

**TOWARD GENDER-INFORMED ENERGY SUBSIDY REFORMS:  
FINDINGS FROM QUALITATIVE STUDIES IN EUROPE AND CENTRAL ASIA**

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EUROPE AND CENTRAL ASIA

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## BACKGROUND

Since the 1990s, most states in Europe and Central Asia (ECA) have embarked on energy sector reforms. These have included removing subsidies, which has resulted in increased end-user costs for energy. Energy sector reforms have consisted of a broad set of policies: unbundling and privatizing energy sector institutions; establishing independent regulatory bodies; and eliminating unsustainable subsidies to energy companies, among others. While these reforms have progressed at a different pace across the region, in the majority of countries they have already resulted in some degree of energy cost increase to households, prompting policy makers to consider different mitigation policies to protect energy affordability. Cold climates that require intensive energy use for heating, along with a legacy of heavily subsidized energy utility services with almost universal coverage, make the expected welfare and social impact of tariff reforms in the ECA region especially daunting. Even in countries where consumers still enjoy relatively low energy costs, pending reforms have generated some policy thinking on possible mitigation measures, especially for poor and vulnerable groups.

The research presented here comprises an integral part of a set of qualitative studies on poverty and social impacts of energy subsidy reforms. In particular, it examines what it means for energy subsidy reforms to be more gender sensitive. The purpose of this research is to illustrate the extent to which energy subsidy reforms in the ECA region differently impact men and women. Prior global studies on gender and energy<sup>1</sup> suggest that men and women have different priorities when it comes to energy use; that the reforms may have unequal effects on their well-being; that they face different challenges in interacting with energy providers or social assistance institutions; and may have different views on and knowledge of policy reforms. By shedding more light on the gender aspects of energy reforms in ECA, this study seeks to understand whether gender-specific behavioral change and corresponding mitigation measures (such as gender-targeted awareness-raising and communication efforts or facilitating men's and women's access to relevant support pro-

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1 See ENERGIA network on gender and energy policy ([www.energia.org](http://www.energia.org)); Cecelski, 2000; Dutta, 2009; Sreeku-mar, 2009; Oparachoa and Dutta, 2011; UNDP, 2004; Köhlin et al., 2011; and Clancy et al., 2003,





Women in focus group discussion, Bulgaria.

grams) would help men and women better adapt to these reforms.

**Findings were collected through focus group discussions and interviews held in eight ECA states.**<sup>2</sup> Between February 2013 and May 2014, 208 focus groups and 131 interviews were conducted. Questionnaires included targeted questions on gender impacts. In addition, focus group discussions were held separately with men and women to compare gender-specific differences regarding attitudes toward reforms, coping strategies, and ways in which men and women perceive rising energy costs impact themselves and their household. In-depth interviews were conducted with representatives from energy provider institutions, social assistance offices, civil society, and local leaders. In Bulgaria, Croatia, and Romania,

<sup>2</sup> Armenia, Belarus, Bulgaria, Croatia, the Kyrgyz Republic, Romania, Tajikistan, and Turkey. A detailed discussion of the methodology is included in the annex.

dedicated interviews on gender issues were held with local experts on women's rights and social assistance workers. These offered a perspective on gender and energy sensitivity in a broader context of gender equality issues in these countries. This qualitative research has also served as a basis for a wider study of the social impacts and acceptability of energy reforms in ECA, presented in a separate report (World Bank, n.d.c).

**The target audience for this study is development practitioners, public officials, and civil society actors involved in social sustainability and the communications aspects of energy reform policies.** This research is also of relevance to researchers who collect household data, as it could help them understand how cultural norms expressed within the household can have different impacts on individuals, and help researchers design diagnostic tools that





Unemployed father and his two youngest children,

Tajikistan, semi-urban area.

can better unpack such intra-household differences. In addition, it may be of interest to energy providers interested in broadening or improving outreach and feedback mechanisms to male and female customers.

**The extent to which energy sector reforms in ECA impact men and women differently is not always obvious.** This is partly due to historical reasons that have fostered weak public discourse and poor understanding of gender inequality.<sup>3</sup> In addition, as energy is essential for daily life, it is difficult to discern different patterns and priorities in its use within

<sup>3</sup> Under communism, governments propagated their commitment to gender equality and adopted policies and legislation to this effect, particularly in the sphere of employment. In 1990, ECA states performed well relative to other regions in the world on indicators such as female literacy, women's labor force participation, lowering maternal mortality rates, women representation in parliament, and so on (World Bank, 2013c). Still, important social, political, and cultural inequalities have persisted; Spehar (2008) notes that "in communist countries women were empowered and disempowered at the same time by gender policies and cultural praxis." The same study also suggests that the social and economic position of women has worsened during the post-Communist transition.

the household. The fact that energy affordability and access palpably influences everyone in the household makes gender issues not only difficult for researchers to observe, but also makes it challenging for focus group respondents and interview subjects to articulate how men and women are differently impacted. Qualitative research is well suited to explore this topic because it allows for an open and broad discussion of all factors that may influence impacts on men and women. Comparing the perceptions expressed independently by men and women supports the analysis as much as their spontaneous reactions to gender-related questions.

**Findings on gender impacts are also highly contextual and cannot be generalized or used to form universal recommendations for disparate locations.** Gender issues related to the reforms may vary substantially across the ECA's subregions, settlement types (urban or rural), and social and ethnic groups, among other elements. Within the sample of

this research, gender differences in impacts and attitudes were found to be higher in rural areas relative to urban ones; higher in Central Asia relative to Eastern Europe; and higher among the Roma minority compared to non-Roma in the new EU member states. These differences stem from multiple factors, including strength of cultural norms and traditions, employment and migration patterns, degrees of access to information, and so on. This research explores a consistent set of questions across the region, such as household decision-making on energy access and use, coping with energy expenses within the household, and attitudes to energy reforms. Rather than serve as a source of universal recommendations, however, the report draws upon general trends and elaborates on some differences observed across subgroups; it aims to illustrate a range of gender-specific vulnerabilities that policy makers and researchers could account for.

**The way in which gender impacts are experienced and understood also varies depending on each country's reform context.** In Belarus, where tariffs for energy utility services had not grown substantially at the time of research, and customer relations regarding energy services were still predominantly managed by state-owned communal housing institutions, respondents have fewer observations on how rising energy costs may affect men's and women's behaviors, burdens within the household, and their relationships with providers. In the context of Belarus, men's and women's perspectives on the reforms are also more

uniform compared to countries where tariffs have grown more substantially. Country-specific challenges with regard to energy supply and availability also affect the ways in which men and women experience energy reforms across countries. For example, rural residents in Armenia, the Kyrgyz Republic, and Tajikistan—especially those in remote locations—experience either prolonged shortages or weaker electricity supply, as well as increasing costs for wood and coal. Such households rely more strongly on collected fuels such as brushwood, manure, and agricultural subproducts. This directly impacts the workload of women, who are most often responsible for collecting these fuels.

**Qualitative findings indicate that gender-related vulnerabilities in energy reforms occur for the following reasons:**

- the relative economic vulnerability of women and female headed-households;
- intra-household roles related to energy use, and to procurement of energy sources and appliances;
- impacts of household coping strategies on the well-being of both women and men;
- behavioral differences in how women and men interact with relevant institutions such as energy providers and social assistance offices.

These themes are discussed in more detail below.

## GENDER VULNERABILITIES RELATED TO INCOME, AGE, AND LABOR MARKET PARTICIPATION

**Key informants in the study stress that economic vulnerability is a critical gender issue with respect to energy tariff reforms.** As a result, they identify elderly women living alone—and female-headed households more broadly—as groups whose ability to afford energy for basic needs may be disproportionately at risk. This opinion is mostly related to the fact that women have lower salaries and lower pensions; that elderly women are at a high risk of poverty due to their incomes and longer life expectancy; that women have lower labor market participation; and that women often face more constraints than men in seeking additional employment, whether in their location or as migrants.

**Quantitative data for the ECA region confirm some of these findings** (World Bank, 2014b). In all countries in this study, women’s monthly wages are lower than men’s. The gender pay gap<sup>4</sup> is significant in the Caucasus and Central Asia (27 percent in the Kyrgyz Republic; 36 percent in Armenia; 51 percent in Tajikistan) and also in Belarus (26 percent) and less stark in new EU mem-

ber states. Women’s labor force participation is lower than men’s across the region, but significantly lower in some states, such as Turkey and Armenia.<sup>5</sup> These two states also show higher unemployment rates for women, while in the rest of the region unemployment rates do not vary substantially by gender.

**Study respondents point out that discrepancies in earnings are partly a result of gender wage gaps and partly due to women’s higher propensity to accept part-time and lower paid employment.** Representatives of NGOs that work on gender-related issues in Romania and Bulgaria note that in a context of scarce employment opportunities, women would be more likely to accept jobs below their qualifications, or flexible and lower paying jobs, which affect their overall earnings. They claim that as a result, households that rely solely on women’s earnings tend to have lower incomes than those where only men are working. Female focus group respondents who are their family’s primary breadwinners sometimes elaborate on this. They state that even though they are economically empow-

4 As a percent of men’s monthly wages, unadjusted.

5 For reference, the ECA and OECD average is 62 percent labor force participation for women and 77 percent (ECA) and 79 percent (OECD) for men.

**TABLE 1. GENDER DIFFERENCES IN LABOR FORCE PARTICIPATION, UNEMPLOYMENT, AND WAGES, 2013**

|                 | Labor force participation<br>(% population aged 15–64) |       | Unemployment<br>(% of labor force) |       | Gender pay gap<br>(average monthly earnings as % of men’s wages) |
|-----------------|--|-------|------------------------------------|-------|--|
|                 | Men  | Women | Men                                | Women |  |
| Armenia         | 75   | 55    | 21.9                               | 35.0  | 36   |
| Belarus         | 70   | 62    | -                                  | -     | 26   |
| Bulgaria        | 72   | 63    | 12.3                               | 10.0  | 19   |
| Croatia         | 70   | 59    | 13.7                               | 13.2  | 10   |
| Kyrgyz Republic | 83   | 60    | 7.2                                | 9.2   | 27   |
| Romania         | 72   | 57    | 7.9                                | 6.8   | 11   |
| Tajikistan      | 78   | 61    | -                                  | -     | 51   |
| Turkey          | 76   | 30    | 9.2                                | 11.3  | -  |

Source: World Bank, 2014b., World Bank, 2015.

ered, they feel pressure to support the family alone because their husband would rather face a longer period of unemployment than accept a job below his level of education or experience.

“He avoids responsibility when he leaves all decision on me. He doesn't work for 20 leva/ day<sup>6</sup> but I have to work and find a solution.”

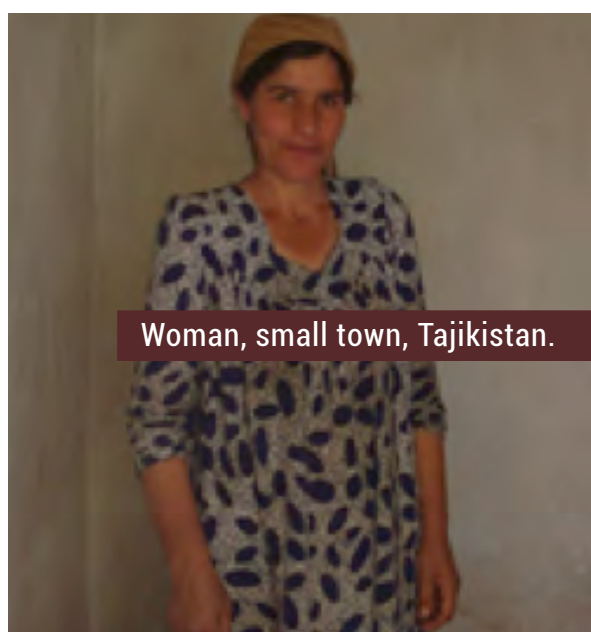
—WOMAN IN SOFIA,  
BULGARIA

“I have to always find the money for everything: bills, food, for the children to have one lev when they want to go

<sup>6</sup> Approximately US\$12 (1 Bulgarian lev equals approximately US\$0.60).

out. It is always ‘mom, mom’ and mom takes out money from somewhere ... I hope he finds works sooner.”

—WOMAN IN SOFIA,  
BULGARIA



"If I have to sweep the floor,  
I'll do it, how can I leave  
my child hungry."

—MIDDLE-AGED WOMAN,  
ARMENIA

**Elderly women are increasingly vulnerable due to their lower pensions and higher life expectancy.** The World Bank ECA Gender Brief (World Bank, 2013a) notes that the demographic trends in the ECA region may result in its elderly population being predominantly female. At the same time, the gender gap in pensions and the fact that more women may fall outside the pension system contributes to a higher poverty risk for older women. According to a representative of an NGO that

works on gender-related issues in Bulgaria, women receive pensions that are 2.5 times lower than men's, and women over 65 face a risk of poverty that is three times higher than for men. She attributes this to women having fewer years of work experience, and to the fact that traditionally "female jobs" (teachers, public clerks, and so on) are classified in a lower pension category, which results in lower pensions than some traditionally "male" jobs (in construction, engineering, and so on).

**A decline in public child care services over the past few decades, as well as lack of elderly care, contribute to a cycle of lower female labor force participation.** Women face longer gaps in employment due to the need to care for children or for sick and older relatives, which results in fewer years of so-

#### BOX 1. WOMEN, MIGRATION, AND ENERGY BILLS IN TAJIKISTAN

Ethnographic interviews in Tajikistan reveal that the presence of remittance income can be a key determinant of whether the family can afford to pay electricity bills and buy heating fuels for the winter. It is common for migrants to send money home in the summer/fall that is dedicated to purchasing wood or coal for the winter. A household's ability to procure energy sources can change drastically in the event a migrant loses a job, returns home, or stops sending remittances.

"Abandoned wives" and their households in Tajikistan constitute an increasingly vulnerable group, and one that is also hard to identify and reach with assistance programs. A 2009 IOM study estimated that up to one-third of labor migrants may settle permanently in the host country. The same study also found that families abandoned by migrants often live in primitive conditions without much support from family or extended family.

Overall, female-headed households in Tajikistan are more vulnerable in accessing energy sources because of fewer income-generating opportunities, constraints to participating in labor migration, and the fact that procuring fuels such as wood, coal, and bottled gas is traditionally seen as a male responsibility.

*Sources: World Bank, 2014a; IOM, 2009.*

cial security contributions and lower pensions. Working at home or accepting informal employment has the same consequence. A social assistant worker in Bulgaria reports that families have the option to arrange for a spouse to make social security contributions to the homemaker, yet few households do so because they lack information, formal marriage status, and so on.<sup>7</sup> In Turkey, respondents mention that women's chances for employment are also made worse by urbanization; as families move from rural areas to urban neighborhoods, they lose a support network for child or elderly care, which often prevents women from seeking jobs outside of the home.

**Male focus group respondents often voluntarily mention that women are generally more vulnerable to rising energy costs because they are less able to find additional employment.** For urban male respondents, finding additional jobs in construction, security, or a similar industry is a common coping strategy to manage the higher cost of living, including paying higher utility bills. They think women have fewer such opportunities to supplement their income. Such jobs often require heavy physical labor as well as flexibility with time, which women may not have due to child care or other household responsibilities.

"A man can earn money in addition to his job much easier, much better. But to send your wife 'Go carry that rubble!' or 'Go, bring a car from

<sup>7</sup> This issue also reflects a legacy of a social contract where pensions are seen as the state's responsibility, and citizens may lack knowledge, financial literacy, or initiative to plan for retirement in the case of flexible employment. Women who stay at home to care for children, or who work part-time, are likely to be affected.

Germany!' ... That's human nature, that's how God made the world. I haven't seen or I don't know situations of two women friends discuss: 'I have something I want you to help me with' or 'I have some acquaintance who needs 2–3 women to wash her windows.' But men discuss in a different way: 'See, that persons is moving out, he needs 2–3 persons. Are we going? We make money for a beer, and also make a buck!'"

---

—YOUNG MAN,  
UNSKILLED EMPLOYEE, CLUJ, ROMANIA

**Women, on the other hand, are less likely to explicitly state that they are more vulnerable.** Some mention that they take on additional knitting projects, take care of elderly persons outside their house, sell self-produced foods, plants, or crafts at the market, and so on. Yet, the implications that gendered division of labor within the household has on women's ability to seek additional paid employment deserve additional consideration in the context of women's ability to cope with the rising cost of services. The World Development Report on gender equality (World Bank, 2013c) estimates that across the world women spend a higher share of their time on unpaid domestic work such as housework and care for other household members compared to men.

**Migration—a key source of income for many households in the ECA region—**



**often has a defined gender profile.** In Tajikistan, for example, labor migration is a prevalent source of income, especially for rural and semi-urban households. Over 95 percent of labor migrants from Tajikistan are male, and the remittances they send home are often a key source of cash for making electricity and fuel payments. At the same time, the high reliance on remittances has negative implications for female-headed

households without a migrant, or households, in which a migrant has abandoned and/or stopped supporting the family (see Box 1). In the Caucasus and Eastern Europe, migration is also an important source of income in economically depressed regions. In some regions of Bulgaria, Romania, and Croatia, respondents state that women are more likely to obtain work abroad as caregivers in Western Europe.

## GENDER VULNERABILITIES RELATED TO ENERGY ACCESS AND USE

**Overall, respondents across countries agree that a household's total energy consumption is determined less by gender** and more by the household's size, the presence of children, and the age of household members. For example, many believe that older generations are more likely to save energy, as they live more economically. On the other hand, households with children are less able to save energy because of the need to cook frequently, have spaces well heated and lit, and so on.

**At the same time, most respondents agree that women perform most of the household chores that require energy—**cooking, washing, and using cleaning and washing appliances (when available). Thus, their activities can impact the household's overall energy consumption on a daily basis. In countries as distinct as the Kyrgyz Republic and Bulgaria, many focus group respondents even believe that energy use would be higher in households with only women, compared to ones with only men.

"A man does not use energy. He goes out in the morning, comes back in the evening. Everything is done by women."

---

—MIDDLE-AGED WOMAN,  
ARMENIA

"If there is no woman in the house then man will not cook anything by himself, he will not even want to stay."

---

—MAN,  
RURAL KYRGYZ REPUBLIC

In other countries, such as Belarus and Romania, respondents are ambivalent on whether a household's energy consumption would be different if only men or only women lived in the house.

**Even though they are high users of energy within the household, women are not always involved in making decisions about which energy sources or appliances to use.** In more traditional contexts (such as the Kyr-

gyz Republic), men frequently make decisions about whether to purchase new appliances, and which type. In other countries, respondents are more likely to mention that such decisions are made jointly. In Bulgaria, for example, questions on how women and men choose appliances caused lively discussion. Most agreed that men are better informed about an appliance's technical characteristics, energy efficiency, and reliability, so households are more likely to defer to men's decisions. However, even in more traditional communities, some respondents offered very different opinions.

"In our families, we submit to our men because they are the ones to earn all or most of the money, so they make the decision. That way if there is a problem they cannot accuse us for having made the wrong choice. We are housewives. We might discuss things but we listen to them."

---

—ROMA WOMAN,  
LITAKOVO, BULGARIA

"We don't even dare to touch the appliances, for instance, they don't allow us to touch washing machine, because we don't know how our wives have adjusted it and are afraid we could spoil something... The man is a guest in the family. He should pay for everything, but only women decide how the household will be organized and they do the housework."

---

—ROMA MAN,  
LITAKOVO, BULGARIA

"We always decide together; and each one of us, for his domain, decides the brand. For example, I won't let my wife choose the drill I use, because I'm the one who does all the repairing in the house. Or the polishing machine. But I don't intervene in the way she chooses her hair dryer, either. But regarding what we use in common, that's where we make decisions together: this is good, this one is better, but we can't even dream of it because of its price."

---

—ELDERLY MAN,  
CLUJ-NAPOCA, ROMANIA

A "burzhuika" stove commonly used in Central Asia to burn wood, manure for coal, or heating and cooking during the winter.





Stack of dried manure to use as fuel in the winter, Armenia.

**It is largely a man's responsibility to procure wood, coal, and bottled gas; female-headed households face more obstacles and extra costs to obtain these energy sources.** In all countries in the sample, men are in charge of purchasing, transporting, and storing wood or coal. This is partly a result of the physical labor involved in such tasks, but it also reflects reliance on mostly male social networks—communicating with forest rangers and wood traders, the majority of whom are men. Female-headed households face some informational and social constraints in finding and negotiating the purchase of heating fuels, and they generally outsource its transport, storage, and preparation (such as chopping wood) at an extra cost. Some female-headed households, especially those headed by elderly women, say they prefer to use electricity for heating, and to heat a smaller space in the house, to avoid the cost and labor associated with heating on wood (even though wood

is overall a much cheaper source of energy). Similarly, purchasing bottled gas for cooking is considered a man's job; even though it is cheaper than electricity, many female-headed households prefer not to use it for safety concerns as well as to avoid having to buy and transport gas bottles.

**On the other hand, it is largely a woman's responsibility to collect fuels such as brushwood, manure, and agricultural byproducts.** Poor rural female-headed households may rely heavily on such sources, as noted by rural women in Tajikistan and rural Roma women in Romania. These sources do not have a cash value but are costly in terms of women's time. In some cases, they are obtained as payment for agricultural labor. For instance, agricultural laborers in Tajikistan's cotton sector note that sometimes they receive cotton stalks as payment or additional payment for their work.

## IMPACT OF COPING STRATEGIES ON WOMEN AND MEN

**Qualitative data reveal a number of detrimental coping mechanisms to which households consistently resort in order to manage higher energy costs.** These include minimizing energy consumption as much as possible (such as heating less space in the house or only heating at night, and not using electric appliances); cutting spending on food (by switching to lower quality foods, reducing meat consumption, and so on); reducing spending on clothing and keeping medical expenses to a minimum; and giving up any nonessential expenses such as recreation, social activities, and cultural celebrations. These coping mechanisms have direct and indirect impacts on a person's health, nutrition, and overall well-being.

**Women are both more aware of, and more heavily affected by, the household's efforts to manage energy expenses.** As women are more often in charge of managing the household budget and purchasing food, clothes, and other basic goods, they are also more likely to mention a wide range of strategies that the household employs to cope with higher utility bills. In Armenia, women in focus group discussions mentioned twice as many coping strategies used by the household, compared to

men. Women are more likely to mention reducing their social activities and cutting personal expenses on health care and cosmetics. Men tend to highlight reduced spending on clothing and trying to cut energy consumption. In all countries in the study, women appear more cognizant of deprivations in the household as a result of efforts to reduce energy expenses.

"My monthly bill is 50–70 lira. Prior to privatization I could pay the bills every 2 months; now they charge late payment fees and monitor more closely. We eat less to pay the bills... In winter we cannot heat the house; the children get sick very often."

---

—LOW-INCOME WOMAN,  
URBAN AREA, TURKEY

**Women are often perceived as more likely to prioritize energy payments at the expense of their own needs.** In the Kyrgyz Republic, respondents note that women are more willing to cut spending on themselves first—such as for clothes or entertainment—



Gas stove, Tajikistan

before cutting spending on food, education, and medical needs. Men admit that they spend less on social activities, or on items such as beer and cigarettes, only as a last resort. For men, cutting spending on such activities is seen as a sign of serious financial struggle. In Belarus, women report that cutting meat consumption—a common coping strategy—is a measure more suitable for women than for men and children. Women are also generally seen as more responsible than men, and likely to prioritize bill payments at their own expense.

“My son would look at the bills and think ‘These need to be paid. But I also need to eat. Oh! Forget the bills, I can pay these tomorrow.’”

---

—ELDERLY WOMAN,  
CLUJ, ROMANIA

“In my family, my father and my husband are very different.

My father is...

how should I put it?

Like a woman. ... If they were both left with paying bills, my father would handle well and my husband would be in debt. My father would prioritize paying bills; he would save money from food. My husband, if he had an amount of money, he would think ‘Should I pay the bill or go eat? I should go eat.’”

---

—YOUNG WOMAN,  
CLUJ, ROMANIA



“You see, even if men are more determined, women think more about moderation, no matter what.”

—ELDERLY MAN,  
RURAL AREA, ROMANIA

**Reducing heating and using appliances less often has a more significant impact on female household members.** In Armenia, the Kyrgyz Republic, and Turkey, women who stay at home say that most of the time they do not heat the house during the day when other family members are out. In Romania, Bulgaria, and Croatia, many respondents note that they refrain from using appliances such as washing machines and vacuum cleaners, and instead do household chores by hand. This results in more time and effort for women, who are more frequently the ones responsible for housework.

Women in Bulgaria and Croatia complain about the “night vigils” during which they try to cook and wash after 10 pm, when the electricity tariff is lower. These impacts are frequently mentioned by middle-income women in the sample, who have more recently felt the impact of rising energy costs on their saving habits.

**On some occasions, cultural stereotypes contribute to women bearing a higher burden for managing energy costs.** Respondents in the Kyrgyz Republic state that it is more common for women to borrow money from friends or relatives to cope with energy payments in difficult times, as asking for money is culturally unacceptable for men. It also sometimes associated with negative stereotypes—for example, a man who asks for money might have a drinking problem. Such stereotypes are also observed in other countries in the region, and impact the way men relate to social assistance institutions.



Men gather in a café, Turkey.

In Belarus, for example, focus group respondents note that social assistance is often perceived as serving “drug addicts and alcoholics.” This stigma associated with social benefits makes citizens less likely to turn to such sources of help when experiencing difficulties with utility payments.

“Men usually ask women to borrow money and they will return the money, by turn.”

---

—WOMAN,  
URBAN AREA, KYRGYZ REPUBLIC

**Both men and women embrace energy efficiency measures as a way to cope with high expenses. Men are better informed and proactive about applying such measures, while women are more likely to report that they are mostly interested in the amount of money that can be saved.** Insulation repairs are commonly perceived as

a “man’s job.” In focus group discussions, men exhibit more knowledge about the technical aspects of improving energy efficiency through insulation or changing appliances. It is usually more affordable for households to conduct small insulations repairs themselves, and men are more often able to undertake these. For example, in Belarus, men mentioned a much wider range of energy efficiency improvements than women, mostly repairs they have done at home: answers included “use energy efficient appliances,” “insulate walls behind radiators,” and “use quality bathroom fixtures to reduce water consumption.” This knowledge is also specific to men’s and women’s social circles. In Tajikistan, many male migrants—even those in rural areas—are well informed about insulation options because they work in Russia’s construction sector. Women are more interested in the economic aspects of energy efficiency, such as costs and potential savings, but such information is not readily available in the public space.

## THE ROLE CULTURAL NORMS PLAY IN INTERACTIONS WITH INSTITUTIONS

**The research suggests that even in countries where traditional gender roles are less defined, cultural norms impact the way men and women relate to institutions such as energy providers and social assistance offices.** Interacting with energy providers is more often a male responsibility and is linked to qualities of authority and assertiveness, as well as an assumption that men are better informed about the technical aspects of such inquiries. Women are more likely to interact with social assistance offices, as they are viewed as more patient and having more time to wait in lines, collect documents, and so on.

**In most contexts, men are perceived as being more effective when it comes to asserting themselves as consumers vis-à-vis energy institutions.** For this reason, men are more likely than women to interact with energy providers to seek information, report service problems, inquire about inconsistent bills, and so on. In urban areas, it is not uncommon for women to mention that they are usually in charge of routine interaction with providers, such as paying bills, but they say they would send their husband to resolve a grievance. Men are seen as more demanding and assertive and overall more likely to suc-

cessfully resolve the issue. Many women find that contesting service or billing problems is too stressful and time consuming, and has an uncertain result. Some female respondents in Bulgaria who live alone report that they would rather pay a higher bill than have to contact the energy company for an explanation.

“I ask them to tell me how they compute the district heating [bill], they say it is very complicated you will not understand it. I say, I am an engineer I will understand.”

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—WOMAN,  
SOFIA, BULGARIA

“He is openly saying if there is something bothering him and he would not leave the building until he received a clear explanation. I could go as well, but it would be best if he went.”

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—YOUNG WOMAN,  
CLUJ, ROMANIA

Some respondents in the Kyrgyz Republic expressed opposite opinions. They considered women to be better suited to resolve grievances, as customer service representatives are also mostly women.

“Men are less inclined for escalation. If there is a need to resolve an issue with a supplier, they will not go. A man would rather send a woman there, because there are mostly women working in the service sector. A man cannot argue with a woman, if she raises her tone the man will step back. Men are afraid to brawl with stranger women.”

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—MIDDLE-INCOME WOMAN,  
URBAN AREA, KYRGYZ REPUBLIC

**Gender differences are also observed in the way men and women understand and relate to energy reforms more broadly.** Men tend to be better informed about energy reforms on the whole, and feel more confident exercising their rights as consumers. Men’s estimates of prior tariff increases are on average more accurate than women’s, and men are able to list more possible reasons for tariff reforms. Women are not as informed about reasons for tariff reforms and are rarely proactive in seeking information (as some explained, they “do not want to seek bad news”). When asked whether any service improvements may justify an increase in energy tariffs, men tend to mention a wider range of improvements than women. Women are more concerned with price



Women's discussion group in  
southeastern Turkey.

and affordability since they are more attuned to how the reform will impact the household budget. In Belarus, even though women are more often in contact with communal service offices, men have relatively more information about energy producers and current housing legislation. Women’s lack of knowledge is partly due to their lack of interest; the fact that energy reforms may be less discussed in their social network; and they have fewer opportunities to be exposed to technical information about reforms—women are more likely to communicate with women, and men with men, and fewer women work in technical professions related to the energy sector.

**Women are more often in contact with social assistance institutions for cultural as well as economic reasons.** In Romania, focus group respondents state that women are more likely to fill out social assistance applications, as women are viewed as more patient and having more “free time” to wait in line and visit different institutions to collect documents. In Bulgaria, respondents also report that women deal with social assistance matters more often than men because men would be ashamed to seek benefits. In Armenia, women share simi-



lar observations: answers included “women are more patient and result driven [when it comes to collecting documents for benefits]” and “women think more about their family needs, than about individual aims.”

**Men tend to avoid dealing with social assistance institutions partly because of social stigma and partly because of the time it takes to prepare applications.** Men state that they are more likely to spend time pursuing an additional job than applying to social assistance. Kyrgyz Republic respondents also share that it is inappropriate for men to seek social aid, as men are expected to be gainfully employed. Their applications may not even be accepted, as social assistance officials might see them as less deserving of aid compared to female applicants. Some women mention that their husband will only speak to social assistance offices if there is a problem with the application that needs to be resolved in a more assertive way. In addition to cultural norms, women are more likely to be recipients of social benefits because

female-headed households are more often economically disadvantaged. Women usually take care of the children in case of divorce or separation, and are the ones who receive family benefits.

**While it is more socially acceptable for women to interact with social assistance offices, bureaucratic or logistical issues sometimes impede their access to benefits.** A representative of an NGO that works on gender-related issues in Bulgaria shares that after introducing direct deposit payments of social benefits, it appeared that about one-third of female beneficiaries did not have a bank account. For rural women, distance from social assistance centers and other public institutions is an additional impediment to applying for benefits if they do not travel to a regional center as often as men. Lack of education or poor language skills may also impede women’s access to benefits, particularly minority women (Roma, Kurdish) who need additional assistance to prepare their applications.



Elderly couple, rural area, Bulgaria.

## GENDER VULNERABILITY IN ROMA COMMUNITIES

**In the Eastern European sample of the study—Bulgaria, Romania, and Croatia—gender differences are much more pronounced in Roma communities.** Firstly, gender discrepancy in these countries—in economic and human development indicators—is wider among the Roma than non-Roma. Secondly, Roma communities are generally more conservative compared to the ethnic majority in their societies, although variations exist across Roma communities and traditional social norms apply more strongly.

**Within their communities, Roma women are more disadvantaged than non-Roma women in economic terms.** Gender differences in literacy rates among Roma is wider than that for non-Roma (with men being more likely to achieve literacy). Unemployment rates are more than twice as high for Roma than for non-Roma women, and the gender gap in unemployment is greater among the Roma than non-Roma. Moreover, Roma women are three times as likely as non-Roma to report that they have felt discriminated because of their gender. In Bulgaria and Croatia, 10 percent and 9 percent of Roma women, respectively, state they have experienced gender discrimination compared to only 3 percent of non-Roma.

In Romania, 11 percent of Roma women report being discriminated because of their gender, compared to 1 percent of non-Roma women (UNDP, World Bank, and EC, 2011).

**Roma also have less information about energy reforms, especially Roma women.** Roma respondents state they are rarely in contact with energy providers. The wide majority of Roma women interviewed are not aware of tariff increases and have no sources of information beyond their communities.

**Roma men interact more often with all institutions than do Roma women.** In Romania, Roma women state that social assistance workers suggest that men should be the primary applicants if they want to successfully receive benefits. This is often related to property registration and the fact that men can more easily prove their income (salary or pension) because they are more often the ones employed. Romania Roma women also mention that they need to convince social assistance workers that they do not receive support from male partners who work abroad or at home.

**Roma women may be particular targets of ethnic prejudice, for example, they are more**



**likely to be accused of taking advantage of social assistance.** In Bulgaria, social assistance issues often provoke ethnic hostility against Roma, who are believed to disproportionately

benefit from assistance compared to non-Roma. This hostility is more often directed at Roma women who are believed to have many children and stay single in order to collect benefits.

## CONCLUSIONS

**While gender vulnerabilities in energy tariff reforms within societies and within households are not always easily discernible, qualitative findings help to highlight some aspects of gender sensitivity:**

- (i) women are more likely to sacrifice their time and well-being to cope with higher costs of energy, relative to other household members;
- (ii) women are potentially important agents in encouraging behavioral change toward energy efficiency, but are not as proactive in trying to implement energy efficiency improvements;
- (iii) female-headed households, on average, are at an economic disadvantage due to women's overall lower incomes and additional constraints that may prevent women from complementing their income with additional jobs and/or participating in labor migration;
- (iv) energy affordability for elderly women who live alone and on a fixed low income deserves special consideration across the region;
- (v) women are less aware of their rights

as energy consumers and less successful in addressing their concerns with energy providers;

- (vi) women are less informed about tariff reforms in general;
- (vii) cultural norms and time-consuming applications may be a disincentive for vulnerable men to pursue social assistance.

**Women have strong incentives and the potential to change behaviors toward greater energy efficiency, but often don't know how to be more engaged in such efforts.** Women are acutely aware of the impact of rising energy costs—both on their own needs and well-being and on their efforts to manage the household budget. They are burdened by coping measures such as staying home in the cold during the day, doing chores by hand to save on using appliances, compromising personal expenses, and curbing socialization. At the same time, energy efficiency investments—which offer options to reduce energy consumption “smartly” without compromising basic needs and heating comfort—are predominantly the domain of men. Information available about energy efficiency

is often technical, available to a narrow, specialized audience and thus more frequently spread among men's social circles. Women can be "activated" to explore and promote energy efficiency investments by receiving more information about the economic benefits (costs and potential savings) of energy efficiency improvements and appliances.

**Female-headed households' economic vulnerability needs to be considered when designing mitigation measures in energy subsidy removal.** Across the region, elderly women who live alone constitute an especially vulnerable group due to their low pensions, inability to supplement their income, and the physical demands of using wood and coal for heating; the latter results in an additional financial burden of paying to transport, store, and chop wood. Such households may require higher social assistance and/or additional support to ensure that their income is sufficient for basic needs, including heating, utility bills, and food. In contexts of high male migration and low opportunities for cash income earnings locally, such as in Tajikistan, female-headed households also may need additional support to secure funds for heating and to pay energy bills.

**Strengthening administrative systems—such as for information, grievance, and redress—can reduce the influence of traditional "gender norms" in interactions with institutions.** Women are often perceived—and perceive themselves—as unable to resolve grievances with energy providers, as they are not authoritative or assertive enough, or lack technical knowledge. To a greater extent than men, they feel powerless to demand better quality of service. Energy providers or other public institutions do not always address cus-

tomers inquiries systematically. For example, a heating company representative in Bulgaria explains that grievances are compiled, and only the ones deemed "relevant" are followed up on. This indirectly creates obstacles for women who are more reluctant to assertively approach institutions to seek their rights. In the presence of clear and well-enforced grievance and redress mechanisms, women can be more aware of and confident about their rights as consumers.

**Strengthening consumer rights can also affect women's overall acceptability of reforms.** Prior global studies have shown that service providers' greater responsiveness to consumers' grievances and concerns can make citizens more amenable to higher prices for services.<sup>8</sup> The current research also reveals that women who are reluctant to interact with energy providers are also more passive about understanding the specifics of tariff reforms. Their attitude is closer to resignation than acceptance. They are aware of their obligation to pay rising bills but do not feel they have the opportunity to exercise their rights as consumers on issues regarding service quality or bills.

**At both national and local levels, communication campaigns regarding tariff reforms need to consider men's and women's distinct social circles and interests.** Information presented in a technical manner, or through direct communication upon request or customers' insistence, is often less likely to reach women, minorities, and more vulnerable customers. Complex or detailed legal/technical information on tariff reforms may also fail

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<sup>8</sup> For example, a "social compact" approach to electricity services in the Dominican Republic led to decreasing illegal connections and improving company revenues (World Bank, n.d.a). See also Hall, 2014; Strand, 2011.

to widely improve the public's understanding of the reforms among both men and women. Communicating about reforms in simpler language and through local channels—local news outlets, public offices, building managers, local utility service centers—may be an effective way to raise awareness among both men and women and consequently reach a broader segment of society.

**With regard to social assistance benefits, reducing bureaucracy, formalizing eligibility criteria, and improving communications may help increase men's accessibility to such programs.** Traditional norms may impede vulnerable men from seeking social assistance for fear that it is socially inappropriate or that they will be rejected. These risks can be diminished by sensitizing social assistance workers to avoid bias when processing applications and minimizing the discretion of social assistance workers in deciding eligibility. Communicating more openly about available social assistance options and eligibility—such as in work place environments—may also encourage all eligible households (those that include both men and women) to consider applying for assistance. Simple and more flexible procedures would also facilitate access to social assistance offices by men, who attach a high opportunity cost to applying to benefits (such as losing a chance to search for a full- or a part-time job).

**Finally, this research confirms the value of collecting gender-segregated data in assessing the poverty and social implications associated with energy reforms.** Both qualitative and quantitative data are required to understand aspects of gender vulnerability. Data on economic activity, employment, migration, and salaries and pensions of men and women in given regions and ethnic communities help assess whether energy tariff reforms may present a higher risk to affordability for men or women. Administrative data that records men and women as applicants and beneficiaries of social services; as registered customers of energy utilities; and as customers who submit grievances and receive answers to their inquiries or resolution to their complaints help determine whether men and women have equal access to relevant institutions. To collect such data, utilities may need support in strengthening grievance and redress mechanisms, and in maintaining gender-disaggregated records of submitted inquiry and grievance cases and their resolution. Qualitative data is well suited to unveiling gender sensitivity due to entrenched social norms that are exhibited in the public space as well as within the household. Thus, continuous monitoring of reforms' gender impacts would require consistent attention to collecting disaggregated data.

## REFERENCES

- Cecelski, Elizabeth. 2000. "From Rio to Beijing: Engendering the Energy Debate." *Energy Policy* 23 (6): 561–75.
- Clancy, J. S., M. Skutsch, and S. Bachelor. 2003. "The Gender-Energy-Poverty Nexus: Finding the Energy to Address Gender Concerns in Development." DFID Project CNTR998521, Department for International Development, London.
- Dutta, Soma. 2009, July. "Policy Innovation Forum for Gender and Poverty Sensitive Energy Policies." *ENERGIA News*. [http://www.energia.org/fileadmin/files/media/en-072009\\_dutta.pdf](http://www.energia.org/fileadmin/files/media/en-072009_dutta.pdf),
- Hall, Margaux. 2014. "Experimentalism in Social Accountability Programming: Lessons from Sierra Leone." Presentation in Core Course on Social Accountability, March 5.
- IOM (International Organization for Migration). 2009, August. "Abandoned Wives of Tajik Labor Migrants: IOM Study on the Socio-economic Characteristics of Abandoned Wives of Tajik Labor Migrants and Their Survival Capabilities." Report, IOM, Dushanbe, Tajikistan. [http://www.iom.tj/pubs/abandoned\\_wives\\_English.pdf](http://www.iom.tj/pubs/abandoned_wives_English.pdf).
- Köhlin, G., E. Sills, S. Pattanayak, and C. Wilfong. 2011. "Energy Gender and Development: What Are the Linkages? Where Is the Evidence?" Policy Research Working Paper 5800, World Bank, Washington, DC.
- Oparaocha, Sheila, and Soma Dutta. 2011. "Gender and Energy for Sustainable Development." *Energy Systems* 3 (4): 265–71.
- Spehar, Andrea. 2008. "Gender Equality Policy Development in Post-Communist Central and Eastern Europe. Good or Bad for Women?" *Inblick Östeuropa*. <http://www.inblickosteuropa.se/?p=/2articles/16/spehar.html>.

- Sreekumar, N. 2009, July. "Energy Sector Reforms and Energy Access: Regulation and Incentives to Enhance Energy Access by the Poor and Women in Privatizing Energy Markets." ENERGIA News. [http://www.energia.org/fileadmin/files/media/en-072009\\_sreekumar.pdf](http://www.energia.org/fileadmin/files/media/en-072009_sreekumar.pdf).
- Strand, J. 2011. "Low-Level Versus High-Level Equilibrium in Public Utility Services." Report, World Bank, Washington, DC.
- UNDP (United Nations Development Programme). 2004. "Gender and Energy for Sustainable Development: A Toolkit and Resource Guide." Report, Bureau for Development Policy, Energy and Environment Group, New York.
- UNDP, World Bank, and EC (European Commission). 2011. "Regional Roma Survey."
- World Bank. 2013a. "Gender." Washington, DC: World Bank. <http://www.worldbank.org/en/region/eca/brief/gender>.
- World Bank. 2013b. Little Data Book on Gender. Washington, DC: World Bank. <http://data.worldbank.org/products/data-books/little-data-book-on-gender>.
- World Bank. 2013c. World Development Report 2012: Gender Equality and Development. Washington, DC: World Bank. <http://www.worldbank.org/en/topic/gender/publication/gender-at-work-companion-report-to-world-development-report-2013-jobs>.
- World Bank. 2014a. "Assessment of Household Energy Deprivation in Tajikistan: Policy Options for Socially Responsible Reform in the Energy Sector." Report, World Bank, Washington, DC.
- World Bank. 2014b. "Europe and Central Asia: Gender at a Glance." Country Notes, PREM Network, World Bank, Washington, DC.
- World Bank. 2015. "Europe and Central Asia: Gender at a Glance: ECCU8" Country Notes, PREM Network, World Bank, Washington, DC.
- World Bank.n.d.a. "A Case Study in Using 'Social Compact' to Improve Service Delivery in Dominican Republic Electricity Distribution." Presentation by Sarah Keener.
- World Bank. n.d.b. "Tools to Understand and Address Social Issues in Energy Tariff and Subsidy Reforms in Europe and Central Asia." Report, World Bank, Washington, DC. Forthcoming.
- World Bank. n.d.c. "Understanding Social Impacts and Improving the Acceptability of Energy Subsidy and Tariff Reforms." Report, World Bank, Washington, DC. Forthcoming.



## ANNEX. METHODOLOGY AND EVIDENCE BASE

This annex presents a detailed description of the qualitative research methodology and country samples on which this analysis is based. It includes:

- (i.) an overview of the methodology; and
- (ii.) structure of focus group and interview samples by country

Complementary quantitative data, which has been quoted in the report above, is referenced in footnotes in the relevant sections of the main report, as well as in the report's References section.

### I. METHODOLOGY OVERVIEW

This research was conducted in eight Europe and Central Asia states in which the World Bank has engaged in energy policy dialogue through analytical or lending projects. In these countries, comprehensive poverty and social analysis of energy subsidy reforms has been conducted. A qualitative study was implemented in each state to examine citizens' perspectives on social impacts of reforms, as well as their knowledge of and attitude toward the reforms. This report distills findings relevant to gender vulnera-

bilities in energy subsidy reforms from these qualitative studies.

The analysis of gender-specific vulnerabilities is based on both responses to direct questions regarding gender differences as well as on comparing perceptions of the reforms expressed independently by men and women in separate focus group discussions. This approach allowed researchers to observe differences in attitudes, awareness of, and experience with tariff reforms across genders that were voiced directly by respondents, as well as any trends in the way men and women express their perspectives on the reforms. In addition, gender-specific concerns with energy reforms were examined during key informant interviews with representatives of energy and social assistance institutions and nongovernmental organizations.

The **focus group discussion guide** included questions along four general themes:

- access to energy sources and patterns of energy use within the household;
- coping with rising energy costs, including applying energy efficiency mechanisms or using alternative energy sources;

- perceptions of and experience with social assistance and other support programs; and
- knowledge of and attitude toward the reforms.

Under each of topic, moderators included direct questions regarding gender differences and vulnerabilities. In Bulgaria and Romania, researchers found it challenging to elicit sufficient information on gender from the broad focus group guide; hence a gender-specific guide was developed and applied to an additional subsample of focus groups. An example of both discussion guides is available in an accompanying toolkit (World Bank, n.d.b).

A local research firm conducted field research in each country. While the same discussion guide was applied in all states, some modifications were introduced in each respective country guide after the methodology was pilot tested to ensure that the questions were understood by respondents, and sensitive to the local context.

**Country samples** were selected in cooperation with local research teams and with World Bank staff involved in energy sector reforms from other practices, in order to include a variety of energy consumers. All country samples included groups in large city, small town, and rural locations; groups with households using different types of energy as a main heating source (such as district heating, wood or coal, gas, electricity); and households in different geographic locations and/or climate areas, such as mountainous or valley regions. In order to capture the views of specific groups of interest, sample categories were further segregated to include beneficiaries and nonbeneficiaries of social assistance; representatives of ethnic minorities; and low- and middle-income group respondents. Low-income respondents were recruited to represent roughly the bottom two quintiles, and middle-income ones to represent the third quintile (in the Kyrgyz Republic, the third and fourth quintiles). A detailed structure of focus group and interview samples by country is presented in Section II of this annex.

|                 | Number of focus group discussions | Gender focus group guide applied | Number of in-depth interviews |
|-----------------|-----------------------------------|----------------------------------|-------------------------------|
| Armenia         | 30 (16 female, 11 male, 3 mixed)  | -                                | 12                            |
| Belarus         | 18 (3 female, 3 male, 12 mixed)   | -                                | 11                            |
| Bulgaria        | 29 (13 female, 10 male, 6 mixed)  | In 6 focus groups                | 13                            |
| Croatia         | 20 (10 female, 10 male)           | -                                | 12                            |
| Kyrgyz Republic | 31 (12 female, 12 male, 7 mixed)  | -                                | -                             |
| Romania         | 32 (16 female, 16 male)           | In 6 focus groups                | 15                            |
| Tajikistan      | 28 (14 female, 14 male)           | -                                | 14                            |
| Turkey          | 16 (5 female, 5 male, 6 mixed)    | -                                | 41                            |

## II. STRUCTURE OF FOCUS GROUP AND INTERVIEW SAMPLES BY COUNTRY

### ARMENIA

| N  | Name of community | Settlement type | Location (Marz) | Gas supply? | Gender | Income | Receiving family benefits? | Employment |
|----|-------------------|-----------------|-----------------|-------------|--------|--------|----------------------------|------------|
| 1  | Saralanj          | Rural           | Kotayk          | No          | Male   | Low    | No                         | employed   |
| 2  | Spitak            | Urban           | Lori            | Yes         | Female | Low    | No                         | employed   |
| 3  | Spitak            | Urban           | Lori            | Yes         | Female | Low    | yes                        | unemployed |
| 4  | Tsovagyugh        | Rural           | Gegharkunik     | Yes         | Female | Low    | No                         | employed   |
| 5  | Jil               | Rural           | Gegharkunik     | No          | Male   | Low    | No                         | unemployed |
| 6  | Jil               | Rural           | Gegharkunik     | No          | Mixed  | Middle | No                         | employed   |
| 7  | Sevan             | Urban           | Gegharkunik     | No          | Female | Low    | yes                        | unemployed |
| 8  | Lchashen          | Rural           | Gegharkunik     | Yes         | Male   | Low    | yes                        | unemployed |
| 9  | Shirakamut        | Rural           | Lori            | Yes, partly | Male   | Low    | No                         | employed   |
| 10 | Shirakamut        | Rural           | Lori            | Yes         | Female | Low    | No                         | unemployed |
| 11 | Ghursali          | Rural           | Lori            | No          | Female | Low    | No                         | unemployed |
| 12 | Shamlukh          | Urban           | Lori            | No          | Female | Low    | yes                        | Unemployed |
| 13 | Shamlukh          | Urban           | Lori            | No          | Male   | Middle | No                         | Employed   |
| 14 | Arapi             | Rural           | Shirak          | No          | Female | Middle | No                         | Employed   |
| 15 | Arapi             | Rural           | Shirak          | No          | Mixed  | Low    | Yes                        | Unemployed |
| 16 | Kamo              | Rural           | Shirak          | Yes         | Male   | Low    | No                         | Unemployed |
| 17 | Kamo              | Rural           | Shirak          | Yes         | Male   | Low    | No                         | Unemployed |
| 18 | Gyumri            | Urban           | Shirak          | No          | Female | Low    | Yes                        | Unemployed |
| 19 | Balahovit         | Rural           | Kotayk          | Yes         | Female | Low    | No                         | Employed   |
| 20 | Balahovit         | Rural           | Kotayk          | Yes         | Female | Low    | Yes                        | Unemployed |
| 21 | Jajur             | Rural           | Shirak          | No          | Female | Low    | No                         | Unemployed |
| 22 | Spitak            | Urban           | Lori            | Yes         | Male   | Low    | No                         | Employed   |
| 23 | Gyumri            | Urban           | Shirak          | Yes         | Female | Low    | No                         | Employed   |
| 24 | Yerevan           | Urban           | Yerevan         | Yes         | Female | Low    | No                         | Employed   |
| 25 | Nor Hachen        | Urban           | Kotayk          | No          | Female | Low    | No                         | Employed   |
| 26 | Yerevan           | Urban           | Yerevan         | Yes         | Mixed  | Middle | No                         | Employed   |
| 27 | Yerevan           | Urban           | Yerevan         | Yes         | Male   | Low    | Yes                        | Unemployed |
| 28 | Yerevan           | Urban           | Yerevan         | Yes         | Female | Low    | No                         | Unemployed |
| 29 | Gyumri            | Urban           | Shirak          | No          | Male   | Low    | No                         | Employed   |
| 30 | Charentsavan      | Urban           | Kotayk          | Yes         | Male   | Low    | No                         | Unemployed |

*In-depth interviews*

| N  | Key Informant Agency  | Title  | Location |
|----|---|--|----------|
| 1  | Social assistance worker administering family benefit                 | Senior specialist of social service                        | Spitak   |
| 2  | Gas provider key representative                                       | Deputy head of the department of gas administration        | Sevan    |
| 3  | Electricity/gas provider representative, Electric Network HPS         | Electrical inspector                                       | Sevan    |
| 4  | Local government  | Chief specialist of local municipality                     | Sevan    |
| 5  | Social assistance workers administering family benefits               | Social security employee responsible for rural communities | Akhuryan |
| 6  | Electricity/gas provider representative, Armenian–Russian gas company | Gas inspector  | Artik    |
| 7  | Social Administration   | Senior specialist of social service                        | Gavar    |
| 8  | Local government  | Community leader, head of village administration           | Kamo     |
| 9  | National Liberal Movement NGO   | President  | Yerevan  |
| 10 | Ministry of Labor and Social Affairs                                  | Head of the department on social assistance                | Yerevan  |
| 11 | R2E2 Fund–Armenia Renewable Resources and Energy Efficiency           | Director   | Yerevan  |
| 12 | Electricity gas provider key representative                           | Chief Executive Officer                                    | Yerevan  |

## BELARUS

The sample covered urban and rural areas in different regions:

- 4 regional centers (300,000+ inhabitants): Minsk, Gomel, Grodno, Mogilev
- 4 large cities (100,000–300,000): Pinsk, Baranovichi, Borisov, Bobruisk
- 4 middle-sized towns (50,000–100,000): Kobrin, Polotsk, Zhlobin, Volkovisk
- 4 small towns (10,000–50,000): To-lochin, Kalinkovichi, Smorgon, Vileika
- 2 rural settlements (<10,000): Verhnedvinsk (Vitebsk region); Kruglow (Mogilev region)

| With social assistance benefits                      |   | Low-income<br>bottom two income quintiles, no more than 2 mln<br>BYR per capita |   | Middle-income<br>3rd and 4th income<br>quintile—from 2 mln<br>to 3.5 mln BYR per<br>capita |
|--|---|---|---|--|
|  |   | With social<br>assistance benefits  | Without social<br>assistance benefits                                       |  |
| Urban  | District heating (block<br>of flats/multi-dwelling<br>houses) | 2 (mixed)   | 5:<br>Pilot (Polotsk, mixed)<br>2 (mixed)<br>1 (men only)<br>1 (women only) | 4:<br>Pilot (Minsk, mixed)<br>1 (mixed)<br>1 (men only)<br>1 (women only)                  |
|  | Using other energy<br>sources, gas or wood<br>for heating     |   |   | 1 (mixed)  |
| Rural<br>(small<br>town or<br>rural set-<br>tlement) | District heating (living<br>in blocks of flats)               | 1 (mixed)   | 2:<br>1 (men only)<br>1 (women only)  | 1 (mixed)  |
|  | Other energy sources,<br>gas or wood (living in<br>houses)    | 1 (mixed)   | 1 (mixed)   |  |
| TOTAL (18)   |   | 4   | 8   | 6  |

### *In-depth interviews*

|    |   |                                   |
|----|---|-----------------------------------|
| 1  | Ministry of housing and social utilities representative     | Minsk                             |
| 2  | Targeted social assistance and/or privileges administrators | Regional center                   |
| 3  | Targeted social assistance and/or privileges administrators | Large city                        |
| 4  | Targeted social assistance and/or privileges administrators | Small town                        |
| 5  | District heating company representatives                    | Regional center                   |
| 6  | District heating company representatives                    | Large city                        |
| 7  | Zhes administrator/specialist in district heating           | Mid-sized town                    |
| 8  | Zhes administrator/specialist in district heating           | Small town                        |
| 9  | Zhes administrator/specialist in district heating           | Rural settlement                  |
| 10 | users' representatives                                      | head of house owners associations |

### *Ethnographic interviews (4)* with the representatives of vulnerable subsamples:

- subsample 1: female pensioners living alone
- subsample 2: families with many children (3 or more)
- subsample 3: families with disabled children or parents
- subsample 4: single mothers



## BULGARIA

### Focus group sample distribution

| Region                      | Low-income                 |                                |                 | Middle-income |
|-----------------------------|----------------------------|--------------------------------|-----------------|---------------|
|                             | Receiving heating benefits | Not receiving heating benefits | Ethnic minority |               |
| Northwest region—3          |                            |                                |                 |               |
| Regional center—DH          | Vratza mixed               |                                |                 |               |
| Small town—wood/coal/other  |                            |                                | Lom mixed       |               |
| Village—wood/coal           |                            | Mokresh women                  |                 |               |
| North central region—3      |                            |                                |                 |               |
| Regional center—DH          |                            |                                |                 | Pleven women  |
| Small town—wood/coal        |                            | Sevlievo men                   |                 |               |
| Village—wood/coal           | Resen women                |                                |                 |               |
| Northeast region—3          |                            |                                |                 |               |
| Regional center—electricity |                            |                                |                 | Varna women   |
| Small town—wood/coal        |                            | Novi Pazar men                 |                 |               |
| Village—wood/coal           |                            |                                |                 | Kichevo men   |
| Southeast region—3          |                            |                                |                 |               |
| Regional center—gas         |                            |                                |                 | Yambol men    |
| Small town—electricity      |                            |                                |                 | Elhovo women  |
| Village—wood/coal           |                            |                                | Gradets mixed   |               |
| South central region—5      |                            |                                |                 |               |
| Regional center—DH          |                            | Plovdiv women                  |                 |               |
| Regional center—electricity |                            |                                |                 | Haskovo men   |
| Regional center—wood/coal   |                            |                                | Plovdiv mixed   |               |
| Small town—wood/coal        | Belovo mixed               |                                |                 |               |
| Village—wood/coal           |                            | Sestrimo women                 |                 |               |
| Southwest region—6          |                            |                                |                 |               |
| Regional center—DH          |                            | Sofia women (pilot)            |                 |               |
| Regional center—DH          |                            | Pernik women                   |                 |               |
| Regional center—wood/coal   |                            | Kyustendil men                 |                 |               |
| Small town—wood/coal        |                            |                                |                 | Radomir women |
| Village—wood/coal           | GornaMalina mixed (pilot)  |                                |                 | Dren men      |
| TOTAL (23)                  | 4                          | 8                              | 3               | 8             |

|                 | DH       | Electricity | Wood/coal | Gas      | Total     |
|-----------------|----------|-------------|-----------|----------|-----------|
| Regional center | 5        | 2           | 2         | 1        | 10        |
| Small town      |          | 1           | 5         |          | 6         |
| Village         |          |             | 7         |          | 7         |
| <b>TOTAL</b>    | <b>5</b> | <b>3</b>    | <b>14</b> | <b>1</b> | <b>23</b> |

*Additional focus groups for discussion on gender issues*

|  | Men      | Women    |
|--|----------|----------|
| Regional center (Sofia)                | 1        | 1        |
| Small town (Kazanluk)                  | 1        | 1        |
| Rural area (Litakovo)<br>Roma minority | 1        | 1        |
| <b>TOTAL (6)</b>                       | <b>3</b> | <b>3</b> |

*In-depth interviews*

| In-depth interviews  | # of interviews |
|--|-----------------|
| Ethnographic interviews with households in regional center, small town, and village, using district heating, electricity, and wood as main heating sources, respectively | 3               |
| Representative of NGO that works on energy and social protection issues  | 2               |
| Social assistance workers administering heating benefits and responsible for areas in regional center, small towns, and villages, respectively                           | 3               |
| Representatives of heating accountant companies  | 2               |
| Representative of heating company  | 1               |
| Representative of electricity distribution company   | 1               |
| NGO—gender expert  | 1               |
| <b>TOTAL</b>   | <b>13</b>       |

### Focus group discussions

|    | City            | Region               | Urban/<br>rural | Income               | Gender | Energy for<br>heating | Roma |
|----|-----------------|----------------------|-----------------|----------------------|--------|-----------------------|------|
| 1  | Zagreb          | Capital              | Urban           | Middle               | Female | DH                    |      |
| 2  | Zagreb          | Capital              | Urban           | Low                  | Female | Gas                   |      |
| 3  | Zagreb          | Capital              | Urban           | Social<br>assistance | Male   | Wood                  | Roma |
| 4  | Varaždin        | North                | Urban           | Middle               | Male   | DH                    |      |
| 5  | GornjiKnjeginec | North                | Rural           | Social<br>assistance | Female | Wood                  |      |
| 6  | Čakovec         | North                | Urban           | Low                  | Female | Wood                  |      |
| 7  | Pribislavec     | North                | Rural           | Social<br>assistance | Male   | Wood                  | Roma |
| 8  | Karlovac        | Middle               | Urban           | Low                  | Male   | Wood                  |      |
| 9  | Karlovac        | Middle               | Urban           | Middle               | Male   | Gas                   |      |
| 10 | Osijek          | East                 | Urban           | Social<br>assistance | Female | Wood                  |      |
| 11 | Osijek          | East                 | Urban           | Middle               | Male   | Gas                   |      |
| 12 | Osijek          | East                 | Urban           | Low                  | Male   | DH                    |      |
| 13 | SlavonskiBrod   | East                 | Urban           | Low                  | Female | DH                    |      |
| 14 | Bukovlje        | East                 | Rural           | Middle               | Female | Gas                   |      |
| 15 | Rijeka          | North Adriatic Coast | Urban           | Middle               | Female | DH                    |      |
| 16 | Rijeka          | North Adriatic Coast | Urban           | Low                  | Male   | Wood                  |      |
| 17 | Klana           | North Adriatic Coast | Rural           | Low                  | Male   | Wood                  |      |
| 18 | Split           | South Adriatic Coast | Urban           | Middle               | Male   | Electricity           |      |
| 19 | Split           | South Adriatic Coast | Urban           | Low                  | Female | Electricity           |      |
| 20 | Tugare          | South Adriatic Coast | Rural           | Middle               | Female | Electricity           |      |

### In-depth interviews

Nine in-depth interviews were conducted:

- 3 ethnographic interviews with households in Zakovec, Split, and Slavonski Brod
- 2 with social workers—in Zagreb and Zakovec
- 2 with energy suppliers: HEP d.o.o., the

supplier of electricity, and HEP Toplinarstvo, the supplier of district heating

- 1 with the agency for gender equality
- 1 with “Consumer Society”—the association for the protection of consumer rights

## KYRGYZ REPUBLIC

### Focus group discussions

|       |                  | Low-income households     |        |                              |        | Middle-income households | TOTAL |
|-------|------------------|---------------------------|--------|------------------------------|--------|--------------------------|-------|
|       |                  | With energy compensations |        | Without energy compensations |        |                          |       |
|       |                  | male                      | female | male                         | female |                          |       |
| Urban | Mountainous area | 1                         | 1      | 1                            | 1      | 15 urban                 |       |
|       | The plains       | 2                         | 2      | 2                            | 2      |                          |       |
| Rural | Mountainous area | 1                         | 2      | 1                            | 1      | 16 rural                 |       |
|       | The plains       | 2                         | 1      | 2                            | 2      |                          |       |
| TOTAL |                  | 6                         | 6      | 6                            | 6      | 7                        | 31    |

### Additional 6 focus groups for discussion on gender issues:

|       |               | Men | Women |
|-------|---------------|-----|-------|
| Rural | Low-income    | 1   | 1     |
|       | Middle-income | 1   |       |
| Urban | Low-income    | 1   | 1     |
|       | Middle-income |     | 1     |

## ROMANIA

### Focus group sample distribution

|             |   | Poor households (<355 RON/per capita/monthly income) |                            |                                   | Middle-income households (425–615 RON per capita monthly income) |                               |
|-------------|---|--|----------------------------|-----------------------------------|--|-------------------------------|
|             |   | Non-Roma   |                            | Roma                              | Non-Roma   |                               |
|             |   | With heating benefits                                | Without heating benefits   |                                   | With heating benefits  | Without heating benefits      |
|             |   | Male   | Female                     |                                   | Male   | Female                        |
| Urban 100k+ | Using district heating  | Pilot FG—Cluj-Napoca (Cluj County)                   | Craiova (Dolj County)      |                                   | Timisoara (Timis County)   | Bucuresti (Bucharest)         |
|             | Using gas for heating   |  | Iasi (Iasi County)         |                                   | Sibiu (Sibiu County)   | Pitesti (Arges County)        |
|             | Using wood/coal for heating   | Constanta (Constanta County)                         |                            |                                   |  |                               |
|             | Living in blocks of flats and disconnected from DH (without gas boiler) |  |                            | Cluj-Napoca (Cluj County)         |  |                               |
| Urban <100k | Using district heating  | Giurgiu (Giurgiu County)                             | Deva (Hunedoara County)    |                                   | Medgidia (Constanta County)                                      | Resita (Caras Severin County) |
|             | Using gas for heating   | Turda (Cluj County)                                  |                            |                                   |  |                               |
|             | Using wood/coal for heating   |  | Podu Iloaiei (Iasi County) | Săcele (Braşov County)            |  | Pantelimon (Ilfov County)     |
|             | Living in blocks of flats and disconnected from DH (without gas boiler) |  | Bals (Olt County)          |                                   |  |                               |
| Rural       | Using gas for heating   | Galda de Jos (Alba County)                           | Cumpana (Constanta County) |                                   |  | Dragomiresti (Ilfov County)   |
|             | Using wood/coal for heating   | Moisei (Maramures County)                            | Oncesti (Giurgiu County)   |                                   |  |                               |
|             |   | Movileni (Iasi County)                               | Gavanesti (Olt County)     | Pilot FG—Petrilaca (Mures County) |  |                               |

*Additional focus group discussions specific to gender issues*

|  | Men | Women |
|--|-----|-------|
| Regional center (Cluj-Napoca)          | 1   | 1     |
| Small town (Cehu Silvaniei)            | 1   | 1     |
| Rural area (Lopadea Noua, Alba county) | 1   | 1     |
| TOTAL (6)                              | 3   | 3     |

*Ethnographic interviews*

| N | Location                        | Gender | Main type of energy used for heating |
|---|---------------------------------|--------|--------------------------------------|
| 1 | Pitesti, Arges County—urban     | Female | Gas (boiler)                         |
| 2 | Galda de Jos, Alba County—rural | Female | Gas (stove)                          |
| 3 | Gavanesti, Olt County—rural     | Male   | Wood                                 |
| 4 | Craiova, Dolj County—urban      | Female | District heating                     |

*In-depth interviews with key informants*

| N  | Location                     | Category                          |
|----|------------------------------|-----------------------------------|
| 1  | Constanta, Constanta County  | Building administrator            |
| 2  | Deva, Hunedoara County       | Building administrator            |
| 3  | Iasi, Iasi County            | Building administrator            |
| 4  | Craiova, Dolj County         | Social Assistance Department      |
| 5  | Bals, Olt County             | Social Assistance Department      |
| 6  | Resita, Caraş-Severin County | Social Assistance Department      |
| 7  | Timisoara, Timisoara County  | Energy provider                   |
| 8  | Craiova, Dolj County         | Energy provider                   |
| 9  | Ghizdaru, Giurgiu County     | Wood provider                     |
| 10 | Moisei, Maramures County     | Wood provider                     |
| 11 | Cluj-Napoca                  | NGO representative, gender expert |



## TAJIKISTAN

### *Focus group discussions*

28 focus group discussions; 24 with rural and urban low-income households (less than 250 TJS per person/month) and 4 with middle-income urban households (500 TJS to 1,000 TJS per person/month). Separate discussions were conducted with men (14) and with women (14).

### *Focus group discussions with low-income residents*

| Region                                       | Area<br>(mountain/valley) | Apartment<br>building | Single-family home |
|--|---------------------------|-----------------------|--------------------|
| Dushanbe (4 FGDs)                            | Urban (v)                 | 1 men, 1 women        | 1 men, 1 women     |
| Regions of Republican Subordination (4 FGDs) | Urban (v)                 | 1 men                 | 1 women            |
|  | Rural (m)                 |                       | 1 men, 1 women     |
| Gorno–Badakhan (4 FGDs)                      | Urban (m)                 | 1 women               | 1 men              |
|  | Rural (m)                 |                       | 1 men, 1 women     |
| Sugd (4 FGDs)                                | Urban (v)                 | 1 men                 | 1 women            |
|  | Rural (v)                 |                       | 1 men, 1 women     |
| Khatlon–Kurgan–Tube region (4 FGDs)          | Urban (v)                 | 1 women               | 1 men              |
|  | Rural (v)                 |                       | 1 men, 1 women     |
| Khatlon–Kuliabregion (4 FGDs)                | Urban (m)                 | 1 men                 | 1 women            |
|  | Rural (v)                 |                       | 1 men, 1 women     |

### Focus group discussions with middle-income residents

|                       | Men | Women |
|-----------------------|-----|-------|
| Dushanbe city (2 FGD) | 1   | 1     |
| Khorog city (2 FGD)   | 1   | 1     |

### In-depth interviews

| N  | Respondent                             | Population point              |
|----|--|-------------------------------|
| 1  | Representative of local government     | Khorogh                       |
| 2  | Representative of local government     | Istaravshan                   |
| 3  | Representative of local government     | Sarband                       |
| 4  | Representative of local government     | Nurek                         |
| 5  | Local leader                           | Shahrinav                     |
| 6  | Local leader                           | Vanch                         |
| 7  | Social building (school)               | Vose                          |
| 8  | Social building (school)               | Dushanbe                      |
| 9  | Social building (clinic)               | Khujand                       |
| 10 | Civil society representative           | Consumers Union of Tajikistan |
| 11 | Civil society representative           | NGO For the Earth             |
| 12 | Ethnographic interview with household* | Dushanbe                      |
| 13 | Ethnographic interview with household  | Sarband                       |
| 14 | Ethnographic interview with household  | Vahdad                        |
| 15 | Ethnographic interview with household  | Istravshan                    |

\*Ethnographic interviews were conducted simultaneously in the household with men and women in the household, by a male and female moderator, respectively.

## TURKEY

### *Focus group discussions (Diyarbakir, Batman, Mardin)*

| N  | Location type | Economic status                             | Use of electricity services | Gender | Age           |
|----|---------------|---|-----------------------------|--------|---------------|
| 1  | Rural         | Low income                                  | Residence                   | Female | 18–30         |
| 2  | Rural         | Low income                                  | Residence                   | Female | 30–45         |
| 3  | Rural         | Low income                                  | Residence                   | Female | 45–65 and 65+ |
| 4  | Rural         | Low income                                  | Residence                   | Male   | 18–30         |
| 5  | Rural         | Low income                                  | Residence                   | Male   | 30–45         |
| 6  | Rural         | Low income                                  | Residence                   | Male   | 45–65 and 65+ |
| 7  | Urban         | Middle income                               | Residence                   | Female | 18–30         |
| 8  | Urban         | Middle income                               | Residence                   | Female | 30–65         |
| 9  | Urban         | Middle income                               | Residence                   | Male   | 18–30         |
| 10 | Urban         | Middle income                               | Residence                   | Male   | 30–65         |
| 11 | Rural         | Agrarian irrigation unions and cooperatives | Economic                    | Mixed  | Changeable    |
| 12 | Rural         | Mukhtars and farmers                        | Economic                    | Mixed  | Changeable    |
| 13 | Urban         | Industrial/commercial/company workers       | Economic                    | Mixed  | Changeable    |
| 14 | Urban         | University students                         | Residence                   | Mixed  | 18–30         |
| 15 | Urban         | Local NGO, university representatives       | General                     | Mixed  | Changeable    |
| 16 | Urban         | Local authorities and mukhtarships          | General                     | Mixed  | Changeable    |

### *In-depth interviews*

A total of 41 in-depth interviews were conducted with representatives of the following institutions:

- Electricity Systems Company
- Dicle EDAS
- GABB (Association of Southeastern Municipalities)
- Diyarbakir Chamber of Trade and Industry
- Urban Environment Provincial Management
- Urban Committee (Agenda 21)
- hospitals
- DISKI (Diyarbakir water and sewerage administration)
- Mezopotamya Ecology Association
- GUNSIAD
- primary schools
- Sur Municipality
- Baglar Municipality
- Consumer Association
- Schools, Association of Electrical Engineers
- Karacadag Development Agency
- Marble mine operators and traders
- Water User Associations
- a university
- a carpet cleaning company

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