it is clear that the development of agriculture and agri-business is connected with the development of cooperatives. In the business sphere, the cooperative can coordinate and organize different activities, from producing agricultural products, services and delivering. The implementation of the idea of cooperation is necessary for solving the problems mentioned in the agricultural sector, such as difficulties in selling agricultural products, services, resources and non-affordability of techniques used in basic industry, fuels, fertilizers etc. Creating cooperatives can solve such problems as the sales difficulties, technique issues and fuel. In Armenia, a lot of international organizations and projects have promoted the idea of creating and developing cooperatives.

Energy cooperatives can be categorized as producer and consumer cooperatives. They are possible in a legal way, but not yet common. They could provide an operating platform and a healthy environment for overcoming social barriers existing between men and women and contributing to the healthy internal functioning and community development. As legal entity, they can apply energy tariffs currently existing.

A cooperative will allow women and men working isolated to unite and contribute to reach to mutual benefits. Energy cooperatives not only create local jobs but can lead to increasing incomes for both women and men in the villages, while at the same time it diminishes carbon emissions and environmental pollution. An important added value of the switch to locally produced sustainable energy is the reduction of economic vulnerability, due to the fact that energy does not need to be imported from elsewhere anymore.

4.4.5 Existing pilots, business models and technologies

Currently there are no active energy cooperatives in Armenia. However, there is an initiative in Basin that is on the way to be registered as a production cooperative. The main barriers for community energy initiatives and especially the establishment of energy cooperatives are that Armenian citizens do not really know this concept and have no trust in its success. Further, lack of access to financing has been identified as a barrier. Community energy initiatives in Armenia are facing rather psychological and financial barriers than political or legislative ones (Expert interview Armenia, Annex II).

4.5 Ukraine

4.5.1 National climate and energy policies

NDCs

Ukraine has signed the Paris Agreement and ratified on 19 September 2016 (United Nations 2017). In its INDCs the country defines not to exceed 60% of 1990 GHG emissions level in 2030 (UNFCCC 2015a). Table 7 summarizes the key points of Ukraine's INDCs.

Table 7: Ukraine's INDCs

GHG emissions level	Not exceed 60% of 1990 GHG emissions level in 2030
Base Year	1990
Period	1 January 2021- 31 December 2030
Greenhouse gases	Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF ₆), Nitrogen trifluoride (NF ₃)
Economic sectors/source categories	Energy; Industrial processes and product use; Agriculture, land use, land-use change and forestry; Waste
Percentage of GHG emissions covered	100%

[Source: UNFCCC 2015]

Next steps are the adoption of relevant legislative acts for the INDC implementation. In addition, the implementation of the Association Agreement between the EU, the European Atomic Energy Community and their Member States and Ukraine, ratified by the Law of Ukraine dated 16.09.2014 No. 1678-VII (UNFCCC 2015).

National policies

The National Renewable Energy Action Plan (NREAP) from 2014 sets targets for the use of renewable energy sources until 2020, depicted in Table 8, as well as the manner of their achievement. The overall target is to increase the share of 2.7% RE in primary energy supply in 2013/14 to a share of 11% by 2020, up to 18% by 2030 of energy generated from renewable sources in gross final energy consumption. More detailed, by 2020 12.4% of the demand in heating and cooling, 11% of electricity demand (20% by 2030) and 10% of energy demand in transport shall be met by renewable energy sources (REN21 2016; IEA 2015b).

Table 8: Targets for the use of renewable energy in Ukraine

	2013/14	2020	2030
Primary energy	2.7%	11% (final energy)	18%
Electricity	5.9%	11%	20%
Heating and cooling		12.4%	
Transport		10%	

[Source: REN21 2016]

The development of Ukraine's RE production is supported by a land tax reduction for RE enterprises and a number of tax exemptions for (1) operating profits of the energy companies producing electricity from renewable sources; (2) biofuel producers' profits earned from biofuel sales; (3) company profits earned from combined electricity and heat production; (4) profits of producers of machines, equipment and devices for the manufacture and reconstruction of technical and transport means consuming biological fuel types; (5) value-added tax exemption for the transactions related to importation to Ukraine's customs territory of equipment working on renewable energy sources (IEA 2015d).

Further, the development of RE is stimulated by a feed-in tariff, the so called green tariff, introduced in 2009, amended in 2012 and 2015. The Electricity Law sets minimum feed-in tariff rates that are applicable until 1 January 2030. The national wholesale electricity market is obliged to buy the electricity produced by RE plants at "green tariff" rates. RE plant operators are contractually entitled to be connected to the grid. However, the electricity produced from renewable sources is not given priority access to the grid. This tariff is granted to Solar PV, Wind power, biomass energy and hydro power up to a capacity of 10 MW. Tariffs for solar PV were reduced for projects commissioned after April 2013. FiT rates from June 2015 are depicted in Table 9. There is also an additional 5% premium for producers using at least 30% of equipment of Ukrainian origin, a 10% premium for 50% local equipment (IEA 2015c; Gulczynski 2017).

Table 9: Ukraine Green Tariff rates from June 2015

Technology	Capacity / type of installation	FiT rates in EUR/MWh		
		2015	2016	2017 – 2019
Solar PV	Utility scale	170	160	150
	Rooftop	180	172	163
	Rooftop for households	200	190	180
Wind	Households < 30 kW	116		
	> 30 kW	102		
Biomass and biogas		124		

[Source: IEA 2015a]

Relevant legal provisions for RE lie within the Electricity act (Act No. 575/97 on Electricity), Law No. 663-VII on the operating Principles of the Electricity Market in Ukraine, Law No. 555-IV on Alternative Energy Sources, Decree No. 251 of NERC (National Commission for State Energy and Public Utilities Regulation of Ukraine) from 14 March 2013 on Amendments to the Procedure for the Establishment, Revision and Termination of the “Green” Tariff for Business Entities (Gulczynski 2017).

Relevant institutions are the Ministry of Energy and Coal Industry, responsible for most energy supply policies and for coordinating energy policy across government and providing advice to parliament, the Ministry of Ecology and Natural Resources, responsible for hydrocarbon development and for climate change policy, the State Environmental Investment Agency of Ukraine, responsible for the implementation of the provisions of the Kyoto Protocol and the UNFCCC Convention and the Ministry of Economy and Trade Development responsible for energy efficiency policies. Further, the State Agency on Energy Efficiency and Energy Saving (SAEE), under the Ministry of Economy and Trade Development, is the central governmental body responsible for advancing energy efficiency and renewable energy developments and promoting the deployment of energy efficient and renewable energy technologies and the Ministry of Regional Development, Construction and Housing develops policy and programmes relevant at local levels (IEA 2015a).

4.5.2 Degree of gender equality in the countries

Legal Framework and Policies

The Ukrainian government has many provisions in its legal framework and policies that are gender-sensitive and promote gender equality. Its Constitution has a provision for gender equality stating that the “[e]quality of the rights of women and men is ensured: by providing women with opportunities equal to those of men, in public and political, and cultural activity, in obtaining education and in professional training, in work... by creating conditions that allow women to combine work and motherhood; by legal protection, material and moral support of motherhood and childhood...” (Constitution of Ukraine 2004). Ukraine ratified CEDAW and CEDAW Optional Protocol, signed onto the Beijing Declaration and Platform for Action, and signed, but never ratified the Istanbul Convention. Ukrainian women and men enjoy equal labour and inheritance rights. The Law on Ensuring Equal Rights and Opportunities of Women and Men prohibits discrimination on the basis of sex in employment, and pregnant women are entitled to 126 days of paid maternity leave, during which they receive 100% of their salary (OECD 2014). In 2005, a presidential decree “On Improving the Work of Central and Local Executive Authorities on Ensuring Equal Rights and Opportunities of Men and Women” prompted the development of national gender machinery. Gender working groups and coordination councils were established, and gender advisors were appointed in central and local authorities.

While Ukraine’s national laws on public participation weren’t written with the intention of being gender-sensitive, it has increased public participation through providing greater public “access to information, individual and collective proposals, public hearings, local initiatives, general meetings of citizens” or “bodies of self-organization” (Aasland, Lyska 2015). The legislation on climate change adaptation and mitigation makes no mention of gender issues (Graham Research Institute 2015). However, in their address at COP22, Ukrainian climate experts recognized the importance of integrating gender issues in climate change action: “[i]n the context of climate change, gender issues are of utmost importance for Ukraine due to greater climate change impact on women... We believe that gender rightfulness and equality issues should be considered in national policy on climate change forming up” (Heinrich Böll Stiftung Kyiv 2016). Ukraine has developed several national gender policies including the National Action Plan on Equal Rights and Opportunities of Women and Men, which works on “improving of the legislation on gender equality; conducting awareness

raising campaigns among employers on the European standards of gender equality... promoting women's leadership and decision-making..."

In 2009 the Ukrainian Ministry of Education and Science issued the decree "On Integrating the Principles of Gender Equality in Education" (Ministry of Social Policy of Ukraine 2014). The EU and UNDP helped the Ministry to develop new materials and handbooks, as well as guidelines on expert assessment of training curricula. As part of this initiative, new gender-sensitive curricula were adopted, "Gender Education Centres" were created and conferences were organized to train more than 23,000 education professionals on gender issues, and in 2011, the Ministry of Education published a manual to train teachers on how to help children overcome gender stereotypes. Yet, "these actions are not systemic so far, and the system of education is still an environment where gender stereotypes are disseminated." The World Bank's gender assessment of Ukraine states "the grounds of [gender-based] segregation [in employment] are found yet in the system of secondary education, as perceptions of the 'proper' gender roles could be influenced by school textbooks and curricula...there is still no comprehensive policy on incorporating the principles of gender equality into education" (World Bank 2016). The State Statistics Service does collect gender-disaggregated statistics yearly, though separate from climate reporting.

Governmental Institutions

Ukraine is still in the process of fulfilling its National Action Plan on Equal Rights and Opportunities of Women and Men for the period 2013-2016. At the ministerial level, there is no indication that Ukrainian Ministries have their own specific gender action plans, though they work to implement the National Gender Strategy. Since 2011, the Ministry of Social Policy (MoSP) of Ukraine has been the main entity responsible for advancing gender equality and combating domestic violence. In addition, the Expert Council to Consider Claims with regard to Gender Discrimination was established in 2010, consisting of representatives of the MoSP, the Ukrainian Parliament Commissioner for Human Rights, and other public authorities and third sector organizations. Finally, in 2011, an Equal Opportunities Caucus was formed to support the enactment of gender equality policies, bringing together MPs from different parties all across the political spectrum who all work at "retaining gender on the agenda" (World Bank 2016). The World Bank reported poor enactment of the existing legislative framework on gender equality, due to "inter-agency cooperation, inconsistency of reforms and a lack of efficient sanctions for non-compliance with legal provisions." Other recommendations of the report include: further promoting the principles of gender budgeting, training public officials on gender issues, improving the collection of sex-disaggregated data and leading advocacy campaigns to target employers (World Bank 2016).

Gender trainings for ministerial staff aren't mandated, though there have been efforts to build the capacities of public officials in creation and execution of gender policy, gender education and gender budgeting. Some 30,000 public officials and council members participated in training workshops during 2006-2014, and in 2017, a training-of-trainers of police forces was organized to promote "gender just policing services" (UNECE 2014), (UN Women Europe and Central Asia 2017). There have been no gender trainings provided for any external players. In 2013, the Law "On political parties in Ukraine" was amended to introduce gender quotas in electoral lists for parliamentary elections. According to the World Bank, gender quotas were progressively employed for elections at the local level, despite the absence of sanctions for non-compliance, and generally vague legislative provisions. The World Bank reports that "women were occasionally placed in the lower parts of election lists, thus having smaller chances to pass the electoral threshold." The 2015 Law "On local elections" addresses this problem by establishing a 30% minimum quota for each gender on party lists. As a result, women's representation improved in 11 of 22 city councils, but only in Chernihiv was the 30% threshold

achieved (World Bank 2016).

Finances

Since 2013, the Swedish Development Agency (Sida) has been funding the project “Gender Responsive Budgeting in Ukraine” (GRB). This five-year project is executed by the consulting companies Indevelop, CPM and Niras, and aims to “increase economic efficiency and transparency in budget allocations” using gender-responsive budgeting (GRB). The project encourages authorities to use a gender lens when designing budget policies and it works to develop the capacity of the Ministry of Finance and local governments to do GRB work and raise awareness on these issues (Gender Responsive Budgeting Project n/a). The Ukrainian Women's Fund is very active in providing local women's CSOs with financial, information and consultation support [17]. Open Society Institute, USAID, UNDP and Technical Aid to the CIS have provided most of the funding for women's NGOs and gender programming. There has been little information available on the situation of gender-focused NGOs in Ukraine since the start of the Russian conflict in 2013.

4.5.3 Situation and power of civil society

Historic development

Public participation and social service provision was strictly controlled by the state during the Soviet era. After Ukraine's independence in 1991, NGOs and public movements, which appeared during the Soviet Union's Perestroika in the late 1980s, provided cadre for the majority of political parties and government agencies. A new generation of NGOs appeared, characterised by a Western system of management and a project-based approach to activities and stimulated by Western aid (Kuts 2006).

Civil society in Ukraine played a leading role during the Euromaidan Revolution that started in 2013, pushing parliament and government to advance reforms. It continues to be one of the strongest actors in Ukraine's democratic transition, playing a crucial role in driving reforms aimed at building a functional democracy and the rule of law, as well as identifying solutions that promote peace and regional stability. A new government took office in April 2016 and committed to ongoing reform initiatives, including efforts to reform energy tariffs and social assistance, make public procurement more transparent, simplify business regulation, and reduce deep-seated corruption. In May 2016, the government introduced a wide-ranging reform agenda and action plan addressing those issues. Moreover, the government prioritized decentralization and local government reform to give local communities the power to self-govern (USAID 2017).

Situation of CSOs

The National Strategy for Developing Civil Society in Ukraine for 2016-2020 was adopted by government in 2016. It includes institutional strengthening of the CSO sector; enhancing the role of civil society in socioeconomic development and decision-making processes; and increasing intersectoral cooperation. Cooperation between government and CSOs markedly improved in 2016. However, the ongoing economic crisis limited public and private sector funding to CSOs. CSO experts have become an integral part of media programs. CSOs still face numerous challenges in the registration process: they can register only in Ministry of Justice offices in the capital and the twenty-five oblasts; they face delays in response to their applications despite statutory time limits; the registering bodies are understaffed; and registration personnel are not always fully trained (USAID 2017).

4.5.4 Legal framework for cooperatives

Ukraine does not have a special law on energy cooperatives. The legal framework is based on different

regulatory acts. The main framework regulation is the Law on Cooperation dated July 10, 2003. The general procedure for establishing a cooperative is the following:

- 1) Decision of the constituent assembly to establish a cooperative,
- 2) Approval of its statute (which should include an exhaustive list of activities of the cooperative),
- 3) state registration.

As cooperative management bodies, a general meeting, board, executive director, supervisory board and an audit committee must be established. The cooperative's funding can consist of a mutual fund that is formed at the expense of shares of members of the cooperative, an indivisible fund, formed at the expense of entrance fees and deductions from the income of the cooperative, a contingency fund to cover possible losses and a special fund to provide statutory activities.

Main barriers of energy cooperatives in Ukraine are numerous non-specific legal norms regulating the creation and operation of cooperatives and the need for approval of tariffs. The first point leads to difficulties in choosing what type of cooperative should be established. Three basic types are distinguished:

- Production cooperative (only individuals, compulsory labour participation, profit oriented);
- Service cooperative (physical and/or legal persons, provision of services mainly to members of the cooperative, non-profit);
- Consumer cooperative (physical and/or legal persons, procurement of agricultural products, raw materials, production, works only with members, non-profit).

Possible economic activities of cooperatives in Ukraine according to Law on Cooperation:

- 1) Growing and processing of energy crops. The land of the cooperative is formed by share contributions of members in the form of land plots, lease and acquisition of property.
- 2) Production and supply of heat energy. It requires the construction of heat-generating facilities, the need to create or connect to heat networks, obtaining a license for the production and supply of heat energy and an approval of tariffs by the National Commission, which carries out state regulation in the fields of energy and utilities.
- 3) Production and supply of electric energy. It requires use of energy lands, a connection to the grid, obtaining a license and the sale of electric energy to the Wholesale Electricity Market of Ukraine at the feed-in tariff explained above in chapter 4.5.1 (Ecoclub Rivne 2017).

4.5.5 Existing pilots, business models and technologies

The development of community energy projects on Ukraine is still in the beginning. In the following, one successful example and a recent development will be introduced.

Ternopil raspberry energy cooperative

This project, where farmers provide the fuel for heating their homes is based in Western Ukraine, in Losyan village (Kremenets district) in Ternopil region. In the village, inhabitants already had united in two cooperatives for the production of raspberries and strawberries, making the village an important employer during the agricultural season. Out of this agricultural cooperative production, a biomass energy cooperative evolved. After harvesting the raspberries, every autumn the residuals of the raspberry bushes have to be disposed. Before establishing the cooperative to use the biomass residuals energetically, the villagers burned huge stacks of raspberry stems, leading to fines by the state environmental authority because of the air pollution. As a solution to this – for the villagers primarily economic problem – one member of the agricultural cooperative proposed to use the biomass to heat homes.

Supported with funding by UNDP and the EU, the Yagorodny kray cooperative purchased and launched a briquette press to transform the raspberry bush-leftovers into briquettes for heating. The production line is

placed in a shed together with the cooperative's refrigeration chamber. Farmers bring raspberry bundles and take their briquettes home, paying only the cost for the installation of the press, turning out essentially cheaper than gas with more predictable costs.



Figure 10: Raspberry briquettes
[Source: Voloshin 2017]



Figure 11: Cooperative's briquette shop

This energy cooperative can serve as an example for other communities who want to reduce the cost for heating and become co-owners of their energy infrastructure (Expert interview Ukraine, Annex II).

Solar PV cooperative

Another community energy project in the form of a cooperative is currently in the process of establishment. Following the model of a PV cooperative that is quite common in Germany and other Western European countries, the group plans to establish a PV power plant. Members will pay for their shares; this money will be used to build the PV power plant. As explained in the previous chapter 4.5.1 on energy policy on Ukraine, there is a feed in tariff between 15 and 18 Euro-cents/kWh available for electricity produced with solar PV. The cooperative plans to feed the electricity produced in their PV plant into the national grid and receive this 'green tariff', enabling members to profit from their dividend (Expert interview Ukraine, Annex II).

Further examples of citizen's energy initiatives and the use of renewables and energy efficiency in Ukraine encompass the following (Ecoclub 2017):

- Installation of SWH on roofs of multi-apartment buildings for hot water supply (Rivne);
- Association of apartment owners for energy auditing, insulation and installation of equipment for reducing heat losses (Ternopil);
- Processing of agricultural raw material waste for the production of fuel for houses in the form of briquettes and pellets (village Lozino in the Carpathian region);
- Solar and wind power plants (Korsun Shevchenkivsky, Cherkasy Oblast).
- Association of three households with consumption of 1000-1200 kWh/month for the construction of a solar power plant built on its own roofs, which produces 3000-3300 kWh/month of electricity for own consumption and to sell the surplus to the grid.
- In the Sakhnovshchyna district of the Kharkiv region, an energy cooperative was created that produces biofuels for their own needs. 12 agricultural enterprises allocate lands to be sown with rape, which are proportional to their own needs for biofuel. Fuel is used for your own needs and local ambulance and school bus. Part of the additional profits that arose from the reduction of the cost of production, is sent to the established community development fund.

4.6 Moldova

4.6.1 National climate and energy policies

NDCs

Republic of Moldova has signed the Paris Agreement on 21 September 2016 and ratified on 20 June 2017 (United Nations 2017). In its INDC submitted to the UNFCCC, the country states its commitment to reach a reduction of 64 – 67% of its GHG emission by 2030 compared to 1990 levels (Republic of Moldova 2015). Table 10 summarizes the key points of Moldova's INDCs.

Table 10: Moldova's INDCs

GHG emissions level	Reduction of 64 – 67% of GHG emissions by 2030 compared to 1990 levels
Base Year	1990
Period	1 January 2021- 31 December 2030
Greenhouse gases	Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF ₆), Nitrogen trifluoride (NF ₃)
Economic sectors/source categories	Energy; Industrial processes and product use; Agriculture, Land use, Land-use change and forestry; Waste

[Source: Republic of Moldova 2015]

National policies

Moldova's energy policy focus is on improving integration in regional markets, strengthening energy security, increasing compliance with EU directives, increasing electricity generation capacity and promoting energy efficiency and renewable energy. RE development in Moldova is at an early stage. Large hydro is the renewable source currently in use and it represents around 5% of electricity generation. Hydropower infrastructure has remained from the Soviet era and development of other renewable sources and small hydro has been marginal to date. Most of the investment has been in the production of biofuels, including ethanol and rapeseed oil, as well as the use of agricultural waste for heat in rural areas (IEA 2015a). By the year 2020, a share of 20% RE in primary energy shall be reached. Further, 10% of electricity generation shall come from renewable sources, 27% of heating and cooling and 20% in the transport sector. Support policies for renewables in form of Feed-in-Tariffs/premium payment are in place together with incentives through public investment, loans or grants (REN21 2016).

All RE technologies with an installed capacity of minimum 10 kW are eligible for the feed-in tariff scheme. Furthermore, the electricity has to be intended for commercialisation on the electricity market (Item 4 of the Methodology approved by Decision No. 321/2009). The feed-in tariffs are calculated case by case for every single renewable energy plant based on a methodology defined by the Moldavian National Energy Regulatory Authority (Item 5 of the Methodology approved by Decision No. 321/2009). Starting with March/April 2017 a new RE-promotion law is coming into force, completing the feed-in tariff scheme by a tendering procedure as also a net metering scheme. The plant operator is legally granted non-discriminatory access to the transmission and distribution grid as long as the national energy system is not at risk (Item 8 of the technical norms approved by Decision No. 266/2007 and Item 5 of the technical norms approved by Decision No. 267/2007) (Nicola 2017).

Relevant institutions are the Ministry of Economy and Infrastructure, in charge of developing and implementing energy policy, the Ministry of Agriculture, Regional Development and Environment, responsible for developing environmental and natural resource management policies and strategies. Further, the National Agency for Energy Regulation (ANRE) is an independent regulator in the energy sector responsible for licences, tariff setting and regulation. The Energy Efficiency Agency (EEA) is the implementing agency under the national energy efficiency and renewable energy programmes. Lastly, the Energy Efficiency Fund (EEF) established in 2012 promotes investment in energy savings and renewable energy projects, in accordance with the existing government programmes (IEA 2015a).

4.6.2 Degree of gender equality in the countries

Legal Framework and Policies

The Constitution of Moldova provides for gender equality and prohibits discrimination on the basis of sex, race, language, nationality and political affiliation (Constitution of Moldova 1994). Internationally, Moldova ratified the CEDAW and CEDAW Optional Protocol, and signed but not ratified the Istanbul Convention. Moldovan legislation on public participation isn't explicitly gender-responsive and its existing policies on climate change adaptation and mitigation don't refer to gender equality. Article 8 of the Labour Code prohibits discrimination on the basis of sex in employment, and in 2010 it was amended to lift restrictions on overtime, weekend and holiday work for women with children under three years old. Labour laws still include provisions that limit the kind of work women can do and the positions they can occupy (Labour Code of the Republic of Moldova 2004). Pregnant women in Moldova are entitled to 126 days of paid maternity leave with a full salary, and women and men have equal inheritance rights as spouses and descendants (OECD Development Centre 2014).

UNDP has been working with the government to develop a National Action Plan (NAP), which aims to "establish institutional and policy frameworks for medium to long term gender-sensitive adaptation planning and budgeting" (UNDP 2013). The NAP is being developed through a gender-sensitive process with the help of UNDP, focusing on women's access to sustainable energy sources and aims at empowering them to become key agents in "establishing new renewable energy partnerships and [in] identifying...energy efficiency solutions at local level" (WeAdapt 2016). UNDP works in collaboration with female community leaders in order to implement local projects, and reports capacity-building in "conducting gender-sensitive risk assessments and considering the gender component into disaster risk management planning" (UNDP in Moldova n/a).

In 2017, the government approved a strategy and action plan for ensuring equality between women and men, for 2017-2021, through the integration of gender equality issues in policy-making, strengthening of the existing framework, encouragement of non-violent relationships and the promotion of gender-sensitive budgeting (Government of the Republic of Moldova 2017). In 2006, a law was passed "ensuring the exercise by women and men of their equal rights in the political, economic, social, cultural, other spheres of life... with a view to preventing and eliminating all forms of discrimination based on the criterion of sex, and provides for sanctions against perpetrators of such discrimination. The UN reports that Moldova was the first country in the ECA region to introduce courses on gender budgeting in academia, with courses for master students at the Academy of Economic Studies (UN in Moldova n/a). Valentina Bodrug-Lungu argues, "The gender discourse has been gradually integrated [the] system of education, in parallel with its active introduction in the political discourse" (Bodrug- Lungu 2011). An existing law provides that "educational and training institutions shall ensure equality between women and men" in terms of access to education, curricula and

teaching equality and mutual respect, but textbooks are not gender-sensitive and perpetuate existing gender inequalities (Ministry of Education and Youth of Moldova 2008). All sex-disaggregated indicators for the country are listed on Moldova's statistical databank though environmental indicators are currently not disaggregated by sex (National Statistical Office Moldova 2015).

Governmental Institutions

There is no evidence that gender action plans exist at the Ministry level, and the existing national strategy on gender equality hasn't been enacted due to insufficient resources and possibly apathy. An NGO shadow report on Moldova's enactment of CEDAW confirms this: "Beyond a dedicated department on gender equality within the Ministry of Labour Social Protection and Family no other ministry has full time personnel responsible to ensure gender equality. Gender focal points within ministries and public authorities have no mandate, no action plan and no accountability" (Centre for Entrepreneurial Education and Business Support 2016). There is no information on whether gender trainings are available for the authorities or external actors, though employees of the Ministry of Defence have participated in gender mainstreaming workshops as part of a broader initiative on integrating gender in the national defence and security sector. In July 2015 staff benefited from training on "Gender Concepts and Gender Analysis," and in 2016, as part as a CoE-funded program, several Moldovan judges and prosecutors received training on gender-based discrimination (UNDP (2015), (Council of Europe 2016). In 2016, UN Women and UNDP collaborated with the government to pass a law stipulating that women and men must each account for at least 40% of each party's candidates and cabinet nominees (UN Women 2016). Developing and promoting gender equality policies falls under the responsibility of the Ministry of Labour, Social Protection, and Family, and the "Insurance of Gender Equality Policy Department" is the specialized body in charge of these questions. According to a 2013 UNPD report, this department consists of 5 people, which is insufficient given its tasks (UNDP 2015).

Finances

Gender budgeting is increasingly used in Moldova, but still at a low level. From 2006-2008, UN Women executed a program on gender budgeting aimed at promoting women's rights through supporting the integration of a gender perspective in policy planning and budgeting processes. Government representatives benefited from capacity-building activities on gender budgeting, and women's rights NGOs received support for raising awareness and leading advocacy efforts (Austrian Development Agency n/a). The National Strategy on Gender Equality for 2009-2015 recognizes the "lack of gender-related social standards and financial ratios used in the budgeting process" and the "poor understanding of the essence of gender responsive budget by the population and specialists." To address these problems, the Strategy aims "to include gender dimension in the budgeting process at different levels by modifying and improving the existent legal and regulatory framework; to introduce social standards and financial ratios of services differentiated by age and sex into the budgeting process; to develop a mechanism for gender expertise of budgets at different levels; to build human resource and institutional capacity to develop gender responsive budgets" (World Bank 2008). A study on CSOs' fundraising activities found that there are many foreign organizations providing financial support, including the EU, UNDP, USAID and SIDA (FHI360 2016). The study states, "domestic funding sources are less popular," making foreign donors the main source of funding for Moldovan CSOs. SIDA in particular, provides support to Moldovan CSOs and recognizes gender equality as a priority (SIDA 2011). UNDP's Global Environment Facility offers grants to NGOs and CSOs for initiatives that use gender mainstreaming and promote youth involvement (UNDP/GEF 2017).

4.6.3 Situation and power of civil society

Moldova continued to implement the Association Agreement with the European Union during 2016 (USAID 2017). But like neighbouring Ukraine, the country sits on the fence between the EU in the west and Russia in the east, with local forces pushing in both directions. But CIVICUS stresses that the situation in the country should not only be seen through a lens of EU-Russia relations as this perspective would neglect the citizens fighting corruption and acting for change. Relations between government and civil society in Moldova have been characterised through protests. They had a decisive impact when in October 2010 the government was dismissed through a parliamentary motion of censure. A former prime minister was arrested for bribery and corruption. No government could be formed until January 2016 (CIVICUS 2016).

In February 2015, the 'Dignity and Truth platform' was founded as a civic platform organising anti-government protests and advocating for political reforms. In December 2015, a political party named 'Platform Dignity and Truth' evolved out of this movement as an alternative to the acting political parties. It declares itself pro-European and wants to fight for decent living conditions for citizens, reform implementation and against oligarchs' power. Action against government continues after the election in January 2016 with protests against the freshly appointed prime minister, rejecting him as a member of a discredited political elite closely connected to corrupt business, and calling for early elections. Protests flared again in April 2016, and were met by violence, suggesting that the anger is enduring. CIVICUS comes to the conclusion that prospects the country, still struggling with financial crisis, do not seem promising. A deeper transition than fresh elections alone is required to meet the change Moldova's citizens demand (CIVICUS 2016; Jurnal.md 2016).

In 2016 cooperation between civil society and public authorities improved. An amendment of the Law on Public Associations (No. 188) was welcomed by CSOs and registration of associations improved. The amendment clarifies that three natural persons are required to establish an association. In the previous version of the law, there have been some inaccuracies concerning this point. It further removes registration authorities' ability to postpone registration of an association; now registration must be approved or denied without delay. In addition, the amendment reduces reporting obligations for most CSOs. Now only CSOs with public benefit status or that received public funds in the previous year are required to submit annual reports to the State Register of Civic Associations (USAID 2017).

4.6.4 Legal framework for cooperatives

According to Art. 171 of the Civil Code of the Republic of Moldova, the cooperative is a voluntary association of physical and legal entities, organized by corporate principles in order to promote and ensure, through joint actions of its members, their economic and other legitimate interests. Cooperatives are regulated by the Civil Code of the Republic of Moldova, 1107/2002, Art.171-178; Laws No 73 from 12.04.2001 on the entrepreneurial cooperatives and No 1007 of 25.04.2002 on production cooperatives.

Art.171-178 of Civic Code provisions are considered special provisions on cooperatives, compared with the general provisions relating to the legal entity, but applies to the extent that special laws do not regulate otherwise. An example is the provision according to which a member of the cooperative can be either private person or legal person. Special laws envisage the formation of cooperative production only by individuals and formation of entrepreneurial cooperative only by natural and legal entities, who are performing entrepreneurial activities. Entrepreneurial cooperatives are true, since their goal of energy saving is aimed at making money and improve the overall efficiency of the work of its members. Farm cooperatives, in turn, in

accordance with the Law nr.1007 / 200, look more like a company focused on making a profit and its distribution among its members.

The entrepreneurial cooperative is a legal entity based, at least on 5 people and / or legal entities that act as entrepreneurs, in order to streamline its activity to obtain profits or savings. The establishment and functioning of the business of the cooperative is governed by the Criminal Code of the RM No. 73/2001.

The entrepreneurial cooperative has the following characters:

- Legal entity aiming to generate profit;
- The founders are at least 5 members, who act as entrepreneurs;
- The response to obligations with all its assets (the cooperative members are not liable for its obligations);
- It consists of two categories: members should have one common share and preferred share; Associate members have only a reduced share.
- The entrepreneurial cooperatives can work in all sectors of the national economy. They can participate in any activity except those prohibited by the state monopoly. If for the implementation of the activity license is required, the cooperative will receive it at the beginning of activities.

The basic principle, which is to create a cooperative business, is provided in Art. 6 of the Law on cooperative entrepreneurship. 73/2001, according to this law, the cooperative is obliged to deliver at least 50% of the total production/services to their own members.

Art. 7 Law № 73/2001 provides, particularly, that cooperatives can be for the provision of services for the processing, including consulting, savings, loan, insurance, etc. Article 87 regulates the particularities of agricultural service cooperatives.

Production Cooperative (Law №. 1007 of 25.04.2002 on production cooperatives)

Production cooperative is a company established by five or more physical entities persons to carry out co-production and other economic activities, mainly based on personal labour of its members and co-shares in the cooperative capital. The cooperative is an enterprise of private law with legal status, aiming to generate to profit with commercial business.

Organization and activities are carried out on the basis of the following principles:

- a) voluntary entry into the cooperative and free exit from it;
- b) management of the cooperative activity is based on democratic principles;
- c) common interests, economic cooperation and mutual support of its members;
- d) free access to information about the activity of the cooperative.

Cooperative members may be individuals (min. 16 years), corresponding provisions of the cooperative statutes and who contributed to the score of the share.

The bodies of the cooperative management are:

- a) a general meeting of the members of the cooperative;
- b) the Supervisory Board of the cooperative;
- c) the chairman of the cooperative (the sole governing body);
- d) the audit committee or the auditor of the cooperative

The General Meeting is the supreme governing body of the cooperative.

Cooperative Council shall, within its competence, overall control of the cooperative activity, represents the interests of its members in the period between general meetings and is accountable to the General Meeting.

The Audit Commission carries out internal control over financial and economic activities of the cooperative and is accountable to the General Meeting. Decisions are made in the constituent assembly 2/3 of the total number of founders. At the founding meeting of each founder has the right to one vote. Implementation of the Constituent Assembly shall be notified in the protocol signed by the chairman and secretary of the meeting.

Table 11: Comparative analysis between the production and entrepreneurial cooperatives

№	Criterion	Production coop	Entrepreneurial coop
1.	Founder	Physical entity	Physical or legal entity
2.	Founder's domicile	Resident/non-resident	Resident/non-resident
3.	Min. numbers of founders	5	M 5
4.	Min. amount of capital	Not indicated	Not indicated
5.	Sources of capital formation	Money, movable and immovable property	Money, movable and immovable property
6.	Profit distribution	Between the cooperative members	Between the cooperative members
7.	Management bodies	1) General Meeting 2) Cooperative Council (if more than 50 participants); 3) President	1) General Meeting 2) Cooperative Council (if more than 30 participants); 3) President
8.	Founders' responsibility	In the frame of block of shares and additional responsibility	In the frame of block of shares and additional responsibility
9.	Production\ service limit	no	Production and / or services - 50% for its members.
10.	Share of participation	Every member has 1 block of shares	Members who have 1 block of shares and can keep the preferred share. Associate members, who own only fair share.

Registration:

Unfortunately, the legal framework does not define the concept of energy cooperative, what is its purpose and the rules of organization and functioning. Therefore, stakeholders rely on the EU and world experience. The current legal framework makes it possible to register the cooperatives in various fields, including in the energy sector.

Art. Law № 7. 73/2001 provides, in particular: commercial cooperatives in the field of services, including consulting, savings, loans, insurance, etc.

4.6.5 Existing pilots, business models and technologies

Currently, there is no citizen's energy project in Moldova. In principle, energy cooperatives are legally possible, however the establishment is complex and the model is not known very well amongst Moldovans. Already established technologies in Moldova are Solar Water Heaters (SWH) and Photovoltaik. NGO Rural Renaissance has a lot of experience with the installation of SWH. In majority, electrical boilers are used for warm water. But energy security is weak and a big political issue, a major amount of electricity has to be imported from Ukraine and Transnistria. Usage of SWH has economic potential, it enables the consumers, e.g. schools, kindergartens and private households to save time and money and showing the feasibility of decentralized renewable energy.

PV is an economically viable model with the Green Tariff explained above in chapter 4.6.1. Electricity from PV stations can be sold into the public grid at the tariff rates. Using an accumulator to increase the flexibility of feeding into the grid would also increase profitability, but investment for storage systems is still too high for local actors. The Green Tariff rates are changing every year and do not provide security. The new RE-promotion law is expected to foster the possibilities for decentralised energy production (Expert interview Moldova, Annex II).

NGO created ideas for different business models of energy cooperative's activities:

1. Farmers producing the crop residues (straw, orchards and vineyards) join energy cooperatives, and produce briquettes and pellets from biomass for its own use and for sale.
2. Entrepreneurs establish or join energy cooperative producing energy-efficient equipment and equipment for renewable resources (solar collectors, etc.)
3. Civil society and enterprises create energy cooperatives for production of RE (solar panels, wind generators, etc.), investing own capital but also loans and grants.

Energy cooperatives will boost citizens' investments in renewable energy and will allow anyone to buy shares and, therefore, become a member of own production energy project. The ultimate goal is to increase the energy independence of the country, but also to reduce emissions of carbon dioxide in the atmosphere. The aim of this project is the rational use of energy resources on a national scale, creating good practices for replication in each region, neighbourhood or community.

4.7 Belarus

4.7.1 National climate and energy policies

NDCs

Belarus has signed the Paris Agreement and accepted it on 21 September 2016 (United Nations 2017). The country commits to reduce its GHG emissions by at least 28% of 1990 levels by 2030, excluding emissions and removals in the land use, land-use change and forestry sector. According to the Belarusian NDC submitted to the UN, approaches regarding the inclusion of the LULUCF sector into the commitments will be determined after methodological questions relating to the estimation of emissions and removals of GHG in this sector have been clarified (UNFCCC 2015b). The details of the Belarusian INDC are summed up in Table 12.

Table 12: INDCs of Belarus

GHG emissions level	Reduce GHG emissions by at least 28% of 1990 levels by 2030
Base Year	1990
Period	1 January 2021- 31 December 2030
Greenhouse gases	Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF ₆)
Scope of commitments	Power industry, industrial processes, use of solvents, agriculture, waste

[Source: UNFCCC 2015]

Figure 13 shows the development of GHG emissions in Belarus from 1990 – 2012 and referring commitments until 2030. Projections until 2030 are based in a scenario taking into account the approved programmes for the development of sectors of the economy including the commissioning of a Belarusian Nuclear power plant in 2018 and additional policies and measures to reduce carbon intensity. After 2030, the upward trend is projected to continue and peak in 2035.

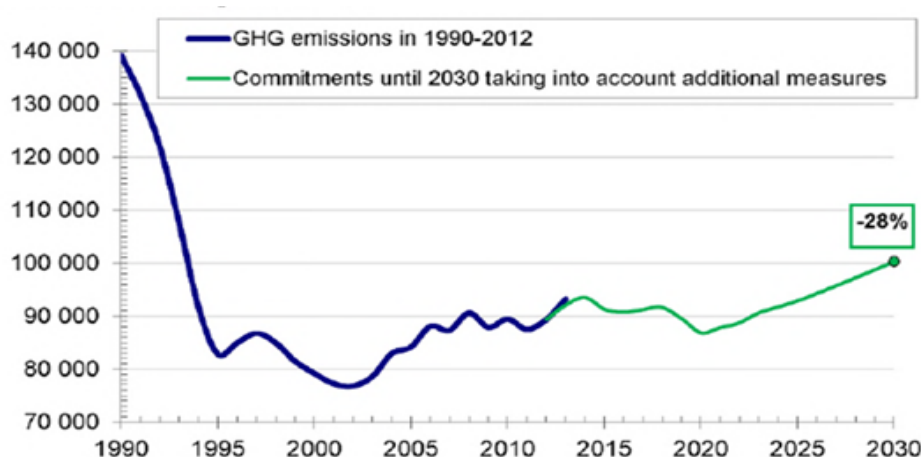


Figure 12: Belarus greenhouse gas emissions 1990 – 2030, Gg CO₂ eq.

[Source: UNFCCC 2015]

National Policies

National support policies for renewable energy include targets for the share of RE of the final energy consumption, regulatory policies and fiscal incentives. The share of RE of final energy is to be increased from 5.7% in 2013/14 up to 32% by 2020. A feed-in-tariff is available for RE combined with an electric utility quota obligation or renewable portfolio standards (RPS), an obligation placed by a government or utility requiring a minimum targeted share of renewable heat or power technologies. The green tariff for renewables was authorised by a Ministry of Economy decision in 2011, based on the Law on Renewable Energy Sources. The feed-in tariff is set for installations (industrial customers) with a capacity up to 750 kilowatts (kW) for a period of 20 years and is based on a correction factor of the standard tariff.

The IEA criticises that other supporting mechanisms for RE developments are not straightforward, including a lack of understanding on responsibilities for connections to the grid, and no clear and transparent rules for third-party and private sector access. To increase the interest for foreign investors, clear and transparent rules and legislation would be needed, without the possibility of sudden change to tariffs and other agreements (IEA 2015a, REN21 2016). In 2015, Belarus updated its energy efficiency legislation to improve data, monitoring, education, training and international collaboration (REN21 2016).

In August 2014, a new Decree on Grid Connection was approved, allowing access to smaller private generators and fostering small scale projects. Policies for district heating are in the Concept of Development of Heat Supply to 2020. Adopted in 2010, it outlines the planned development of district heating systems, tariff policy, district organisations and consumer relations, systems management, regulatory framework, de-monopolisation and the formation of market relations (IEA 2015a).

Relevant institutions are the Ministry of Energy, responsible for the fuel and energy sector of Belarus and the Department of Energy of the State Standardisation Committee, responsible for the development and implementation of national energy efficiency and renewable energy policies. The Ministry of Energy also manages the vertically integrated state-owned natural gas supplier, BelTopGaz, and the vertically integrated state-owned electricity producer, supplier and retailer, BelEnergo. State regulation of the energy sector, including energy efficiency and renewable energy, is carried out through decrees, directives of the president, government decisions and the Ministry of Economy. There are a number of public and non-governmental organisations active in the field of energy efficiency, renewable energy and environmental protection in Belarus (IEA 2015a).

4.7.2 Degree of gender equality in the countries

Legal Framework and Policies

Although Article 22 of the Belarusian Constitution states “All shall be equal before the law and entitled without discrimination to equal protection of their rights and legitimate interests,” it doesn’t mention gender discrimination (Constitution of the Republic of Belarus, 1994). However, Belarus did ratify CEDAW and CEDAW Optional Protocol. UNDP supports the capacity of Belarus to address climate change through “the formulation of gender-sensitive mitigation and adaptation policies, the development of disaster-risk reduction strategies that take special note of vulnerable groups such as the rural elderly, children and persons with disabilities” (Grantham Research Institute, 2015). Little information in English is available regarding the integration of gender issues in climate response in Belarus, but UNDP did release a booklet on the “Green economy and gender equality in Belarus” in Russian (UNDP). Belarus’ labour law prohibits discrimination on the basis of gender in employment, yet bans women from 181 professions (Piatrukovich 2014). Article 16 prohibits and criminalizes employers from refusing to conclude an employment contract with women without grounds, for reasons linked to pregnancy or to the presence of children. Pregnant women are entitled to 126 days of paid maternity leave, receiving a payment equivalent to the national average salary, and have equal inheritance rights under Belarus’ civil law (Labour Code of the Republic of Belarus, 1999).

Belarus has a gender strategy that uses gender mainstreaming, but the Office for European Expertise and Communications (OEEC) doubts about the government’s effective commitment to mainstreaming gender in its actions: “Despite the presence of all these institutions and tools in Belarus, gender approach is not used while developing state plans and programs, gender analysis of taken decisions is not used either. There is no strategy of gender development, and the current policy has no systematic approach” (OEEC 2014).

A 2013 study of Belarusian women’s participation to public and political life points out that “The National

Action Plan for Gender Equality currently remains a purely formal document that does not have real impact on society” (Council of Europe 2013). A report by the Heinrich Böll Foundation confirms that the gender action plans haven’t been well-enacted, with “no legal mechanisms have been developed which would specify legal liability for acts of gender-based discrimination” (Heinrich Böll Stiftung Warszawa). There is no evidence to support the claim that Belarus’s sector policies integrate gender mainstreaming. Previous gender analysis reports do not make any mention of efforts to integrate gender issues in climate or energy policies, nor in school and university curricula (OEEC 2014). In fact, the government’s current approach has been to enforce traditional gender roles through gender-segregated classes (Shchurko, 2012). The National Statistics Committee of the Republic of Belarus does collect sex-disaggregated data, though not in the realm of climate issues (National Statistical Committee of the Republic of Belarus).

Governmental Institutions

Belarus is currently implementing its fifth National Plan on Gender Equality (2017-2020) (Belarus Digest. (2017). However, the Belarusian Ministries don’t have specific strategies to integrate gender issues into their policies. OEEC reports, “in the Ministry of labour and social protection there is a department of population, gender and family policy.” Several sources report poor implementation of the national gender action plans, “There is no strategy of gender development, and the current policy has no systematic approach” (OEEC 2014). There is no information on if gender trainings are available for government employees or external actors. OEEC argues that “the awareness and understanding of gender equality, of its essence and advantages for all the gender groups can be raised by mutual efforts of the state and NGOs in: providing mandatory gender education within training and re-training of officials and experts from all the areas of activity...” (OEEC 2014). A 2017 report by the Council of Europe states “In Belarus the president has set an informal target of 30% of women in the National Assembly” and both Parliament chambers (Council of Europe 2016), (Belarus Digest 2012). However, it should be said that the legislature does not have much power in Belarus. The NGO Freedom House considers that “Belarus is not an electoral democracy” and “opposition parties have no representation in the National Assembly, while pro-presidential parties serve only superficial functions” (Freedom House 2016). There are no quotas in place at other levels of government, nor under political parties.

Finances

Gender budgeting isn’t currently used in Belarus, despite the country’s peripheral involvement in several initiatives. In 2008, the Coalition for Gender Equality in Latvia coordinated the project “Creating and expanding a gender budgeting network in the Baltic Sea region and Belarus.” The project was to “popularize gender budgeting and gender budget analysis ... ensure greater responsiveness to gender issues in central government and municipal policies by promoting and fully incorporating gender concerns in public spending and by increasing equal participation of men and women on all levels of the budgetary decision-making process” (Estonian Women’s Study and Resource Center 2008). 15 Belarusian NGOs received training on gender budgeting. In 2016, as part of the project “Strengthening Inclusive Local Governance in the Republic of Belarus,” UNDP and the Danish International Development Agency organized a joint seminar on “The State Service of the Republic of Belarus - New approaches to the public finances management: inclusion and broad public involvement. Gender budgeting and some other aspects of gender policy.” Representatives of the Ministry of Finance and other government institutions attended this seminar where they learned about gender budgeting methods and benefits (UNDP 2016). Representatives from the Belarusian authorities also participated in a study visit to Vienna, where they learned about gender budgeting practices in Austria (IMAG GMB).

Belarus has limited funds for gender-related CSOs and the government's actions intentionally limit the funding opportunities available. As of 2017 only around 40 registered women's organizations exist, less than 1.5% of all NGOs in the country. The government financially supports the Belarusian Union of Women, a "non-feminist" women's organization created and controlled by the government, that receives most of the funds available to women CSOs. Women's rights organizations in Belarus suffer from the intentionally complex NGO legislation, making it difficult for them to register and receive foreign funds. Financing climate action isn't a priority of the Ministry of Finance, according to the Zoï Environment Network (Zoï Environment Network 2017). Climate actions in Belarus are financed by the government and through external donor funding. The OECD study on "Financing Climate Action in Belarus" reports that the Ministry of Economy is "in charge of development and implementation of national development policies including environmental investments, tariff policy, rational use of natural resources" and that the Ministry of Finance is "responsible for fiscal policies and borrowers of financing from international sources for a range of projects" (OECD 2016). Belarus has few financial mechanisms to fund small-scale green technologies, let alone gender-sensitive green technologies.

4.7.3 Situation and power of civil society

Though Belarus offers fairly good socio-economic conditions for civil society, it has poor governance contexts, which are marked by bad relations between state and civil society. The country in the EEI ranks among the 10 worst governance environments for civil society out of 109 countries globally. In Europe, Belarus with a score of 0.23 and Russia with a score of 0.34 offer the two worst governance contexts for civil society. The global average score in the EEI's governance dimension is 0.58, while Europe as the region with the highest score has an average of 0.73 with Denmark considered as having the most beneficial enabling environment for civil society with a near perfect score of 0.96 (CIVICUS 2013). Now, relations between the state and civil society in Belarus improved slightly in 2016. For example, CSOs have been involved in discussions at various levels on legal reforms and dialogue between Belarus and the EU. CSOs planned and organized some major forums and conferences with the participation of government representatives. Authorities are more and more open to dialogue with a variety of independent experts and analysts.

Despite these positive developments, the legal environment under which CSOs operate remains largely unfavourable and access to local and foreign funding is limited and complicated. While the operations of unregistered organizations are technically criminalized, informal initiative groups operate anyway, generally without harassment from the government. In 2016, informal initiative groups focused on the environment, local community development, culture, urban development, animal protection, gender, and other issues. They expanded their activities and some acquired characteristics of formal organizations, including missions, goals, permanent leadership teams, and plans of action, in order to promote their sustainability (USAID 2017).

4.7.4 Legal framework for cooperatives

Civil legislation of Belarus distinguishes between production cooperative and consumer cooperative and gives detailed legal provisions for both forms. A production cooperative according to § 3 Art. 107 "shall be deemed to be a commercial organization, the participants of which should make the property share contributions, take personal labour participation in its activity and bear subsidiary liability on the obligations of the production cooperative in equal portions, unless otherwise is determined in the charter, within the limits, determined by the charter, but not less than the value of the annual income gained in the production cooperative." A consumer cooperative belongs to non-commercial organisations and according to § 5 Art. 116

is “a voluntary association of citizens and legal persons on the basis of membership for the purpose of satisfying material (property) and other requirements of participants to be effectuated by means of combining the property share contributions of the members thereof shall be deemed to be a consumer cooperative”.

The cooperative movement on Belarus exists for more than a hundred years and is an important element of the country's economy, of meeting material and other needs of the population. The consumer cooperation system of the republic includes 119 cooperative societies, 6 regional unions and the republican union of cooperative societies. Since 1992, the Belarusian Republican Union of Cooperative Societies has been a member of the International Cooperative Alliance, which unites over 230 member organizations from over 100 countries (Ministry of Foreign Affairs of the Republic of Belarus 2017).

4.7.5 Existing pilots, business models and technologies

Though there is a vivid cooperative scene and existing cooperative framework in Belarus, no information on community energy projects or energy cooperatives could be found. Despite support policies for renewable energy in place, the energy system in Belarus is staying centralised with a renewed focus in Nuclear Power. Domestic energy sources are planned to make up 35% of the energy supply by 2020. While the majority of this is meant to be produced with Nuclear Energy, 5% of total energy supply are planned to be covered through renewables by 2020. Following a slow development in the renewables sector, the targets for installed capacity have been adjusted in 2013 but still foresee an increase in installations. Particularly wind energy is fostered with an installed capacity of 25,4 MW and a target of 168 MW. Solar PV with an installed capacity below 2 MW is still weak, despite the FiT that was introduced in 2011. Hydro power (installed 32 MW, targeted 42 MW) and Bioenergy (installed 513 MW, targeted additional 60 MW) are already better developed and also show good potential for further increase (Beier 2015).

4.8 Bosnia and Herzegovina

4.8.1 National climate and energy policies

Bosnia and Herzegovina (BIH) is a decentralized country comprising of two entities, Republika Srpska(RS), and the Federation of Bosnia and Herzegovina (FBiH) and Brčko District. According to the information available on the ministry homepage, the Bosnia and Herzegovina Ministry of Foreign Trade and Economic Relations (MOFTER) is responsible for the coordination of activities and harmonizing plans of the entities governmental bodies and institutions at the international level. MOFTER covers energy, environmental protection, development and the exploitation of natural resources. Decision-making involves the Council of Ministers, the governments of two Entities and Brčko District.

Bosnia and Herzegovina is a potential candidate for EU membership. Stabilization and Association Agreement was signed in 2008. However, according to the interviewed experts, BIH is politically torn and experiences severe issues in national decision making. Its alignment with the EU climate regulations are going at a very slow pace.

Bosnia and Herzegovina submitted its climate action plan to the UNFCCC in October 2015.

INDC of BIH is presented in the table below:

Type	Emissions reduction relative to a BAU baseline
Coverage	<p>Economy-wide, in particular, as determined by decisions of the UNFCCC Conference of the Parties on reporting covering the following sectors:</p> <ol style="list-style-type: none"> 1. Energy <ol style="list-style-type: none"> a). Fuel combustion (sectoral approach) b). Fugitive emissions from fuels 2. Industrial processes 3. Agriculture 4. Land-use change and forestry (sinks) 6. Waste
Scope	<p>The INDC includes information on the following GHGs: Carbon dioxide (CO₂); Methane (CH₄); Nitrous oxide (N₂O)</p>
Base year	1990
Period of reduction	2030
Reduction level	<p>In line with the trend of consumption and energy production growth, as a result of development of the country, total emissions also show an upward trend. According to the developed scenarios - their peak occurs in 2030; according to the baseline scenario (BAU) in 2030 expected emissions are 20% higher than the level of emissions in 1990. Emission reduction that BIH unconditionally might achieve, compared to the BAU scenario, is 2% by 2030, which would mean 18% higher emissions compared to the base year 1990. Significant emission reduction is only possible to achieve with international support. This would result in emission reduction of 3% compared to 1990. In comparison to the BAU scenario, it represents a possible reduction of 23%.</p>
Methodological approaches used particularly for measurement and verification of anthropogenic GHG emissions and in appropriate cases, their absorption	<p>Methodological approaches are based on using the following methodology:</p> <ol style="list-style-type: none"> 1. Methodology of the Intergovernmental Panel on Climate Change (IPCC) defined by the Convention, based on the reference manuals: Revised IPCC Guidelines for National Greenhouse Gas Inventories of 1996, the IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry of 2003, and Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Emission Inventories of 2000. INC, SNC, FBUR; 2. National statistics; 3. Sectoral forecasts. <p>Base year 1990: 34,043.49 GgCO₂e (without LUCF). Base year 1990: 26,619.96 GgCO₂e (with LUCF). The MRV system in BIH is currently under development (organizational set-up).</p>

Consideration of fairness and ambition based on national conditions	BIH is a developing country and the presented target represents a significant effort and is presented as emissions reduction relative to a BAU baseline. The BIH CO ₂ per capita is approximately 8.2 t (2011). GDP per capita in 2013 was 3,509 € as expressed by Purchasing Power Standards (PPS), which amounts to 29% of the EU-27 average in 2013. Gross total primary energy consumed/unit of GDP is 0.938 toe/USD2000. The country consumes about 20% of its GDP on energy. BIH GHG emissions is less than 0.1% of global total emissions.
Planning process	INDC is based on the existing strategic documents, inter alia, the following: SNC, FBUR, legislation and others .
International Market Based Mechanisms	Conditional emission reduction is only possible with international support.

Under the baseline scenario, the power sector, as a major sector, is characterised by a slight increase of the share of power generated from renewable energy due to the feed-in tariff and lower investment costs of RE facilities (INDC of BIH, 2000). According to the INDC, various activities and projects resulting in mitigation effects have been initiated or planned. Potential international development and financial mechanisms are available for these initiatives (e.g. GEF, GCF, EU pre-accession funds, favourable loans from financial institutions).

In both entities, electricity is almost equally generated by coal-fired and large-hydropower plants. Recently, there has been a growing interest in the deployment of SHPPs. As of 2015, only a small amount of non-hydro renewable capacity had been deployed. Approximately 35 MW of small projects are registered as “in construction”, while seven MW have been already constructed (IRENA 2017). The procedures for obtaining all the necessary permits have not been unified and streamlined, making the duration of administrative processes hard to predict. According to expert interviews, even small projects in BIH can take up to a year to obtain all permits. Large-scale projects face even more obstacles, since there are agencies involved at all levels (municipal, federal and national).

4.1.5 Degree of gender equality in the countries

The National Gender Action Plan on Gender Equality (GAP), adopted first in 2007, and renewed for the period 2013-2017, builds on national and global conventions and strategies to promote implementation of the Law on Gender Equality. It is complemented by the Financing for the Implementation of the Gender Equality Action Programme (FIGAP), which is adopted to provide for the law’s long-term implementation. However, there are still weaknesses with regard to consistency of the laws; sufficient adaptation to the BIH context; implementation of regulations; lack of awareness of the laws; unclear reporting lines; and inaccessible data on discriminatory practices (GSDRC 2016).

Key findings of the 2016 report on gender equality are as follows (GSDRC 2016):

1. The BIH legal architecture is favourable to gender equality;
2. The Gender Equality Agency (GEA) supports LGE implementation, collaborating with Gender Centres nationwide. These entities are weak, lack sufficient visibility and need technical capacities and resources (CEDAW 2013);
3. Stereotypes are prevalent in the media, which fails to address issues of gender awareness and women’s rights (OECD 2014);
4. Women’s political participation is limited – women in decision-making positions and serving as political representatives are few (CEDAW 2013; EBRD 2014);

5. Promising efforts are ongoing to support implementation of gender responsive budgeting (GRB), with support from UN Women and partners;
6. Addressing gender gaps in women's access to economic opportunities is a priority. Challenges include access to finance, low business management knowledge and skills, limited business networks and gender discrimination. Efforts to strengthen women's entrepreneurship are being promoted (Cancho and Elwan 2015; AGEBIH 2014; EBRD 2014; USAID 2012; UN 2014);
7. Data reflects that girls are marrying at later ages than in the past. Early marriage is reported as more common in rural areas and amongst women which have only primary education (Agency for Statistics of Bosnia and Herzegovina, 2013);
8. Sexual violence, and domestic violence, is recognised as rampant and a priority challenge. A main cause of this is patriarchal socio-cultural attitudes (CEDAW 2013; OECD 2014; UN Women 2016).

4.1.6 Situation and power of civil society

The year 2016 in BIH was marked by a number of crucial political developments, such as the publication of the census data collected in 2013, municipal elections, referendum in Republika Srpska and the acceptance of BIH application for accession to the EU. Thereafter, little room was left for the creation of an enabling environment for the civil society development. The legislative framework remained stable, with little improvements. Key findings of the Monitoring Matrix on Enabling Environment for Civil Society Development in BIH for 2016 are as follows:

1. Civil society organizations have not been involved in the process of amending the Law on Associations and Foundations;
2. Current mechanisms for distribution of state funds are not unified. These depend on the level of authority and the institution allocating them. Procedures vary, and state funding is not sufficiently transparent;
3. Ministries of justice and agencies for statistics on the state and entity levels still do not have exact data on the number of CSOs in the country, which provides space for manipulation of numbers;
4. There is no working mechanism for state-CSO cooperation. The Agreement of cooperation between the Council of ministers and CSOs, signed nine years ago established a general framework for cooperation and dialogue. However, its implementation failed;
5. Most ministries do not use the Rules on Consultations in Legislative Drafting, which are still not fully implemented. The Council of Ministers on the state level launched an e-consultations platform;
6. There is lack of an efficient social care system in BIH (Balkan Civil Society Development Network 2016).

Bosnia and Herzegovina holds the 58th place in the Enabling Environment Index ranking, garnering a score of 0.52. BIH does not yet have complete registry of all non-governmental organisations. There are about thousands of such organisations, but it is unclear how many are active (Freedom House 2017).

The e-consultation web platform launched in April 2016 involved nine ministries and fourteen agencies at state level. Twenty-three institutions at all levels of government designated specific bodies or contact points in charge of dialogue and cooperation with CSOs. However, in order for the legal framework to be implemented efficiently, government representatives and CSOs need an expanded role and there should be a greater political commitment to the process (EC 2016). A strategic framework for cooperation with civil society has yet to be established at all government levels. The Law on State Aid regulates the allocation of state funds, but it has not been implemented. The EC report states that the distribution of public funds to civil society is not completely transparent and systematic, thus creating opportunities for corruption.

Civil rights are codified by law but are not always properly respected and protected. According to Transformation Index BTI (Country Report BIH 2016), civil society as an integral part of democratic processes does not have long tradition in Bosnia and Herzegovina. Civil society traditions were weaker in Bosnia than in most other republics of the former Yugoslavia. Civil society organizations are concentrated in urban centres such as Sarajevo, Banja Luka and Tuzla. Since 1995, the most vocal liberal civil society organizations have drawn most, if not all, of their funding (and political support) from international sources. A small number of prominent NGOs (e.g. Center for Civic Initiatives and Transparency International BIH) frequently and forcefully expose government inefficiencies and other transgressions. In Republika Srpska, in particular, NGOs critical of the government came under pressure in the face of government plans to restrict the work of the NGO sector.

The constitution of BIH guarantees freedom of association and assembly, and the BIH Law on Associations and Foundations defines the rules governing them. Although political interference is not evident in granting permission for association, the procedure for registration is lengthy and cumbersome. Independent groups, particularly in Republika Srpska have been subject to political intimidation and public criticism in media close to the government.

As all other segments of the society, civil society in BIH faces similar issues, such as lack of understanding and homogenic strategy, general political dissonance, clientelism, nepotism and religious traditionalism. However, the civil society in Bosnia and Herzegovina is very much alive.

In 2010 the World Bank conducted the research “Life in transition (LiTS 2)”. The results for BIH show that over 60% of the households are greatly affected or quite influenced by the crisis. One third of the population is at risk of poverty, while about 60% of the population is socially excluded. It should also be emphasised that 57% of the work capable population is not active. In addition, a great number of people is engaged in “grey economy”, with no health or other kind of insurance.

According to Assessment Report on Social Entrepreneurship in BIH (Ninković-Papić, Ranka, 2012), the concept of reducing poverty and social exclusion is mostly based on the passive support to the poor and socially excluded families and individuals. The issue of social inclusion and poverty reduction are becoming an obligatory component of the EU integrations. So far, the Social Inclusion Strategy has been adopted in the Federation of BIH, Brčko District and it is expected to be adopted by the Council of Ministers. One of the measures of the Strategy is development of the system of support to social entrepreneurship – as one of the forms of employing vulnerable categories.

4.1.7 Legal framework for coops

In Bosnia and Herzegovina, cooperatives have a long tradition since 1888. For example, the first cooperative was founded in Derventa and the first housing cooperative in 1897 in Sarajevo (Ninković-Papić, Ranka, 2012). Laws on cooperatives existed in the legal system of the former Yugoslavia, and there were agricultural, housing and saving credit cooperatives very often linked to a workers’ union (e.g. railway, textile industry). At the state level of BIH, there is a General Law on cooperatives (Official Gazette BIH No. 18/03, 55/06). The provisions of the Companies Law apply subsidiary to certain issues such as activity, headquarters, firm, members of the body responsible for damage to the cooperative, limitation of the election to a member of the board of directors, representation, procuration, notification, business secret, competition clause and outdated claims.

The general law on cooperatives defines the cooperative as a form of organization of voluntarily affiliated members - cooperatives to meet their common economic, social and cultural needs and aspirations, through shared ownership and democratically controlled business. The cooperative can be established as general and specialized (agricultural, fruit, vineyards, winegrowers, livestock, poultry, fishing, dairy, beekeeping, housing, crafts, savings and credit, youth, carriage, etc.). A cooperative in BIH can be established by at least five physical and / or legal persons, but this number may be higher.

The cooperatives in BIH use resources based on the investment of their members, joint property, state or private property of other physical or legal persons, which are regulated by the contracts. Resources that the cooperative receives as subsidies of the state, NGOs and other resources can be used only for the material investments or for permanent working capital. It is necessary to allocate resources in the reserve fund of at least five % of the total value of the cooperative members. The profit can be distributed only if ensured that after investment return, the real value of the property upon establishment is not reduced below 49%. A cooperative can set up other funds based on decision of its members. The unions of cooperatives can be established in order to improve activities of cooperatives and protect their interests as well as other business and professional organisations. According to data of the Cooperative Union of BIH, there are 350 cooperatives in RS and 200 cooperatives in FBiH in 2015.

The cooperative handbook developed by ENZA (Energy Cooperatives in Bosnia and Herzegovina) in 2016, and financed by HBS made a 10-step process on how to form an (energy) cooperative:

1. Cooperative members (minimum of 5 private or legal entities);
2. Cooperative members and lawyer: Cooperative formation contract, Cooperative rulebook;
3. Decision: Election of the President of the board, members of the Managing board, Supervisory board, Director, accepting the Cooperative rulebook;
4. National tax service: resolution of not being in tax debt;
5. Municipal council: resolution of not being an owner of other legal entities in BIH and that all the people mentioned in point 3 accept their duties;
6. Court forms: application fill in;
7. Paying of court tax;
8. Submitting all the documents to the trade court;
9. Publishing an ad in the daily newspapers. Registration is final, application to the National statistical office, police, Canton inspection office.

4.1.8 Existing pilots, business models and technologies

The support system in Bosnia and Herzegovina includes a FIT in the Federation of Bosnia and Herzegovina and a combination of a FIT and FIP in Republika Srpska. All technologies are supported, but there are significant differences between the entities with regard to capacity thresholds (the quota for solar PV by 2020 is 12 MW in FBiH and 5 MW in RS), the level of tariffs and the duration of support (12 years in BIH/FBiH and 15 years in BIH/RS). Net metering has only been introduced in BIH/RS by the 2013 Law on Renewable Energy Sources and Efficient Cogeneration (IRENA 2017). A two-way meter is allowed for installations up to 50 kW and a producer is entitled to consume electricity produced on site. Any surplus is not the subject of any remuneration. Due to tax concerns raised by the tax authority of BIH/RS, any new development of net metering in the entity has

been temporarily halted (IRENA 2017). Electricity prices are relatively low in Bosnia and Herzegovina, which makes payback period of net metering investments long and unattractive for citizens. The two basic renewable energy sources of BIH are the energy of water for production of electricity and biomass to produce heat energy. Biggest part of the used hydro potential is used in large hydropower plants, which are owned and managed by three public utility companies. Part of the hydro-potential is also used in small hydropower plants owned by private companies. The use of biomass currently involves traditional exploitation wood as solid fuel in households and local boiler rooms without any control and restrictions. In the future, there may be a possibility for energy cooperatives to buy in to the existing hydro power or cogeneration plants.

Huge potential lies in the wood processing industry, since Bosnia and Herzegovina has rich forests, especially in mid and eastern BIH and Kupres. Wood processing cooperatives that tend to become energy cooperatives would enable its members to become more competitive, develop new businesses and employ more local workforce. Beside wood processing industry, there is a huge potential in agricultural cooperatives and their transformation into energy cooperatives via gathering of bio waste and its further processing. For this, Semberija region is one of the most suitable as well as the areas with developed cattle production. Farmers joining in to energy cooperatives would enable them to develop new businesses in terms of energy production from biogas. This would enable them to be more competitive in their primary business and employ more people (ENZA, 2016).

ENZA Project proposed few business models for energy cooperatives possible in national context, as follows:

- 1) Group of local citizens – small, focused on local initiatives, bottom-up local development;
- 2) Regional/national energy cooperative – covering all EE and RE projects, on national level;
- 3) Integrated energy cooperative – offers the whole chain of energy services (production, distribution, supply);
- 4) Network of energy cooperatives – taking the role of energy coop incubator, replicating successful business models;
- 5) Multiple stakeholder management model – gathering all interested parties (consumers, producers, workers, communities, partners) within one complex management model;
- 6) Non-energy focused organization – projects initiated by local actors, e.g. local RE cooperatives, educational institutions and NGOs focused on RE and energy democracy promotion.

According to experts working within ENZA Project, key barriers for development of energy cooperatives in Bosnia and Herzegovina is insufficient political support and possible resistance from the public. However, if people start joining and forming energy cooperatives, they could mitigate or eliminate both barriers in the future. First steps would be to identify and inform key potential stakeholders and future cooperative members as well as to select the technology that would be applicable. Great opportunity lies in the presence of international organisations in Bosnia and Herzegovina that would be willing to support financially these kinds of initiatives. The key step is to form the cooperatives and for people to start cooperating on a local level. Community projects in BIH could be funded through individual citizen investments, energy cooperative or citizen group investments, and crowd funding (i.e. donation or investment based).

Other sources of funding community projects in BiH, are suggested within Sustainable Energy Action Plans of Bosnian cities and municipalities, listed below:

1. Annual budgets of the cities and municipalities;
2. Public private partnership;
3. Investment-development bank of Republika Srpska (e.g. Fund for the development of the eastern part of the Republic);
4. Republika Srpska environmental protection fund;
5. European fund for BiH;
6. ESCO (Energy Service Company) model;
7. European investment bank (EIB) (e.g. Green loans, European Local Energy Assistance (ELENA), Joint Assistance to Support Projects in European Regions (JASPERS), Joint European Support for Sustainable Investment in City Areas (JESSICA));
8. European bank for reconstruction and development (EBRD) (e.g. Western Balkans Sustainable Energy direct financing facility (WeBSEDF), Green for growth fund – Southeast Europe);
9. Energy programmes financed by the European Commission (e.g. Sustainable Energy Europe Campaign, 7th EU Framework Programme (FP7), Concerto Program Competitiveness and Innovation Framework Programme (CIP), Energy Intelligent Europe (EIE), Life + Programme);
10. Instrument for Pre-Accession Assistance (IPA);
11. International organizations and mechanism: Global Environmental Facility (GEF), Kyoto Protocol: Clean Development Mechanism (CDM), GIZ, UNDP, HBS and others.

ESCO is a model of public private partnership in the energy sector. This is new and not a fully developed type of service provision in West Balkan countries. Types, conditions and speech elements of PPP in Republika Srpska are regulated by the Law on private partnership. This law prescribes that the role of public partner can appear at local community or local authority and that PPP can appear in a contractual or institutional form (which considers shared establishment of a new commercial entity). A private partner is selected through the public competition. Local authority is responsible to make a study of economic justification and to ensure the Ministry of finance and the Ministry in-charge of the consent on the contract proposal. Municipal enterprise is also a business model for locally initiated RE projects, owned by local governments that provide services and typically generate revenue for local communities. In this way, municipalities 1) create stable jobs for community members; (2) contribute to local economic stability; (3) often provide goods and services to local residents for lower costs than for-profit providers; (4) provide more accountability and transparency; and (5) generate new local revenues that can be used for community-benefiting purposes.

Good practice examples

The Municipality of Čajniče set development of energy cooperatives to encourage usage of local resources for RE production, as a priority area in the SEAP published in 2015. This initiative is planned for a period from 2015 to 2020, with an estimated cost of 22,000,000 €. Financial instruments that will be used to channel national and international funds are – the annual budget of the City, institutions and competent ministries of the Government of Republika Srpska and BiH (e.g. Fund for Environmental Protection in Republika Srpska), European funds, and donations and favourable loans from international institutions (EU, EBRD, UNDP).

There are 17 small hydro power plants in Republika Srpska, with overall installed power capacity of 51 MW. In 2017, this entity achieved production of 36% of electricity from renewable sources. Most of the SHPP in RS

are owned by private investors, but there is also an increasing number of state or municipal owned small hydro power plants in BIH. For example, plans to reconstruct SHPP “Delibasino selo” in Banja Luka and construct SHPPs “Kostela” and “Martin brod” in Bihać, investing funds from their annual budgets, are laid out in the municipalities’ SEAPs in 2010 and 2012. The Municipality of Livno plans to invest in a biomass district heating system, supplied from local CHP plant, through ESCO model, in the period from 2015 to 2018.

4.9 Serbia

4.9.1 National climate and energy policies

During a public hearing of the Committee on Environmental Protection environment in 2015 (i.e. Climate change as reality in Serbia and EU – challenges, responsibilities, opportunities), the Ministry of Agriculture and Environmental Protection of the Government of the Republic of Serbia, announced emission reduction targets of 9.8% compared to 1990. However, there were no public consultations about INDC production. However, the national council on climate change assigned in November 2014, did not discuss the INDC. Lack of consultation processes in this fast-paced development encouraged the media and non-governmental organizations on a critical reaction to the ambitions of the Republic of Serbia in terms of emission reductions. Representatives of non-governmental sectors have pointed out the need for a methodology to produce INDCs to be clearly explained to the public, including the necessity to establish territorial scope in presenting values of greenhouse gas emissions (Anđelković, Gojgić 2010).

The process of drafting the National Strategy for Combating Climate Change began in September 2016. The process has been stopped, and it is announced that through the adoption of the climate strategy, the goals for reducing GHG emissions will be revised. In 2015, an Action Plan for Adaptation to Climate Change in Serbia was drafted, and the country adopted the National Strategy for Inclusion in the Clean Development Mechanism in 2010.

Serbia identifies GHG emission pledges at the national level, as stated within the INDC of Serbia, submitted to UNFCCC in June 2015.

Mitigation	Target: Unconditional	Reduce GHG emissions by 9.8% below 1990 level by 2030.
	Basis of target: Analytical Basis	GHG emissions estimated using IPCC 2006 Guidelines and IPCC 2013 Kyoto Protocol Supplement.
	Basis of target: Existing Policies	Serbia is a European Union (EU) candidate country, thus harmonizing with the EU legislation.
	Basis of target: Mitigation ActionBasis of target:	No information provided on specific mitigation actions.GHG emissions estimated using IPCC 2006 Guidelines and IPCC 2013 Kyoto Protocol

	Analytical Basis	Supplement.
Adaptation	Included in INDC	Yes
Participation		Not specified
Financial Assistance		No specific financing request included. No information provided on participation in international carbon markets.
Technical Needs Identified in INDC		Technical support for improving quality of data, GHG inventories, and GHG projections. Technical support for assessing mitigation and adaptation opportunities.
GHG Inventories and Reports		Submitted Initial National Communication in 2010. Latest inventory submitted to UNFCCC was for 1998, prepared using Tier 1 methodology following the Revised 1996 IPCC Guidelines. No BURs submitted to date.

Serbia plans to finalize its climate change strategy and action plan in 2018. This strategy will further define the precise activities, methods, and implementation deadlines.

The INDC notes mitigation opportunities for each sector:

1. Energy: increase energy efficiency, increase renewable energy;
2. Industrial Processes: minimal possibilities;
3. Agriculture: use biogas for heat generation or cogeneration of heat and power for local use
4. Forestry: afforestation;
5. Waste Management: establishing regional landfills, increasing recycling, introduce co-combustion of selected waste.

In February 2016, Serbia set up a new financing facility (Green Fund) in the ministry, which should become operational on 1 January 2017. According to BOS, the Provisions of the Law on Environmental Protection that established Green Fund, as well as provisions of the amended Law on Budgetary System are in the collision with the EU polluter pays principle.

In February 2016, Serbia submitted its First Biennial Update Report on greenhouse gases to the UNFCCC and preparations for the second report have started. The process for ratification of the Paris Agreement is finished and the Law on Ratification was adopted in May 2017.

Progress has been made in transposing EU directives on public access to environmental information and public participation in environmental decision-making (EC country report 2016). The report states that environmental impact assessment process has improved but still needs further strengthening. This is especially true for projects in the hydropower and mining sectors, which could be partly achieved through capacity-building at all levels. Additionally, strategic environmental assessments need to be expanded to

cover relevant plans and programmes. The EC concluded in the report that further progress is needed on transposing and implementing the remaining horizontal components of environmental directives.

Serbian power sector is dominated by coal-based generation that is complemented by a significant contribution from hydropower plants and by few gas power plants. Most of the existing HPPs were developed during the Yugoslav era. Only 10.8 MW of solar PV and 5 MW of biomass had been installed by the end of 2015 (IRENA 2017). A significant development is expected for wind power, as the NREAP assumes its expansion to 500 MW by 2020 (IRENA 2017).

Serbia's law on energy is in line with the renewable energy directive but further by-laws should be passed to allow full implementation. Serbia's national renewables target for 2020 is set at 27% of gross final consumption of energy. In 2014, Serbia achieved a 23.1 % share of energy from renewable sources. According to the EC country report in 2016, there are no big investment projects in the renewable energy sector, since they have been hampered by difficulties in obtaining bankable power purchase agreements. Serbia is taking steps to address the issue, like introducing a new feed-in tariff system and drafting legislation on the procedure for acquiring privileged producer status and on incentives for renewable energy production (EC country report 2016).

4.1.9 Degree of gender equality in the countries

The EC report on gender equality found that Serbian anti-discrimination law is mostly in accordance with the EU gender equality acquis. The Gender Equality Act includes recognition of positive measures, guarantee of gender equality in all areas of public and private life, and the initiation of special civil lawsuits (EC country report 2015). However, there are also some gaps in the existing legislation. Pregnancy and maternity discrimination are not explicitly prohibited as a form of direct sex discrimination. Additionally, Serbian law does not address wage transparency. Finally, efficient measures against violence and domestic violence are lacking, and legislation does not explicitly guarantee that an employed woman, after returning from maternity leave, should remain in the same job (EC country report 2016). Gender Mainstreaming is one of three overall objectives in National Strategy on Gender Equality (2016-2020). There is also the Law on the Budget System (2015) that introduces gender responsive budgeting, gender sensitive objectives and indicators in all budget programmes by 2020. Gender equality mechanisms (GEMs) exist to ensure local implementation of the Law on Gender Equality. Moreover, there are lax quotas to strengthen female participation in the administrative structures.

According to IPA pre-accession evaluation report from 2016, progress has been made in harmonising legislation with the international and EU standards on gender equality, increasing efforts to mainstream gender through all sectors at all levels. Serbia's greatest successes in terms of gender equality have been achieved in the area of power and decision making, showing that the introduction of quotas for women's political participation has been successful. However, the gender pay gap is still too high in Serbia compared to other EU countries and women's and men's equal access to the labour market still needs improvement (GSDRC 2016).

4.1.10 *Situation and power of civil society*

The Monitoring Matrix (European Center for Not-for-Profit Law 2016) lists key findings in the area of the enabling environment for civil society development in Serbia:

1. The Draft of Civil code prescribes new rules, which will derogate achieved level of exercising freedom of association;
2. Although the legal framework for freedom of assembly and freedom of expression is mostly in place, there are lots of gaps in its implementation that make difficulties for CSOs, particularly for watchdog organizations;
3. Tax benefits system is not favourable for private and company donations to CSOs;
4. Monitoring and evaluation procedures are very weak and do not secure transparency of the spending state funding for CSOs;
5. Legal framework for volunteering is over-codified and not simulative for CSOs;
6. There is no binding document for obligatory CSOs inclusion in all phases of policy making process (Balkan Civil Society Development Network 2016).

Serbia is still missing a National Strategy on Enabling Environment for Civil Society Development. According to the 2016 Report, key challenges for the future of civil society development are connected to the general Government course. There is a growing trend of right-wing and pro-Russian structures in all segments of society. The image of civil society again is in the context of foreign agents. Although the Government has declarative attitude that cooperation is necessary, the officials do nothing to prevent the atmosphere in society that is not stimulated for further development of the civil society. The adoption of the Strategy in 2017 and its full implementation will be the significant factor. In addition, strengthening awareness of all other relevant actors, such as political parties, MPs, educational system and media is needed.

Serbia holds 54th place with a score of 0.54, in the Enabling Environment Index ranking. Moreover, the country holds 3rd place on the list of 10 worst countries in the socio-cultural dimension (score 0.40).

The freedoms of association and assembly are guaranteed by the Constitution. The right of the activists of lesbian, gay, bisexual and transgender groups to openly exercise their freedom of assembly, expression and association is not prohibited by law. However, public opinion is often highly prejudiced. The independence of the media has declined in recent years, since there has been a dramatic reduction in purchasing power, falling living standards, opaque media ownership and funding, weak financial base of many private media outlets, and a corresponding dependence on business and political interest groups (BTI project, 2018).

There are just over 26,000 civil society organizations (CSOs) active in Serbia according to the Serbian Business Registers Agency 2016, many of them being continually dependent on foreign funding.

The concept of “social entrepreneurship” is not recognized in an adequate manner within the legal system in Serbia, although the importance of the concept and its positive effects have been recognized in the civil sector and among the expert public. However, several laws and strategies contain provisions that may constitute the basis and support to the development of social entrepreneurship. The Law on Social Entrepreneurship has been drafted, and the adoption of the law was announced for 2017.

Social entrepreneurship currently appears in Serbia in the form of individual initiatives or relatively organized sub-sectors (e.g., enterprises for professional rehabilitation and employment of persons with disability), which solve the problems of unemployment and social exclusion.

According to a report on the Economical Impact of Social Enterprises in the Republic Serbia, there are seven legal forms of businesses that have been recognized in Serbia (Vukmirović 2016):

1. associations of citizens;
2. cooperatives;
3. enterprises for employment and professional training of persons with disabilities;
4. spin-off enterprises (most frequently in the form of a company with limited liability and a joint-stock company);
5. foundations;
6. business incubators; and
7. development agencies.

The report finds that the biggest problems of the social enterprises sector are the lack of the sources of financing. These are followed by low prices of products and services, outstanding receivables, lack of care for the sector on the part of the state and problems such as inadequate legal regulations, disloyal competitiveness and others.

According to the government statistics in 2012, there were 1196 social enterprises of different types operated in Serbia. Most of these enterprises are agricultural cooperatives.

4.1.11 Legal framework for coops

Cooperatives in Serbia have a long history. They evolved from traditional family cooperatives to the contemporary social networked organizations or private companies acting like cooperatives. For example, the tradition of cooperative organization in the territory of present-day Vojvodina is more than 150 years old (Chroneos Krasavac, Petković 2015).

The Assembly of Serbia on 29 December 2015, adopted a new Law on Cooperatives. According to this law, cooperative represents the voluntary form of organization in which every member participates directly and with joint operations based on cooperative principles application, promote and protect their economic, social, professional, cultural and other interests, in accordance with the law and rules of the cooperatives. The Cooperatives Act of the Republic of Serbia, as the primary law regulating this issue is fully consistent with the basic principles of cooperatives in the European Union.

Agricultural cooperatives are the largest cooperatives in Serbia – there are 1,585 cooperatives or 66.6% of the total of 2,381 cooperatives of all types. They form about 80% of the total of 6,292 employees in all types of cooperatives, and generate about 86% of the total income of the cooperative sector in Serbia.

As defined above, cooperatives are social enterprises. The Law does not recognize energy cooperatives, however, it does not establish any legal obstacle to their formation. Currently, there are some ongoing developing attempts. This brings hope that Serbia and its people are recognising benefits and moving to RE future. The available legislation on cooperatives in Serbia is sufficiently wide to possibly include community power initiatives.

4.1.12 Existing pilots, business models and technologies

Feed-in tariff as a RE support mechanism in Serbia is characterised by: (1) a 12-year incentive period; (2) its budget is not financed by the Republic of Serbia, but from special fee born by all final electricity consumers; (3) privileged producers sell to the guaranteed supplier – Elektroprivreda Srbije, acting as a single buyer; (4) balancing responsibility and balancing costs allocated to the guaranteed supplier; (5) free of charge access to electricity transmission/distribution systems; (6) regular annual adjustment of the incentive purchase prices due to inflation in the Eurozone.

Privileged production includes small hydro power plants (SHPP) up to 10 MW, biomass plants up to 10 MW (including dual-fired with biomass at least 80%), biogas and waste power plants up to 10 MW, wind energy, solar energy and geothermal energy plants (no limit). It also includes CHP plants using fossil fuels up to 10 MW (BETTER Project, 2013). Under the Energy Law, privileged producers also have the right of priority on the organized electricity market over other producers and enjoy certain subsidies, tax, customs and other privileges. With 40 energy entities, the number of privileged producers is relatively small. Net metering is emerging as an additional incentive for rooftop PV installations, although plans for its introduction has been vaguely defined (IRENA 2017).

The quota for PV of 10 MW has already been exhausted in Serbia, mainly by larger investors. There is a lack of funds for promoting small-scale private investments, such as solar PV on family houses. Small hydropower plant developers meet difficulties at local level since there is lack of collaboration with local authorities. The 2014 Law on Planning and Construction regulated the creation of a one-stop-shop at the local and national levels, which may improve the situation and encourage investments in RES (IRENA 2017).

Recent floods in 2014 in the central part of the country (City of Obrenovac) indicated the most critical weakness of the power system in Serbia. According to the media, due to flooding of Kolubara coal mines, national electricity consumption was drastically reduced. Thus, it was necessary to import large quantities of electricity (35% of total needs) at high prices. Future similar threats to the security of energy system in Serbia could be prevented by diversification of production or introduction of different systems for electricity production. "Local development in area of renewable energy: energy cooperatives" is a project led by Organization for Respect and Care of Animals (ORCA) in 2015 and 2016 in Serbia. The aim of the project was to create conditions for the introduction of the energy cooperative business model at the local level.

Energy cooperatives or other local community initiatives for energy use and production from renewable sources currently do not exist. The Belgrade Open School (BOS), in cooperation with a large number of civil society organizations, academia, and state institutions, contributes to the responsible environmental policy in Serbia based on the public participation in decision-making and the partnership between civil society and public institutions.

The "Community Energy" project promotes energy management in Serbia and strengthens democratic governance by empowering the civil sector to take an active role in the decision-making process. The "Community Power: Improving Capacities of Civil Society Organizations in Environmental and Natural Resources Protection" project deals with low quality of the environmental impact assessment and strategic environmental assessment procedures, as well as with insufficient capacities of stakeholders for participating in the decision-making process related to the environmental protection. This project is a part of a larger project entitled "CO-SEED: Civil Society Acts for Environmentally Sound Socio-Economic Development." The

"ReEnergy 2016 - For Energy Sustainable Local Communities" project has been designed with the aim of improving the energy management system in Serbia with good local self-governments practices of the European Union.

Community projects in Serbia could be funded through individual citizen investments, energy cooperative or citizen group investments, and crowdfunding (donation or investment based). Other sources of funding community projects in Serbia, are suggested within the National Renewable Energy Action Plan of the Republic of Serbia (2013). These are listed below:

1. Annual budgets of the cities and municipalities;
2. Fund for Development of the Republic of Serbia ("Official Gazette of the RoS", 88/10);
3. Fund for Development of Autonomous Province of Vojvodina;
4. Local budget funds for environmental protection;
5. Provincial Secretariat for Energy and Mineral Raw Materials;
6. Clean Development Mechanism (CDM);
7. European Bank for Reconstruction and Development (EBRD); German Development Bank (KfW) – loan for biomass granted to the Republic of Serbia;
8. Fund Green for Growth;
9. International Financial Corporation (IFC);
10. Fund Green for Growth;
11. Italian Credit Facility – intended for small and medium enterprises;
12. European Investment Bank – financing projects of small and medium enterprises (up to 100% of the project value) and infrastructure projects launched by local authorities.

Good practice examples

Western Serbian Municipality of Nova Varoš decided in 2016 to buy a small hydropower facility in Donja Bistrica, on river Bistrica. The power plant was installed three decades ago by the Yugoslav People's Army to supply the future strategic goods stockpile centre, a developing project, which was eventually dropped. A turbine of 1 MW is also in a bad condition, and the pipes are 200 metres long. The municipality set RSD 100 million (EUR 891,000) for the purchase of a small hydropower plant from the army, while according to estimates a similar amount will be needed for the rehabilitation of the pipeline and new equipment.

5 Prospects and conclusions for energy cooperatives to boost safe, affordable and decentralized energy supply

In this chapter, it will be explained how community renewable energy can contribute towards women empowerment, support countries to meet the Sustainable Development Goals (SDGs) and help to build a low carbon energy supply to enable states to reach their national climate goals.

Before drawing conclusions from the collected information, the most important points from expert interviews carried out for each country will be summed up in Table 13. As 'experts', persons who are active in the field of (renewable) energy, community development or ecology within CSOs or state authorities have been selected. Based on their input and literature review, the following categories have been identified:

Table 13: Results of Expert interviews

Georgia	Armenia	Ukraine	Moldova
Existing business models			
Five Georgian cooperatives, producing, selling and installing Solar Water Heaters (SWH) and insulation.	No energy cooperative experience yet, only agricultural cooperatives. An initiative in Basin will be registered as a production cooperative, first of its kind in Armenia.	A small biomass cooperative in Ternopil'ska oblast, using waste of biomass to produce briquettes for heating. Another energy cooperative is now gathering members, wanting to build a solar PV plant receiving the green feed-in-tariff.	Currently no citizen's energy project. Establishment of cooperatives is very complex; the concept and process isn't known well. SWH are very economic, PV (> 3 kWp) interesting with Green Tariff
Motivation for RECs			
<ul style="list-style-type: none"> - Increased comfort and reduced labour burden - Access to renewable energy and reduced fuel poverty - Reduced indoor air pollution - Meeting (local) emission reduction targets. - Equipping public buildings (schools, kindergartens) with SWH and insulation 	<p>For members:</p> <ul style="list-style-type: none"> - Promotion of clean energy sources - Being owners of renewable energy plants - Juridical form is democratic and equal (one member one vote) - Community can increase its energy independence - Members receive dividend 	<ul style="list-style-type: none"> - In case of the above mentioned biomass cooperative: Avoiding fines for burning the residuals of raspberry production + saving on heating costs by using the briquettes produced - Uniting efforts and resources - Mainly earning money, especially within the green tariff 	<ul style="list-style-type: none"> - Creating jobs - Energy independency - Increasing local value chain with public participation - People are very interested in climate change and renewable energy - Investing in innovative technologies

Georgia	Armenia	Ukraine	Moldova
Local benefits of RECs			
<ul style="list-style-type: none"> - Economic: Saving potential for municipalities and households - Environmental and forest protection - Regional value chains: Creation of local jobs, preventing out-migration from rural to urban areas 	[Same as above]	<ul style="list-style-type: none"> - Economic: People are either saving or earning money, spend less on energy. Increasing national energy security with less dependence on import. Traditional idea of money staying on site. - Ecological: Breaking the vicious circle of feeling helpless against ecological problems. - Social: Transition to a community. Being part of own energy supply, connect more to neighbours, talk more, increased responsibility 	<ul style="list-style-type: none"> - Cheaper energy, increasing energy and economic independency - Job creation, preventing out-migration to cities - Increasing the local value chain - Benefits for communities (income, tax, ownership feeling, etc.), democratic way of operating a business - Reduction of GHG emissions - Modernisation and diversification of energy supply and infrastructure
Barriers for RECs			
<ul style="list-style-type: none"> - Economic: Lack of demand due to lack of marketing skills - Political: no actual barrier, but no special law for energy cooperatives; lobbying for tax exceptions needed - Competitors from China offer cheaper collectors; better marketing needed pointing out advantages of locally produced collectors - General low awareness of renewable energies and ecology 	<p>No political or legislative barriers, only psychologically and financially:</p> <ul style="list-style-type: none"> - Lack of knowledge about and trust in the cooperative concept - Lack of money to invest 	<ul style="list-style-type: none"> - Excessive regulations: a cooperative which supplies a community will be regulated as a national supplier. It is no problem to supply with biomass. But if you use the [electricity] grid, a bunch of regulations kick in - Strong psychological barrier, people do not know how to unite for the same goal - Lack of finance: loans in Ukraine are too expensive - Restrictive cooperative law. Need for definition of “energy cooperative” to reduce administrative barriers 	<ul style="list-style-type: none"> - Authorities: not so interested, still high corruption - Lack of time and money to initiate projects - Schools could establish energy cooperation, but do not do it (monitoring by ministries, etc.) because of lack of time. High admin work - 50% of production to use by yourself to get the Green Tariff - Missing information and experience in democratic business models - Lack of trust in cooperative and community projects

Georgia	Armenia	Ukraine	Moldova
Transformative potential towards a low carbon energy supply			
Renewable energy and energy efficiency distributed by energy cooperatives replace firewood. If up-scaled, households will use less energy, replace non-sustainable energy sources and save costs. Combined with efforts for sustainable forestry, the remaining demand for firewood can be met by a sustainable energy source.	Combating fuel poverty as electricity [from renewable sources!] can be provided to members at a lower price. Upscaling potential of the “Basin” pilot: As members profit from dividend and other benefits, more people will want to invest.	<ul style="list-style-type: none"> - More democracy in energy sector. - More local energy production - Creating energy resilient communities, that do not depend as heavily on central sources - More money is left in communities - People will become more aware of environment and resources in the long-term when in charge of their own energy supply 	<p>Opportunities for renewable energies in communities can have great impact on local and national development goals (NDCs and SDGs).</p> <p>Through a cooperative, every person can make a contribution to the development of renewable energies and energy efficiency.</p> <p>Combating energy poverty.</p>
Support needed for start-up			
Training on technology, capacity building on economic aspects. The whole idea of community energy is new in Georgia, this had to be introduced by WECF.	<ol style="list-style-type: none"> 1) Explaining possibilities and benefits 2) Support in organisational questions 3) Finding investors to participate 	<ul style="list-style-type: none"> - Lack of understanding that this model is possible - Lack of skill to calculate the results of forming an energy cooperative - Financing: people usually don't trust banks, it is quite risky - Maybe there is a good reason to try to work with rich neighbourhoods which have financial capacities to have a good example 	<ul style="list-style-type: none"> - Financial support: e.g. start-up grants or loans - Production: technology, tools are needed; know-how is existing - Awareness raising - Study visits e.g. on management - Project management, leadership and funding of energy cooperatives - Legal framework can be improved

Georgia	Armenia	Ukraine	Moldova
Support needed for continuity			
<ul style="list-style-type: none"> - Marketing to increase the demand - Develop a dialogue with investors and banks - Technology should be improved and harmonised - Capacity building needs to be continued - Support of women in cooperatives, they can have a key role 	<p>Producing good results and experience in practice will be an example and inspiration</p>	<ul style="list-style-type: none"> - A support centre that people can just call e.g. during establishing process as an information hub. This could be regional or international - Draft of law on energy cooperatives is being finalised now to reduce legislative and administrative barriers 	<ul style="list-style-type: none"> - Favourable climate by the government for energy cooperatives to deliver services on our market and abroad. We have the customers, but we need the right climate of laws and regulations. - Qualification of people and marketing and visibility of the projects.
What is needed on a European level			
<ul style="list-style-type: none"> - Effective Climate financing instruments, e.g. through EU or IKI - Support of European CSOs and cooperatives (WECE, Energy 2030, Clean Power Europe) in form of investments, expertise in management or organisational issues - Building a partnership is motivating - Covenant of Mayors is an important actor 	<ol style="list-style-type: none"> 1) Experience exchange - barriers and accomplishments met and overcome by EU cooperatives 2) EU countries investing, more than just a money transfer but mutual learning. 	<ul style="list-style-type: none"> - High expectations on the fourth energy package - Forming cross-border cooperatives - Trans-border cooperative unions, good opportunity even for investing - Dream: EU opening up a 0% credit line esp. in Ukraine or provide other financing instruments - If EU could help lobbying the draft law that would help 	<ul style="list-style-type: none"> - Local expertise in energy resources, cooperation with department in parliament dealing with national security. - Support by EP for national law for decentralized and citizen's energy as top-down for the Moldavian Parliament. - Experience exchange and strong lobby for renewable and decentralized energy projects in all European Countries

Georgia	Armenia	Ukraine	Moldova
Boosting women's leadership and involvement in RECs			
Installing a quota for women in management of the cooperative. This should be written down in the statutes. Leadership trainings, gender trainings for the whole community	Many examples from civic initiatives where women play a major role, e.g. CLEEN and AWCY. Quota could be in the statutes	<ul style="list-style-type: none"> - Ukrainian women are quite active, there should be no special tools. Demonstrating current strong position of women in cooperatives might be useful. - Cooperative is based on free will, goals of (potential) members should be more important than their gender. - Statutes and practice of cooperatives should prevent any form of discrimination 	<p>There are women in the team, accountant, managers, etc. Interest of women to become engineer, production manager is very high. Majority of SWH are targeting women, they use warm water in the household.</p> <p>Consumer association starts to lobby the economy of national resources and housing infrastructure, all directors are female, field of interest is male and female. Trainings on technology and management for energy cooperatives for women can increase women's empowerment and women's leadership.</p>

5.1 Contribution of gender-sensitive energy cooperatives towards women's empowerment

Gender-just energy cooperatives are an inclusive way to boost women's empowerment and the renewable energy business.

Capacity-building, empowerment and trainings are key cooperative principles, as they are linked to joint ownership and democratic control. Cooperatives are learning organizations. Their learning process is directly geared towards empowerment of local communities and citizens. Democratic controls and joint ownership means that the actors and owners controlling the cooperatives are democratically the same stakeholders.

Mainly the community-based development enables the involvement of women. Departing from an active and locally based bottom-up dynamic, cooperatives are characterised by a strong link between the enterprise on the one hand, and the territory, women and men working nearby and those benefiting from the cooperative on the other, thus concurring in the generation of trust.

Through the cooperative principles of self-help, equality and equity, voluntary, open membership and democratic governance, cooperatives are well placed to address challenges women are facing with their economic and political empowerment.

There is a link between decentralized renewable energy production and rural development in terms of women's and men's economic empowerment, job creation and infrastructure development. Within the renewable energy communities, women are members, managers, investors, producers, consumers and beneficiaries. They have a say in the sustainable development of energy production and they become entrepreneurs at community level with up-scaling potential. Producing and consuming safe and renewable energy empowers women through enhanced accessibility (energy, finance, key productive factors), livelihood security, health and safety. Trainings and leadership programs qualify women in management, technological and political skills. The presence of a large number of actors involved in the renewable energy development and production enriches the "learning fabric" in the region. As women and men become more trained and accumulate skills in the value chain of different renewable energy technologies like solar, wind and biogas, their capacity to learn and innovate is enhanced. The qualification and the role of the management or supervisory board members allow and foster women's participation in decision-making processes.

Renewable energy in energy cooperatives can create valuable and decent jobs for people in regions with few employment opportunities, despite the limited number of created direct employment. Most of the jobs are in operating and maintaining installations. However, the largest share of long-term jobs is not in direct energy generation, but along the renewable energy supply chain, such as consulting, financing, construction, specialised services and also along rural activities (e.g. farming, dairy products or other production of food where women are highly represented). Production chains of dairy or agricultural products can use renewable energy to improve the value chain and the products. For example, many women can increase the quality of their products and increase the profit margin.

Energy cooperatives can reduce "fuel poverty" that can be a common feature of remote regions. Mostly women are affected as they are responsible for feedstock, nutrition and household. Being organised in energy cooperatives allows remote communities to bundle experience, capital and land to produce their own energy. Women could play an important role and reduce cost and time spending for other energy sources.

When a remote area is able to produce and access reliable and cheap energy, this can trigger other processes and economic development.

Overall cooperatives have an increasingly positive impact on women's economic and social empowerment, enabling women's inclusion in the labour force and formal economy. They can enhance their ability to empower women by collaborating with civil society and gaining a voice in policy-making processes. Cooperatives can continue to develop policies that support women from within.

We have seen that four elements are necessary for an enabling environment for gender-just societies: legal framework, policies, governmental, public and private utilities and finances.

With the democratic and sustainable business model, energy cooperatives ensure some of those conditions.

The accepted legal form of cooperatives in the field of renewable energy allows women full participation and control also at higher level of strategic interests. This enables women to unite in solidarity and provide a network of mutual support to overcome restrictions overall and in providing communities and families with renewable energy:

- Better results in terms of productivity and economic wellbeing of their families
- Increased economic security, entrepreneurial skills acquired
- Decent work for otherwise vulnerable or transitional individuals
- Imparted with the labour force and entrepreneurial skills to further diversify livelihood prospects

All citizens such as women, men, youth are able to participate in the value chain of energy. They become investors, project developers, producers, consumers, energy managers, crafts women, managers and others. Using the local expertise of all improves the local energy situation. The integration of gender justice in the NDCs and INDCs creates awareness and meets the requirements of the Lima-Work-Program which was continued in Marrakech.

With public participation of women and men, energy cooperatives enable demonopolization of know-how about energy production. The transformative potential results on sustainable goals, democratic principles with public participation plus mobilisation of private capital. This shows cooperatives as sustainable models. In cooperation with governments they can build a fair and gender-just climate policy.

5.2 Embedding in Agenda2030 – how energy cooperatives can meet the SDGs

Deployment and development of renewable energy projects are being supported by inclusive governance, even if the renewable energy policy is mostly top-down. The key to success are intermediate institutions, such as energy cooperatives and local governments. They disseminate clear and reliable information to the local community, can put democratic mechanisms in place to allow rural people to influence key decisions about renewables and can co-coordinate activities. Energy cooperatives operate between national/regional governments and individual/firms and can play an important role in solving market failures and promoting collective action. Cooperatives can adapt national policy interventions to the characteristics of a local community. They can also be important for promoting social acceptance for renewable energy, they help and enable local communities to capitalise on technologies that involve a large number of members which of course requires coordination.

Therefore, energy cooperatives generate energy access. With access for resources (energy, finance, land, technology), capacity building, sustainable and democratic business models and policy work cooperatives can be a catalyst for sustainable and inclusive development and thus, are catalysts for sustainable development.

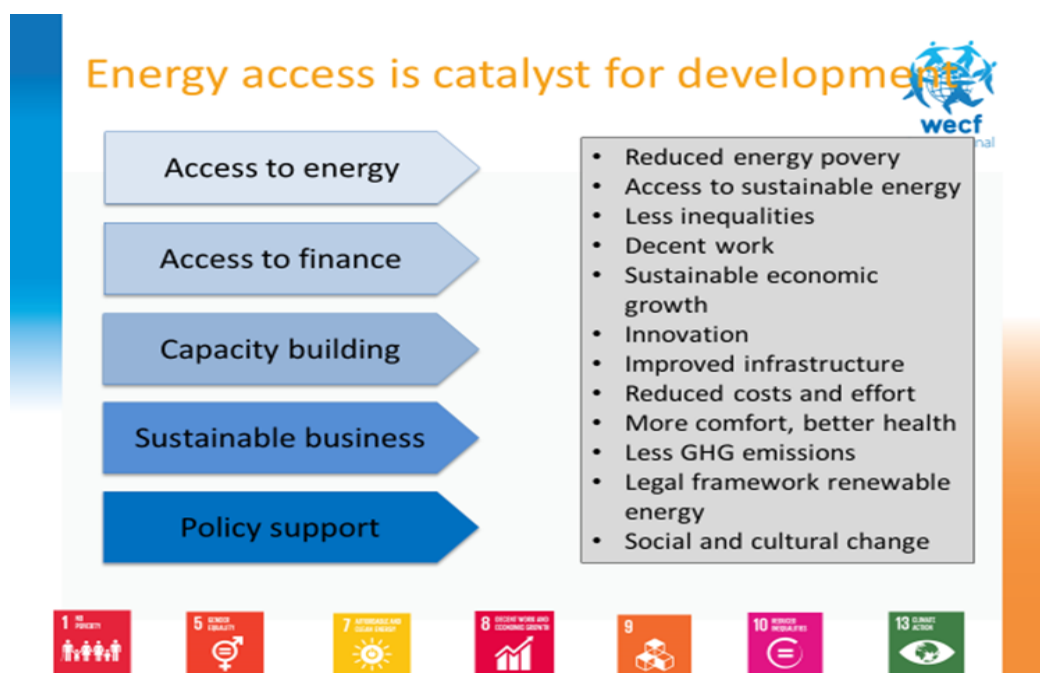


Figure 13: Energy access is catalyst for development

[Source: WECF]

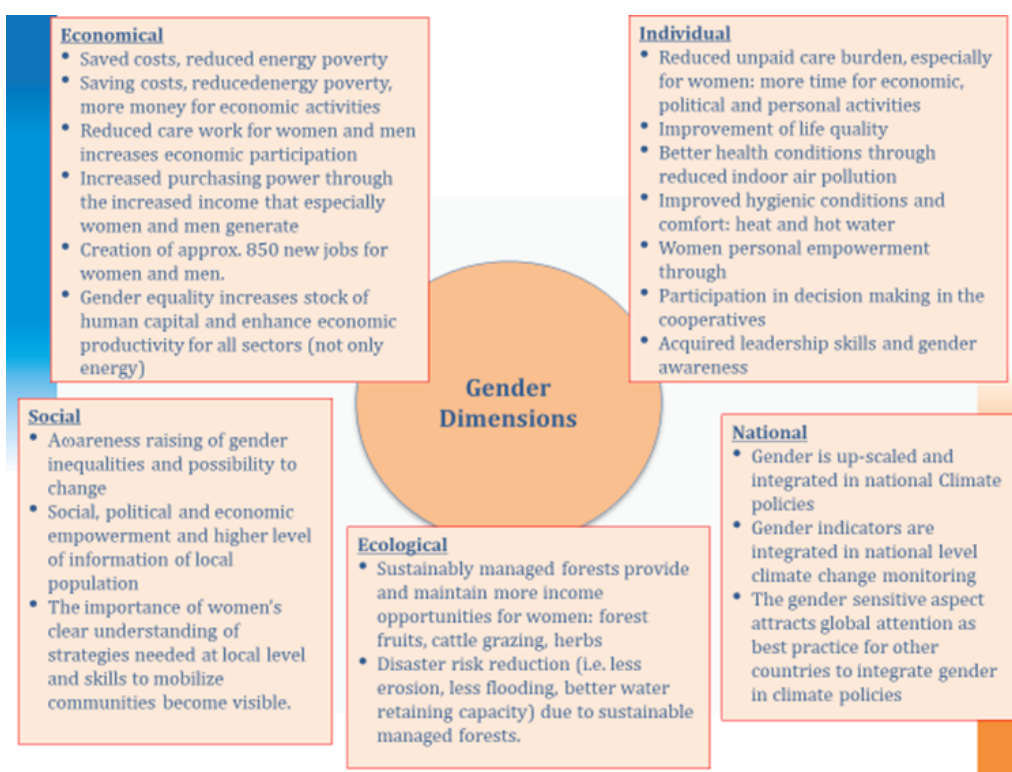


Figure 14: Gender dimensions

[Source: WECF]

5.3 Potential of energy cooperatives and energy citizen projects to meet the national climate goals and NDCs

Existing renewable energy production

In the last ten years, overall, countries in South East Europe, Caucasus and Central Asia have started to leverage their considerable renewable energy potentials. In most of the countries, policies have been driven by concerns about energy security and access to reliable, affordable, sustainable and modern energy. Energy efficiency improvements have been promoted increasingly, however, such initiatives and related actions concerning energy consumption and investments have been hindered by impacts of the 2009 financial crisis (REN21 2016).

As depicted in Table 14, the share of renewable energy used in the targeted countries differs widely, from a low of 0.4% of total electricity production in Belarus up to 80% in Georgia. Primarily hydropower is used, especially in countries that have an especially high share of renewable energies like Georgia and Croatia (73%). Wind and solar PV play only a minor role so far, with significant production capacity only in Ukraine. However, solar PV and onshore wind potential exist throughout the region (IEA 2014, REN21 2016).

Table 14: Share of renewable energy in electricity production per country (2014, excluding Biofuels)

Country	Type of renewable energy	Share of electricity production
Armenia	Hydropower	26% (1,993 GWh)
Belarus	total Hydropower Solar PV Wind	0.4% 0.3% (121 GWh) below 0.01% (1 GWh) 0.03% (11 GWh)
Georgia	Hydropower	80% (8,335 GWh)
Moldova	total Hydropower Solar PV Wind	6% 5.9% (317 GWh) 0.02% (1 GWh) 0.02% (1 GWh)
Ukraine	total Hydropower Solar PV Wind	6% 5% (9,318 GWh) 0.2% (429 GWh) 0.6% (1,130 GWh)
Albania	Hydropower	100% (4,724 GWh)
Bosnia and Herzegovina	Hydropower	37% (5,935 GWh)
Croatia	total Hydropower Solar PV Wind	73% 67% (9,125 GWh) 0.3% (35 GWh) 5% (730 GWh)
Macedonia; Montenegro	<i>No data available</i>	
Serbia	Total Hydropower Solar PV	34% 34% (11,617 GWh) 0.02% (6 GWh)

[Source: IEA 2014]

Business models and technologies / opportunities

In all countries – except Belarus – initiatives have already started small-scale decentralized renewable energy projects with public participation. While still struggling with strong monopolistic structures, lack of funding and experience of the model, they are able to show reasonable and successful energy solutions. Strong CSOs seem to be the main initiators for energy cooperatives. Overall, cooperatives can be established as a tool to boost safe, affordable and decentralized energy production. Capacity building, empowerment and trainings are key cooperative principles, as they are linked to joint ownership and democratic control. The community-based approach also increases the involvement of women. Departing from an active and locally based bottom-up dynamic, cooperatives are characterised by a strong link between the enterprise on one hand, and the territory, women and men working and benefiting from the cooperative on the other, thus, forming a generation of trust. There is a link between decentralized renewable energy production and rural development in terms of women and men's economic empowerment, job creation and infrastructure development. Renewable energy in energy cooperatives can create valuable and decent jobs for people in regions with few employment opportunities, although the number of direct jobs created is limited. Most of the jobs are in operating and maintaining installations. However, the largest share of long-term jobs is not in direct energy generation, but along the renewable energy supply chain – in consulting, financing, construction, specialised services and within rural activities such as farming, dairy products or other food production where women are highly represented. Production chains of agricultural products can use renewable energy to improve the value chain and the products. Many women and men can increase the quality of their products as well as their profit margin. Energy cooperatives reduce “fuel poverty” that can be a common feature of remote regions and disproportionately affects women, as they are responsible for feedstock, nutrition and household. Organising energy cooperatives allows remote communities to bundle experience, capital and land to produce their own energy. Women could play an important role and reduce costs and time spent on other energy sources. Overall, cooperatives can have an increasingly positive impact on women's economic and social empowerment while incorporating instruments like gender budgeting, quota, leadership training, etc. Table 15 shows the summarized results of the expert interviews.

Table 15: Results of expert interviews

Category	Summary of interview
Motivation for Renewable Energy Communities	<ul style="list-style-type: none">• Local ownership and public control of local resources• Decentralized energy system based on sustainable and clean technologies• Educating general public, RE implementation for public buildings, cutting CO2• Embedding energy democracy principles in climate and energy policy• Integrated approach to production and consumption of locally produced RE• Raising awareness and transparency in ecology and energy policy• Strengthening community wellbeing• Members as investors receive dividend
Barriers	<ul style="list-style-type: none">• Cumbersome and uninterested administration• Monopolistic and powerful utility companies, supported by governments• Lack of funding

	<ul style="list-style-type: none"> • Missing appropriate laws and framework • Lack of knowledge and organizational support • Weak public participation • General low awareness of renewable energy and ecology
Transformative potential	<ul style="list-style-type: none"> • Energy cooperatives emphasize energy perception shift and public participation • Opportunities for RE in communities can have impact on local and national development goals (NDCs and SDGs). • Catalyst for other projects, small power grids and utilization of low-carbon technologies. • Creating energy resilient communities: economic, environmental, social • High upscaling potential: Every person can contribute with multiple benefits
Start-up support	<ul style="list-style-type: none"> • Financial, organizational and administrative support • Qualification and trainings • Cross border experience exchange, study visits • Improved legal framework: targets and law for e-coops and citizen's energy • Link to investors
Support for running coops	<ul style="list-style-type: none"> • Linking various stakeholders • Developing successful pilots and professional public relations and marketing • Know how transfer within countries • Develop dialogue with investors and banks • Regional or national information hub/support centre

The stakeholder survey in eight countries shows that a high percentage of people know the concept of energy cooperatives - 21 out of 25 interviewed persons know of energy cooperatives. The motivation to set them up is manifold and reflects climate protection, improving living conditions, increasing renewable energy, profit from dividends/services and increasing energy security. The most important motivating factors as a member of the cooperative are the receipt of profit from dividends and benefits like renewable energy tariffs and energy efficiency services. Despite political targets for energy transition in the countries surveyed, the respondents explain there is an overall lack of political commitment and serious will to foster renewable energy and energy efficiency. There is also high agreement that energy cooperatives can increase gender equality and women's empowerment, but only 10 out of 25 respondents see that women are disproportionately affected by energy issues. We see a high acceptance of 24 respondents who believe energy cooperatives are able to reduce GHG emission with public participation.

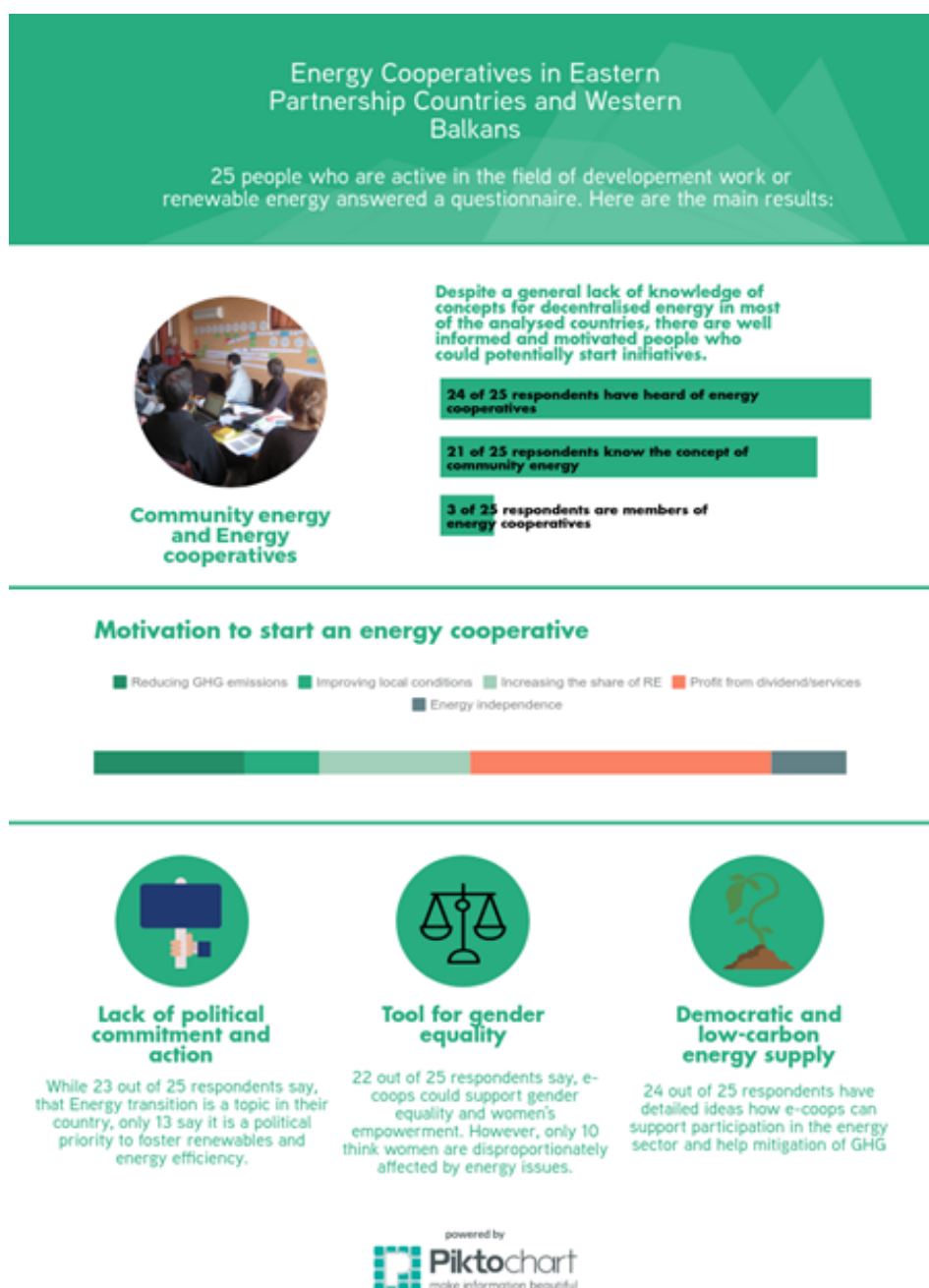


Figure 15: Results of questionnaires

The assessment of the overall situation of the countries with a rating system from 1 (poor) to 5 (excellent) is shown in the matrix below, based on the countries' situation within each of the sectors. Using this methodology, we see feasible conditions for energy cooperatives in Croatia, Ukraine, Serbia and Georgia. Possible (not necessarily perfect and favourable) legal frameworks, strong CSO actors and pilots can be good entry points for further energy cooperative development with the multiple benefits described above. As sustainable enterprises, energy cooperatives can work for the sustainable development of their local communities through policies approved by their members. Despite the fact that sustainable development and the cooperative movement were born out of different motivations, they address – although to different degrees and at different levels – a common ground: to reconcile economic, social and environmental needs, both the needs of a local community and the needs of the whole world. Accordingly, cooperatives are ideally

placed to promote sustainable development and foster a “Green Economy” – adopted by Rio+20 as a practical concept and vehicle for achieving sustainability. Deployment and development of renewable energy projects are supported by inclusive governance, even if the renewable energy policy is mostly top-down. The key to success are intermediate institutions, like energy cooperatives and local governments. Energy cooperatives therefore encourage people to take a long-term view by creating common expectations towards a 100% renewable energy policy that goes beyond individual interests.

Table 16: Rating system of categories

Rating system	1 = poor	2 = fair	3 = average	4 = good	5 = excellent	
Country	Climate+Energy	Coop. Law	CSO	Gender	Pilots	Assessment
Georgia	3	3	3	2	4	15
Armenia	4	3	3	2	2	14
Ukraine	3	3	4	3	3	16
Moldova	3	3	3	2	2	13
Belarus	2	1	2	1	1	7
Croatia	4	4	4	3	5	20
Serbia	3	3	4	2	4	16
BiH	3	2	3	2	3	13

Energy cooperatives disseminate clear and reliable information to the local community. They operate between national/regional governments and individuals/firms and can play an important role in solving market failures and promoting collective action. Cooperatives can adapt national policy interventions to the characteristics of a local community. Energy access is a vital catalyst for wider social and economic development by reducing energy poverty, enabling education, health and sustainable agriculture, improving infrastructure and creating jobs.

The legal framework of cooperatives – embedded in energy and climate goals, gender acts and the role of civil society – is known in all target countries. The characteristics of cooperatives have remarkable potential to meet national climate goals, increase gender equality and foster a safe and affordable energy supply. Two scenarios show data for the number of energy cooperatives, investments and created jobs in the countries, with consideration for very slow, difficult development as well as successful progress.

Table 17: Scenarios for economic impact of energy cooperatives in the target countries

	Estimated invest with exist. pilots		Worst case scenario 5 years			Best practice scenario 5 years		
Country	Exist. Pilots	Investm. In €	No. Coops	Invest	Jobs	No. Coops	Invest	Jobs
Georgia	SWH, PV	100.000	10	950.000	10	25	1.425.000	50
Armenia	PV, Wind	200.000	5	2.875.000	10	15	8.625.000	30
Ukraine	Biomass, PV	200.000	8	840.000	8	30	3.150.000	60
Moldova	SWH	100.000	2	40.000	2	10	200.000	20
Belarus	PV					5	375.000	10
Croatia	PV, Biomass	250.000	15	1.575.000	30	50	5.250.000	100
Serbia	PV, Biomass	250.000	3	315.000	3	20	2.100.000	40
BiH	PV, Biomass	150.000	2	210.000	2	15	1.575.000	30
Total		1.250.000	45	6.805.000	65	170	22.700.000	340

The scenarios consider the existing pilot projects with various renewable energy technologies and estimated investments. Based on the output of the surveys on knowledge and assessment of energy cooperatives, the concept could be established and up-scaled in nearly all assessed countries. The worst case assumes a very slow and difficult development in establishing only very few energy cooperatives and creating one job per cooperative, which could be within the cooperative but also an indirect job. The best estimate sees an improvement in the overall conditions and efficient use of stakeholder potential. The job creation estimated here is still conservative, with two jobs per founded initiative. The calculation assumes the investment of each cooperative in different technologies as indicated in the table: 20,000€ for Solar Water Heater (i.e. on average 1,000€ per SWH), 75,000€ for PV power plants, 500,000€ for onshore wind projects and 30,000€ for biogas plants.

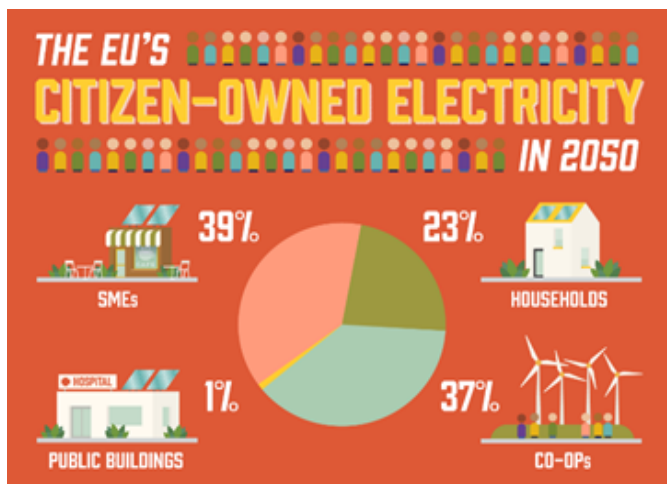


Figure 16: Citizen-owned electricity

[Source: REScoop]

Additionally, the report “Putting citizens at the heart of the energy transition” (REScoop 2016) estimates the number of energy citizens that exist today and that could exist in 2030 and 2050 in member states and the EU as a whole, if the right conditions are in place. It shows that over 264 million European citizens, or half of all citizens in the European Union, could produce their own energy in 2050. These energy citizens could produce 611 terawatt-hours (TWh) of electricity in 2030 and 1,557 TWh by 2050. This means that in 2030, energy citizens could deliver 19% of Europe's electricity demand and 45% in 2050. This is a significant contribution to achieving the EU's 2030 renewable energy target and moving towards a

100% renewable future. The report also shows the potential of different types of energy citizens. In 2050, collective projects such as cooperatives could contribute 37% of the electricity produced by energy citizens.

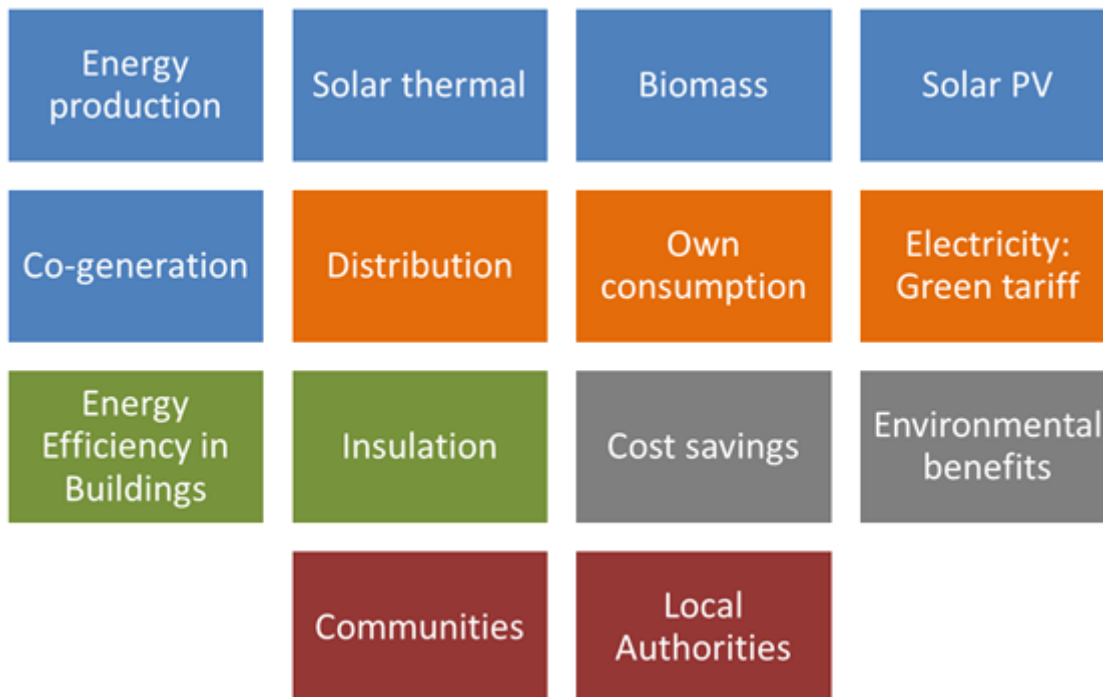
Even so, there is still not enough knowledge to understand to what extent this organisational form is able to unify a growing group of actors in promoting a renewable energy system (societal power) and to gather capital for elaborating renewable energy supply structures (economic power). This easy calculation and the REScoop study demonstrate that the inclusive and cooperative approach can mobilize public participation, democratic principles and private capital and show the potential for wider energy system transformation, investments and job creation. In cooperation with governments, they can build a fair and gender-just climate policy and even contribute to low-carbon energy supply in the European context.

6 Recommendations and outlook

6.1 New ideas and business models

Areas of activity

Within the data collection carried out in the frame of this analysis, using standardised questionnaires and expert interviews, it has been examined which sectors of the energy value chain are regarded as suitable for activities of energy cooperatives. The result is depicted in Figure 18, business models and activities within the energy value chain.



[Source: WECF]

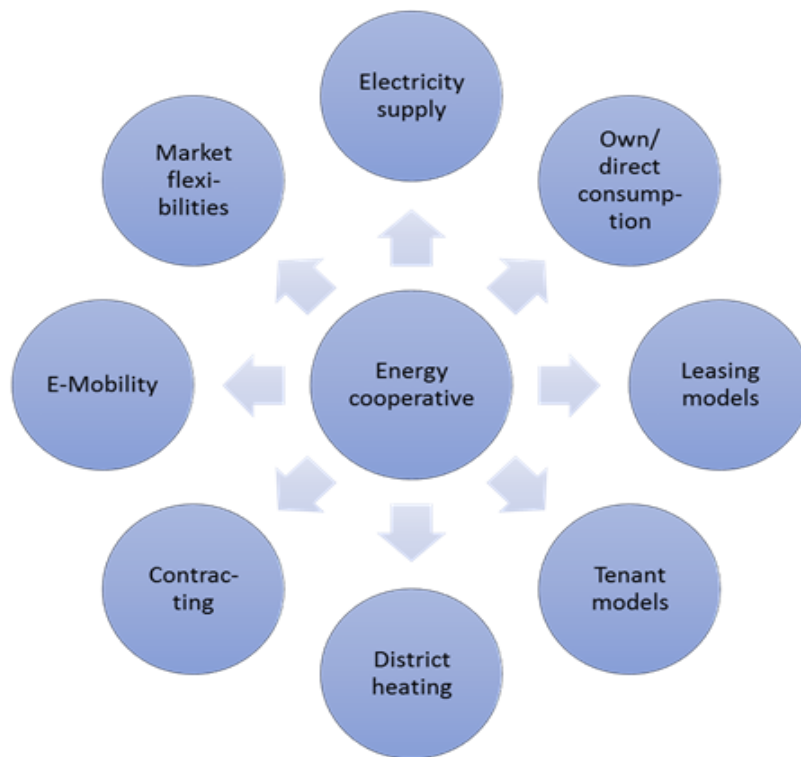
Figure 17: Business models / Activities within energy value chain

The biggest possible area of activity is energy production, using solar thermal, biomass related, solar PV or co-generation renewable energy technologies. The sector of energy distribution is complemented by own consumption through members and green tariffs for electricity. Energy efficiency in buildings and the installation of insulation measures can be a business model in their own. Both the increase of energy efficiency and the production and distribution of renewable energy lead to cost savings and environmental benefits. As a crosscutting issue, the close cooperation with communities and local authorities is a factor for success.

Future business models

To stay competitive, business models (like the ones addressed before) need to be diversified. Within the sector of renewable energy, this development is characterised through two major factors. First, renewables are becoming increasingly cheaper over time. Second, there is a huge potential for the development of decentralised renewable energy solutions (George und Berg 2011).

Figure 19 sums up possible ways for cooperatives to develop alternative business models.



[Source: Energieagentur Rheinland-Pfalz GmbH 2015]

Figure 18: Diversification of business models

For **electricity supply from renewable resources**, different models can be realised. For example, own or direct consumption, leasing models and tenant models. **Own consumption** prevails when the operator of a plant and the user of the electricity are one and the same person. For example, this is the case with cooperatives operating a PV plant on the roof of their offices and consume the produced electricity on the spot. In general, however, a cooperative will not be able to pursue this model. Much more likely, a model for **direct consumption** can be implemented, delivering the electricity produced in the renewable energy plants to a consumer within immediate spatial proximity without using the public grid. For example, a cooperative owns and operates a PV plant on a rented roof, supplying the produced electricity primarily within the same building. Within a **leasing model**, the cooperative owns the renewable energy plant, rents it out to a customer/user and gets a fixed monthly payment. For the so-called **tenant model**, the cooperative erects and operates renewable energy plant, then supplies the produced electricity complemented with residual amounts of electricity from other (renewable energy) sources to tenants of a certain building or district (Energieagentur Rheinland-Pfalz GmbH 2015).

District heating is an area in which cooperatives are already very active in, but with a lot of future potential. Not only on the electricity but also in the heating sector, cooperatives increasingly take over the role of energy service providers, handling more and more complex management tasks but still acting at a regional level. An example for this is the operation of small to medium scale CHPs combined with the operation of a district heating system, marketing the heat to the members of the cooperative or other customers. In Germany, 150 of such cooperative owned district heating systems were built up over the last few years (Energieagentur

Rheinland-Pfalz GmbH 2015; DGRV Bundesgeschäftsstelle Energiegenossenschaften 2015). Limitations concerning the profitability of such projects at the moment are only posed by low prices for fossil oil and gas, which are direct competitors to renewable heating solutions (DGRV Bundesgeschäftsstelle Energiegenossenschaften 2015; Ernst 2016).

To enter the sector of **E-mobility**, cooperatives can offer for example sharing models for electric cars or bicycles (George und Berg 2011). To develop this business model further, it is useful to find alliances or partnerships, for example with local utilities or other companies and organisations that are active in the region, bringing in technical knowledge, company grounds that can be used and access to a customer base beyond the cooperative's knowledge, capacities and members. Offering electric vehicles can increase the rate of own consumption of the electricity out of the cooperative's own renewable energy plants, and a partnership can be built up to mutual use with minor investment and risk. Selling points for E-mobility can be the independence from fossil fuels, affordable mobility for everybody, eco-friendliness, or as a substitute for your own car combined with empowering communities through sharing-concepts. A special potential for this can be seen in rural areas and touristic regions, where both a huge need for mobility and lack of alternative ways of mobility are prevalent (Energieagentur Rheinland-Pfalz GmbH 2015).

Contracting, defined as transferring tasks of one party to a service company, the contractor, which then provides certain services is an instrument that can be used in various areas (George und Berg 2011). Four types of contracting in the energy sector can be defined. First, the supply with energy (i.e. heating, cooling or electricity) of certain buildings; and second, energy efficiency and energy savings contracting, improving economic efficiency through a smarter use of resources, as well as financing and operating models for renewable energy installations (DIN 8930-5, ASUE 2005).

The future trend will be a so-called sector-integrated energy market. This means, the production of renewable energy has to be interconnected with the heating of buildings, energy efficiency and mobility. In all three of those areas huge saving potential can be found. Energy cooperatives with their local structures can make a crucial contribution to this integration (DGRV Bundesgeschäftsstelle Energiegenossenschaften 2015). A first step into this direction is to offer **flexibilities for the electricity market**, smoothing fluctuations caused by altering supply and demand. Technologically, this can be realised by storing heat or electricity, power of cogeneration and combined heat/electricity supply products adapted to a local context, for example, by using PV and CHP. A medium to long term solution is the operation of power-to-heat plants. For example, the excess electricity produced by (cooperatively owned) wind power plants can be turned into heat and then marketed. Against the background of sinking costs for storage technologies, such as batteries, using energy storage, for example embedded into a virtual power plant as part of a business model can increase profitability (DGRV Bundesgeschäftsstelle Energiegenossenschaften 2015; Energieagentur Rheinland-Pfalz GmbH 2015).

Future possibilities through digitalisation

The trend towards digitalisation enables actors in the energy market to develop a row of new business models that partly cover more than traditional activities of energy service providers. So far, the term digitalisation meant primarily the digital storage of former analogous information. Today it rather refers to all forms of digital interconnections, communication and dataflows. Thus, digitalisation influences the way we communicate and use technical devices, as well as most of our professional activities and processes. The evolution of digitalisation is characterised through an increasing availability and use of information about all areas of life to decreasing prices/marginal costs. The data exchange transformed from unidirectional towards multidirectional information flows between users, operators, providers and producers of technical solutions.

Digitalisation must not be seen as a stand-alone business model or isolated from other developments. It can rather be a foundation to optimise and extend existing business models. In the energy sector, this can be for instance optimisation and automatization of processes and core tasks like service and customer relations. New products and business models based on the analysis of consumer data for example can be useful for energy efficiency and energy saving (Schneider et al. 2017).

Decentralised transactional models such as the 'Blockchain' technology will enable prosumers to become energy traders and thus, will shift the roles of actors in the energy market. In an increasingly decentralised energy market, Blockchain can be a safe way to transact like the payments for charging electric vehicles or renewable energy production spatially distributed to various sources, such as so-called sun-clouds that connect the decentralised production of PV (Graf 2017).

6.2 Recommendations for EU, national and international authorities

To meet climate goals, Europe's energy market needs a fundamental transition from a system based on fossil fuels and nuclear power towards one based entirely on renewable energy. It is transforming from a centralised market dominated by large utilities, to a decentralised market with millions of active and informed energy citizens. Without energy citizens, the energy transition is not possible. Empowering energy citizens to produce their own energy is about democratising the energy system. However, energy citizens both overall and in the analysed countries still face significant obstacles including legal restrictions, disproportionate administrative and planning procedures, punitive tariffs and missing strong political will towards RE. With an enabling legal framework and strong backing, energy citizens could flourish, deliver a significant share of Europe's renewable energy and provide important flexibility to the energy system through demand response (REScoop 2016).

The most important recommendations for governments are:

Adopt enabling policies:

- Strengthen the right to self-produce, self-consume, receive fair payment for excess electricity fed into the grid, store energy and engage in demand-side management.
- Adopt a law on energy cooperatives, with such as tax reductions and benefits for members.
- Retire from polluting, inflexible coal and nuclear plants making room for energy citizens in the market.
- Enabling environment for civil society to improve the socio-cultural, socio-economic environment.

Ambitious targets:

- Establish binding targets for renewable energy and, specifically, targets for community energy.
- Establish binding targets and adopt a national strategy to increase energy citizens' participation and RE in 2030 national renewable energy action plans.
- Establish clear targets to meet the SDGs, linked with energy and climate goals.

Practical – making it easy and fair:

- Guarantee priority grid connection for energy citizen projects.
- Simplify administrative procedures for registering and operating community energy projects.
- Include gender-mainstreaming and gender-budgeting for energy projects and targets.

Ensure finances:

- Encourage innovative financing solutions for energy community projects.
- Provide opportunities for low-income communities to become energy citizens through obliging member states to design targeted measures, like low-interest loans, energy funds, etc.
- Incentivise community energy projects based on 'self-sufficiency' (e.g. direct marketing and production for self-consumption).
- Provide financial support (e.g. grant-to-loan, guarantee or cheap credit opportunities) for preliminary investigations and works on community energy projects.

Clear communication:

- Ensure that the true benefits of energy citizens are communicated transparently and included in impact assessments.
- Set-up information hub/support centres for citizen energy
- Organise and support regional, national and cross-border citizen's energy conferences and dialogue
- Highlight and scale up successful pilot projects

Local level:

- Cross sectoral approach: Local governments should use planning power to integrate obligatory RE and energy efficiency into public, new and renovated buildings and streamline requirements for community power projects

Recommendations for Civil Society and citizens; it's possible - let's do it!

- Ask for guidance, networking and documentation from existing coops and start the process with a group of interested people
- Design proper business plans to approach members and investors
- Refer to the WECF handbook for more information on starting energy cooperatives (Bakhturidze et al. 2017)

Annex I: Detailed Gender analysis

Croatia

a) Legal framework

Question	Croatia
Does the Constitution provide for gender equality?	Yes. The 2008 Gender Equality Act defines the basis for the protection and promotion of gender equality as a fundamental value of the Croatian constitution. Articles 3 of the Constitution states: "Freedom, equal rights, national and gender equality, peace-making, social justice, respect for human rights, inviolability of ownership, conservation of nature and the environment, the rule of law and a democratic multiparty system are the highest values of the constitutional order of the Republic of Croatia."
Have international women's rights treaties been ratified/acceded to (such as CEDAW)?	Croatia ratified CEDAW treaty in 1992. The Council of Europe Convention on preventing and combating violence against women and domestic violence (Istanbul Convention) is in the process of ratification as of 2016.
Does the legislation include discriminatory provisions or implicit gender biases? In particular: <ul style="list-style-type: none"> a. Are the laws/regulations on public participation gender-responsive; taking into consideration outreach to stakeholders (in rural areas, to marginalised groups); ways of access to information (availability of internet access, etc.), set up of meetings (timing and locations); possibilities to submit comments (language issues, illiteracy)? b. Does the legislation related to climate change adaptation and mitigation refer to gender equality or is it discriminatory against women and girls? c. Is the labour and inheritance law gender-sensitive? 	<ul style="list-style-type: none"> a. Goals of the National Action Plan include stronger political and public participation of women, particularly the marginalized and most vulnerable groups, on all levels and functions and in all decision-making processes. b. Gender Equality Act ensure the introduction of the equality principle in all aspects of national policy. Croatian Climate change adaptation strategy (20147) refers to gender equality and states: "It is considered that climate-related risks and the underlying causes of increased vulnerability lie at the insufficient level of institutional strength, inadequate level of adaptation of large systems, and social inequality which implies unequal distribution of power, money or resources related to nationhood, place of residence, race, immigrant status, age group, gender etc." c. Yes, particularly the Labour Law which is heavily supported by the Gender Equality Act.

b) Policies

Question	Croatia
Does a national gender policy/action plan exist? Is gender mainstreaming part of the national gender policy?	<p>With a view to strengthening the role and position of women in politics and business, Croatia undertakes to implement the following measures within the four areas included in the National Action Plan: (1) Promotion of stronger political participation of women, (2) Strengthening the social and economic position and role of women in rural areas, (3) Strengthening women entrepreneurship and trades and improving women's access to labour market and (4) International activities to empower women.</p> <p>In 2001, the Committee for Gender Equality in the Croatian Parliament was established with the aim of mainstreaming gender equality in legislation, regulations and policies. A strong commitment to gender mainstreaming was contained in the government strategic document, 'The Main Tasks of Bodies of State Administration in the Process of Accession to the EU, 2004–2007,' which listed several activities to implement gender mainstreaming. In 2008, the most important law to promote gender equality in Croatia was adopted. Article 3 of the Gender Equality Act refers to gender mainstreaming, and stipulates that public bodies should "at all stages of the planning, adoption and implementation of legal acts, decisions and actions" assess their gender impact with a view to achieving genuine equality between women and men.</p>
Do sector policies (e.g. re climate change) integrate gender mainstreaming?	Yes, both the National Policy for Gender Equality 2011–2015 and the Gender Equality Act ensure the introduction of the equality principle in all aspects of national policy.
Is gender part of the curricula at schools, universities, e.g. compulsory for engineers?	Sex education in Croatia is a divisive issue between religious and secular campaigners and teachers. On experimental basis, Civic Education Curriculum was introduced in 12 schools in the academic year 2012/ 13. Monitoring of the implementation indicated the need for systematic and quality introduction of content and methods of work in schools as well as a positive effect of civic education on relationships within the school and participation of pupils.
Are sex-disaggregated data collected within climate change reporting/work?	<p>The relationship between gender and climate change vulnerability in Croatia has not yet been researched, and there is no information available on sex-disaggregated data within related reporting.</p> <p>However, gender issues may play an indirect role in vulnerability to climate change because of the overrepresentation of female-headed households in poverty in Croatia (Source: Climate change and its impacts on society and economy in Croatia, UNDP Croatia, 2010).</p>

c) Business, Governmental and Public institutions

Questions	Croatia
Do the relevant ministries (e.g. MoE) have a gender action plan, including gender mainstreaming, for internal and external purposes?	Yes. In 2001, the Committee for Gender Equality in the Croatian Parliament was established for gender-mainstreaming purposes. Coordinators for gender equality within each state-administration body (ministries, county state-administration offices, state administrative organisations) have been appointed with specific gender-equality and gender-mainstreaming responsibilities.
Are the gender action plans implemented?	Croatia developed National Action Plan in 2011 for the period 2011-2014. As of November 2016, no new NAP has been presented. A new National Strategy of Protection against Domestic Violence for the period 2017–2022 is currently being drafted. The country is also currently drafting a new, fifth in a row, National Policy for Gender Equality (2017–2020).
Are gender trainings available for all staff members within ministries and subsequent authorities/departments?	<u>There are no clear gender-mainstreaming guidelines and gender-mainstreaming methods are not systematically deployed in Croatia.</u> However, since 2008, Office for Gender Equality holds training seminars on gender equality regularly three to four times a year for civil servants in public administration. Nearly 10% of all employed have been trained so far. Gender mainstreaming is essential part of the training. Starting from October 2015, all staff of the authorities involved in the management and control of the ESI Funds will be trained on EU gender equality law and policy as well as on gender mainstreaming.
Are there gender trainings available from the MSYW for external players?	There is no indication that the Croatian authorities provide gender training for external players.
Does the recruitment of the staff follow a procedure that is gender equitable? (Does the system provide for quotas?)	No. For more than a decade, the number of women in Croatian parliament stagnates around 20%. In 2004, gender quotas were advocated by the representatives of the women's organizations and were backed up by the legal experts. Although these proposals were not accepted to the full extend by the Ministry of Veterans, Family Affairs and Inter-generational Solidarity, the final version of the Act on Gender Equality (2008) represented the first attempt to introduce the legally binding gender-neutral type of quota for political parties. Article 12 states: "One sex is substantially underrepresented within the meaning of paragraph two of this Article if it accounts for less than 40 % of representatives in political and public decision-making bodies.", and Article 15 states: "With a view to implementing paragraph one of this Article, political parties and other entities authorised to submit election lists shall introduce specific measures to prevent a substantial imbalance in the

	representation of men and women on the lists for the election of representatives to the Croatian Parliament, members to be elected to the representative bodies of units of local or regional self-government and for members of the European Parliament in accordance with Article 12 paragraph 3 of this Act (...)"
Do gender focal points and/or women's representatives exist within the ministries/subsequent departments?	The first Gender Equality Ombudsperson was appointed by the Croatian Parliament in accordance to the Gender Equality Act adopted in 2003. It performs the tasks of an independent body in charge of combating discrimination in the field of gender equality. Also, there are few women's networks and associations involved in the political processes in Croatia.

d) Finances

Question	Croatia
Is "gender budgeting" a commonly used approach?	"Gender budgeting" approach is rarely implemented in public or business sector in Croatia.
Are climate change adaptation and mitigation plans and programmes an area of priority at the Ministry of Finance?	Yes, Croatian Ministry of Finance is committed to finance climate change adaptation and mitigation plans, developed mainly within departments of the Ministry of Environmental Protection and Energy.
Are there funding schemes/subsidies etc. available to civil society organisations that have a strong gender focus?	Yes, at the national level, Croatia has worked towards women's economic empowerment by undertaking specific measures, such as placing special emphasis on the employment of vulnerable groups, introducing support measures such as education, counselling, promotion of flexible types of work, providing childcare, etc., and having additional scores for the participation of women entrepreneurs in all projects eligible for state funding.
Do any financial incentives, e.g. micro-credit schemes and other creative alternative funding mechanisms (revolving funds), exist to support small-scale innovative green and gender-sensitive technologies?	There is a special loan programme for women entrepreneurs (as a part of the comprehensive National Strategy of Women Entrepreneurship). Also, there are many funding opportunities available for green innovations both from national and European funds. The Environmental Protection and Energy Efficiency Fund (EPEEF) is the central point for collecting and investing extra budgetary resources in programmes and projects of environmental and nature protection, energy efficiency and use of RE sources.
Are tender procedures gender-responsive?	Tender procedures in Croatia usually do not take into account their impact on gender equality.

Georgia

a) Legal framework

Question	Georgia
Does the Constitution provide for gender equality?	Art. 14 of the Constitution
Have international women's rights treaties been ratified/acceded to (such as CEDAW)?	CEDAW since 1994; OP since 2002; Convention on Prevention and Combating of Violence against Women and Domestic Violence, which was signed on June of 2014, but still is not ratified.
Are the laws/regulations on public participation gender-responsive; taking into consideration outreach to stakeholders (in rural areas, to marginalised groups); ways of access to information (availability of internet access, etc.), set up of meetings (timing and locations); possibilities to submit comments (language issues, illiteracy)?	A law on the prevention of domestic violence, protection and assistance for victims of domestic violence was adopted in 2006 in Georgia. The adoption of this law, however, may be insufficient to overcome the problem. The success of state policy in combating the domestic violence depends on the way in which the state perceives the problem. A new Gender Equality Law was passed in 2010, which provides for the establishment of a national women's machinery in the legislative branch (Parliament), the enhancement of women's security, equality in the labour market and the strengthening of women's political participation. The draft Non-discrimination Law was adopted in 2014. This Law clearly states the unacceptability of discrimination on the basis of one's gender identity and sexual orientation along with race, colour, language, national, ethnic or social belonging, sex, pregnancy or maternity, marital or health status, disability, age, nationality, origin, place of birth, place of residence, internal displacement, material or social status, religion or belief, political or any other ground (Article two, of the draft Law). The Law includes the principle of equality established by the UN Convention on the Elimination of all forms of Discrimination against Women, according to which temporary special measures developed in order to achieve factual equality shall not be considered discrimination. The law aims at equal enjoyment of rights already determined by the Georgian legislation. Ombudsman will oversee and ensure the implementation of this law.
Does the legislation related to CC adaptation and mitigation refer to gender equality?	In general, Georgian legislation is not discriminatory, but is mostly gender neutral, which does not mean gender sensitive in existing cultural reality.
Is the labour and inheritance law gender-sensitive?	"Women have equal rights to inheritance in Georgia, as wives and as daughters, but employed women are the victims of different forms of discrimination. The danger of discrimination is not only created by direct interference, but also by the absence of supportive conditions that women require following their social role. The execution of these mentioned positive measures in the public sector is a direct obligation of the government. As for the private sector, experts recommend regulations by law. As practice shows, the existing labour code remains insensitive towards the needs of employed women. Again, especially vulnerable groups experience double or even triple discrimination at work. As about inheritance, in most Georgian families, men have significant privilege in terms of inheritance management. Even though legislation gives men and women equal rights to inheritance, Georgian families give privilege to men and a significant part of their property to men (especially immovable property). The legislative intervention has not been enough to eradicate traditional form of violence against women. Commonly, male privilege is explained with the logic that they are continuers of a patrimonial lineage.

b) Policies

Question	Georgia
Does a national gender policy/action plan exist? Is gender mainstreaming part of the national gender policy?	The Government of Georgia has approved the National Action Plan on the Implementation of the UN Security Council resolutions on Women, Peace and Security, and the National Action Plan on the Measures to be Implemented for Combating Violence against Women and Domestic Violence and Protection of Victims/Survivors, both covering the 2016-2017 period. Also, the government of Georgia has developed and approved Human Rights Strategy for 2014-2020 and respective Action Plans for 2014-2015 and later for 2016-2017.
Do sector policies (e.g. re climate change) integrate gender mainstreaming?	Yes, formally, but not in practice
Is gender part of the curricula at schools, universities, e.g. compulsory for engineers?	At school there is civil education and is very small information about what is gender and sex. But gender analysis of other school books shows, that they are not gender sensitive at all, where women's role are ignored and men are presented as dominant.
Are sex-disaggregated data collected within climate change reporting/work?	In general sex disaggregated data and statistic is very limited in Georgia. We do not have detail information in climate change reporting/work.

c) Business, Governmental and Public institutions

Questions	Georgia
Do the relevant ministries (e.g. MoE) have a gender action plan, including gender mainstreaming, for internal and external purposes?	Separate ministries do not have gender action plans. Georgia has always one governmental action plans.
Are the gender action plans implemented?	Government do not have monitoring of implementation of action plans and most of the activities are not implemented from action plans.
Are gender trainings available for all staff members within ministries and subsequent authorities/departments?	
Are there gender trainings available from the MSYW for external players?	
Does the recruitment of the staff follow a procedure that is gender equitable? (Does the system provide for quotas?)	Concerning workplace rights, The Law on Gender Equality of Georgia stipulates that "free choice of occupation or profession, career promotion, vocational training" is guaranteed without discrimination. "Everyone has the right to freely choose the profession and specialty based on his/her abilities."
Do gender focal points and/or women's representatives exist within the ministries/subsequent departments?	Assistant of the Prime-Minister of Georgia in Human Rights and Gender Issues; Gender equality council in Parliament; Gender Equality Department at Public Defender's Office.

d) Finances

Question	Georgia
Is “gender budgeting” a commonly used approach?	Not at all

Ukraine

a) Legal framework

Question	Respective country, e.g. Ukraine
Does the Constitution provide for gender equality?	Yes. Article 24 of the Constitution states that <i>“Equality of the rights of women and men is ensured: by providing women with opportunities equal to those of men, in public and political, and cultural activity, in obtaining education and in professional training, in work and its remuneration; by special measures for the protection of work and health of women; by establishing pension privileges, by creating conditions that allow women to combine work and motherhood; by legal protection, material and moral support of motherhood and childhood, granting paid leaves and other privileges to pregnant women and mothers inclusive.”</i> ¹
Have international women’s rights treaties been ratified/acceded to (such as CEDAW)?	Ukraine ratified CEDAW on March 12, 1981 without reservations. Ukraine also ratified the CEDAW Optional Protocol on September 26, 2003. The country signed the European Social Charter and the Beijing Declaration and Platform for Action on Gender Equality and Women’s Empowerment in 1995. Ukraine signed but did not ratify the Council of Europe Convention on preventing and combating violence against women and domestic violence (otherwise known as the Istanbul Convention).
Does the legislation include discriminatory provisions or implicit gender biases? In particular: a. Are the laws/regulations on public participation gender-responsive; taking into consideration outreach to stakeholders (in rural areas, to marginalised groups); ways of access to information (availability of internet access, etc.), set up of meetings (timing and locations); possibilities to submit comments (language issues, illiteracy)?	a. There are no reports that Ukraine’s laws on public participation are gender-sensitive, but it is possible to say that Ukraine has made some progress in promoting public participation. Indeed, the country’s Environmental Impact Assessment (EIA) legislation provides for the participation of civil society in preparing the EIA documents. The legislation states that public meetings should be held during the EIA so that citizens can be informed and contribute their opinions. However, there are reports that in practice, public participation is quite limited and citizen’s inputs are rarely taken into account ² . According to the Ukrainian constitution, territorial communities are entitled to be involved in local issues, either directly or through bodies of local self-governance. According to a 2015 study of local democracy

¹ As of 2017, the most recent English version of the Ukrainian Constitution is available here : <http://www.legislationline.org/documents/section/constitutions/country/52>

² <http://www.biodiversity.ru/coastlearn/pp-eng/caseukraine.html>

<p>b. Does the legislation related to climate change adaptation and mitigation refer to gender equality or is it discriminatory against women and girls?</p> <p>c. Is the labour and inheritance law gender-sensitive?</p>	<p>in Ukrainian cities, the constitution, in conjunction with a 1997 law on self-governance, opens up several opportunities for public participation, be it through <i>“access to information, individual and collective proposals, public hearings, local initiatives, general meetings of citizens”</i> or <i>“bodies of self-organization”</i>³.</p> <p>The same study points out that: <i>“The need for reform is recognized by all the major political parties and international donors and advisers, and ranks high on the political agenda of the current leadership. Civil society has been energized as a result of the Maidan uprising, and the people expect and demand change that can affect their lives positively.”</i>⁴.</p> <p>b.</p> <p>It does not seem to be the case. Ukraine’s legislative and executive portfolio on climate change has been summarised in the Global Climate Legislation Study produced by the Grantham Research Institute on Climate Change and the Environment. No mention is made of gender issues⁵.</p> <p>However, in their address to the 2016 Conference of the Parties of the UN Framework Convention on Climate Change (COP22), Ukrainian climate experts’ recognised the importance of integrating gender issues in climate change action, stating that <i>“In the context of climate change, gender issues are of utmost importance for Ukraine due to greater climate change impact on women. [...] We believe that gender rightfulness and equality issues should be considered in national policy on climate change forming up.”</i>⁶. This might indicate that progress is to be expected in this area.</p> <p>c.</p> <p>Ukrainian women and men enjoy equal inheritance rights⁷.</p> <p>The Labour Code also grants equal rights to women and men. Furthermore, the Law on Ensuring Equal Rights and Opportunities of Women and Men (Act No. 2866-IV, 2005⁸) prohibits discrimination on the basis of sex in employment.</p> <p>Pregnant women are entitled to 126 days of paid maternity leave, during which they receive 100% of their salary.</p>
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b) Policies

Question	Ukraine
Does a national gender policy/action plan exist? Is gender mainstreaming part of the national gender policy?	<p>In 2005, a presidential decree “On Improving the Work of Central and Local Executive Authorities on Ensuring Equal Rights and Opportunities of Men and Women” prompted the development of a national gender machinery. Gender working groups and coordination councils were established, and gender advisors were appointed in central and local authorities.</p> <p>Later that year, the law “On Ensuring Equal Rights and Opportunities of Women and Men” was passed, definitely establishing the gender machinery.</p>

³ <http://www.tandfonline.com/doi/full/10.1080/1060586X.2015.1037072>

⁴ ibid

⁵ <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/ukraine/>

⁶ <https://ua.boell.org/en/2016/11/15/ukrainian-climate-experts-message-conference-parties-un-framework-convention-climate>

⁷ <http://www.genderindex.org/country/ukraine>

⁸ http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_127500.pdf

	<p>The law, inter alia, prohibits gender-based discrimination and defines the main objectives of the national gender equality strategy.</p> <p>In 2012 the law “On Grounds of Preventing and Combating Discrimination in Ukraine” was adopted. The World Bank’s gender assessment of Ukraine⁹ reports that the law, which had some shortcomings, was progressively improved based on court cases and recommendations made by CSOs and international organizations.</p> <p>Several national gender policies have been developed in the last decade: the latest one (the National Action Plan on Equal Rights and Opportunities of Women and Men for the period 2013-2016¹⁰) was the result of the collaboration between Ukrainian authorities, NGOs and international organizations. According to the same World Bank report, objectives set in this Plan included: <i>“further improving of the legislation on gender equality; conducting awareness raising campaigns among employers on the European standards of gender equality in the field of labour and equal distribution of family duties; advocacy in case of discrimination; promoting women’s leadership and decision-making; upgrading the skills of public officials, involved into activities on gender policies, etc.”</i>.</p> <p>Finally, it should be added that in 2016, Ukraine developed a National Action Plan (NAP) to implement UNSCR 1325 on Women, Peace and Security¹¹. A new NAP was developed for 2016-20 and approved by the government on February 24, 2016.</p>
Do sector policies (e.g. re climate change) integrate gender mainstreaming?	<p>As mentioned above, Ukraine’s legislative and executive portfolio on climate change has been summarised in the Global Climate Legislation Study produced by the Grantham Research Institute on Climate Change and the Environment, and no mention is made of gender issues¹².</p> <p>However, in their address to the 2016 Conference of the Parties of the UN Framework Convention on Climate Change (COP22), Ukrainian climate experts’ recognised the importance of integrating gender issues in climate change action, stating that <i>“In the context of climate change, gender issues are of utmost importance for Ukraine due to greater climate change impact on women. [...] We believe that gender rightfulness and equality issues should be considered in national policy on climate change forming up.”</i>¹³. This might indicate that progress is to be expected in this area.</p> <p>It should be said that the conflict with Russia and the political impasse that ensued have severely impeded Ukraine’s progress in addressing climate issues.</p> <p>Iryna Stavchuk, the climate change director of NECU (the National Ecological Centre of Ukraine, a local NGO) argued that the government was using the conflict with Russia as an excuse for weak climate policies. In 2015, after the Ukrainian authorities claimed that they would only revise their climate pledge on restoration of annexed Crimea, she declared to the press: <i>““We think it is an excuse. War is war, but actually to reduce dependency on Russia we think Ukraine desperately needs energy efficiency and development of renewables to reform it quickly”</i>¹⁴.</p>

⁹ <http://documents.worldbank.org/curated/en/128891470822320083/pdf/107673-PUB-P156988-ADD-ISBN-PUBLIC-SoltisBookENweb.pdf>

¹⁰ <http://zakon4.rada.gov.ua/laws/show/717-2013-%D0%BF>

¹¹ <http://peacewomen.org/action-plan/national-action-plan-ukraine>

¹² <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/ukraine/>

¹³ <https://ua.boell.org/en/2016/11/15/ukrainian-climate-experts-message-conference-parties-un-framework-convention-climate>

¹⁴ <http://www.climatechangenews.com/2015/09/30/ukraine-using-russia-conflict-as-excuse-for-climate-inaction/>

<p>Is gender part of the curricula at schools, universities, e.g. compulsory for engineers?</p>	<p>The National review of Ukraine's implementation of the Beijing Declaration and Platform for Action¹⁵ indicates that in 2009 the Ukrainian Ministry of Education and Science made strides by issuing the decree <i>"On Integrating the Principles of Gender Equality in Education"</i>. The EU and UNDP provided their support to help the Ministry develop new materials and handbooks, as well as guidelines on expert assessment of training curricula. According to the report, as part of this initiative, some new gender-sensitive curriculums were adopted, several "Gender Education Centres" created, and large interventions were organised to train more than 23 000 education professionals on gender issues.</p> <p>It is also worth noting that in 2008, UNDP, the Ministry of Education and Science and the Ministry of Family, Youth and Sports jointly published an "Equality ABC" as well as a handbook on gender equality targeted to high school students. In 2011, the Ministry of Education published a manual to train teachers on how to teach children to overcome gender stereotypes.</p> <p>The same report points out that although significant progress was made regarding the integration of gender issues in the education system, <i>"these actions are not systemic so far, and the system of education is still an environment where gender stereotypes are disseminated"</i>. It also adds that <i>"the amendment of handbooks and curricula is still a pending issue"</i>.</p> <p>Following the end of the EU and UNDP support (towards 2011), fewer efforts were made to integrate gender in the education system. The National review of Ukraine's implementation of the Beijing Declaration and Platform for Action indicates that to this day, <i>"the system of education of Ukraine is prone to promote gender stereotypes and anchor them in mind of every school child rather than shaping environment free of stereotypes and bias"</i>. The World Bank's gender assessment of Ukraine¹⁶ also draws the same conclusions: <i>"The grounds of [gender-based] segregation [in employment] are found yet in the system of secondary education, as perceptions of the 'proper' gender roles could be influenced by school textbooks and curricula. Though some efforts on the gender expertise of academic syllabi and school programs have been implemented, there is still no comprehensive policy on incorporating the principles of gender equality into education."</i></p> <p>However, it should be said that this was one of the top priorities listed in the National Gender Equality Action Plan for the period 2013-2016.</p>
<p>Are sex-disaggregated data collected within climate change reporting/work?</p>	<p>No English sources could be found on this topic.</p> <p>The State Statistics Service does collect gender-disaggregated statistics; that are summarized each year in the statistical booklet <i>"Women and Men in Ukraine"</i>. However, there is no indication that sex-disaggregated data is collected as part of climate reporting work.</p>

¹⁵ http://www.fes.kiev.ua/new/wb/media/publikationen/gender_policy_eng_WEB.pdf

¹⁶ <http://documents.worldbank.org/curated/en/128891470822320083/pdf/107673-PUB-P156988-ADD-ISBN-PUBLIC-SoltisBookENweb.pdf>

c) Business, Governmental and Public institutions

Questions	Ukraine
Do the relevant ministries (e.g. MoE) have a gender action plan, including gender mainstreaming, for internal and external purposes?	<p>Ukraine is still in the process of implementing its National Action Plan on Equal Rights and Opportunities of Women and Men for the period 2013-2016¹⁷.</p> <p>At the ministerial level however, there is no indication that Ukrainian Ministries have their own specific gender action plans, although they do participate in implementing the National Gender Strategy.</p> <p>Since 2011, the Ministry of Social Policy (MoSP) of Ukraine has been the main entity responsible for advancing gender equality and combating domestic violence.</p> <p>In addition, an “<i>Expert Council to Consider Claims with regard to Gender Discrimination</i>” was established in 2010, consisting of representatives of the MoSP, the Ukrainian Parliament Commissioner for Human Rights, and other public authorities and third sector organisations.</p> <p>Finally, in 2011, an Equal Opportunities Caucus was formed in the Ukrainian Parliament, to support the implementation of gender equality policies¹⁸. The Caucus brings together MPs from different parties all across the political spectrum, who all work hand in hand with the aim of “<i>retaining gender on the agenda</i>”¹⁹.</p>
Are the gender action plans implemented?	<p>The World Bank’s gender assessment of Ukraine reports poor implementation of the existing legislative framework on gender equality, due to “<i>inter-agency cooperation, inconsistency of reforms and a lack of efficient sanctions for non-compliance with legal provisions.</i>”</p> <p>The reports also call for the national machinery to be strengthened, especially at sub-national levels, and for the implementation of gender policies to be supported by adequate funding. Other recommendations of the report include: further promoting the principles of gender budgeting, training public officials on gender issues, improving the collection of sex-disaggregated data and leading advocacy campaigns to target employers²⁰.</p>
Are gender trainings available for all staff members within ministries and subsequent authorities/departments?	<p>There is no indication that the Ukrainian authorities provide gender trainings for ministerial staff in a <i>systemic</i> manner. However, significant progresses have been made in this regard. The National review of Ukraine’s implementation of the Beijing Declaration and Platform for Action, published in 2014, reports that “<i>numerous efforts have been taken to build capacity of public officials in terms of development, implementation and monitoring of gender policy, with regard to gender statistics, gender budgeting, gender education and sensitivity, etc.</i>”</p>

¹⁷ <http://zakon4.rada.gov.ua/laws/show/717-2013-%D0%BF> (in Ukrainian)

¹⁸ <http://documents.worldbank.org/curated/en/128891470822320083/pdf/107673-PUB-P156988-ADD-ISBN-PUBLIC-SoltisBookENweb.pdf>

¹⁹ http://www.ua.undp.org/content/ukraine/en/home/ourwork/democraticgovernance/successstories/Sample_Success_Story_2.html

²⁰ <http://documents.worldbank.org/curated/en/128891470822320083/pdf/107673-PUB-P156988-ADD-ISBN-PUBLIC-SoltisBookENweb.pdf>

	<p><i>In total, more than 30 thousand public officials and members of council were covered with training workshops and awareness raising programs during 2006-2014.</i>²¹</p> <p>For instance, in 2016, the Ukrainian Ministry of Youth and Sports and the Gender-Responsive Budgeting (GRB) initiative jointly provided ministerial staff members responsible for matters of youth and sports with training on how to integrate a gender approach into youth policies²².</p> <p>Lastly, in early 2017, UN Women, the Ministry of Interior of Ukraine, UNDP and the Ukrainian Foundation for Public Health jointly organised a training-of-trainers of police forces to promote “<i>efficient, effective and gender just policing services</i>”. In total, 17 female and male police officers benefitted from this five-day training facilitated by UN Women, thanks to which they were able to strengthen their ability to prevent and respond to gender-based violence in a comprehensive and gender-sensitive manner²³.</p>
Are there gender trainings available from the MSYW for external players?	Little information could be found on this topic. There is no indication that the Ukrainian Ministry of Social Policy (which is responsible for implementing the National Gender Strategy) provides gender training for external players.
Does the recruitment of the staff follow a procedure that is gender equitable? (Does the system provide for quotas?)	<p>According to the World Bank’s gender assessment of Ukraine, gender quotas were progressively implemented for elections at the local level. In 2013, the Law “On political parties in Ukraine” was amended to introduce gender quotas in electoral lists for parliamentary elections. However, the quotas were poorly implemented, due to the absence of sanctions for non-compliance, and generally vague legislative provisions: the World Bank reports that “<i>women were occasionally placed in the lower parts of election lists, thus having smaller chances to pass the electoral threshold.</i>”</p> <p>In 2015, the Law “On local elections” was meant to address this problem and secure the implementation of gender quotas, by establishing that each sex should account for at least 30% of representatives in party lists. As a result of this Law, women’s representation improved in 11 of 22 city councils, but only in the city council of Chernihiv was the 30% threshold actually reached²⁴.</p> <p>Therefore more progress is still needed to effectively ensure Ukrainian women’s full and equal participation in politics.</p>
Do gender focal points and/or women’s representatives exist within the ministries/subsequent departments?	<p>Little information is available on this topic.</p> <p>However, there are reports that between 2006 and 2008, as part of its “<i>Equal Opportunities Programme: Ukraine en-route to Equality</i>”, UNDP supported the establishment and operation of a “<i>network of gender focal points in the various Ministries of Ukraine.</i>”²⁵. It is unclear whether this network of gender focal points is still in activity today.</p>

²¹ https://www.unece.org/fileadmin/DAM/Gender/publication/NV111.07_att1_att2_att3_merged.pdf

²² http://grbproject.org/en/events/?ELEMENT_ID=697

²³ <http://eca.unwomen.org/en/news/stories/2017/03/police-officers-in-ukraine-trained-to-be-responsive-to-gender-based-violence>

²⁴ <http://documents.worldbank.org/curated/en/128891470822320083/pdf/107673-PUB-P156988-ADD-ISBN-PUBLIC-SoltisBookENweb.pdf>

²⁵ <https://issuu.com/undpukraine/docs/bsagender>

d) Finances

Question	Ukraine
Is “gender budgeting” a commonly used approach?	Since 2013, the Swedish Development Agency (Sida) is funding the project “Gender Responsive Budgeting in Ukraine” (GRB). The project, intended to last 5 years (until 2018) is implemented by a coalition of three consulting companies: Indevelop, CPM and Niras. It aims to “ <i>increase economic efficiency and transparency in budget allocations that takes into account the different needs of women and men through the introduction of gender responsive budgeting (GRB)</i> ”. Ultimately, the project’s objective is to encourage Ukrainian authorities to use a gender lens when designing and implementing budget policies. Therefore a large component of the project consists in developing the capacity of the Ministry of Finance (as well as other relevant Ministries and local governments) to lead GRB work and raise awareness on these issues ²⁶ .
Are climate change adaptation and mitigation plans and programmes an area of priority at the Ministry of Finance?	Climate change adaptation and mitigation plans and programmes do not seem to be a priority of the Ministry of Finance. Oleksandr Danyliuk, the Minister of Finance since 2016, declared that his main objectives while in office were to promote “ <i>better investment climate in Ukraine, transparent rules of doing business for Ukrainian entrepreneurs and foreign investors and public finance reform.</i> ” ²⁷ . Furthermore, climate change is not mentioned in the extended list of priorities established by the Ministry of Finance on its website. In its report “ <i>Financing Climate Action in Ukraine</i> ”, the OECD outlines the responsibility of other Ukrainian Ministries in financing climate change adaptations and mitigation plans: “ <i>The Ministry of Ecology and Natural Resources is in charge of the development and implementation of state environmental policies, including on climate change issues.</i> ”. The report also points out that many other state entities are involved in co-financing such projects: “ <i>for instance, the State Agency on Energy Efficiency and Energy Saving is in charge of the implementation of state policy in the field of energy efficiency and renewable energy development.</i> ” ²⁸ .
Are there funding schemes/subsidies etc. available to civil society organisations that have a strong gender focus?	The Ukrainian Women's Fund (UWF), an international NGO, is very active in Ukraine, where it provides local women CSOs with financial, information and consultation support ²⁹ . In her book “ <i>Women's Social Activism in the New Ukraine. Development and the Politics of Differentiation</i> ”, published in 2008, Sarah D. Phillips reports that “ <i>the major sources of funding for programs focusing on women and women’s NGOs have been the “civil society” programs of the Open Society Institute, USAID, UNDP, and Technical Aid to the Commonwealth of Independent States (TACIS).</i> ” ³⁰ . There is little information available regarding the situation of gender-focused NGOs in Ukraine post-2013 (since the start of the conflict with Russia).
Do any financial incentives, e.g. micro-	For reminder, a recap of Ukrainian climate change laws and policies can be found on the website “ <i>Climate Policy Database</i> ” ³¹ .

²⁶ <http://grbproject.org/en/about/>

²⁷ <http://www.minfin.gov.ua/en/minister/danyliuk-oleksandr-oleksandrovych>

²⁸ https://www.oecd.org/environment/outreach/Ukraine_Financing_Climate_Action.Nov2016.pdf

²⁹ <http://www.uwf.org.ua/en/about/us>

³⁰ <https://books.google.de/books?id=F1fhvkllyl->

https://books.google.de/books?id=F1fhvkllyl-IC&pg=PA71&lpg=PA71&dq=ngo+ukraine+women&source=bl&ots=L4itcc_XRr&sig=rKF3j387MDtz_I_xaruAjuLFFZY&hl=fr&sa=X&ved=0ahUKEwjL-p3K-bLTahWGjiwKHaTMDigQ6AEIdDAM#v=onepage&q=funding&f=false

³¹ <http://www.climatepolicydatabase.org/index.php?title=Country:Ukraine>

credit schemes and other creative alternative funding mechanisms (revolving funds), exist to support small-scale innovative green and gender-sensitive technologies?	<p>There is not much information regarding the existence of financial incentives provided by the Ukrainian state to support small-scale green projects. However, international donors are very involved in this sector. Below are some examples of funding initiatives.</p> <p>The website of the European Bank for Reconstruction and Development (EBRD) states that the Bank has invested more than €200 million in renewable energy projects in Ukraine³².</p> <p>The Nordic Environment Finance Corporation (NEFCO) is also committed to financing climate action in Ukraine through its Investment Fund, which provides support to <i>“economically viable projects with positive environmental impacts”</i>. On its website, NEFCO specifies that <i>“investment priority is given to small and medium-sized projects”</i>³³.</p> <p>Since 2010, the International Finance Corporation (IFC) is also involved in Ukraine through its Residential Energy Efficiency Project, which aims to <i>“create an effective legal and institutional platform to support Ukrainian homeowner associations and housing management companies in obtaining access to finance to the energy-efficient modernisation of multifamily buildings.”</i>³⁴.</p> <p>In 2012, the Green for Growth Fund (GGF) and PJSC Megabank in Ukraine signed a \$10 million loan agreement, in order to <i>“expand the Bank's lending capacity for energy efficiency (EE) projects at the corporate as well as small and medium enterprise (SME) level.”</i>³⁵</p> <p>It is also interesting to note that numerous energy tech start-ups have been developing in Ukraine. A BBC article³⁶ describes how Roman Zinchenko started a series of solar-powered "hackathons" and a "Greencubator"³⁷ to help energy start-ups find funding sources. In 2013, the start-up Ecois.me, which helps households reduce their energy consumption through a sensor installed in an electrical meter, won one of these hackathons. Following the victory, the project succeeded in securing 80,000 euros in venture capital funding from Deutsche Telekom.</p>
Are tender procedures gender-responsive?	No English sources could be found on this topic.

³² <http://www.ebrd.com/green-ebrd-investments-in-ukraine.html>

³³ <https://www.nefco.org/work-us/our-services/loans-and-equity/investment-fund>

³⁴ http://www.keepeek.com/Digital-Asset-Management/oecd/environment/environmental-lending-in-eu-eastern-partnership-countries_9789264252189-en#.WPiodbvyhhA#page1

³⁵ <http://www.ggf.lu/press/detail/ggf-and-megabank-sign-usd-10-million-energy-efficiency-loan-agreement-1/>

³⁶ <http://www.bbc.com/news/business-29840214>

³⁷ <http://greencubator.info/>

Moldova

a) Legal framework

Question	Moldova
Does the Constitution provide for gender equality?	Yes, the Constitution provides for gender equality and prohibits discrimination on the basis of sex. Article 16 of the Moldovan Constitution states that <i>“All citizens of the Republic of Moldova are equal before the law and public authorities, regardless of the race, nationality, ethnic origin, language, religion, sex, opinion, political affiliation, property or social origin.”</i> ³⁸
Have international women’s rights treaties been ratified/acceded to (such as CEDAW)?	Moldova ratified CEDAW on July 1, 1994, and the CEDAW Optional Protocol on February 28, 2006. Moldova signed but did not ratify the Istanbul Convention (i.e. the Council of Europe Convention on preventing and combating violence against women and domestic violence).
Does the legislation include discriminatory provisions or implicit gender biases? In particular: a. Are the laws/regulations on public participation gender-responsive; taking into consideration outreach to stakeholders (in rural areas, to marginalised groups); ways of access to information (availability of internet access, etc.), set up of meetings (timing and locations); possibilities to submit comments (language issues, illiteracy)? b. Does the legislation related to climate change adaptation and mitigation refer to gender equality or is it discriminatory against women and girls? c. Is the labour and inheritance law gender-sensitive?	<p>a. No English sources could be found on this topic.</p> <p>b. It appears that the existing legislation on climate change adaptation and mitigation does not refer to gender equality, although there is no indication that these laws discriminate against women and girls. It should be said however that there are very few English sources describing Moldova’s legislative and executive portfolio on climate change, which makes it difficult to screen. The Republic of Moldova considers climate change a priority. In 2014, the government enacted a Climate Change Adaptation Strategy for 2014-2023. The strategy provides for the assessment of the impacts of climate change on different sectors (i.e. agriculture, water management, health, forestry, energy, and transport), establishes specific sector policies and sets objectives for increasing Moldova’s adaptation capacity and response to climate change. In addition, the strategy calls for an institutional framework for climate change to be established by 2018.³⁹ The Climate Change Adaptation Strategy for 2014-2023 is intended to lead to the creation of a National Adaptation Plan (NAP). UNDP has been working with the Moldovan government to develop a specific Action Plan, in the framework of the project <i>“Supporting Moldova’s National Climate Change Adaptation Planning Process”</i>. The first objective of this project is to <i>“establish institutional and policy frameworks for medium to long term gender-sensitive adaptation planning and budgeting”</i> (emphasis added)⁴⁰. Therefore, although the existing legislation on climate change is not gender-sensitive per se, Moldova’s National Adaptation Plan is currently being developed through a gender-sensitive process, with the help of UNDP⁴¹.</p> <p>c. Yes. Article 43 of the Moldovan Constitution provides that <i>“All employees shall have the right to social protection of labour. The protecting measures shall bear upon the labour safety and hygiene, working conditions for women and young people, the introduction of a minimum wage per economy, week- ends and annual paid leave, as well as the difficult working conditions and other specific situations”</i>. Article 8 of the Moldovan Labour Code prohibits discrimination on the basis of sex in employment⁴².</p>

³⁸ An English version of the Moldovan Constitution is available here : <http://www.presedinte.md/eng/constitution>

³⁹ http://www.mec.gov.md/sites/default/files/raport_habitat_iii_eng_0.pdf

⁴⁰ http://www.md.undp.org/content/dam/moldova/docs/Project%20Documents/ProDoc_NCCAP_signed.pdf

⁴¹ <https://www.weadapt.org/knowledge-base/national-adaptation-planning/climate-change-adaptation-planning-in-moldova>

⁴² <https://www.ilo.org/dyn/natlex/docs/SERIAL/64896/63849/F1780758090/MDA64896ENG.PDF>

	<p>In 2013, Moldova passed a Law on Ensuring Equality which covers all forms of discrimination in employment.</p> <p>In 2010, the Labour Code was amended to lift previous restrictions that prohibited overtime work, work on weekends and holidays for women with children under three years old. However, Moldovan labour laws still include provisions that discriminate against women. Article 248 of the Labour Code stipulates that “(1) <i>Women's work is forbidden on heavy work and work in harmful working conditions, and also on underground work, with the exception of work on sanitary services and the work which does not demand physical effort.</i> (2) <i>It is forbidden for women to lift and carry weights, exceeding the limit rates established for them</i>”⁴³. A government decision from 1993 lists all positions women are prohibited from occupying⁴⁴. Regarding maternity law, pregnant women in Moldova are entitled to 126 days of paid maternity leave, with a full salary⁴⁵. Lastly, women and men have equal inheritance rights, as spouses and as descendants⁴⁶.</p>
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b) Policies

Question	Moldova
Does a national gender policy/action plan exist? Is gender mainstreaming part of the national gender policy?	<p>In the last 20 years, Moldova has adopted a series of national strategies on gender equality (in 1998, 2003, 2009 and 2017). An English version of the penultimate national strategy to be enacted is available on the World Bank's website⁴⁷. It should be noted that this strategy is arguably not very well detailed, as it only contains 18 pages. In March 2017, the Moldovan government approved a new strategy for ensuring equality between women and men, for the period 2017-2021. An action plan that provides for the implementation of this Strategy was also enacted.</p> <p>Although this latest Strategy has not yet been translated into English, secondary sources seem to confirm that gender mainstreaming is at its core. The Strategy sets five main targets: i) ensuring the integration of gender equality issues in policy-making ii) strengthening the existing institutional framework iii) combating stereotypes and encouraging non-violent relationships iv) promoting gender equality in the security and defence sector v) promoting gender-sensitive budgeting⁴⁸.</p> <p>In addition to these strategies, the country has equipped itself with a solid legislative framework for ensuring gender equality: in 2006, Moldova passed the Law on Ensuring Equal Opportunities for Men and Women, which aims at “<i>ensuring the exercise by women and men of their equal rights in the political, economic, social, cultural, and other spheres of life, rights guaranteed by the Constitution of the Republic of Moldova, with a view to preventing and eliminating all forms of discrimination based on the criterion of sex</i>”⁴⁹. The Law provides for sanctions against perpetrators of gender-based discrimination, and defines which state bodies are responsible for ensuring gender equality. According to the World Bank's Gender Assessment of Moldova, it laid the legal basis for the National Strategies that were later developed⁵⁰.</p>

⁴³ <https://www.ilo.org/dyn/natlex/docs/SERIAL/64896/63849/F1780758090/MDA64896ENG.PDF>

⁴⁴ http://www.genderindex.org/country/moldova#_ftn106

⁴⁵ http://www.genderindex.org/country/moldova#_ftn106

⁴⁶ http://www.genderindex.org/country/moldova#_ftn106

⁴⁷ <http://siteresources.worldbank.org/INTECAREGTOPGENDER/Resources/MoldovaNatStrategyGenderDraft.pdf>

⁴⁸ <http://gov.md/en/content/cabinet-approves-strategy-ensuring-equality-between-women-and-men>

⁴⁹ <http://www.legislationline.org/documents/action/popup/id/9071>

⁵⁰ <http://documents.worldbank.org/curated/en/491631468321838165/pdf/760770ESW0P1310r0Assessment0020140.pdf>

<p>Do sector policies (e.g. re climate change) integrate gender mainstreaming?</p>	<p>Although there is very little information available in English on this issue, it seems that the existing legislation on climate change does not necessarily provide for gender mainstreaming.</p> <p>However, UNDP -which is extensively involved in supporting Moldova's adaption and mitigation efforts- <i>"is helping the government and other partners acknowledge this gender dimension and include it as a distinct cross-sectoral issue into environmental policy making"</i>. For example, UNDP has been helping the Moldovan authorities to integrate gender issues in climate change adaptation policies for several priority sectors. According to its own website, the agency specifically focuses on women' access to sustainable energy sources and aims at empowering them to become key agents in <i>"establishing new renewable energy partnerships and [in] identifying co-financing of energy efficiency solutions at local level"</i>. UNDP notably works in collaboration with female community leaders in order to implement local biomass projects.</p> <p>The agency's website lists several other best practices, reporting for instance that: <i>"communities such as Galesti, Carpeneni and Vorniceni are now stronger in conducting gender-sensitive risk assessments and considering the gender component into disaster risk management planning"</i>⁵¹.</p>
<p>Is gender part of the curricula at schools, universities, e.g. compulsory for engineers?</p>	<p>The United Nations national office reports that Moldova was the first country in the ECA region to introduce courses on gender budgeting in academia. Such courses are for now only available for master students of the Academy of Economic Studies⁵².</p> <p>In her essay <i>"Gendering Higher Education Curricula at Moldova State University"</i>, Valentina Bodrug-Lungu argues that <i>"the gender discourse has been gradually integrated in Moldova's system of education, in parallel with its active introduction in the political discourse"</i>. She reports that several gender courses are now included in university curricula and that Moldova State University has even aimed to integrate gender issues in some disciplines (e.g. anthropology, political science, psychology, history, sociology, pedagogy and social assistance)⁵³.</p> <p>Nevertheless, she recognises that progress in this regard has been slow and therefore provides recommendations for further <i>"gendering higher education"</i>.</p> <p>There is a legal basis for integrating gender issues in education: article 13 of the Law on Ensuring Equal Opportunities for Men and Women provides that <i>"educational and training institutions shall ensure equality between women and men: a) by means of access to education and/or training; b) in the educational and/or training process, also through evaluation of accumulated knowledge; c) in didactic and scientific-didactic activity; d) through developing didactic materials and curricula, in conformity with the principle of equality between women and men; e) by including gender education as a component part of the educational system; f) by educating girls and boys in the spirit of partnership and mutual respect."</i> (emphasis added).</p> <p>However, in practice, gender biases remain present in the educational system. A UNICEF study reports that school textbooks are not gender-sensitive: an evaluation of the textbooks' illustrations revealed that women and girls were way less likely to be depicted than men and boys, especially in secondary textbooks. Yet, according to experts, this unequal representation is hurtful since it depicts a world dominated by men, which ultimately participates in perpetuating existing gender inequalities⁵⁴.</p>

⁵¹ <http://www.md.undp.org/content/moldova/en/home/ourwork/gender-equality/gender-equality-and-climate-change--environment---energy.html>

⁵² <http://md.one.un.org/content/unct/moldova/en/home/presscenter/press-releases/moldova-este-prima-ar-din-regiune-care-introduce-domeniul-bugeta.html>

⁵³ <http://unesdoc.unesco.org/images/0021/002111/211180e.pdf#nameddest=211215>

⁵⁴ <https://www.unicef.org/moldova/educatia-de-baza.en.pdf>

Are sex-disaggregated data collected within climate change reporting/work?	<p>It does not seem to be the case.</p> <p>All sex-disaggregated indicators available for the country are listed on Moldova's official Statistical Databank⁵⁵, which includes information on women's access to education and training, on their participation in decision-making processes, on their economic empowerment and their health. More sex-disaggregated indicators are available on UNECE's website⁵⁶. Despite Moldova's commitment to collecting gendered statistics in numerous areas, environmental indicators are currently not disaggregated by sex.</p>
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c) Business, Governmental and Public institutions

Questions	Moldova
Do the relevant ministries (e.g. MoE) have a gender action plan, including gender mainstreaming, for internal and external purposes?	<p>As mentioned, in March 2017, the Moldovan government approved a new strategy for ensuring equality between women and men, for 2017-2021. An action plan that provides for the implementation of this Strategy was also enacted.</p> <p>The Strategy sets five main targets: i) ensuring the integration of gender equality issues in policy-making ii) strengthening the existing institutional framework iii) combating stereotypes and encouraging non-violent relationships iv) promoting gender equality in the security and defence sector v) promoting gender-sensitive budgeting⁵⁷.</p> <p>Apart from this National Strategy, Moldova has not yet equipped itself with gender action plans implemented at the ministry level. Ministries are simply expected to follow the directives set out by the National Strategy on gender equality⁵⁸.</p>
Are the gender action plans implemented?	<p>There is no information available regarding the implementation of Ministries' gender action plans, as there is no evidence that such plans exist at the Ministry level.</p> <p>However, several sources report a lack of implementation of the existing national strategy on gender equality. According to the World Bank's gender assessment of Moldova, <i>"there are concerns related to the efficiency of the state machinery, in particular regarding the activity of the gender focal points who are busy with their primary functions and do not have enough time for gender equality issues. While the policy foundation for gender equality laid out is laudable, its full implementation has not been realized. Sufficient resources have not been allocated for its execution, and at times courts seem unwilling or unable to apply gender equality laws"</i>⁵⁹. The report thus argues that although <i>"the legislative structure surrounding gender equality is generally strong"</i>, implementation remains poor, particularly regarding domestic violence.</p> <p>A NGO shadow report on the implementation of CEDAW in Moldova further confirms the findings of the World Bank: <i>"Beyond a dedicated department on gender equality within the Ministry of Labor Social Protection and Family no other ministry has full time personnel responsible to ensure gender equality. Gender focal points within ministries and public authorities have no mandate, no action plan and no accountability. {...} Among the biggest challenges that Moldovan institutions face in terms of ensuring gender equality are: (1) reduced responsibility among agencies / public institutions for achieving gender equality, (2) low understanding of how different policy choices may have different effects on men and women and (3) a very weak mechanism for monitoring and evaluation of how public institutions are implementing initiatives for achieving gender equality."</i>⁶⁰</p>

⁵⁵ http://statbank.statistica.md/pxweb/pxweb/en/50%20Statistica%20gender/50%20Statistica%20gender_GEN04/?rxid=5360837a-13b5-4912-a2e0-12892e96d2ab

⁵⁶ <http://w3.unece.org/PXWeb/en>

⁵⁷ <http://gov.md/en/content/cabinet-approves-strategy-ensuring-equality-between-women-and-men>

⁵⁸ <http://siteresources.worldbank.org/INTECAREGTOPGENDER/Resources/MoldovaNatStrategyGenderDraft.pdf>

⁵⁹ <http://documents.worldbank.org/curated/en/491631468321838165/pdf/760770ESW0P1310r0Assessment0020140.pdf>

⁶⁰ <http://cdf.md/files/resources/98/UPR-submission-gender-equality-platform-Moldova.pdf>

	For further reading, a detailed evaluation report of the 2010-2015 National Strategy for gender equality is available in Romanian ⁶¹ .
Are gender trainings available for all staff members within ministries and subsequent authorities/departments?	Broadly speaking, it does not seem to be the case, although this could be due to a lack of sources in English. However, the United Nations office in Moldova reports that in June 2016, 28 employees of the Ministry of Defence participated in a workshop on gender mainstreaming, which was part of a broader initiative on integrating gender in the national defense and security sector ⁶² .
Are there gender trainings available from the MSYW for external players?	There are no reports that the Ministry of Labour, Social Protection, and Family organises gender trainings for external players. According to a gender audit of the Moldovan Parliament, in July 2015 parliamentary staff benefitted from training on “ <i>Gender Concepts and Gender Analysis</i> ”. However, the report notes that efforts to train parliamentary staff on these questions remain limited ⁶³ . Lastly, in 2016, as part as a CoE-funded programme ⁶⁴ , several Moldovan judges and prosecutors received training on gender-based discrimination.
Does the recruitment of the staff follow a procedure that is gender equitable? (Does the system provide for quotas?)	Prior to 2016, there were no quotas in place to increase women’s political participation at the national or sub-national level. However, according to an OSCE report, in the 2011 local elections most political parties complied with a self-imposed 30% quota of female candidates for local council seats ⁶⁵ . In 2016, UN Women and UNDP collaborated with the Moldovan government to pass a law introducing gender quotas for political parties: the Law stipulates that women and men must each account for at least 40% of each party’s candidates and cabinet nominees ⁶⁶ .
Do gender focal points and/or women’s representatives exist within the ministries/subsequent departments?	In Moldova, developing and promoting gender equality policies falls under the responsibility of the Ministry of Labour, Social Protection, and Family. The “Insurance of Gender Equality Policy Department” is the specialised body in charge of these questions within the Ministry. However, according to a 2013 UNPD report, this Department only consists of 5 people, which seems very insufficient given the tasks it has been charged with. The same report specifies that “ <i>while there are persons assigned to be Gender Focal Points/Gender Units in a number of ministries, being a Gender Focal Point is not their sole responsibility and may not form part of their job description.</i> ”. As a result, this network of gender focal points is said to suffer from a lack of coordination and training: the report states that “ <i>many of the Gender Focal Points lack the capacity to undertake the responsibilities outlined in Law No.5</i> ”, i.e. the Law on Ensuring Equal Opportunities for Women and Men ⁶⁷ .

⁶¹ http://www.mmpsf.gov.md/sites/default/files/document/attachments/raport_evaluare_pnaeg_2010-2015.pdf

⁶² http://md.one.un.org/content/unct/moldova/en/home/presscenter/press-releases/militarii_i-civillii-se-familiarizeaz-cu-integrarea-dimensiunii-.html

⁶³ http://www.md.undp.org/content/moldova/en/home/library/effective_governance/auditul-de-gen-in-cadrul-parlamentului-republicii-moldova-spre-d.html

⁶⁴ http://www.coe.int/en/web/chisinau/supporting-national-efforts-for-prevention-and-combating-discrimination-in-moldova/-/asset_publisher/bO3MWAjPhYgz/content/training-courses-on-discrimination-on-ground-of-gender-for-judges-and-prosecutors?inheritRedirect=false&redirect=http%3A%2F%2Fwww.coe.int%2Fen%2Fweb%2Fchisinau%2Fsupporting-national-efforts-for-prevention-and-combating-discrimination-in-moldova%3Fp_id%3D101_INSTANCE_bO3MWAjPhYgz%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-1%26p_p_col_count%3D2

⁶⁵ https://www.ecoi.net/file_upload/2016_1322569575_85409.pdf

⁶⁶ <http://www.unwomen.org/en/news/stories/2016/9/womens-political-participation-gain-momentum-in-moldova#sthash.Epdf4tTp.dpuf>

⁶⁷ http://www.md.undp.org/content/moldova/en/home/library/effective_governance/auditul-de-gen-in-cadrul-parlamentului-republicii-moldova-spre-d.html

d) Finances

Question	Moldova
Is “gender budgeting” a commonly used approach?	<p>Gender budgeting is becoming increasingly widespread in the country. The UN in Moldova reports that “<i>Moldova is the first country in the region to introduce Gender Responsive Budgeting in academia</i>”: indeed, master students from the Academy of Economic Studies of Moldova are now all obligated to follow a course on gender budgeting⁶⁸.</p> <p>From 2006 to 2008, UN Women implemented a programme on gender budgeting in several countries of Southeast Europe, including Moldova. The programme aimed at promoting women’s rights through supporting the integration of a gender perspective in policy planning and budgeting processes. Governments representatives benefited from capacity-building activities on gender budgeting, while women’s rights NGOs received support for raising awareness and leading advocacy efforts on this matter⁶⁹. UN Women Moldova declares: “<i>We advocate for transparent and adequate public financing for gender equality. We promote gender-responsive budgets at all levels of national planning and budgeting</i>”⁷⁰.</p> <p>The National Strategy on Gender Equality in the Republic of Moldova for 2009-2015 recognises as priority problems the “<i>lack of gender-related social standards and financial ratios used in the budgeting process</i>” and the “<i>poor understanding of the essence of gender responsive budget by the population and specialists</i>”.</p> <p>To address these problems, the Strategy sets the following objectives: “<i>to include gender dimension in the budgeting process at different levels by modifying and improving the existent legal and regulatory framework; to introduce social standards and financial ratios of services differentiated by age and sex into the budgeting process; to develop a mechanism for gender expertise of budgets at different levels; to build human resource and institutional capacity to develop gender responsive budgets</i>.”⁷¹ Although it is clear that the state of Moldova has made significant progress by integrating a gender dimension in budgeting, there is no evidence that the objectives set in the National Strategy have yet been met.</p>
Are climate change adaptation and mitigation plans and programmes an area of priority at the Ministry of Finance?	<p>Although the Moldovan Ministry of Finance appears committed to financing adaptation and mitigation plans and programmes, climate action is not clearly defined as one of its priorities. The OECD study on “Financing Climate Action in Moldova” states that “<i>Moldova has mobilised domestic finance sources to finance climate-related projects, through national budget allocations by the Ministry of Finance, and the domestic funds</i>”. Thus, the Ministry of Finance is responsible for managing a large part of the national funds available for climate action: it “<i>provides allocations from the national budget to the relevant line ministries and other forms of public authorities</i>.”⁷².</p>
Are there funding schemes/subsidies etc. available to civil society organisations that have a strong gender focus?	<p>A study on Moldovan CSOs’ fundraising activities at the domestic level⁷³ reports that “<i>In Moldova, there are well represented various foreign organizations, donors and foundations that through their grant programs and service contracting support the functioning of the nongovernmental sector</i>.”. The report quotes the EU, UNDP, USAID, SIDA (the Swedish development cooperation), and the Swiss Cooperation amongst the</p>

⁶⁸ <http://md.one.un.org/content/unct/moldova/en/home/presscenter/press-releases/moldova-este-prima-ar-din-regiune-care-introduce-domeniul-bugeta.html>

⁶⁹ <http://www.entwicklung.at/en/themes/projects/detail-en/project/show/gender-responsive-budgeting-in-southeast-europe-for-moldova-albania-macedonia-bosnia-herzegovin/>

⁷⁰ <http://eca.unwomen.org/en/where-we-are/moldova>

⁷¹ <http://siteresources.worldbank.org/INTECAREGTOPGENDER/Resources/MoldovaNatStrategyGenderDraft.pdf>

⁷² https://www.oecd.org/environment/outreach/Moldova_Financing_Climate_Action.Nov2016.pdf

⁷³ http://fhi360.md/docs/Annex%205_Fundraising%20by%20Moldovan%20CSOs%20from%20domestic%20sources.pdf

	<p>main donors and agencies involved in supporting Moldovan CSOs. The study however states that “domestic funding sources are less popular”, making foreign donors the main source of funding for Moldovan CSOs. The Swedish development cooperation, in particular, provides support to Moldovan CSOs and recognises gender equality as one of its priorities⁷⁴.</p> <p>In Moldova, through its Global Environment Facility, UNDP offers small grants to NGOs and CSOs to “enable them to meet the global challenges of environment, while addressing the needs of sustainable development”. The small grants programme, whose motto is “Community action with global impact”, is particularly interested in funding initiatives that strengthen social inclusion through gender mainstreaming and/or youth involvement⁷⁵. Finally, it should be noted that the Ukrainian Women's Fund (UWF) is very active in Moldova, where it provides local women CSOs with financial, information and consultation support⁷⁶.</p>
Do any financial incentives, e.g. micro-credit schemes and other creative alternative funding mechanisms (revolving funds), exist to support small-scale innovative green and gender-sensitive technologies?	<p>The OECD study “<i>Financing Climate Action in Moldova</i>” reports that Moldovan authorities have created some fiscal incentives to promote the use of sustainable energy sources: the implementation of these fiscal incentives (which include tax exemptions and soft loans) for small-scale renewable energy generation facilities is provided for by the current National Renewable Energy Action Plan.</p> <p>An interesting initiative is the “Moldova Energy and Biomass Project” funded by the EU and UNDP, which provides subsidies for the purchase of biomass boilers by households, micro-, small- or medium-sized enterprises.</p> <p>Along with the EBRD, the EU also supports the Moldovan Sustainable Energy Finance Facility, which “aims to extend credit lines to local banks to provide on-lending to small and medium-sized enterprises that wish to invest in energy efficiency and/or renewable energy measures”. The Moldovan Residential Energy Efficiency Financing Facility is another example of a project which intends to “facilitate on-lending by local banks for investments in energy efficiency projects in residential buildings”. Ultimately, the initiative is intended to make borrowing easier for housing associations, condominiums, cooperatives, housing management and energy service companies as well as for individuals and households.</p> <p>The “Fruit Garden Moldova Project” is another interesting initiative, which is supported by the EU and the EIB. The project seeks to help small- and medium-sized farmers as well as the agriculture and horticulture product industry to “modernise process throughout the entire value chain; better access finance via (local) intermediary banks; and improve access to international markets”, through promoting energy and resource efficient measures⁷⁷.</p> <p>The Austrian Development Cooperation Agency (ADA) is also involved in providing funding mechanisms for small-scale “green initiatives”. The agency has been supporting Moldova in the elaboration and implementation of its National Adaptation Planning (“Supporting Moldova’s National Climate Change Adaptation Planning Process”) and according to ADA, this project also includes a dedicated grant scheme to “showcase innovative adaptation measures at the local level”⁷⁸.</p> <p>Finally, UNDP in Moldova reports that it offers grant schemes to support innovative adaptation measures, “laying the foundations for the development of green businesses in vulnerable communities across several districts such as Falesti, Singerei, Basarabeasca, Nisporeni and Calarasi”⁷⁹.</p>

⁷⁴ http://www.sida.se/contentassets/24b52bf509f04e2d9dd3fa9c9858b6ed/review-of-civil-society-organisations-in-moldova_3242.pdf

⁷⁵ <https://www2.fundsforngos.org/environment-conservation-climate-change-and-ecology/undp-gef-small-grants-program-inviting-ngos-csos-moldova/>

⁷⁶ <http://www.uwf.org.ua/en/about/us>

⁷⁷ https://www.oecd.org/environment/outreach/Moldova_Financing_Climate_Action.Nov2016.pdf

⁷⁸ <https://www.weadapt.org/knowledge-base/national-adaptation-planning/climate-change-adaptation-planning-in-moldova>

⁷⁹ <http://www.md.undp.org/content/moldova/en/home/ourwork/gender-equality/gender-equality-and-climate-change--environment--->

Are tender procedures gender-responsive?	Very little English sources could be found on this topic. The OECD study “ <i>Financing Climate Action in Moldova</i> ” points out that tendering (i.e. public bidding) is not required in the case of renewable energy projects ⁸⁰ .
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Belarus

a) Legal framework

Question	Belarus
Does the Constitution provide for gender equality?	No. Although article 22 of the Belarusian Constitution states that “ <i>All shall be equal before the law and entitled without discrimination to equal protection of their rights and legitimate interests.</i> ”, the Constitution does not explicitly refer to gender discrimination. ⁸¹
Have international women’s rights treaties been ratified/acceded to (such as CEDAW)?	Belarus ratified CEDAW on February 4, 1981, without any reservations. The country also ratified the Optional CEDAW Protocol on February 3, 2004.
Does the legislation include discriminatory provisions or implicit gender biases? In particular: a. Are the laws/regulations on public participation gender-responsive; taking into consideration outreach to stakeholders (in rural areas, to marginalised groups); ways of access to information (availability of internet access, etc.), set up of meetings (timing and locations); possibilities to submit comments (language issues, illiteracy)? b. Does the legislation related to climate change adaptation and mitigation refer to gender equality or is it discriminatory against women and girls? c. Is the labour and	a. No English sources could be found on this topic. It is unclear whether the Belarusian law includes provisions on public participation in environmental and/or energy matters. b. Belarus’ legislative and executive portfolio on climate change has been summarised in the Global Climate Legislation Study produced by the Grantham Research Institute on Climate Change and the Environment ⁸² . Although the existing legislation does not refer to gender equality, it does not appear to be discriminatory against women and girls. As stated on its website, UNDP supports the capacity of Belarus to address climate change through “ <i>the formulation of gender-sensitive mitigation and adaptation policies, the development of disaster-risk reduction strategies that take special note of vulnerable groups such as the rural elderly, children and persons with disabilities, and the setting up of international river basin coordination mechanisms.</i> ” ⁸³ . UNDP is notably conducting the projects “ <i>Supporting the Transition to a Green Economy in the Republic of Belarus</i> ” ⁸⁴ and “ <i>Supporting Green Urban Development in Small and Medium-Sized Cities in Belarus (Green Cities)</i> ” ⁸⁵ . Very little information in English is available regarding the integration of gender issues in climate response in Belarus. UNDP released a booklet on the “ <i>Green economy and gender equality in Belarus</i> ”, in Russian ⁸⁶ . c. Belarus’ labour law prohibits discrimination on the basis of sex in employment. Article 14 of the Labour Code prohibits all forms of discrimination, i.e “ <i>limitation in labor rights or acquisition of privileges</i>

[energy.html](#)

⁸⁰ https://www.oecd.org/environment/outreach/Moldova_Financing_Climate_Action.Nov2016.pdf

⁸¹ The English version of the Belarusian Constitution can be found here: http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_127420.pdf

⁸² <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/belarus/>

⁸³ <http://www.by.undp.org/content/belarus/en/home/ourwork/GenderEquality/Gender-Inclusive-sustainable-growth.html>

⁸⁴ http://www.by.undp.org/content/belarus/en/home/operations/projects/environment_and_energy/00081657.html

⁸⁵ http://www.by.undp.org/content/belarus/en/home/operations/projects/environment_and_energy/Green-cities.html

⁸⁶ http://www.by.undp.org/content/belarus/ru/home/library/environment_energy/-/Green-economy-gender-equality-booklet/

inheritance law gender-sensitive?	<p>depending on race, sex, national origin, language, religious or political point of view, membership or non-participation in trade unions or other public associations, property or official position, disability of physical or mental nature, which do not prevent an individual from fulfillment of the appropriate labor duties". Article 16 of the Labor Code prohibits employers from refusing to conclude an employment contract with women without grounds, for reasons linked to pregnancy or to the presence of children under 3 years, or in the case of single mothers, to the presence of children under 14 (18 is one of the children is disabled). Discrimination towards women on motives of pregnancy or breast-feeding is a criminal offence.⁸⁷ Besides, in Belarus, pregnant women are entitled to 126 days of paid maternity leave, and they shall receive a payment equivalent to the national average salary.</p> <p>It must be noted that Belarus' labour law still contains provisions that discriminates against women: as of today, Belarusian women are banned from 181 professions.⁸⁸</p> <p>Finally, under Belarus' civil law, women and men have equal inheritance rights, both as spouses and as descendants.</p>
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b) Policies

Question	Belarus
Does a national gender policy/action plan exist? Is gender mainstreaming part of the national gender policy?	<p>Since 1996, Belarus enacted five gender action plans (1996-2000, 2001-2005, 2008-2010, 2011-2015, 2017-2020). A World Bank' gender analysis of Belarus states that <i>"These plans were the main documents covering the state policy aimed at achieving gender equality."</i></p> <p>According to this report, the fourth national gender action plan that was adopted in 2011, had the following goals: <i>"(i) achieve gender equality at all levels of the decision-making; (ii) introduce gender concept in education system; (iii) shift social norms towards gender equality in social life; (iv) improve reproductive health of men and women; (v) strengthen the family institute; (vi) achieve gender equality in economic opportunities."</i>⁸⁹</p> <p>No English versions of these gender action plans could be found, therefore we had to rely on secondary information sources.</p> <p>The World Bank' gender analysis of Belarus also reveals that <i>"The main institutional bodies developing, implementing and coordinating gender policies are the National Council on Gender Policy and the Department of Population, Gender and Family Policy of the Ministry of Labor and Social Protection."</i> The National Council on Gender Policy is <i>"an interagency advisory and coordinating body [...] composed of the heads of central government agencies, local executive and administrative authorities, National Assembly deputies and representatives of the Supreme Court and public and international organizations."</i></p> <p>Taken at face value, it would seem that Belarus has a real gender strategy, which includes gender mainstreaming. However, the Office for European Expertise and Communications, in its report <i>"Analysis of the Gender Sector in Belarus"</i> is very sceptical</p>

⁸⁷ Belarus' Labor Code is available in Russian here : http://etalonline.by/?type=text®num=HK9900296#load_text_none_1
The following report (« Joint ECE/UNDP Workshop on Gender Statistics for Policy Monitoring and Benchmarking ») includes an English translation of Article 16 and 18 of Belarus' Labour Code (p 8-9) : <https://www.unece.org/fileadmin/DAM/stats/documents/2000/10/gender.workshop/1.e.pdf>

⁸⁸ <https://www.opendemocracy.net/od-russia/volha-piatrukovich/in-belarus-women-need-not-apply>

⁸⁹ <http://documents.worldbank.org/curated/en/518041468201598756/pdf/763250ESW0P1320r0Assessment0020140.pdf>

	<p>about the government's effective commitment to mainstreaming gender in its actions: <i>"Despite the presence of all these institutions and tools in Belarus, gender approach is not used while developing state plans and programs, gender analysis of taken decisions is not used either. There is no strategy of gender development, and the current policy has no systematic approach. There are international technical assistance projects implemented in Belarus to strengthen the capacity of the state in dealing with gender issues, however, these projects are not cross-cutting in nature and are implemented in a certain narrow area – domestic violence, human beings trafficking, conscious parenting."</i>⁹⁰ (emphasis added).</p> <p>Other sources point to a lack of commitment from the authorities, and suggest that Belarus is for the most part, only paying lip service to gender equality concerns. A 2013 study of Belarusian women's participation to public and political life points out that <i>"three previous National Plans have not been fully implemented, and most of the obligations not carried out under the first Plan are still to be met in the forth (current) Plan. [...] For example, the National Plan for 2001-2005 provided for development of the draft law "On gender equality." But the law has not been adopted to date, since it had not been submitted to the parliament."</i></p> <p>The study specifically criticises the implementation of the third and fourth National Plans: <i>'The monitoring of the implementation of the two last National Plans [...] showed that the objectives of the National Plans have not been met. The experts pointed at the lack of target financing and low priority of the National Plan for state institutions, the lack of clear mechanisms and performance indicators, as well as explicitly paternalistic approach of the Plan. [...] The National Action Plan for Gender Equality currently remains a purely formal document that does not have real impact on society.'</i>⁹¹</p> <p>Finally, a report by the Heinrich Böll Foundation also confirms that the gender action plans have been poorly implemented, with no enforcing mechanisms: despite the announcements made, <i>"No legal mechanisms have been developed which would specify legal liability for acts of gender-based discrimination."</i>⁹²</p>
Do sector policies (e.g. re climate change) integrate gender mainstreaming?	<p>It does not seem to be the case. As mentioned above, Belarus' legislative and executive portfolio on climate change has been summarised in the Global Climate Legislation Study produced by the Grantham Research Institute on Climate Change and the Environment. No mention is made of gender issues.⁹³</p> <p>Moreover, reports that provide a gender analysis of Belarus do not make any mention of efforts to integrate gender issues in climate or energy policies.⁹⁴</p> <p>This might be due to a lack of relevant sources in English.</p>
Is gender part of the curricula at schools, universities, e.g. compulsory for engineers?	<p>It does not seem to be the case. The 2014 World Bank Country Gender Profile for Belarus advocated for the inclusion of gender issues in schools' curriculum: <i>"In order to change social norms introducing gender studies in secondary schools and higher education institutions, developing special courses on gender equality for future journalists, and positive representation of women in mass media are just a few options available to help change gender stereotypes."</i>⁹⁵</p> <p>In 2000, Belarus' Minister for Social Protection Mrs. Olga Dargel stated that <i>"Gender issues have been introduced into the curricula in four Belarusian universities."</i>⁹⁶</p>

⁹⁰ <http://oeec.by/wp-content/uploads/2015/06/Analysis-of-Gender-Sector-in-Belarus.pdf>

⁹¹ <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=0900001680599095>

⁹² https://pl.boell.org/sites/default/files/downloads/Women_status_in_Belarus.pdf

⁹³ <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/belarus/>

⁹⁴ Analysis of the Gender Sector in Belarus, Office for European Expertise and Communications: <http://oeec.by/wp-content/uploads/2015/06/Analysis-of-Gender-Sector-in-Belarus.pdf>

Belarus Country Gender Profile, World Bank:

<http://documents.worldbank.org/curated/en/518041468201598756/%20pdf/763250ESW0P1320r0Assessment0020140.pdf>

⁹⁵ <http://documents.worldbank.org/curated/en/518041468201598756/pdf/763250ESW0P1320r0Assessment0020140.pdf>

⁹⁶ <http://www.un.org/womenwatch/daw/followup/beijing+5stat/statments/belarus6.htm>

	Overall, it appears that gender issues remain insufficiently mainstreamed in the Belarusian educational system. Even more concerning is the government's current position on this issue: reports point out that its approach has been to enforce traditional gender roles through gender-segregated classes ("Service Labor" classes for girls, which consists of cooking, textile, and general "housekeeping" lessons; "Technical Labor" classes for boys, which relates more to vocational training and/or activities traditionally viewed as "masculine" such as woodwork) ⁹⁷ .
Are sex-disaggregated data collected within climate change reporting/work?	It does not seem to be the case, although this could be due to a lack of sources available in English. The National Statistics Committee of the Republic of Belarus does collect sex-disaggregated data, which is compiled in a report named <i>"Women and Men in Belarus"</i> ⁹⁸ . However, this report does not include data regarding climate issues.

c) Business, Governmental and Public institutions

Questions	Belarus
Do the relevant ministries (e.g. MoE) have a gender action plan, including gender mainstreaming, for internal and external purposes?	Belarus is currently implementing its fifth National Plan on Gender Equality, that covers the period from 2017 to 2020 ⁹⁹ . However, the Belarusian Ministries do not seem to have specific gender strategies, or to integrate gender issues into their policies. In its study of the gender sector of Belarus, the Office for European Expertise and Communications only reports that : <i>"in the Ministry of labor and social protection there is a department of population, gender and family policy."</i> There is evidence that UNESCO is cooperating with the Belarusian Ministry of Education to educate young people about HIV prevention and provide sex education, <i>"with due regard to appropriate human-rights and gender equality frameworks"</i> ¹⁰⁰ .
Are the gender action plans implemented?	Several sources report poor implementation of the national gender action plans enacted by the Belarusian authorities: <i>"Despite the presence of all these institutions and tools in Belarus, gender approach is not used while developing state plans and programs, gender analysis of taken decisions is not used either. There is no strategy of gender development, and the current policy has no systematic approach"</i> (emphasis added). The same report is very sceptical of the ability of executive authorities to address gender issues: <i>"Some executive authorities demonstrate mimicry when in different situations their representatives try to fit in the right set of mind of a certain audience, changing their positions thus distorting the sense of gender policy. Some ministries, e.g. the Ministry of Education, the Ministry of Health, substitute gender approach for sex roles approach in their activities."</i> ¹⁰¹ (emphasis added) ¹⁰² .

⁹⁷ https://www.academia.edu/5780125/Segregated_education_in_contemporary_Belarus

<http://belarusdigest.com/story/restrictions-and-domination-gender-imbalance-belarusian-labour-market-24811>

⁹⁸ <http://www.belstat.gov.by/en/ofitsialnaya-statistika/publications/catalogues-of-statistical-publications/women-and-men-of-the-republic-of-belarus/>

⁹⁹ <http://eng.belta.by/society/view/belarus-approves-national-action-plan-on-gender-equality-for-2017-2020-98881-2017/>

¹⁰⁰ <http://unesdoc.unesco.org/images/0022/002246/224691E.pdf>

¹⁰¹ <http://oeec.by/wp-content/uploads/2015/06/Analysis-of-Gender-Sector-in-Belarus.pdf>

¹⁰² <http://oeec.by/wp-content/uploads/2015/06/Analysis-of-Gender-Sector-in-Belarus.pdf>

Are gender trainings available for all staff members within ministries and subsequent authorities/departments?	<p>It does not appear to be the case.</p> <p>It was one of the recommendations made by the Office for European Expertise and Communications in its report <i>“Analysis of the Gender Sector in Belarus”</i>. The report argues that <i>“the awareness and understanding of gender equality, of its essence and advantages for all the gender groups can be raised by mutual efforts of the state and NGOs in: providing mandatory gender education within training and re-training of officials and experts from all the areas of activity [...]”</i>¹⁰³.</p>
Are there gender trainings available from the MSYW for external players?	No English sources could be found on this topic.
Does the recruitment of the staff follow a procedure that is gender equitable? (Does the system provide for quotas?)	<p>A 2017 report by the Council of Europe states that <i>“In Belarus the president has set an informal target of 30% of women in the National Assembly.”</i>¹⁰⁴. Other sources confirm the existence of a 30% informal quota of women in both chambers of the Belarusian Parliament¹⁰⁵. However, it should be said that the legislature does not have much power in Belarus. The NGO Freedom House considers that <i>“Belarus is not an electoral democracy”</i> and reports that <i>“opposition parties have no representation in the National Assembly, while pro-presidential parties serve only superficial functions”</i>.¹⁰⁶</p> <p>There are no quotas in place at other levels of government. Furthermore, according to the Council of Europe report, political parties do not have any rules regarding the representation of women in their executive bodies (e.g. reserved seats).</p>
Do gender focal points and/or women’s representatives exist within the ministries/subsequent departments?	<p>It does not appear to be the case.</p> <p>According to a UNECE report, as of 2010, only 4 people worked in a specialised division on gender within one of the Ministries: <i>“four people work in the sector for population, gender and family in the Ministry of Labour and Social Protection: the Head of the sector, a consultant and specialists.”</i>¹⁰⁷.</p> <p>The Office for European Expertise and Communications, in its report <i>“Analysis of the Gender Sector in Belarus”</i> further specifies that <i>“Local Executive Committees have departments of targeted social assistance and gender issues.”</i>. However, as mentioned above, the same report criticises the severe lack of implementation of gender policies in Belarus: <i>“Despite the presence of all these institutions and tools [...] gender approach is not used while developing state plans and programs, gender analysis of taken decisions is not used either.”</i>¹⁰⁸.</p>

¹⁰³ <http://oeec.by/wp-content/uploads/2015/06/Analysis-of-Gender-Sector-in-Belarus.pdf>

¹⁰⁴ <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168070b6a4>

¹⁰⁵ <http://belarusdigest.com/story/time-boost-belarus%E2%80%99-fallow-female-potential-9763>

¹⁰⁶ <https://freedomhouse.org/report/freedom-world/2011/belarus>

¹⁰⁷ https://www.unece.org/fileadmin/DAM/Gender/publication/UNECE_2010_Regional%20study_CEE%20et%20al.pdf

¹⁰⁸ <http://oeec.by/wp-content/uploads/2015/06/Analysis-of-Gender-Sector-in-Belarus.pdf>

e) Finances

Question	Belarus
Is “gender budgeting” a commonly used approach?	<p>As of today, gender budgeting does not yet appear to be a commonly used approach in Belarus. However, recent years have seen some progress in this regard, with the development of several initiatives intending to promote gender budgeting in Belarus. In 2008, the Coalition for Gender Equality in Latvia coordinated the project <i>“Creating and expanding a gender budgeting network in the Baltic Sea region and Belarus”</i>. The project, supported by the Nordic Council of Ministers and implemented by a transboundary coalition of NGOs, aimed to <i>“establish a Baltic-Nordic-Belarus network of cooperation on implementation of Gender Budget Initiatives [...] to popularize gender budgeting and gender budget analysis [...] to ensure greater responsiveness to gender issues in central government and municipal policies by promoting and fully incorporating gender concerns in public spending and by increasing equal participation of men and women on all levels of the budgetary decision-making process.”</i>¹⁰⁹.</p> <p>The project involved the Belarusian government and provided for the organisation of roundtable discussions and meetings between NGO representatives and politicians, for the establishment of multi-stakeholder gender budgeting networks and for the conduct of workshops destined to local communities, public officers, and NGOs. Although little information is available regarding the implementation or the results of this project in Belarus specifically, a follow-up report specifies that <i>“the project provided Belarus NGOs with training materials and best practices of the Scandinavian and Baltic countries on gender budgeting”</i> and that in total 15 Belarusian NGOs benefit from training on gender budgeting¹¹⁰.</p> <p>In 2016, as part of the project <i>“Strengthening Inclusive Local Governance in the Republic of Belarus”</i>, UNDP and the Danish International Development Agency (DANIDA) organised a joint seminar on <i>“The State Service of the Republic of Belarus - New approaches to the public finances management: inclusion and broad public involvement. Gender budgeting and some other aspects of gender policy”</i>. Representatives of the Belarusian Ministry of Finance and other government institutions attended this seminar where they were able to learn about gender budgeting methods and benefits¹¹¹.</p> <p>In 2016 as well, representatives from the Belarusian authorities participated in a study visit to Vienna whose objective was to build capacity and raise awareness about gender budgeting. Organised by the OSCE Mission in Warsaw, the study visit aimed at promoting best practices from Austria, which is a leader country in terms of gender budgeting. It was an occasion for Belarus to further its gender budgeting efforts, after creating an interdisciplinary task group similar to the Austrian Inter-Ministerial Working Group on Gender Mainstreaming/Gender Budgeting (GMB)¹¹².</p>
Are climate change adaptation and mitigation plans and programmes an area of priority at the Ministry of Finance?	<p>Financing climate action in general does not appear to be a priority of the Ministry of Finance, although the modernisation of the energy sector is identified as a national priority. A report of the Zoï Environment Network indicates indeed that <i>“Modernization of the energy sector, including development of renewables, is identified as a national policy priority”</i>¹¹³.</p> <p>Climate actions in Belarus are financed both by the government and through external donor funding. The OECD study on <i>“Financing Climate Action in Belarus”</i> reports on the role of the different Belarusian Ministries in financing mitigation and adaptation efforts,</p>

¹⁰⁹ <http://www.enut.ee/en/creating-and-expanding-a-gender-budgeting-network-for-gender-in-baltic-sea-region-and-belarus-2008/>

¹¹⁰ http://www.enut.ee/en/files/suur_uudiskiri.pdf

¹¹¹ <http://www.by.undp.org/content/belarus/en/home/presscenter/pressreleases/2016/10/17/inclusion-and-gender-budgeting-in-the-public-finances-management.html>

¹¹² <http://blog.imag-gendermainstreaming.at/index.php/en/news-2/1308-2/>

¹¹³ <http://www.zoinet.org/web/sites/default/files/publications/CC-Belarus-EN.pdf>

	<p>indicating that the Ministry of Economy is “in charge of development and implementation of national development policies including environmental investments, tariff policy, rational use of natural resources” and that the Ministry of Finance is “responsible for fiscal policies and borrowers of financing from international sources for a range of projects”¹¹⁴. However, the report does not specify whether financing climate action is considered a priority by these Ministries.</p>
<p>Are there funding schemes/subsidies etc. available to civil society organisations that have a strong gender focus?</p>	<p>NB: UNDP’s website includes a list of women’s organisations in the Republic of Belarus¹¹⁵. Not only are there very limited funds destined to civil society organisations that have a strong gender focus, but the government’s actions intentionally limit the funding opportunities available to said CSOs. CSOs in Belarus suffer from a difficult – when not hostile- environment, and this is even more the case for CSOs with a focus on gender equality.</p> <p>As of today, only around 40 registered women’s organisations exist in Belarus: this represents less than 1.5% of all NGOs in the country. A 2017 article published in The Belarus Digest reports that “despite its existence on paper, the Belarusian women’s network, an umbrella organisation of women’s rights groups created in 2007, has not achieved significant results. “, mainly due to a lack of coordination.</p> <p>The strategy of the Belarusian authorities so far has been to financially support a “non-feminist” women’s organisation that is sympathetic to the regime: the Belarusian Union of Women, which is nothing else than a GoNGO (a governmental non-governmental organisation, created and controlled by the government). This organisation concentrates most of the funds available to women CSOs, to the detriment of other real NGOs. The same Belarus Digest article reveals that “the Vice-chairman of the Belarusian Union of Women, Antanina Morava, has stated that there is no need in Belarus to introduce a gender equality law as the Constitution already guarantees all rights. [...] Organisations such as the Belarusian Union of Women, which comprises more than 170,000 members, receive grants and help the state monopolise the sector by promoting traditional family values.”.</p> <p>Women’s rights organisations in Belarus suffer from the (intentionally complex) NGO legislation, which makes it difficult for them to register as NGO and receive foreign funds. According to the Belarus Digest, in the past years, the Belarusian Ministry of Justice has only registered two new women’s organisations^{116 117}.</p> <p>In its report “Analysis of the Gender Sector in Belarus”, the Office for European Expertise and Communications confirms that Belarusian NGOs are “limited in the scale of activities, in the services they provide, and in funding because the latter requires spending a lot of time and effort to register.”. The report further states that the “the number of donors funding gender projects is decreasing”, which is a worrying trend. However, the study points to cases of constructive collaboration between the third sector and the state where “both parties take advantage of each other[.] NGOs hope to get an official registration of donors’ funds, and the state reports to international community the fulfillment of international obligations.”¹¹⁸.</p> <p>Nevertheless, the situation of gender-focused CSOs remain extremely precarious: a report by the Heinrich Böll Foundation points out that “the atmosphere of repression makes it difficult to subsidise the organisations, as there is no progressive policy of tax reliefs for potential national sponsors, which would allow finding internal resources for the development of the third sector”. As a result, members’ contributions and funds from international donors remain the main sources of financing for associations¹¹⁹.</p>

¹¹⁴ https://www.oecd.org/environment/outreach/Belarus_Financing_Climate_Action.Nov2016.pdf

¹¹⁵ http://un.by/en/gender/orgs/gender_orgs.html

¹¹⁶ <http://belarusdigest.com/story/women%E2%80%99s-activism-belarus-towards-real-gender-equality-29318>

¹¹⁷ https://pl.boell.org/sites/default/files/downloads/Women_movement_in_Belarus.pdf

¹¹⁸ <http://oeec.by/wp-content/uploads/2015/06/Analysis-of-Gender-Sector-in-Belarus.pdf>

¹¹⁹ https://pl.boell.org/sites/default/files/downloads/Women_movement_in_Belarus.pdf

<p>Do any financial incentives, e.g. micro-credit schemes and other creative alternative funding mechanisms (revolving funds), exist to support small-scale innovative green and gender-sensitive technologies?</p>	<p>In 2012, the European Bank for Reconstruction and Development (EBRD) launched a framework operation of US\$ 50 million to “<i>foster sustainable energy investments in energy intensive Belarus</i>”. The Belarus Sustainable Energy Finance Facility (BelSEFF) includes “<i>credit lines to local banks, for on-lending to industrial companies and small and medium-sized enterprises (SMEs) undertaking energy efficiency and renewable energy projects</i>”¹²⁰.</p> <p>The OECD study “<i>Financing Climate Action in Belarus</i>” reports on the BelSEFF’s achievements as of 2016: the initiative has served to fund several projects, including “<i>a small-size combined heat and power plant, a heat and cold recovery system, insulation and efficient heating system in office buildings as well as manufacturing facility, and a solar power plant in the country</i>”¹²¹.</p> <p>This OECD study provides a comprehensive list of all the initiatives aiming at financing climate action in Belarus. From this report, it appears that i) contrarily to most ECA countries, climate actions in Belarus are mostly financed by domestic sources and private sector investments ii) among international stakeholders, the World Bank Group and the EBRD are the most involved in supporting the country’s climate action iii) existing funding mechanisms in Belarus mostly serve to finance <i>large-scale</i> energy projects¹²².</p> <p>According to the Climate Policy Database¹²³, Belarus lacks ,inter alia, a support scheme for renewables and a Carbon Capture and Storage (CCS) support scheme in the industry and electricity sector. Such support schemes could include green certificates, fiscal or financial incentives, net metering investment, direct investment or infrastructure investment. Besides, Belarus also has no support scheme for sustainable heating and cooling in buildings, nor does it have fiscal/financial incentives to encourage the use of biofuels for transport.</p> <p>Thus it is apparent that Belarus has very few financial mechanisms destined to fund small-scale green technologies, let alone gender-sensitive green technologies.</p>
<p>Are tender procedures gender-responsive?</p>	<p>Very little English sources could be found on this topic.</p> <p>The OECD study “<i>Financing Climate Action in Belarus</i>” points out that tendering (i.e. public bidding) is not required in the case of renewable energy projects¹²⁴.</p>

¹²⁰ <http://www.ebrd.com/work-with-us/projects/psd/belarus-sustainable-energy-finance-facility---belseff.html>

¹²¹ https://www.oecd.org/environment/outreach/Belarus_Financing_Climate_Action.Nov2016.pdf

¹²² https://www.oecd.org/environment/outreach/Belarus_Financing_Climate_Action.Nov2016.pdf

¹²³ <http://climatepolicydatabase.org/index.php?title=Country:Belarus>

¹²⁴ https://www.oecd.org/environment/outreach/Belarus_Financing_Climate_Action.Nov2016.pdf

Bosnia and Herzegovina

a) Legal framework

Question	Bosnia and Herzegovina
Does the Constitution provide for gender equality?	<p>The National Gender Action Plan on Gender Equality (GAP), adopted first in 2007, and renewed for period 2013-2017, builds on national and global conventions and strategies to promote implementation of the Law on Gender Equality. It is complemented by the Financing for the Implementation of the Gender Equality Action Programme (FIGAP) adopted to provide for the law's long-term implementation. Main priorities in FIGAP include ensuring measures for women's increase in labour, employment and access to economic resources (Source: Priority gender issues in Bosnia and Herzegovina, Georgia, Moldova, Serbia, and Ukraine, GSDRC, 2016).</p> <p>Law on gender equality in Bosnia and Herzegovina "governs, promotes and protects the equal treatment of the sexes and guarantees equality of opportunity for all in both the public and the private domain, and prohibits direct and indirect discrimination on the grounds of gender." An initiative "Women Citizens for Constitutional Reform" in 2013 first drew attention to the constitutional guarantee of gender equality, and made specific proposals for "Gender-equitable Constitution".</p>
Have international women's rights treaties been ratified/acceded to (such as CEDAW)?	<p>The BIH government has ratified a number of relevant UN Conventions which represent both the commitment and the responsibility of the government with regards to its human rights' obligations. Of most relevance is CEDAW which BIH ratified in 1993. BIH had also ratified the Convention's 2000 Optional Protocol, the Council of Europe's recommendations on gender equality, and the European Community Framework Strategy on Gender Equality. Also, the draft National Action Plan on Gender was based on the principles set forth in the Beijing Declaration and Platform of Action.</p>
<p>Does the legislation include discriminatory provisions or implicit gender biases? In particular:</p> <p>a. Are the laws/regulations on public participation gender-responsive; taking into consideration outreach to stakeholders (in rural areas, to marginalised groups); ways of access to information (availability of internet access, etc.), set up of meetings (timing and locations); possibilities to submit comments (language issues,</p>	<p>a. Gender Equality Law (2013) prohibits discrimination on the grounds of sex and sexual orientation. The law promotes equal participation of women in areas where they are considered less advantaged than men: education, economics, social security, health, sport, culture, public life, media, as well as labour and employment. However, Bosnian women still experience barriers to participating fully in the world of work (Source: ILO Country Study 2011).</p> <p>b. The Gender Equality Plan for Bosnia and Herzegovina and the Law on Gender Equality are taken into consideration in the development and</p>

<p>illiteracy)?</p> <p>b. Does the legislation related to climate change adaptation and mitigation refer to gender equality or is it discriminatory against women and girls?</p> <p>c. Is the labour and inheritance law gender-sensitive?</p>	<p>implementation of the Climate change adaption and mitigation strategy. The Strategy recognizes the fundamental goal of achieving equal representation of sexes in the planning process, decision-making and implementation of a program in relation to a sustainable environment and strengthening the capacity of government institutions dealing with environmental protection issues. The gender perspective has been systematically introduced in policy-making on integrated environmental protection. Risks linked to climate change threaten to increase gender inequality and undermine the progress made in this field.</p> <p>c. Women enjoy equal inheritance rights as wives and as daughters in Bosnia and Herzegovina. In practice, according to the CEDAW report, women often surrender their inheritance rights in favour of male relatives, as a result of customary practices that see land and property as a male prerogative.</p>
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b) Policies

In reality the situation is different since the laws and policies are often not enforced due to a number of reasons such as corruption, poverty and religious traditionalism.

Question	Bosnia and Herzegovina
Do sector policies (e.g. re climate change) integrate gender mainstreaming?	The UN country report on gender equality states that “despite limited financial resources and coordination among government offices, Bosnia and Herzegovina is making progress in harmonizing laws and action plans to end discrimination against women, achieve gender equality in education, health care and employment.”
Is gender part of the curricula at schools, universities, e.g. compulsory for engineers?	No, the education system is largely divided due to religious and ethnic divisions within the country.
Are sex-disaggregated data collected within climate change reporting/work?	There is no information available on sex-disaggregated data collected within climate change reporting.

c) Governmental institutions

Questions	Bosnia and Herzegovina
Do the relevant ministries (e.g. MoE) have a gender action plan, including gender mainstreaming, for internal and external purposes?	The Gender Action Plan is the single most important strategic document for the direct integration of gender equality in all spheres of public and private life. Gender mainstreaming process in BIH is being focused on implementation of primary areas of the Gender Action Plan and the real gender mainstreaming within governmental institutions (its annual plans and programmes) which are held accountable for GAP implementation. GAP defines activities, holders of responsibility (ministries and other governmental institutions), partners and deadlines for implementation.
Are the gender action plans implemented?	Due to the lack of knowledge and innovative initiatives, gender mainstreaming remains very abstract and seen as not really applicable (Source: UNDAF, 2016).
Are gender trainings available for all staff members within ministries and subsequent authorities/departments?	No. To strengthen governing institutions, USAID in 2017 conducted trainings for 47 female members of parliament on accountability and transparency.
Are there gender trainings available from the MSYW for external players?	Through direct assistance to the BIH Gender Equality Agency, USAID aims to improve the system of protection for women victims of domestic violence. The activities should start in 2017, and will provide accredited training for frontline service providers and managers to improve their understanding of gender-based violence.
Does the recruitment of the staff follow a procedure that is gender equitable? (Does the system provide for quotas?)	According to data available from the Gender Index, in the lower House of Representatives, a 1/3 quota is in place on candidate lists for the 'underrepresented sex'. No quota is in place for the upper House of Peoples. Quotas are in place at sub-national level; again, one third of places. According to the Organization for Security and Cooperation in Europe (OSCE), only 16,2% of those elected following local elections to the Municipal Councils and Assemblies in 2012 were women.
Do gender focal points and/or women's representatives exist within the ministries/subsequent departments?	Yes. Gender Center of the Federation of BIH monitors the status of women and exercise of their rights guaranteed by the national and international legislation, coordinates its work with Gender Equality Commissions of both Houses of the Parliament of the Federation. They also coordinate their work with Gender Equality Agency of BIH, and the appropriate institution in Republic of Srpska. (Source: Government of Federation of Bosnia and Herzegovina, webpage)

d) Finances

Respondents to the disseminated questionnaire said they believe that energy cooperatives would improve gender equality in the country and provide much needed work opportunities.

Question	Bosnia and Herzegovina
Is “gender budgeting” a commonly used approach?	Gender budgeting isn’t commonly used in practice. VESTA Association, in 2007, realized a project Gender sensitive budgeting. Gender sensitivity of budgeting policy was considered for five municipalities of BH (Banovići, Bijeljina, Srebrenica, Travnik and Tuzla), and publication Recommendations and guidelines for gender sensitive budgeting in BH was developed.
Are climate change adaptation and mitigation plans and programmes an area of priority at the Ministry of Finance?	Since BIH is characterized by decentralized political and administrative structure; decision making involves the Council of Ministries, the two entities (FBiH and RS) and Brčko District. Based on mutual agreement, the BH Focal Point for the UNFCCC and climate change related programmes is the Ministry of Spatial Planning, Civil Engineering and Ecology of RS.
Are there funding schemes/subsidies etc. available to civil society organisations that have a strong gender focus?	According to UNDAF Report form 2016, scarce funding is available for gender programming.
Do any financial incentives, e.g. micro-credit schemes and other creative alternative funding mechanisms (revolving funds), exist to support small-scale innovative green and gender-sensitive technologies?	Yes. Revolving fund within Environmental fund of FBiH supports local green projects. There are some international initiatives in place, like USAID program designed to encourage public-private partnerships by matching funds from local municipalities for small projects that will increase incomes and create economic opportunities for female entrepreneurs.
Are tender procedures gender-responsive?	There are no indicators of gender responsiveness in public tender procedures. European Bank for Reconstruction and Development initiated new programme in 2017 to boost transparency and modernise procedures in public tendering in BIH.

Serbia

a) Legal framework

Question	Serbia
Does the Constitution provide for gender equality?	Constitution provides for equality regardless of gender (Art. 15). The Constitution provides for endorsement of international standards and guarantees for protection of human rights (Art. 18), including protection before international bodies (Art. 22), prohibition of lowering the attained level of human rights (Art. 20), prohibition of trafficking and forced labour (Art. 26), freedom to procreate (Art. 63), parental rights based on gender equality, special protection of reproductive rights, rights to asylum for fear of gender based persecution (Art. 57), for equality of spouses (Art. 62), and for equality of representation in the National Assembly (Art. 100) (Source: GENDER ANALYSIS FOR SERBIA, IPA, 2016)
Have international women's rights treaties been ratified/acceded to (such as CEDAW)?	Yes. Serbia has ratified all the international and regional treaties and conventions that set up standards in the fields of human rights, women's rights and gender equality.
Does the legislation include discriminatory provisions or implicit gender biases? In particular: a. Are the laws/regulations on public participation gender-responsive; taking into consideration outreach to stakeholders (in rural areas, to marginalised groups); ways of access to information (availability of internet access, etc.), set up of meetings (timing and locations); possibilities to submit comments (language issues, illiteracy)? b. Does the legislation related to climate change adaptation and mitigation refer to gender equality or is it discriminatory against women and girls? c. Is the labour and inheritance law gender-sensitive?	<p>a. Gender equality mechanisms (GEMs) exist to ensure local implementation of the Law on Gender Equality, and there are lax quotas to strengthen female participation in the administrative structures.</p> <p>There is no clear obligation related to public discussions, also stakeholders outreach. The draft of set of documents related to Planning system of Republic of Serbia has been prepared, including gender analysis and consultations, but is not adopted yet. The Article 41. In the Law on Government, related to public discussions, not recognise women or other vulnerable groups. Just public as a whole.</p> <p>b. Study published in 2015, Gender and Climate Change in the Republic of Serbia, with technical support from UNDP and financed by GEF, puts the issue of gender equality in global climate policy and action at the forefront. The authors tackle "why gender matters" in the context of climate change and subsequently what achievements have been made globally and in Serbia. The study finds that policy makers in Serbia are yet to recognize gender segregated vulnerabilities to climate change impacts, and to implement appropriate policy changes to provide solutions.</p> <p>Climate change adaptation legislation is not adopted yet. There is draft programme for response to emergency situations – DRR, includes gender responsive articles and obligation related to needs of women and girls.</p> <p>c. Laws regulating marriage and inheritance are not gender sensitive. Due to a few loopholes and stereotyped traditional practices, a joint matrimonial property of spouses is often registered as his</p>

	<p>ownership solely. Under the inheritance law, the surviving spouse is entitled to a minimum share of matrimonial property, but is not granted users rights to the matrimonial house for life. System of automatic joint registration has not been established. Gender based discrimination during employment and at work is prohibited by the Law on the Prohibition of Discrimination, the Law on Equality between Sexes, the Labour Law and the Law on Employment and Insurance in Case of Unemployment. The legislation guarantees equal earnings for the same work or the work of equal value. In case of a violation, penalty clauses are prescribed. While in the public sector this provision is respected, high level of complaints to the National Human Rights Institutions (NHRIs) and trade unions indicates numerous cases of violation of this provision in the private sector and at informal work. There is a lack of accurate data regarding the payment of earnings in the private sector, due to the lack of the mechanism of control (Source: GENDER ANALYSIS FOR SERBIA, IPA, 2016).</p>
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b) Policies

Question	Serbia
Does a national gender policy/action plan exist? Is gender mainstreaming part of the national gender policy?	Yes. Gender Mainstreaming is one of three overall objectives in National Strategy on Gender Equality (2016-2020). There is also the Law on the Budget System (2015) that introduces gender responsive budgeting, gender sensitive objectives and indicators in all budget programmes by 2020.
Do sector policies (e.g. re climate change) integrate gender mainstreaming?	<p>According to IPA pre-accession evaluation report from 2016, the progress has been made in harmonising legislation with the international and EU standards on gender equality, increasing efforts to mainstream gender through all sectors at all levels. Standing Conference of Towns and Municipalities (SCTM), the national association of local authorities in Serbia, has had a crucial role in promoting gender mainstreaming and capacity building at local level. Some of the newly adopted strategies and action plans have included gender sensitive measures, such as the Strategy for Agriculture and Rural Development (2014-2024), the Strategy to Support the Development of Small and Medium-Sized Enterprises (2015-2020) and the Sports Development Strategy (2014-2018) and the accompanying Action plan.</p> <p>There is a study developed by UNDP on gender issues in climate change policies in Serbia, but recommendations has not been integrated in policy development. Also, there are gender responsive measures in sector policies, but still without comprehensive gender analysis and available indicators.</p>

Is gender part of the curricula at schools, universities, e.g. compulsory for engineers?	Separated gender studies programmes exist, but there is no national curricula for other programmes. The Strategy for Gender Equality 2016-2020 sets gender sensitive formal education as one of specific objectives. The foreseen measures include increasing visibility of women's contribution to art and sciences. There is a need to eliminate gender stereotypes from textbooks and make them gender sensitive. It was also noticed that religious education in primary schools contributes to perpetuating subordinated role of women in the society and a family. (Source: GENDER ANALYSIS FOR SERBIA, IPA, 2016)
Are sex-disaggregated data collected within climate change reporting/work?	According to UNDP report on climate change and gender equality from 2016, there is a lack of sex-disaggregated data and information. Majority of Local self-governments do not record and collect gender disaggregated data within their scope of mandate and work, as demanded by the Law.

c) Governmental institutions

Questions	Serbia
Do the relevant ministries (e.g. MoE) have a gender action plan, including gender mainstreaming, for internal and external purposes?	Not yet. Good practices and initiatives by the key state actors to be realised in coming period have been observed. Affirmative measures for the advancement of women, including women belonging to vulnerable groups, have been included in the newly developed policy papers, as well as in the plans and programmes of the ministries and state institutions (Source: GENDER ANALYSIS FOR SERBIA, IPA, 2016). Serbia produced a Gender Equality Index in 2016, and it's the first EU candidate country to do that.
Are the gender action plans implemented?	Not entirely. In recent years, an evident progress has been made in promoting gender equality, but mainly with respect to improving legal and policy framework, while their implementation remains scarce and fragmented. The authorities in the AP Vojvodina lead in developing and implementing gender equality policies.
Are gender trainings available for all staff members within ministries and subsequent authorities/departments?	Gender training from 2017 became obligatory and regular part of education programmes for civil servants and decision makers within the HR Office of the Government of Serbia. Therefore, training is available but not specialised for Ministry of Energy. Education is not organized by Ministries, but civil servants may apply for the training, periodically organised by HR Office Ministry of Defence of the Republic of Serbia and the Serbian Armed Forces (SAF) developed the Training Manual on Gender Equality in 2016., within the "Gender Equality in the Military in the WB" project. The Manual is created to support education and training on gender equality for different target groups in the Ministry of Defence. Gender equality is also introduced in training materials of police officers from the basic to advanced level.

Are there gender trainings available from the MSYW for external players?	MoE has implemented numerous programmes aimed at fostering entrepreneurship, including entrepreneurship of women. About 12.000 firms applied for the governmental financial support; and 14.200 entrepreneurs passed training and workshops. The Ministry of Culture and Information has planned a gender sensitive budget in 2017 in order to support projects in this field. It will continue activities and training regarding eliminating gender stereotypes in the media. Up-to-date, more than 3000 women have passed gender equality training in various fields
Does the recruitment of the staff follow a procedure that is gender equitable? (Does the system provide for quotas?)	Partially. Thankful to the gender quota introduced in the election laws at national, provincial and local level, the participation of women in the political campaigns and in all the respective assemblies has significantly increased in past 15 years: from 12.4% in the National Parliament in 2000, to 33% in 2014 and 34% in 2016; from 7% as an average representation of women in the local assemblies in 2000, to 29% in 2014; from 6.7% of female deputies in the Assembly of AP Vojvodina in 2000, to 35.8% in 2016.
Do gender focal points and/or women's representatives exist within the ministries/subsequent departments?	The Gender Equality Council has been formed in 2004, and as a response to the lack of monitoring and reporting on gender equality issues, each ministry was required to appoint a gender equality focal point. At local level, due to the efforts of the Standing Conference of Towns and Municipalities (SCTM) in implementing the European Charter on Equality between Women and Men at Local level, a progress has been achieved in establishing gender equality mechanisms; in 2014, 90% of LSGs have established a gender equality mechanism, in comparison with 53% of LSGs in 2010. 71% of LSGs have appointed a gender equality focal point.

d) Finances

Most of the questionnaire respondents said they believe that energy cooperatives would improve the currently poor status of gender equality in Serbia.

Question	Serbia
Is "gender budgeting" a commonly used approach?	Not yet. The process begun in 2015, and was continued in 2016. UN WOMEN together with Coordination Body for Gender Equality provide assistance to Ministry of Finance in the process, and also to budget users. So far, 28 budget users at the national and 18 at the provincial level introduced GRB goals. Ministry of environmental protection (i.e. responsive for Energy) has not introduced GRB yet. The support consists of trainings and info sessions on preparation of gender responsive objectives and indicators. The first gender analysis will be prepared for Ministry of construction, infrastructure and traffic by the end of 2017.

<p>Are climate change adaptation and mitigation plans and programmes an area of priority at the Ministry of Finance?</p>	<p>No. In Serbia, the Ministry of Agriculture and Environmental Protection is the climate change focal point. In 2014, a Climate Change Committee was created to oversee and monitor all relevant policies; it includes representatives of all relevant ministries – including the Ministry of Finance, governmental institutions, universities and scientific institutions. MAEP is actively negotiating with the Ministry of Finance on this issue of establishing Green funds. The discussed model of Green fund is meant to provide the stable source of funding for infrastructure projects, national participation and local co-financing of projects (Source: Transposition and Implementation of Environmental and Climate Change Acquis 2015).</p>
<p>Are there funding schemes/subsidies etc. available to civil society organisations that have a strong gender focus?</p>	<p>There are no indications of national public funding opportunities that have a strong gender focus. Some international financial instruments are available, such as Canada Fund, which finances small projects to enhance the democratic, economic, cultural and social life in Serbia. In 2016, the Fund supported projects aligned with promotion of gender equality and empowerment of women and girls.</p>
<p>Do any financial incentives, e.g. micro-credit schemes and other creative alternative funding mechanisms (revolving funds), exist to support small-scale innovative green and gender-sensitive technologies?</p>	<p>There is a lack of funds for promoting small-scale private investments, such as solar PV on family houses. The 2014 Law on Planning and Construction regulated the creation of a one-stop-shop at the local and national levels, which may improve the situation and encourage investments in green technologies (Source: Cost-competitive renewable power generation: Potential across South East Europe IRENA, 2017). Related measures are proposed in National Strategy and Action Plan on gender equality (planned in 2017 and 2018). Other financial support measures comprise the following programs and possibilities:</p> <ul style="list-style-type: none"> (1) Annual budgets of the cities and municipalities, (2) Fund for Development of the Republic of Serbia ("Official Gazette of the RoS", 88/10), (3) Fund for Development of Autonomous Province of Vojvodina, (4) Local budget funds for environmental protection, (5) Provincial Secretariat for Energy and Mineral Raw Materials, (6) Clean Development Mechanism (CDM), (7) European Bank for Reconstruction and Development (EBRD), (8) German Development Bank (KfW) – loan for biomass granted to the Republic of Serbia, (9) Fund Green for Growth, (10) International Financial Corporation (IFC), (11) Italian Credit Facility – intended for small and medium enterprises, (12) European Investment Bank – financing projects of small and medium enterprises (up to 100% of the project value) and infrastructure projects launched by local authorities. (Source: National Renewable Energy Action Plan of the Republic of Serbia, 2013)

<p>Are tender procedures gender-responsive?</p>	<p>No. By implementing the project "Supporting LSGs in Serbia in the Process of the EU integration", supported by Sweden, the SCTM has had a crucial role in promoting gender mainstreaming and capacity building at local level – they also made gender analysis of local programmes in various sectors, such as public procurement. The report “Public Procurement and Gender Equality” by Belgrade Centre for Security Policy, published in 2015 , states that while the Law on Public Procurement does not explicitly define the implementation of gender equality in the public procurement process itself, the principles by which Serbia’s State Audit Institution Law reviews business performance can be read to stipulate gender equality and can be legally interpreted to define public procurement objectives as relates to furthering gender equality. The report concludes that gender equality in public procurement processes in Serbia’s institutions has not been duly respected.</p>
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Georgia

Questions for Expert Interviews on Renewable Energy Communities (RECs) and Energy Cooperatives

Country: Georgia

Date: 18.07.2017, 8:00 – 9:00

1. Do you know existing pilots/business models that are organised in form of either citizen's/renewable energy communities (RECs) or as an energy cooperative? Can you please explain what you know about them?

There are four existing Georgian cooperatives, with shares available at low prices so that many people can participate. So far, they sold 50 – 60 Solar Water Heaters (SWH) per year. Now the challenge is to continue the business model on a more sustainable basis.

- **Technology employed**

SWH and insulation

- **Drivers and their interest**

With increased access to insulation and SWH, the comfort for families improved. Lower consumption of firewood protects forests from unsustainable practices.

- **Socio-demographic background of involved citizens**

Involved citizens include villagers, farmers and housewives that are experienced in handcrafting (e.g. welding or plumbing).

- **Partners**

There are various international partners and NGOs involved, such as WECF.

A cooperative bank, ethic finance from Georgia.

Cooperation with marketing students who set up a website, social media (e.g. Facebook) and a marketing model.

Municipalities will probably play an important organizational role in the future.

- **Financial structure**

Cooperatives are financed by the shares of members. They can offer low interest loans to their members and cover members' shares with a 5-year payback time. The members will save money on energy costs, for example after SWH installation.

- **Business model and role of community members**

The community as well as municipalities are expected to become clients for the products (e.g. produced heat and electricity).

- **Which part of energy supply do they cover: production, distribution, transmission, storage, electricity, heat, traffic?**

Production, installation and distribution of SWH and insulation materials, covering the heating and energy efficiency sector.

- **Do they get support? If so, which kind? (i.e Feed-in tariff)**

In Georgia, no such support schemes are in place, but there is a political will. At present, there is a close cooperation between international partners and support by NGOs. For example, under the framework of NAMA implementation, subsidies for technologies are existing.

2. What is the main motivation in your country for important stakeholders (e.g. NGOs, agencies, municipalities, cooperatives, etc.) for RECs and energy cooperatives? Please name at least five items.

- Sustainable development;
- Forest protection;
- Increased comfort, especially for women;
- Access to renewable energy;
- Reduces labour burden, e.g. to prepare fire wood, heating the oven;
- SWH reduces indoor air pollution that causes suffering especially to women and children;
- Municipalities have to meet emission reduction targets. Members of the Covenant of Mayors have developed Sustainable Energy Action Plans (SEAPs). RECs can help to reach those targets;
- Communities have to equip schools and kindergartens, for example, with SWH, windows and roof insulation. E-coops could provide this service.

3. What are the main local benefits of community energy projects based on existing pilots?

- Economic benefits: Municipalities save money through using renewable energy; Households save up to 30% of energy costs (i.e. through SWH);
- Environmental and Forest protection: At present, forests are not managed sustainably in Georgia. Therefore, firewood cannot be considered as a carbon neutral source. Insulation and SWH reduce firewood consumption;
- Regional value chains: Local jobs are created. Normally developments and initiatives take place in big cities, leading to outmigration from the countryside to the city. The development of energy cooperatives is giving a perspective. It creates jobs and improves living conditions of families especially in rural areas;
- Upscaling potential: more job creation and consumption of local materials, more local development.

4. What are the main barriers for REC projects based on existing pilots?

At present, there is a lack of project demand due to non-existing marketing skills of cooperative members. This has something to do with SWH technology, which is working but still needs improvement. E-coops should develop one technology with a precise description and subject to verified and standardised check. To do this, we need more investment and machinery. We need to import certain materials, e.g. double heat exchangers, which can be costly.

Members are working voluntarily. At present, this is going well but it can become a problem in the future. NGOs who support the development of the E-coops also contribute a lot of volunteer work. This will not be a good perspective in the long term.

Political: Actually, there is no barrier, except that there is no existing law for E-coops. We need to lobby for tax exceptions. Political will to build up a renewable energy sector is existing.

Competitors: The market is unexplored, but cheaper Chinese solar collectors are widely available. We need to do better marketing and identify the advantages of our collectors (e.g. easy repair).

In general, there is very low awareness of Renewable energy and Ecology.

5. What is the transformative potential of local renewable energy initiatives for a big transformation towards low carbon energy supply?

The NAMA developed by WECF foresees transformative change. E-coops are focusing on renewable energy options replacing firewood and energy efficiency measures. If this is upscaled, households will use less energy, replace non-sustainable energy sources and save costs. This should be combined with efforts for sustainable forestry. Thus, the remaining demand for firewood can be met by a sustainable energy source but this still needs to be developed. Energy efficiency and insulation are also important to reduce the need for energy. However, the problem is that people use wet wood that causes stoves to burn inefficiently. With energy efficient stoves, people can burn dry wood at a slower and efficient rate.

6. Do energy cooperatives and renewable energy communities contribute to combat fuel poverty? If yes, please describe briefly how it can work.

Energy poverty is existent. For example, people cannot afford their energy needs. In some cases, they heat only one room and spend less money on hot water.

If they have a SWH, their hot water can be available at low cost. Observations showed that hot water use is increasing after installation of SHW.

Insulation: Houses will be much warmer without extra fuel consumption, thus increasing comfort for families.

7. Which type of support is needed for start-ups of renewable energy communities?

Support for the start-up is crucial. With the training for our e-coops, we started from scratch. Training on technology, capacity building on economic aspects, the whole idea of community energy is new in Georgia. This needs to be introduced by WECF.

At present, support for marketing and technological development is needed. Support in finding finance, established e-coops are afraid of talking to banks about loans and lack experience, for example, in making a proper business plan. Contacts with other European e-coops can provide motivation.

8. Which support is key for continuity of the initiatives?

- Marketing is very important to increase the demand;
- Develop a dialogue, planning with investors, banks;
- Technology should be perfectionated and standardised;
- Capacity building needs to be continued;
- Support of women in the cooperative. They can have a key role, e.g. through leadership trainings, gender trainings for the whole community.

9. How could you create and manage the RECs and energy cooperatives to boost women's leadership and women's involvement in energy supply and related (business) activities? Which instruments could you apply?

Installing a quota for women in management of the cooperative. As mentioned before, this should be written down in the statutes and trainings.

10. What is needed at the European level and which expectations do you have from other EU-countries?

- More climate financing for mitigation projects, e.g. EU or IKI;
- Support of WECF as a European organisation, as well as from other cooperatives like Energy 2030, Clean Power Europe, in form of investments, expertise in management or organisational issues. Building a partnership offers motivation;
- Covenant of Mayors is an important actor. However, if they really want to pursue their goals, we need effective climate finance instruments.

11. Could you provide us any facts and figures or sources about the impact of citizen's energy: number of jobs, increase of local value chain, less energy import, etc.

- Number of members: 128. If the E-coops make profit, they get dividends;
- People working for the E-coop: 16 people working, depending on the demand situation in full time or part time arrangements;
- Energy consumption can be decreased by 30% through SWH;
- 50 SHW have been sold by the established cooperatives; much less than expected. In Georgia, there are already 600 SWH. These have been installed by people that are now involved in the coop.

12. One of the advantages of cooperatives that is highlighted in Germany is the insolvency-proof company form: Energy cooperatives are extremely insolvency-proof and offer their members and business partners a high degree of security by regular monitoring through a federation of cooperatives (DGRV Bundesgeschäftsstelle Energiegenossenschaften 2007). Is this also true according to the legal/organisational framework of the respective country?

This is not the case in Georgia. No monitoring is required by law.

B) Moldova

Questions for Expert Interviews on Renewable Energy Communities (RECs) and Energy Cooperatives

Country: Moldova (Expert a)

Date: 05.09.2017, 18:00 - 19:00

1. Do you know existing pilots/business models that are organised in form of either citizen's/renewable energy communities (RECs) or as an energy cooperative? Can you please explain what you know about them?

In Moldova, we do not have such pilots/business models. Only individuals are trying to implement renewable energy. The concept is not well known.

2. What is the main motivation in your country for important stakeholders (e.g. NGOs, municipalities, cooperatives, agencies, etc.) for RECs and energy cooperatives? Please name at least five items.

One motivation for future cooperatives is the energy market. For the last five years, there has been development in Moldova's energy sector. Community energy is a good opportunity to develop future energy supply. Market conditions are favourable, but feed-in tariff for renewables is not yet existent.

3. What are the main local benefits of community energy projects based potential pilots?

- Reduction of greenhouse gas emissions, Moldova has to align with EU requirements;
- Impact for local energy independence. At present, there is a lot of imported natural gas from Russia;
- Cheaper energy resources, biomass is practically for free;
- Creating new jobs in villages, preventing outmigration to cities;
- Modernisation and diversification of energy sources. Infrastructure for thermal energy is old, but it can be improved. Opportunities depend on which source of energy is considered (e.g. thermal, natural gas, electricity);
- Using Photovoltaic, new grids can be constructed in villages that do not have electrical supply.

4. What are the main barriers for REC projects based on existing pilots?

- Finance: Moldova is a poor country. Industries are not developed, salaries are small and access to finance is low;
- Technology is very expensive, no domestic market, technologies have to be imported, customs duty adds to the price;
- Access to grid is not a problem. We have a national regulation agency that gives the tariffs, works very well and transparent. Connection of PV to grid is possible.

5. What is the transformative potential of local renewable energy initiatives for a big transformation towards low carbon energy supply?

Every person, including energy coops can contribute. E-coops can also work in villages, like a public private partnership. We can change the mentality, if you do projects that show success. I know some non-profit organisations that go in schools with volunteers to teach children about renewable energy and energy efficiency. This is great, but e-coops can also improve this idea and the image of renewable energy and energy efficiency. It would be great to have an example of what we can do in our country, instead of working abroad, as many people do nowadays.

This is a new field, where you can get money like that in business. A new kindergarten was built as a passive house in Calarasi town. KfW bank from Germany was the investor. The project was finished in April last year. This is the first passive house in the country and it was on every TV shows and news. This is an example on how to improve utilisation of renewable energy and increase energy efficiency.

6. Which type of support is needed for start-ups of renewable energy communities?

First of all, through financial support, like start up grants or loans, maybe we can create innovation funds. Some institutions that help start-ups with money, with information and legal framework. Like ESCO project

Other access to information about new technology, maybe a workshop with an international company or specialist. In addition, legal framework can be improved. In our legal framework, we do not have the model of an 'energy cooperative', only as 'cooperative'. The idea does not exist. However, in our legal framework we can establish an energy cooperative.

7. Which support is key for continuity for the initiatives?

Favourable climate by the government for e-coops to deliver services on our market and abroad. We have the customers, but we need the right climate of laws and regulations. Improvement of secondary legislation.

8. What is needed at the European level and which expectations do you have from other EU-countries?

First of all, we need technical assistance for legal framework. After that, when everyone knows about e-coops and we have conditions for this, it would be great if a partner from another country comes here and proposes some ideas. We are in the first step, actually zero step. If someone would come here with a project, I do not know if this could be developed on the first day. We need to go through all steps like a child. We are now like a one-year old child. We need to grow up with this idea. After that, maybe partnership can grow. Maybe some workshops like this organised by WECF. We were 20 persons, we talked and explained a little bit. I told my colleagues about it. If it would be more workshops, more people will know about this

Information, workshops, persons who work with this should tell us how we can do this. Maybe through secondary legislation, some documents, how to do an energy cooperative. Because this is new, we need to understand what this is.

C) Moldova

Questions for Expert Interviews on Renewable Energy Communities (RECs) and Energy Cooperatives

Country: Moldova (Expert b)

Date: 28.08.2017

1. Do you know existing pilots/business models that are organised in form of either citizen's/renewable energy communities (RECs) or as an energy cooperative? Can you please explain what you know about them?

Currently there is not such a project with citizen's energy. Energy cooperatives are possible according to the law. Energy cooperative is a good idea, but the establishment of cooperatives is very complex. Its process is not yet known very well. Rural Renaissance installed many solar water heaters (SWH). In majority, there are electrical boilers. About 80% of electricity is imported from Ukraine and Transnistria. Energy security is very weak and a big political issue.

SWH are already economic and enable the users (schools, kindergartens and private households, etc.) to save time and money.

Photovoltaic is also very interesting with the Green Tariff. With projects more than 3 kWp, you can sell the electricity into the public grid. With an accumulator, it would be very good, but still too expensive. The Green tariff is changing every year and does not provide security. After 10kWh, you have to be an entrepreneur and need special licences, which is not a problem for energy cooperatives. This could be an argument for cooperatives.

A new law on RE fosters the possibility for decentralized energy production.

2. What is the main motivation in your country for important stakeholders (e.g. NGOs, municipalities, cooperatives, agencies, etc.) for RECs and energy cooperatives? Please name at least five items.

Creating jobs, energy independency and increasing local value chain with public participation. People are very interested in climate change, RE and investment in innovative technologies

3. What are the main local benefits of community energy projects based on existing pilots?

- Economic benefits, cheaper energy, with SWH you can save 200€ per month for a public building for warm water;
- Becoming more energy and economic independent;
- Job creation, be active in Moldova and have jobs in the RE sector in the fields consultancy, planning, installation, service and maintenance and also manufacturing of SWH;
- Produce decentralized energy and increase the local value chain;
- Cooperatives can do more for the communities (e.g. income, tax, ownership feeling, etc.) and show the cooperative and democratic way of business;
- People want to see the impact like CO₂ emissions, now the results are more visible;
- Factory for SWH, components coming from China could create the SWH.

4. What are the main barriers for REC projects based on existing pilots?



Please mark the most important fields and describe them more in detail

- Authorities are not so interested; corruption is still high;
- It needs time and money to initiate projects in the long term;
- Schools could establish energy cooperation, but authorities do not do it (e.g.monitoring by ministries, etc.) because of lack of time. It is a lot of administrative work;
- 50% of production, you have to use by yourself to get the Green Tariff
- Missing information and experience in cooperative and democratic business models;
- Lack of trust in cooperative and community projects

5. What is the transformative potential of local renewable energy initiatives for a big transformation towards low carbon energy supply?

- Standardisation of cooperatives is important. It is a good moment to create them because of the legal situation and the interest of the citizens;

- Seeing the opportunities of development of RE in the communities. It is nothing new and could have a great impact on local and national (NDCs and SDGs) level;
- Utilities are receiving the money from administration. The laws changed regarding decentralization. Now, they are using the money on their own and are very interested to save, which is possible with RE. Cooperation with utilities would be a great step forward;
- Cooperation with authorities and other stakeholders is very important.

6. Do energy cooperatives and renewable energy communities contribute to combat fuel poverty? If yes, please describe briefly how it can work.

There is energy poverty in Moldova. It is very important to increase RE and energy efficiency. People have to learn about the possibilities, e.g. that they can afford SWH and save money. Campaigns, press releases, common projects etc. will show the possibilities and decrease of energy poverty.

7. Which type of support is needed for start-ups of renewable energy communities?

The key would be the tools for production, e.g. for SWH. Technology and awareness raising is the answer. The experience and know-how is existing. Study visits of factories in order to learn the principles, management, etc. would be very helpful. Project management and funding of energy cooperatives are important to learn. Experience exchange with other Eastern European Countries and Germany/Belgium/Denmark would be great.

8. Which support is key for continuity for the initiatives?

Qualification of people and marketing and visibility of the projects. Discussion and round tables with policy makers.

9. How could you create and manage the RECs and energy cooperatives to boost women's leadership and women's involvement in energy supply and related (business) activities? Which instruments could you apply?

There are women in the team, accountant, managers, etc. The interest of women to become engineer, production manager is very high. Majority of those SWH are targeting women, because basically, they use warm water in the household.

Consumer association starts to lobby the economy of national resources and housing infrastructure. All directors are female and field of interest is male and female. Trainings on technology and management for energy cooperatives for women can increase women empowerment and women leadership.

10. What is needed at the European level and which expectations do you have from other EU-countries?

- Local expertise in energy resources, cooperation with department in parliament dealing with national security;
- Support by EP for national law for decentralized and citizen's energy as top-down for the Moldovan Parliament;
- Experience exchange and strong lobby for renewable and decentralized energy projects in all European Countries.

11. Could you provide us any facts and figures or sources about the impact of citizen's energy: number of jobs, increase of local value chain, less energy import, etc.

Until now, data is not available. Members of NGO associations are interested in EE and RE and we could create it.

13. What else is of importance in your country for energy communities and energy cooperatives? References, publications, important stakeholders and organisations in your country.

The main point is promotion. We need a scenario or model of functioning. We have several examples here that use successfully RE such as PV for drying tea, etc. We need to promote this and the production of biogas, as autonomic as possible.

The message to the people should mention that it is not too expensive. The message is: "this is available for you". Partners: church, trade unions, etc.

The social and cultural change through best practise, successful pilots as bottom-up and good legal framework as top down

D) Ukraine

Questions for Expert Interviews on Renewable Energy Communities (RECs) and Energy Cooperatives

Country: Ukraine

Date: 07.09.2017, 16:00 – 16:45

1. Do you know existing pilots/business models that are organised in form of either citizen's/renewable energy communities (RECs) or as an energy cooperative? Can you please explain what you know about them?

At our latest event, we had representatives of two Ukrainian community energy projects. One small biomass cooperative in Ternopilska Oblast is growing. They decided to use biomass waste to produce briquettes for heating. Another one is that energy cooperative is now gathering members. They want to buy a solar PV panel to make a power plant. They will get a feed-in-tariff under the green tariff. I heard different versions of them, but these are the examples of genuine energy cooperatives.

2. What is the main motivation in your country for important stakeholders (e.g. NGOs, municipalities, cooperatives, agencies, etc.) for RECs and energy cooperatives. Please name at least five items

- For now, only this second energy coop is meant to earn money, it is founded within green tariff;
- In case of biomass coop, the motivation was to cut penalties. Before, they were just burning the raspberry stems/leftovers in the end of the season when they need to cut it down. In autumn, when it was happening, the state environmental authority fined them. They were not happy with this. Through UNDP finance, they bought a briquette press. So double motivation: avoiding fines and saving money on heating homes;
- Uniting efforts and resources, e.g. of local enterprises who have biomass resources but not enough to make it [economically] viable on their own;
- On my trainings, when we were teaching persons how to start a cooperative, I understood that people are interested in earning money, especially within the green tariff, not so much in biomass. They regard the cooperative mainly as a means of earning money.

3. What are the main local benefits of community energy projects based on existing pilots?

- Economic: People are either saving or earning money, so less wealth is going on energy spending. If there are enough of local e-coops, they will be helping to national energy security with less dependence on import. We have this traditional idea of money staying on site.
- Ecological: When people unite, they see they can do more, break out of this vicious circle of feeling helpless against ecological problems.
- Social: Transition to a community. If you are part of your own energy supply, you connect more to your neighbour, talk more, and you get more responsibility.

4. What are the main barriers for REC projects based on existing pilots?

Most important is excessive regulations. If we gather in a cooperative which supplies a community, it will still be regulated as a national supplier. It is no problem to supply with biomass. However, if you use the [electricity] grid, a bunch of regulations kicks in.

There is a strong barrier in the heads of people. They do not really know how to unite around the same goal. For example, housing cooperatives often own their own grids. In most cases, they have metering devices only between their own grid and the grid of bigger operator. They do not count the energy use of individuals leading to huge conflict. To solve this problem, you need to have a good mix of helping people to understand and right education.

Lack of finance: if coops would have some kind of zero interest, financing this would be great. Current rates in Ukrainian banks are crazy.

Our laws on coops are restrictive. In case of Ukrainian law, we need a definition of what an energy cooperative actually is. If a state servant does not have this definition, there will be massive administrative barriers.

5. What is the transformative potential of local renewable energy initiatives for a big transformation towards low carbon energy supply?

- I think that an energy cooperative has potential to bring more democracy to the energy sector
- Energy production can happen more locally
- Creating energy resilient communities, that do not depend as heavily on central sources
- More money is left in communities
- People start to form a coop and start being more aware and motivated to save energy because they own their infrastructure, it is not some stranger supplying them with energy. Like this, they will be becoming more aware of environment and resources in the long term

6. Which type of support is needed for start-ups of renewable energy communities?

- Main challenge is lack of understanding that this model is possible
- Lack of skill to calculate the results of forming an energy cooperative
- Financing: people usually do not trust banks, it is quite risky
- Maybe there is a good reason to try to work with rich neighbourhoods, which have financial capacities to have a good example

7. Which support is key for continuity for the initiatives?

Need for a support centre that people can just call e.g. when establishing a process as an information hub. This could be regional or international

Another thing that allows to partially solving this problem: we are finalising the draft of law on energy cooperatives. We are working on advocating, but we do not feel strong enough.

8. How could you create and manage the RECs and energy cooperatives to boost women's leadership and women's involvement in energy supply and related (business) activities? Which instruments could you apply?

For me, it is a different type of question. There should be no special tools as Ukrainian women are quite active. The coop I spoke about was formed under heavy influence of women. Demonstrating such ownership brings down stereotypes about women. The best evidence here would be just showing these women that they are leaders.

The basis of the coop is that it is based on free will, which means that anyone can become a member. If we have a coop with three women, five men and two transgender, figuring out quotas would make no sense, their goals count more. In many areas in Ukraine, you can see female predominance, especially in older generation. This means we can easily come to a situation where we have more women than men when starting an initiative.

In the statutes and practices, there should be no discrimination at all. If it comes to energy and property, there should be no discrimination. For example, if a coop owns a microgrid, there is potential for discrimination. Maybe if coop members do not like certain people who want to connect to the grid, they will charge higher prices. There is free will [within a cooperative], but this means there can be discrimination. If people seize to be members, they must still have the opportunity to continue use of the grid etc. This has to be thought through.

9. What is needed on European level and which expectations do you have from other EU-countries?

- There are not so much expectations. The biggest is the fourth energy package;
- Why we do not form cross-border cooperatives, parts of members would be in Ukraine and parts in other countries;
- Trans-border cooperative unions, good opportunity even for investing;
- Dream: EU opening up a 0% credit line esp. in Ukraine or provide other financing instruments;
- If EU could help lobbying the draft law that would help.

10. One of the advantages of cooperatives that is highlighted in Germany is the insolvency-proof company form: Energy cooperatives are extremely insolvency-proof and offer their members and business partners a high degree of security by regular monitoring through a federation of cooperatives (DGRV Bundesgeschäftsstelle Energiegenossenschaften 2007). Is this also true according to the legal/organisational framework of the respective country?

We do not have this. We were thinking that it would be much easier to have this umbrella structure like in Germany. However, this does not work easily. You have to have a number of coops, before you can unite them. The German system is good, but Ukrainian associations of cooperatives are not in a good shape. This would also require basic amendment to law on cooperation in Ukraine.

E) Armenia

Questions for Expert Interviews on Renewable Energy Communities (RECs) and Energy Cooperatives

Country: Armenia, Date: 01.08.2017, 10:00 - 11:00

1. Do you know existing pilots/business models that are organised in form of either citizen's/renewable energy communities (RECs) or as an energy cooperative? Can you please explain what you know about them?

No energy cooperative experience yet but only agricultural coops. Our initiative in Basin will be registered as a production cooperative. We do not know any other production cooperative, only the legal possibility.

2. What is in your country the main motivation for important stakeholders (e.g. NGOs, municipalities, cooperatives, agencies, etc.) for RECs and energy cooperatives. Please name at least five items

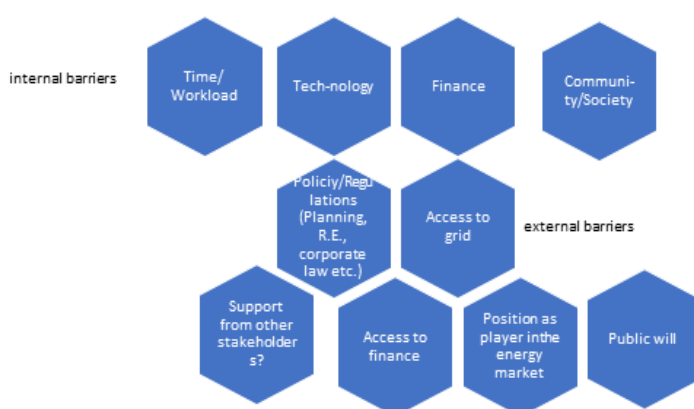
For members of energy coops:

- Promotion of clean energy sources;
- They can be owners of renewable energy sources;
- Juridical form of coop is democratic and equal – 1 member- 1 voice;
- The community can increase its energy independency;
- Members receive dividends.

3. What are the main local benefits of community energy projects based on existing pilots?

Same as above.

4. What are the main barriers for REC projects based on existing pilots?



Please mark the most important fields and describe them more in detail.

- People do not know the concept and do not really believe it will work;
- People do not have much money to invest. If they want to participate, they need to find money
- No political or legislative barriers; only psychological and financial barriers

5. What is the transformative potential of local renewable energy initiatives for a big transformation towards low carbon energy supply?

There is a potential for upscaling. The pilot of Basin will be upscaled further. Because members will get dividends and other benefits, more people will want to invest.

6. Do energy cooperatives and renewable energy communities contribute to combat fuel poverty? If yes, please describe briefly how it can work.

Yes, electricity will be provided for a lesser price to the members, so people will use less fuel and more (cheaper) electricity. I think that the energy produced by the coop will be cheaper.

7. Which type of support is needed for start-ups of renewable energy communities?

- need to explain the possibilities and benefits of energy cooperatives
- support in organisational questions
- find investors to participate

8. Which support is key for continuity for the initiatives?

To produce good results and experience in practice. If our initiative works well, it will be the best example and inspiration for the continuity of this direction.

9. How could you create and manage the RECs and energy cooperatives to boost women's leadership and women's involvement in energy supply and related (business) activities? Which instruments could you apply?

There are no barriers for women to participate, there are many active women and no one prevents them from doing what they want or participate in the cooperative. This question seems to me like a bit of artificial problem. There are quite a few examples from civic initiatives, where women play the mayor role. For example, our CLEEN partner AWCY, and also the director of our Seed Grant recipient is a woman. Quota could be in the status, and if you want, we can do so.

10. What is needed on European level and which expectations do you have from other EU-countries?

- Exchange of experience – which barriers and accomplishments have been met and overcome by EU cooperatives;
- It would be interesting if EU countries do investments. This is more than just a transfer of money. EU countries learn from our country traditions. We learn about their achievements. This is good for both sides. Basin will open up to the world and will not keep on 'boiling in its own waters'. Friendship is good for the world.

11. Could you provide us any facts and figures or sources about the impact of citizen's energy: number of jobs, increase of local value chain, less energy import, etc.

N/A

12. One of the advantages of cooperatives that is highlighted in Germany is the insolvency-proof company form: Energy cooperatives are extremely insolvency-proof and offer their members and business partners a high degree of security by regular monitoring through a federation of cooperatives (DGRV Bundesgeschäftsstelle Energiegenossenschaften 2007). Is this also true according to the legal/organisational framework of the respective country?

I do not know, but I will find out

**13. What else is of importance in your country for energy communities and energy cooperatives?
References, publications, important stakeholders and organisations in your country.**

Our initiative will be the first experience of its kind in Armenia.

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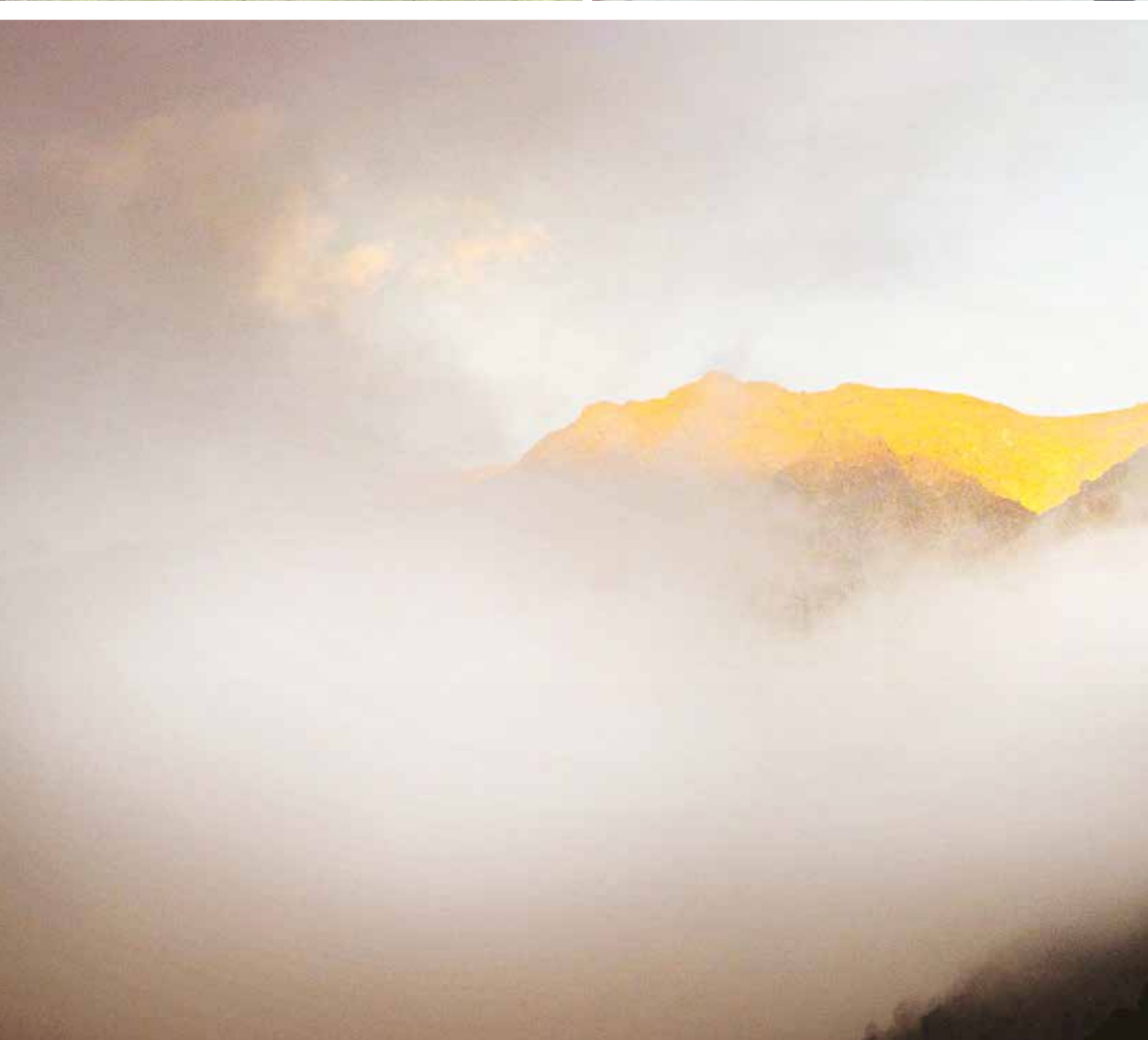
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