DG DEVCO/DG NEAR: "Gender Mainstreaming – Neighbourhood South"

Sector Note: GENDER AND ENERGY

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# 1. Policy Framework on Energy and Gender

Access to sustainable energy services represents a crucial element to address many of today's global development challenges. Policy frameworks at European and International level have been designed to foster development in the energy sector.

## International Policy Framework and Energy Initiatives

International policies to promote sustainable development of the energy sector, constitute a common ground for action for the EU and the Neighbourhood South member states:

- **UN Conference on Environment and Development (UNCED), Rio, 1992**: It placed energy concerns mainly in the context of climate change. The advancement of women is a cross-cutting issue[1]; Rio Principle 20 reads: 'Women have a vital role in environmental management and development. Their full participation is therefore essential in achieving sustainable development.' And Agenda 21, Chapter 24 reads, 'Global Action for Women towards Sustainable Development', identifies areas that require urgent international action to achieve equality between women and men.[2]

- **UN Fourth World Conference on Women, Beijing, September 1995**, called on governments and other stakeholders to pay specific attention to the key area of women and the environment. Beijing Platform for Action identified Strategic Objective K on Women and Environment.

- **Earth Charter (2000)**, Principle 7: 'Adopt patterns of production, consumption, and reproduction that safeguard Earth's regenerative capacities, human rights, and community well being'[3].

- **UN Conference on Sustainable Development/Earth Summit (Rio+20)**, Rio de Janeiro, 2012, identified seven critical areas, which need priority attention, among which energy. It highlighted that energy is central to nearly every major challenge and opportunity the world faces today. Sustainable energy is needed for strengthening economies, protecting ecosystems and achieving equity[4]. The outcome document of the 2012 UN Conference on Sustainable Development (Rio+20), "The Future We Want", called for commitments to specific actions to achieve sustainable development, including universal energy access.

[1] Elizabeth Cecelski, From Rio to Beijing: Engendering the energy debate, ENERGIA News 1, December 1996
2 Available at: https://www.iisd.org/rio+5/agenda/chp24.htm
3 Saving Energy with the Earth Charter, Available at: http://www.earthcharterinaction.org/invent/images/uploads/Energy.pdf
4 Available at: http://www.uncsd2012.org/index.php?menu=123#energy

- '**Sustainable Energy for All' (SE4ALL)** is a global initiative led by the UN Secretary General Ban Ki-moon. It was launched in 2012, the International Year of Sustainable Energy for All. SE4ALL is a multi-stakeholder partnership between governments, private sector, and civil society, co-chaired by UN Secretary General and WB President. By 2030, SE4ALL aims to:
    - Achieve universal access to modern energy services;
    - Double the rate of improvement in energy efficiency;
    - Double the share of renewable energy in the global energy mix by 2030[5].

The EU is fully committed to achieving the objectives of SE4ALL. The European Commission under the Danish Presidency of the EU Council organized the **EU Sustainable Energy for All Summit.** It included a session focused on gender and access to sustainable energy for women.

## EU Major Energy Policy Framework

Gender equality represents a fundamental value of the European Union. One of its goals is to achieve gender equality by gender mainstreaming all internal and external policy (Council of the European Union 2011; European Commission 2010e).

- The **Lisbon Treaty** of 2009 reinforces the EU's commitment to sustainable development, the fight against climate change, and development of renewable energy sources[6]. The Treaty contained a new part on energy (Title XXI – Energy, Article 194) The article (1) reads:
  "1.In the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between Member States, to: (a) ensure the functioning of the energy market; (b) ensure security of energy supply in the Union; (c) promote energy efficiency and energy saving and the development of new and renewable forms of energy; and (d) promote the interconnection of energy networks'.

- **Europe 2020** is the EU's growth and jobs strategy for the current decade, striving to pave the way to a smart, sustainable and inclusive future. It aims to strengthen the external dimension of the EU energy policy as one of the key priorities in the coming years. The EC, in its Communication[7] on Energy 2020, proposes to develop further an external energy policy focusing on the following priorities:
  1. Achieving an energy efficient Europe;
  2. Building a truly pan-European integrated energy market;
  3. Empowering consumers and achieving the highest level of safety and security;
  4. Extending Europe's leadership in energy technology and innovation;
  5. Strengthening the external dimension of the EU energy market.

[5] Sustainable Energy for All Global Tracking Framework 2015, Dr. Gabriela Elizondo Azuela, World Bank Panama City, Panama

[6] Dorthe Wolfsgruber, Gunnar Boye Olesen, The Lisbon Treaty and Sustainable Energy, INFORSE-Europe– International Network for Sustainable Energy, December 2010

[7] European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Energy 2020 A strategy for competitive, sustainable and secure energy, Brussels, 10.11.2010 COM(2010) 639 final

## South-Neighbourhood Policy Framework

The European Commission in its communication on security of energy supply and international cooperation (2011) affirmed that the energy demand in the Southern Neighbourhood is expected to double from the current level by 2020. Urgent market reform is needed to stimulate investments in clean and efficient energy and low carbon energy technologies.[8] Since 2014 the European Neighbourhood Instrument (ENI) provides support to 16 partner countries to the East and South of the EU's borders. ENI contributes to strengthening bilateral relations with partner countries. Energy cooperation is one of the priorities of the European Neighbourhood instrument.

### Euro-Mediterranean Partnership (EUROMED)

The Euro-Mediterranean Partnership was born in 1995, with the Euro-Mediterranean Conference of Foreign Affairs Ministers held in Barcelona. It represented the EU's first comprehensive policy for the region aiming at achieving peace, stability and growth in the Mediterranean Partner Countries. In 2008 the Barcelona process was renamed Union for the Mediterranean (UfM). The Union for the Mediterranean is a multilateral partnership aimed at increasing the potential for regional integration and cohesion among Euro-Mediterranean countries (41 countries in the region, including all EU countries and the South Neighbours). One of the priorities of the Union is "alternative energies". [9] The goal is to create an integrated Mediterranean energy market, and to promote renewables and energy efficiency.

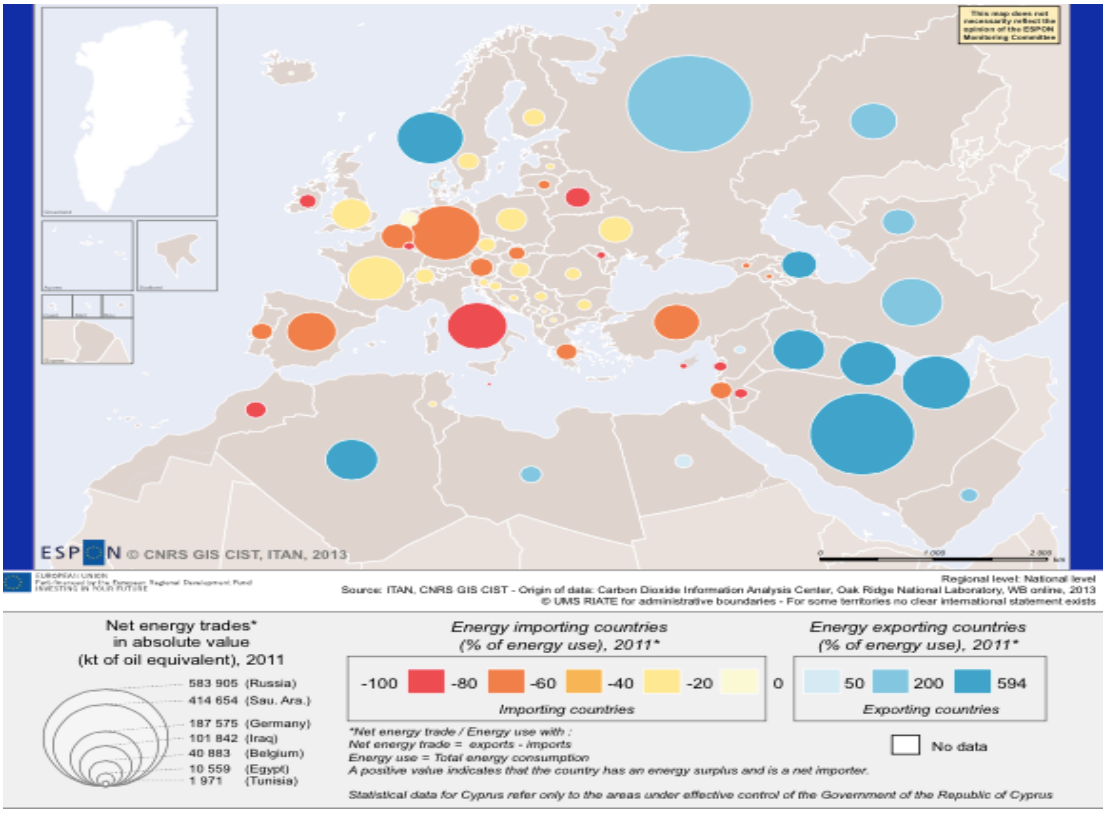


*Figure 1 Energy net trade: The complementarity between Europe and its Neighbours, 2011-*

[8] European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee and the Committee of the Regions, On security of energy supply and international cooperation - "The EU Energy Policy: Engaging with Partners beyond Our Borders" {SEC(2011) 1022 final} {SEC(2011) 1023 final}, Brussels 2011

[9] http://ufmsecretariat.org/energy/

Particular attention is given to providing the region's women with a stronger role in society, paving the way for women empowerment and gender equality[10]. The Third Union for the Mediterranean Ministerial Conference on Strengthening the Role of Women in Society took place in September 2013 in Paris. It gathered Ministers in charge of women's affairs and gender equality from the UfM Member States. It aimed to support gender equality and the empowerment of women and girls of the Euro-Mediterranean countries and to increase their participation in the political, economic, civil and social development of the region.

# 2. Profile of Energy Sector in Southern Neighbourhood

The South Mediterranean Neighbours is the second EU energy provider. South Neighbourhood countries possess 5% of the world oil resources and 3% of its gas, 70% of North Africa oil exports and 90% of its gas exports are sent to Europe. The potential for energy collaboration is strategic. It could be the basis for an ambitious social (employment), industrial, technological and environmental partnership between Europe and its Neighbours.[11]

Solar energy has great potential for investment in the area. According to Integrated Territorial Analysis of the Neighbourhoods (ITAN), to promote solar energy the EU and South Mediterranean countries should develop the needed resources, shared political will in the region, and the development of trans-Mediterranean power lines[12]. Investment in energy in the coming decades would increase cross-border cooperation and shared energy transport facilities. Therefore, local access to electricity, solar electricity for remote areas and energy saving by compact sustainable urbanism would improve.

Increased and greater cross-border cooperation could bring gender issues to the table during dialogues, and could foster the achievement of gender equality, and involvement of women in the new energy sector programmes. Investment in energy, especially in the green energy sector, could lead to increased employment.

The Mediterranean Neighbourhood countries display the highest rates in the world for gender gaps in activity and in employment. Female labour force participation rates in the region remain significantly low; young women face extremely high levels of unemployment. High unemployment rates discourage women from entering the labour force and women often remain active in the informal sector[13]. Moreover, the discovery of natural energy resources does not always create job opportunities for women in the energy sector. The jobs that are created tend to be either heavily labour intensive physically, and so often go to men, or are highly skilled engineering jobs, which again tend to be filled in by men[14]. Women are mostly employed in manufacturing and agriculture sectors.

[10] UfM Co-presidency , Conclusion, Union for the Mediterranean, Third Ministerial Conference on Strengthening the Role of Women in Society, Paris, September 2013
[11] ITAN in Brief- Integrated Territorial Analysis of the Neighbourhood, Final Report - Dossier 2 – Energy, September 2014
[12] ITAN in Brief- Integrated Territorial Analysis of the Neighbourhood, Final Report - Dossier 2 – Energy, September 2014
[13] Stella Tsani, Leonidas Paroussos, Costas Fragiadakis, Ioannis Charalambidis and Pantelis Capros, Female Labour Force Participation and Economic Development in Southern Mediterranean Countries: What scenarios for 2030? MEDPRO Technical Report No. 19/December 2012
[14] Androulla Kaminara, The Gender Dimensions of Energy Policy, 2015

# 3. Why is Gender Important in Sector Programmes?

Narrowing gender disparities is critical to reduce poverty and achieve growth and prosperity. In the South-Neighbourhood countries women suffer from little participation in social and economic life, especially in rural areas. Women are physically restricted to the home or its immediate surroundings. Women's rights are not always implemented. In rural areas, access to modern energy is a crucial aspect for poverty reduction: poverty cannot be reduced, and prosperity cannot be achieved without universal access to reliable and modern energy, which is an important engine of economic growth, and vital for social development, including better health and education. In the world, 1.2 billion people still lack access to electricity and 3 billion lack modern cooking and heating solutions. Reliable and modern energy means:

- Sustainable transport;
- Renewable electricity generation;
- Energy saving equipment in buildings, homes, manufacturing.

Energy services are essential to support social and economic development, for example access to electricity increases income, health, education and reduces poverty. Gender matters in the energy sector. Energy affects women and men differently, as they have different roles and responsibilities in households, markets and communities. The level of access, use and impact of energy services differ for women and men. Electricity results in time saving of both but women may use this saving differently.

***Gender and energy issues:***

- ***Household energy***: cooking and heating;
  Women are responsible for cooking, fuels and wood collection and exposure to indoor air pollution for cooking in poorly ventilated kitchens and stoves. Therefore women would prefer access to electricity and modern cooking facilities for domestic work. However, women usually lack of decision-making power and lack access to finance to improve cooking technologies;
- ***Electricity access***: connection to the grid and off grid for small and medium enterprises. Women business owners usually work in the informal sector, therefore in order to benefit from improved electricity they need access to financing options;
- ***Renewable energy***: women and men need information on new renewable options;
- ***Energy efficiency***: women could monitor and manage electricity use within the household;
- ***Large energy infrastructure***: generation, transmission, and distribution. Large infrastructure energy projects create jobs but also result in resettlements and compensation. Gender must be taken into consideration in planning displacement, resettlements, job creation, benefit sharing and land titles. Women need to participate actively in consultation meetings, resettlements and compensation programmes, from which they are usually excluded as they are recognized as weaker rights;
- ***Electricity pricing***: men and women have different preferences and may experience different impacts in duration time and value of electricity access. In many cases women are over-represented among the poor and when subsidies are removed they may be more affected by the change.

# 4. Key Gender Issues in Energy Programming

Gender mainstreaming in programming an energy intervention, starts with a gender analysis. On the basis of this analysis gender sensitive baseline indicators have to be defined, and relevant gender indicators can be selected to be included in the formulation of the programme.

- **Analysis**:
  - Evidence-gathering through gender-analysis of context and findings;
  - Conduct a sector-related gender analysis relevant to each sector's policies and programmes. Involve sector specialists, in addition to gender mainstreaming experts, in the process of sector-related gender analysis;
  - Collect sex-disaggregated data.
- **Programme design**: key gender issues to consider at the design phase of energy projects and programmes:
  - Selection of priority issues, target groups and coverage, and their integration in terms of programme results, indicators and intervention modalities. Ensure that the design will not lead to unintended impact on gender;
  - Gender assessment. Make a gender and social assessment during project preparation to identify key gender issues, risks, constraints and opportunities associated with the proposed energy sector intervention related to the operation;
  - Data collection and analysis of issues: environment in which the proposed activity will take place, key gender inequality (must be tailor-made);
  - Identify key stakeholders who will be affected and other gender and energy programmes already in place in the area. Basis: sex-disaggregated data collection;
  - Develop a gender action plan (GAP), essential part of the project design, which will be developed by discussing the findings of the assessment. The GAP should discuss the implications of the gender assessment for the overall project design, may design specific activities to be included and identify milestones and performance indicators. It should also include action for institutional capacity building;
  - Project objective: Ensure that the design incorporates gender specific aspects necessary to achieve the project's objective;
  - Seek opportunities to improve gender equality: incorporate design features that capitalise on opportunities to reduce gender disparities in energy projects/programmes and improve the outcome;
  - Use the right tools.
- **Gender responsive monitoring and evaluation:** energy projects generally lack experience with gender issues and include gender blind indicators, assuming that the programme is neutral. However, energy programmes affect men and women differently. Obtaining information from women and men will lead to a more effective impact.

Being aware of the reality within the county and cultural and social norms, which may prevent the participation of women, is fundamental. It is crucial to ensure an equal voice for men and women and participation in decision-making through inclusion in consultations and participation in energy sector interventions, as the impact of energy projects may be different for men and women. Gender must be taken into account in the design and implementation. Resettlement and compensation plans due to construction of large energy infrastructure must equally favour and benefit both men and women. Gender expertise is needed during implementation (partnership with women's group, gender expertise to support the project/programme implementation team) to increase the efficiency and effectiveness of development programmes.

## 5. Strategies for Gender Mainstreaming in Energy Programmes

To ensure sustainable changes towards achieving gender equality through gender mainstreaming, the following strategies may be applied during programming processes:

- **Policy and political dialogue**: sharing relevant policy commitments and establish common ground for gender mainstreaming in energy programmes;
- **Gender budgeting**: introduce a gender equality perspective in the budget of the programme in order to enhance the accountability to gender equality through budgetary allocation;
- **Capacity building** on gender mainstreaming of stakeholders and potential beneficiaries to be consulted in the process of programming in the energy sector;
- **Women's empowerment**, women and women's organizations should be aware of their rights, and be supported to act as equal partners and as equal actors in decision-making. Greater participation of gender equality advocates in local government and civil society, especially by women's organizations, in the programming of energy initiatives, will increase women's opportunity to influence local decisions, including budgets.

Gender mainstreaming starts with a **gender analysis** or assessment of the current situation. This gender assessment provides an opportunity to define **gender-sensitive baseline indicators** (see chapter 6: tool for gender-sensitive programming). Energy determines life of men and women in a different way, particularly in terms of time use, health, poverty, living conditions, environmental impact and power. Through a gender analysis these particular gender differences will become clearer. Here we provide **some examples of the gender dimensions of the energy sector, with emphasis of poor rural communities**.

***Time use:***

Everything we do in life involves energy. It starts with our own human energy, the **metabolic energy** we use when we do our work, when we move on a bike, when we walk with a bunch of firewood, or mill cereal by hand. **Daily survival strategies in poor areas** of the world require a lot of metabolic energy and absorbs much of the **time** of women, men and children. **Gender roles** are socially assigned roles which determine specific 'female' and 'male' tasks. **Gender-based power relations** determine the gender-based division of labour. As a result, in the poorest communities women are in charge of producing the mayor part of the metabolic energy, spending a large part of their time to tiring work.

Women's roles and **women's metabolic energy** play a crucial role in the survival strategies of the poor. For example milling cereal by hand uses metabolic energy, which is human energy we get from the food we eat. An electric flour mill can take over this tiring work. Energy for this mill may come from burning coal in a power station, from a hydro-electric plant or solar energy. There is **more time for women's empowerment when energy burdens reduce.** As soon as women are released from this time-consuming work, they have more time available for other productive, reproductive and community-based activities which will **improve conditions of life** for herself, her children and her nearest.

Energy is **key** for all our activities, from moving, to cooking, to manufacturing. The volume of energy consumed is strongly correlated to economic growth, especially in the industrial age. There is strong correlation between per **capita energy consumption and the human development indicators including life expectancy, literacy and school enrolment** used in the Human Development Index (HDI).

***Health***

Energy poverty affects the health of women and children in multiple ways: "Of the estimated two million annual deaths attributed to **indoor air pollution generated by fuels** such as coal, wood, charcoal and dung, **85% are women and children** who die from cancer, acute respiratory infections and lung disease (WHO & UNDP, 2009). In fact, illnesses from indoor pollution result in more deaths of women and children annually than HIV/AIDS, malaria, tuberculosis and malnutrition combined (IISD, 2013). Other important direct health impacts from dirty energy use and indoor air pollution include **life-long or chronic diseases**, such as asthma; burns to children; injuries to women from carrying wood. Lack of electricity is one of the reasons for increased **violence against women and girls due to lack of street lighting** at night (ESMAP, 2007). Violence against women can also occur during daylight hours in situations where resources are scarce and women are obliged to **collect fuel from remote and isolated areas** (ENERGIA/DfID, 2006)."[15]

***Economic aspects/poverty***

Geographically there are huge disparities in the costs of energy. The poorer the country, the higher the energy costs (see statistics of IEA).

Also within poor countries, this disparity is higher among the rich and the poor. **Poor people pay the highest prices for energy per kWh.** Poor people without excess to public energy from the grid, have to find ways of dealing with lack of energy. For example in Liberia: "In April 2010 the price of electricity from the grid was US$0.43 per kilowatt-hour (kWh), possibly the highest in Sub-Saharan Africa. People without access to public electricity pay even more: the use of dry-cell batteries costs US$74.01/kWh, car batteries US$8.43/kWh, candles US$8.27/kWh, generators US$3.96/kWh, and kerosene for lighting US$1.53/kWh."[16]

***Living conditions***

These disparities among rich and poor have a **cumulative impacts**, creating almost unbearable living conditions: There is a correlation between wealth disparities (rural/urban, rich/poor) + access to energy + feminisation of poverty + huge burden on poor women when there is lack of energy: the **cumulative impact of time burdens, workload, and health risks are the highest for the poorest women**. Macro statistics do not reveal the tragic situation of poor African women living in rural areas without access to water and energy.

More than 95% of the world's population without access to electricity and clean cooking facilities are currently living in sub-Saharan Africa and developing Asia[17]; within countries, with the wealthiest benefiting from the majority of energy resources; and between urban and rural areas, with 84% of the estimated 1.3 billion people that do not have electricity in their homes living in rural areas (IEA, 2011). For those who have access to electricity in rural areas, women's burdens hardly reduce, as **lighting and television-use account for at least 80% of electricity** consumption, with **only 2% of the rural population using electricity for cooking** (WHO & UNDP, 2009). Thus, 2.7 billion people still rely on open fires and traditional use of biomass for cooking and almost half of the world's population depends on solid fuels such as wood, dung, crop waste, coal and charcoal (IEA, 2011).

[15] UNIDO – UN Women, 2013: Energy for all; the gender dimensions.

[16] World Bank, 2011: Options for the Development of Liberia's Energy Sector; Africa Energy Unit-AFTEG. Energy Sector Policy Notes Series - Report No. 63735-LR

[17] Many of them try to escape and join the stream of migrants to the richer MENA countries of Europe.

***Environmental impact***

In developing countries, especially in rural areas, 2.5 billion people rely on biomass, such as fuel-wood, charcoal, agricultural waste and animal dung, to meet their energy needs for cooking. In many countries, these resources account for over 90% of household energy consumption. In the absence of new policies, the number of people relying on biomass will increase to 2.7 billion by 2030 because of population growth. That is, one-third of the world's population will still be relying on these fuels. There is evidence that, in areas where local prices have adjusted to recent high international energy prices, the shift to cleaner, more efficient use of energy for cooking has actually slowed and even reversed.

Use of biomass is not in itself a cause for concern. However, when **resources are harvested unsustainably and energy conversion technologies are inefficient**, there are serious adverse consequences for health, the environment and economic development. About **1.3 million people – mostly women and children – die prematurely every year** because of exposure to **indoor air pollution from biomass**. Valuable time and effort is devoted to **fuel collection instead of education** or income generation. **Environmental damage** can also result, such as land degradation and regional air pollution.

Two complementary approaches can improve this situation: promoting **more efficient and sustainable use of traditional biomass**; and **encouraging people to switch to modern cooking fuels and technologies.** The appropriate mix depends on local circumstances such as per-capita incomes and the availability of a sustainable biomass supply.

Alternative fuels and technologies are already available at reasonable cost. Providing LPG stoves and cylinders, for example, would cost at most $1.5 billion per year to 2015. Switching to oil-based fuels would not have a significant impact on world oil demand. Even when fuel costs and emissions are considered, the household energy choices of developing countries need not be limited by economic, climate-change or energy-security concerns. Policies to promote **cleaner, more efficient fuels and technologies for cooking** need to address barriers to access, affordability and supply, and to form a central component of broader development strategies.[18]

***Social and political empowerment***

Each specific type of energy has its particular value-chain going from energy production to energy consumption. In most rural areas of poor countries **women are the main producers of energy as collectors of wood fuels**. They are also the **main consumers of these fuels, as they use them for cooking**. Even in rural areas where families have access to electricity, only 2% use it for cooking. Whereas 80% of electricity is used for lighting and television (IAE, 2011). Where access to electricity is scarce, **women keep on working in their traditional time-consuming unpaid work as collectors and users of wood fuels** for the cooking.

When energy becomes a more industrialized activity and the production of energy generates paid jobs, we see a switch: **once it becomes paid work, energy production becomes a male dominated activity.**

[18] Source: International Energy Agency: World Energy Outlook 2006 - FOCUS ON KEY TOPICS, chapter 15, page 420

**Women's demand for energy** is related to their roles in the household, in the community, in the health sector, and other roles which are traditionally assigned to women. For example, at family level they need clean energy and water for cooking and washing. At community level they need electricity for lightening the places where they have to walk at darkness.

**Men's demand for energy** varies according to their occupations. At home they prefer to use electricity to watch television, to use the computer or charge the mobile phone. They prefer to buy a television instead of buying an electric stove for cooking, or a washing machine for the clothes. Outside the home men's demand for energy is highly related to transport (motor cycles, cars), whereas women use more public transport (mostly driven by men) or they walk.

**Unequal decision power between women and men** over the use of the family budget, leads to **energy consumer patterns which favour male preferences** above female preferences about the use of electricity. "In urban and rural Africa, wherever transport services are deficient or unaffordable for households, much everyday transport work is achieved through head-loading. **Water and fuel are among the most commonly carried loads,** even in urban areas where piped water and electricity are often absent; other items regularly carried include **agricultural produce and groceries**. **Domestic load-carrying**, as a low-status activity, is regarded culturally as a '**female' activity** in most African societies (Malmberg Calvo, 1994:9; Barwell, 1996:25, 51; Avotri and Walters, 1999; Porter 2008).

**Access to** clean sustainable energy responds to women's **practical gender needs**. It may in principle reduce her work burdens and increase health of the entire family, but it does not change unequal gender relations. Domestic violence may stop her from getting access to new energy sources as long as the use of it is scarce and she has to compete with the energy demand of her husband. To ensure she can use new energy options for the improvement of her working conditions, she also needs to get more **control over** the use of this new energy. A household can get a connection to the electricity grid, but **women should also have a say over the household budget so she can buy an electric stove or washing machine** instead of a television or a motorcycle. The **time she saves** with such investments can be used for new **job opportunities**. Women's **strategic gender needs** consist of getting more **control over** the use of sustainable clean energy. This requires **changing power relations** between women and men. This can be achieved with activities to promote women's empowerment, to raise awareness (among men and women), and to ensure women's participation at decision making levels in projects, communities, programmes.

As women are traditionally in charge of providing energy for domestic use in rural communities, they can become the **drivers for change** if they are empowered and receive technical and entrepreneurial training to manage and get **control over decentralized sustainable energy plants (solar, wind) at community level**. "Because of the gendered nature of energy poverty, access to modern, sustainable energy can also significantly enhance the empowerment of women by reducing their time and labour burdens, improving their health, and providing them with opportunities for enterprise and capacity building. (…) ***Women-led sustainable energy initiatives and projects*** are successful in the new energy space and women are often in the driver's seat as **entrepreneurs and providers of sustainable energy solutions at the community level.** At the same time, it emphasizes that the **transition to sustainable energy** creates benefits and opportunities for both women and men, such as **job creation, market opportunities, and better health conditions**"[19]

[19] UNIDO – UN Women, 2013: *Energy for all; the gender dimensions.*

***Gender sensitive policies to respond to women's strategic gender needs***

- Taking women's needs into account in energy interventions and **strengthening women's leadership and participation in sustainable energy solutions are critical in the transition to sustainable energy for all** and to reaching internationally agreed sustainable development goals.
- Women are **underrepresented in the energy industry work force, in ministerial positions in the field of energy** and are rarely considered as key stakeholders for energy initiatives.
- Policymakers need to recognize the importance of women in the energy sector and to engage them directly in policy making and project design. Energy policies and programmes that **recognize women's work and roles in the energy sector**, and build on their expertise and influence within households and communities, can be **effective in promoting access to sustainable energy solutions for all** (ENERGIA, 2007).

# 6. Gender-Sensitive Indicators

Gender indicators play an important role in gender mainstreaming. They enable us to track the implementation of gender goals and to make timely adjustments to ensure gender equitable outcomes are reached in the energy sector.

## Country and Sector Level Outcome Indicators

The following list of indicators is taken from: Asian Development Bank, Tool kit on gender equality results and indicators, 2013, and Norwegian Agency for Development Cooperation, Annex 7k: Unit 7: Indicators for Achieving Gender Goals

**Country and Sector Level Outcome and Indicators**

| What does it measure? | INDICATOR | Level of measurement |
|---|---|---|
| Human capital | - Time saved by women and girls on collecting biomass fuels<br>- Percentage change in expenditure on purchasing fuel for households energy needs by women<br>- Number of cases of respiratory disease, carbon monoxide poisoning, and the fire accidents, by sex (adults and children) | National, regional, local (depends on intervention) |
| Gender balance in decision-making positions | Male - female ratio of top-level energy decision makers | National |
| Economic empowerment | Number and percentage of women and men with increased incomes due to improved energy facilities and services | National, regional, local (depends on intervention) |
| Gender capacity building | Energy policies, strategies, and reforms include gender equality objectives based on gender analysis of need, demand and supply | National, regional, local (depends on intervention) |

| What does it measure? | INDICATOR | Level of measurement |
|---|---|---|
| Differences in opinions and change of attitude of men and women (indicate how well campaign targeted men and women) | Male - female levels of awareness of ways and means to improve energy efficiency measured pre- and post-interventions (e.g. information campaigns) | National, regional, local (depends on intervention) |
| Differences in level of change between men and women indicate how well campaign targeted men and women | Male - female levels of awareness of new technologies and home appliances that could improve energy efficiency both at the work place/store and home measured pre- and post-interventions (e.g. information campaigns) | National, regional, local (depends on intervention) |
| Accessibility and affordability of clear energy | Male - female accessibility to and affordability of clear energy measured pre- and post-interventions | National, regional, local (depends on intervention) |
| Differences in level of change between men and women indicate how well intervention targeted men and women | Male - female per capita energy consumption measured pre- and post-interventions | National, regional, local (depends on intervention) |
| Accessibility and affordability of clear energy | Male - female electricity consumption | National, regional, local |

## Tool for defining gender-sensitive baseline indicators and targets

As is shown in the previous chapter, women's and men's demands for energy are different. Unequal power relations between men and women make, that poor women suffer cumulative impacts of energy poverty, leading to time burdens, (unpaid) workload, health problems, and feminization of poverty.

The tool below is based on the results of participative workshops during an EU gender training on gender mainstreaming in the energy sector in Viet Nam (2013). It provides sex-disaggregated base-line and performance indicators in the areas of:

- **Time-use**, related to provide energy sources
- **Health**, particularly in relation to fumes from fires for heating and cooking
- **Economy**, in relation to the energy sources used and the price paid
- **Living conditions**, particularly how the use of available energy is applied to increase quality of life for men, women and children (e.g. electric stove, or television)
- **Environmental** impact, e.g. disappearing woods, generating pollution
- **Social and political empowerment**, specifying who has access to and control over the information, technical knowledge and use of energy sources.

## Tool for planning energy alternatives for poor women and men

The first table below provides 8 baseline indicators for each of the above mentioned areas, in order to assess the current situation of gender issues of poor men and women.

The second table provides an overview of 23 indicators for planning activities to promote alternative and sustainable energy sources among poor rural/urban families. Each of these indicators will measure effects in the above mentioned areas. This basic set of indicators enables the development of a comprehensive energy plan for poor rural and urban areas, as is allows to assess how different types of energy will affect the quality of life for men, women and children. It addresses both **tactical and strategic gender needs**, specifically in relation to women's and men's access to and control over information and knowledge over energy alternatives. It also measures control over time-use and community decision-making of women and men in relation to energy use; employment opportunities for men and women linked to energy alternatives; and increased school attendance of boys and girls thanks to time saving energy alternatives.

The aim is to select energy alternatives and intervention strategies, that favour all: men, women, and children, and that promote gender equality.