**UNIT 3: IDENTIFYING GENDER NEEDS AND GAPS FOR DEVELOPING**

**A GENDER-AWARE ENERGY POLICY**

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| **Learning objectives:** | After completing the unit the participant should be able:   * Explain the concept of gender analysis * Make a gender analysis of existing energy policy |

**Aim of the unit:** To provide tools and analytical frameworks for identifying gender needs and gaps in energy policy

**Time schedule:** In total: approximately 2 hours;

Study of the theory and tools: 60 minutes;

Discussion points: 15 minutes;

Exercise: 30 minutes;

**Key concepts and ideas introduced in this unit:**

Gender analytical tools

Gender analytical frameworks

Participatory tools for data collection

**Topics in this Unit:** Identifying gender needs and gaps in energy

Data collection

Data analysis

**IDENTIFYING GENDER NEEDS AND GAPS FOR DEVELOPING**

**A GENDER-AWARE ENERGY POLICY**

**1. Introduction**

One of the important tasks for the Gender Focal Point (GFP) is to ensure that the existing Energy Policy is gender-aware. In the unit ‘*Why is Gender Important in Energy Policy?’* we defined gender awareness in policies as meaning that the different gender needs of men and women are incorporated into all aspects (contents and processes) of programmes, projects and policies. The Gender Action Plan (GAP) will help to achieve a more gender aware energy policy. It is not only the GFP who should be responsible for designing and implementing the GAP in this she/he needs to full commitment from the senior management with her/his organisation. Increasingly senior planners and decision makers in ministries of energy and the energy utilities are aware that due to international commitments their governments have made on gender equality and women’s rights that they ‘have to do something about gender’. A few years ago the Botswana Cabinet sent back the Energy Policy to the Ministry of Energy for revision because it did not pay enough attention to gender issues. However, many in the sector do not know how to incorporate gender into their policies and practices. This unit describes approaches on how to do this.

The basis of good planning is good data, therefore to produce a gender-aware policy you need gender (or sex) disaggregated data about current energy use, energy needs and gender gaps[[1]](#footnote-1). To help with planning services governments collect data about the welfare of their citizens, for example through Living Standards Measurement Surveys (LSMS). This is generally the responsibility of the national statistical service. However, these surveys are not usually sex disaggregated beyond specifying the sex of the head of household and household membership by sex and age. Increasingly living standards surveys are including questions about energy but usually not more than a few questions about which fuel a household uses for cooking and whether or not there is an electricity connection. The Ministry of Energy may conduct its own more detailed household surveys which may be more regional focused than the national LSMS, for example in area identified for pilot rural electrification or where an improved stove program will be implemented. However, again these surveys would probably not be sex-disaggregated. They would also probably rely on standard question surveys to collect quantitative data focusing on current energy use, interview the head of household and not ask either women or men what their needs and priorities are as well as who makes the decisions within the household about energy choices.[[2]](#footnote-2)

**Discussion Point 1**

Does the Ministry of Energy (or the energy agency you work for) collect general household level data on a regular basis? Only for specific projects? Not at all?

Are there any national surveys which collect energy data?

Are any of these surveys sex-disaggregated?

As part of her/his work, the GFP will need to discuss with the senior management about the need for systematic collection of sex disaggregated energy data. The data for gender mainstreaming will fall into two main categories: firstly the data for gender-sensitive employment conditions within her/his organisation and secondly, identifying gender issues for energy end-users. In this unit we focus on the latter[[3]](#footnote-3). However, it might take some time to embed in the system and there are other types of data gathering other than questionnaires which can begin to identify gender issues related to energy. In this unit we briefly look at such methods for collecting sex-disaggregated data for energy from households and also how this data can be analysed. These methods can be the first steps in creating a more gender-aware energy policy by identifying what women and men as end-users consider the issues are and which issues they consider to be a priority.

**2. Identifying gender needs and gaps in energy**

Data serves a multitude of purposes. Data may show general trends related to a certain issue: for example the changes in the number of women employed in different departments within the energy ministry. It can provide quantitative information, such as how much firewood women collect in a week. It can also provide insights into the priorities that women and men have for their energy needs. These priorities can be very different to what energy planners think.

*Data collection*

The GFP will need to decide what type of data needs to be collected as part of the GAP. As was pointed out in the last section individual household surveys are expensive and time consuming to conduct and as well as requiring skilled staff to implement analyse (it is amazing how many people forget the time and resources for analysis). Perhaps in the early stages, to begin it is important to identify what women’s and men’s needs and priorities are, while as part of the GAP can advocate for systematic sex-disaggregated energy data. Therefore other techniques based on a qualitative approach have been developed for gathering sex disaggregated data in which communities are consulted. These techniques have their origins in agricultural extension but are now used widely in rural development – although they may be less familiar in the energy sector[[4]](#footnote-4). Appendix 1 contains an overview of some of these techniques.

Identifying what women’s and men’s needs and priorities are can be done through a participatory exercise to identify and rank energy issues in a community from a gender perspective[[5]](#footnote-5). The exercise begins with a brainstorming of issues in separate groups for men and women (to ensure that women’s voices are heard). Once the ranking has been completed, this can be followed by a second round of brainstorming on what women and men see as the best way to improve the situation. The number of issues to be discussed could be restricted to the three issues with the highest priority. The results from the women’s session can be presented to the men and vice versa. Table 1 can be used to summarise the output of such an exercise.

When collecting field data, remember that energy is always a means to an end, not an end in itself. Therefore women will not say “I need electricity so I can work in the evenings” – they will say “I need light so I can work in the evenings.” You will have to translate women’s and men’s needs into specific energy services. In this case, an option would be that energy policy supports either grid extension to specific needy areas and/or solar home systems.

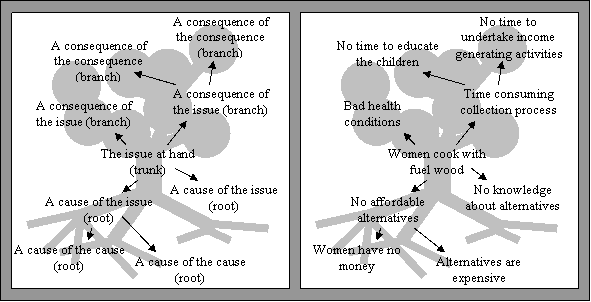
**Table 1 Prioritising issues for gender and energy.**

|  |  |  |
| --- | --- | --- |
| ***Women*** | | |
| ***Daily tasks women would like to have improved*** | ***In what way?*** | ***Priority*** |
|  |  |  |
|  |  |  |
| ***Men*** | | |
| ***Daily tasks men would like to have improved*** | ***In what way?*** | ***Priority*** |
|  |  |  |
|  |  |  |

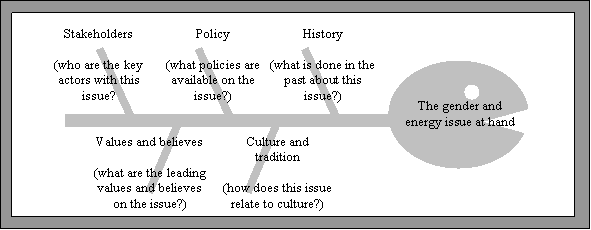
An issue does not exist in isolation: there are underlying causes of the situation which in turn have consequences. These underlying causes need to identified and recognised to ensure that the right issue is addressed otherwise it can result in a failure to achieve the intended change. An analogy would be taking a painkiller to stop your ankle hurting (the immediate issue), which would not be a long-term solution if your ankle is broken because it does not address the cause of why your ankle is hurting in the first place! So if for example, the aim is to improve job equality between men and women in the energy sector, an initial analysis might determine that the cause lies in the recruitment policy, while the underlying cause might be in the traditional (cultural) attitudes in society, for example, the perception that working on oil rigs is not an appropriate job for a woman. If you neglect the latter, you will find that improving the recruitment policy does not necessarily improve the equality between men and women in terms of employment in the energy sector.

There are two tools that can help determine the causes and consequences of an issue. The first is the ‘problem tree’, the second the ‘fish-bone model’.

A *problem tree* is a tool that can be used to reduce a problem to its essential components. It breaks complex problems down into a simpler set of causes, consequences and relationships. Figure 1 provides an example of a problem tree based around the issue of women’s continued use of fuelwood. Causes of a problem are identified by asking the question: why does this situation exist? The consequences can similarly be determined by asking the question: what happens as a result of the situation?

**Figure 1: problem tree outline (left) and completed example (right).**

**Figure 2: fish-bone model**

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In the fish-bone model the problem to be addressed is represented by the head of the fish. The bones are the elements of the problem, such as the stakeholders, policies, etc. The fish-bone model helps to identify the different factors that influence the issue. A fish-bone model for gender and energy is shown in Figure 2. The concepts represented by the “bones” do not necessarily have to be the same for every issue.

*Data Analysis*

Once the data has been collected, it needs to be analysed from a gender perspective. Gender analysis uses gender analytic tools which are systematic frameworks for diagnosing the existing gender situation in a given community, or for assessing what the impact of an intervention such as an energy project is likely to be, on men and on women. The output of the gender analysis is intended firstly to draw attention to gender inequalities in energy policy, and secondly to be an early warning system identifying problems linked to gender roles and relations that may arise if an energy initiative is started within a specific community.

Gender analysis is not about looking at women alone, nor is it about complaining that women suffer more than men, but rather gender analysis is about reaching a better understanding of how communities work from the perspective of relationships between men and women. Gender interests are not always obvious, neither are potential impacts of energy interventions. Sometimes inappropriate interventions are made because they are made on the basis of assumptions. For example, the emphasis in energy planning for the benefit of women has long concentrated around cooking, with firewood collection being seen as the central problem to be tackled. However, is this narrow focus justified? Is cooking the only activity women do? Do men get involved in fuelwood collection and make decisions about stove purchases?

Gender tools are used during various stages of energy policy planning and implementation (problem definition, needs assessment, design of intervention), although some could be applied in other contexts also, for example in evaluating policy. Their purpose is to ensure that differences between the genders are not inadvertently overlooked, and that any policy and project choices that are made do so with full recognition of what the differential effects are likely to be on men and on women (Skutsch, 2003a). Often this is done because there is a commitment to serving a particular gender goal, for example, to contribute to the empowerment of women, or at least to ensure that women are not being disadvantaged by actions undertaken as the consequence of policy or programme activity. Although a gender approach implies looking at men and women’s needs and opinions separately, it is understood that it is generally with a view to assisting women, that such an approach is undertaken. Such an approach could particularly apply in the energy sector at the household level, where women are usually the energy managers in the household. This view stems from a body of experience which shows that when households are taken as the basic planning unit, women’s voices are hardly heard and their needs are underrepresented in energy policy (in other words the policy is gender blind).

Gender tools are simple ways of gathering and arranging data so that gender differences related to energy are made clear to the outside observer, with a view to increasing the rationality of policy formulation and also increasing the possibility for women and men as the intended beneficiaries of energy policy to contribute to policy making. The aim is to gender ‘mainstream’ these tools so that they are automatically used during the normal process of planning, in other words, gender is taken as one of the basic underlying factors that need to be, and are taken, into account in every planning exercise.

Unfortunately there are no standard methods for gender analysis. There are different frameworks which have different starting perspectives which then shape the questions asked and the types of solutions likely to be proposed to solve any identified problems. One of the first attempts at gender analysis was based on the gender division of labour and divides tasks for men and women into three main social-economic areas: reproductive, productive and community. This framework is known as the *triple role*.

**Triple Role**

*Reproductive*

This refers to all tasks undertaken to reproduce the labour force (bringing up the next generation) and includes child bearing and rearing, feeding the family, caring for the sick, teaching acceptable behaviour and so on.

*Productive*

This covers work done for payment in cash or in kind. It includes the production of goods and services for subsistence or market purposes.

*Community tasks*

Community tasks are those done not for individual family gain but for the well-being of the community or society: charitable work, self-help communal construction of village facilities, sitting on village committees, involvement in religious activities, visiting friends who need help and so on. For women their community tasks are often seen as an extension of their reproductive roles.

Of course these categories are not entirely water tight: there are fuzzy lines between them. For example, someone who runs in an election for a political position - is that community work or productive?

Because women are involved in tasks in all the three main areas, they are often expected to do a full day's work raising crops or working outside the home, plus housework and child-raising, plus community obligations. Men are mainly involved in productive and community tasks.

**Discussion Point 2**

In your society, do men or women take the greatest role in:

* reproductive tasks ?
* productive tasks ?
* community tasks ?

Is it different between social classes?

Is this the same throughout the country?

How are these three gender roles (reproductive, productive or the community) addressed, if at all, in the national energy policy?

Are men and women's roles, and hence needs, seen differently in this project?

Do you think that the needs of men and women are equally met in these projects?

**Practical versus Strategic Gender Needs/Interests**

Another analytical approach considers that gender roles have different assigned tasks which have different needs, including energy, to be met. These needs are divided into practical and strategic. They are always context specific, which means they depend on local circumstances and are influenced also by variables like age and civil status. In the context of energy however it is more helpful to consider three sets of needs or interests: practical needs, productive needs and strategic interests.

The words “needs” and “interests” are used somewhat interchangeably. However, there has been some debate amongst gender specialists as to whether or not they have different implications. If women are recognised to actively define their own demands, then some consider the use of the term “needs” in planning to give the wrong inference. The implication is that women are passive recipients of assistance, whereas the term “interests” is considered by some to be more active and hence more representative of the way women behave[[6]](#footnote-6).

*Practical needs*:

Interventions to meet practical needs aim to make women’s and men’s lives easier and more pleasant. However, such interventions do not challenge the accustomed tasks and roles of women and men in the household or in society, or their gender relations. That is to say, they do not upset the traditional balance of power and authority between men and women. They are needs primarily related to activities that keep the household running and the family’s daily survival is ensured. Some household activities can also include improving household income. In this framework, practical needs are an amalgamation of practical and productive needs in the triple role framework. This is not surprising given that many of women’s income generating activities are carried out in the household and are actually based on practical household tasks, such as cooking and sewing, and are carried out in parallel with their household responsibilities.

Examples of energy services to meet practical needs are household lights (which can also extend working hours for income generation), improved cooking stoves for household use, improved supply of fuelwood for household use etc.

*Productive needs*:

Productive needs are those that if resolved, allow women and men to produce more and better products. Addressing productive needs is often promoted for income gain, however, clean energy forms and new technologies might also make the work easier and reduce drudgery which can free up time for rest and recuperation. However, does meeting productive needs change gender relations within the household and community? Some researchers do claim that a woman’s status within the household improves when she contributes to the household income. There is no universal answer since the outcome depends on the context and the objectives of the intervention.

Examples of energy services to meet productive needs are power supplies which facilitate the use of food drying installations, sewing-machines etc; knowledge concerning manufacturing and selling of cooking stoves and other energy technologies.

*Strategic interests*:

Strategic interests are those which relate to women changing their position in society and which help them gain more equality with men, and transform gender relations. Men also have strategic interests, for example, they wish to avoid conscription into a militia or they may resist women’s attempts to transform gender relations.

Examples of energy services which meet women's strategic needs are street lights which may enable women to participate the village council, radio and T.V. increasing women's knowledge and improving their self-esteem and confidence. However, it may require other inputs for these interests to be met, for example, societal attitudes may need to change before some women will go out after dark; women can only go to evening classes if they are available.

Women’s strategic needs are generally to do with addressing issues related to laws and gender contracts which tend to be biased against women. For example, in many societies certain groups of women (widows, divorcees, and abandoned wives) suffer economic deprivation as a result of their civil status, based on traditional or modern legal codes: their property can be removed from them by male relatives. In this context, a strategic need is to improve the status of women, for example, through laws which give women and men equal rights, and enforcement of these laws, which establishes their rights to land and other property. Other strategic needs for women may include laws on inheritance so that daughters have equal rights with sons, for example, and prohibiting violence against women. In most countries there are such laws but they are not always enforced. Some see these institutional approaches to addressing women’s strategic needs as too long term and look for other solutions which will bring changes in women’s societal status more quickly. For example, women earning an income through an enterprise (such as a battery charging business) have been found to increase their status, accompanied by greater influence in decision making and control over resources, within their family and community.

**Discussion point 3**

Do you agree that energy policy should contribute to women’s strategic needs?

Explain your reasons.

If your reaction is positive – give some examples of how energy policy can contribute to meeting women’s strategic needs.

**Box 1 Case study: Addressing multiple needs through income generation.**

In Mali the Multipurpose Platform Project provides decentralized energy to rural areas in response to requests from women’s associations in the villages. The fundamental energy need for poor rural women in Mali is to find appropriate and affordable substitutes for their own energy, so that they can engage in activities that generate income, and that provide benefits for themselves and their families.

The platform consists of a small diesel engine mounted on a chassis, to which a variety of end use equipment can be attached, including grinding mills, battery chargers, vegetable or nut presses, welding machines etc. It can also support a mini grid for lighting and electric pumps for a small water distribution network or irrigation system. The goal of the project is to install 450 such platforms. Through these platforms it is expected that approximately 8,000 women in rural areas will have access to improved opportunities for improved micro-enterprises. Increased income generating activities are anticipated (Burn & Coche, 2001).

*Blurred boundaries between roles, interests and needs:*

It is important to realize that the boundaries between these needs are not fixed. What is a practical need in one case may well be a strategic issue in another. For example, in a society where women regularly run small businesses, such as in many West African societies, provision of electricity to replace kerosene in the women’s shops could be seen as a productive need – one that improves the functioning of the enterprise. In another society, the provision of such electricity might for the first time open up the possibility of a small enterprise, in which case it could be seen as a strategic issue.

The case study in Box 1 describes a project in rural Mali which addresses not only the practical and productive needs of women, but also their strategic interests. Their daily tasks, which used to take a lot of human energy, have been relieved (i.e. their practical needs have been met). Additionally, they are able to produce new, better and more products to gain income (thus meeting their productive needs). Finally, the creation of a decentralized energy enterprise owned and managed by women generates strong dynamics for structural transformation, in a setting where land and agricultural assets are traditionally owned by men and tasks are performed by women as unpaid obligations to men. The enterprises enable women to change their position in society and therefore also serve to meet strategic interests of the women. It should be kept in mind that not every invention will be able to, or needs to, address multiple needs.

Table 1 gives some examples of how different energy forms can meet women’s different needs or interests for the two different frameworks. Energy policy often places a lot of emphasis on electrification and in those countries with fossil fuel reserves, on the extraction of these resources for export or electricity generation. Less attention is given to other energy forms. This table reminds us that other forms of energy play an important role in meeting needs and interests. The table also focuses on women. The energy forms can also be important in men’s livelihoods, however, the intention here is to address gender gaps hence the focus on women.

**Table 1*:* Examples of energy projects to address women's needs and interests using different gender analytical frameworks**

(Source: Clancy, Skutsch, and Batchelor, 2002)

|  |  |  |  |
| --- | --- | --- | --- |
| **Energy Form** | **Women’s needs and interests** | | |
| *Practical needs* | *Productive needs* | *Community tasks* |
| *Practical interests* | | *Strategic interests* |
| *Electricity* | * Pumping water supplies - reducing need to haul and carry * mills for grinding * lighting improves working conditions at home | * increase possibility of activities during evening hours * provide refrigeration for food production and sale * power for specialised enterprises such as hairdressing and internet cafes | * make streets safer allowing participation in other activities (e.g. evening classes and women’s group meetings) * opening horizons through radio, TV and internet |
| *Improved biomass (supply and conversion technology)* | * improved health through better stoves * less time and effort in gathering and carrying firewood | * more time for productive activities * lower cost for process heat for income generating activities | * control of natural forests in community forestry management frameworks. |
| *Mechanical* | * milling and grinding * transport of water and crops | * increases variety of enterprises | * transport allowing access to commercial and social/political opportunities |

**Types of gender analytic tools**

Gender analysis of energy policy takes place at two levels:

* Policy Level in which the existing policy content is analysed;
* Planning/Implementation level in which the approach to data collection, in particular identifying women and men’s needs and priorities as well as the impacts of interventions from a gender perspective are analysed.

*Gender Review of Key Energy Policies Documents*

At the policy level a gender analysis can be made of key energy policy documents and any of key national energy programmes. The analysis can be made using a tool known as a Quick Scan which is a checklist of questions (see Table 2), the response to which will identify gender gaps as well as strengthens in the energy policy. If a positive response to the questions is provided, details and evidence to support the response should be given. If a negative response to the questions is provided, details and evidence should be provided for why the gender gaps exist. The analysis could be made by the gender team as part of the GAP development and presented at a review workshop for feedback.

**Table 2: Quick Scan for Gender Analysis of Energy Policy Documents**

|  |  |
| --- | --- |
| **Name of policy document** |  |
| **Who uses them and for what purpose?** |  |
| **Energy Policy Issues** | **Checklist of Gender Related Questions** |
| **Overall** | Conduct a quick search and indicate how many times the following key words are mentioned in the document: gender, women, men, women’s empowerment, gender mainstreaming, and gender equality, female-headed household, men’s participation, women’s participation, women’s income generation, men’s income generation. |
| **Policy vision and goals** | Is promoting gender equality and women’s empowerment included as one of the policy goals?  Do the policy goals contribute to correcting gender imbalances through addressing practical and/or, productive and/or strategic needs of men and women? |
| **The policy context** : | Is the gender dimension highlighted in the background information and the problem statement to the policy?  Does the justification affirm national or international commitment to gender equality and women empowerment?  Does the justification include convincing arguments for gender mainstreaming in the policy? |
| **Supply and Demand** | Are gender constraints and other gender issues considered in: energy production/supply by source and energy demand and consumption by sector?  Has the data on these been analysed for gender differences that may affect achievement of policy objectives?  How does the energy policy combine energy needs with gender needs in order to address gender inequalities in access, availability and affordability of energy services? |
| **Target groups** | Are the target “beneficiaries” of the energy policy identified by gender, ethnicity, age, and socioeconomic status? |
| **Policy measures** | Do the policy measures consider the potentially differential benefits/impact on men and women to increased access and affordability to energy services especially:   * extension of power grids, * promotion of renewable technologies and decentralised small-scale energy systems * increased availability of liquefied petroleum gas (LPG) and Kerosene * sustainable use of biomass and biomass based technologies, etc * increase extraction and supply of oil and gas   Has the potential negative impact of the policy measures been considered (e.g/ potential increased burden on women or social isolation of men)?  Do the modalities of implementation of the measures reflect the integration of gender roles and strategic, productive and practical gender needs?  Do the modalities of implementation reflect separate measures to empower women? |
| **Policy making process** | Was there a public consultation with women and men (as beneficiaries/consumers) in the formulation in of the policy? If yes, give evidence and methods that were used, when, and how many. What were the strengths and weaknesses of the methods?  How did the policy planning process and formulation of implementation strategies make use of the results of the above mentioned consultation?  Were gender experts involved in the formulation of the policy?  Were gender issues on the agenda during the policy definition or in any other part of the policy making process? Explain in what context and how important they were considered?  Where there specific people or institution advocating or championing the inclusion of gender during the policy formulation? If yes, at what levels was this support located? If no at what level was this resistance located? |
| **Energy statistics, data and indicators** | Was the analysis of sex disaggregated data and gender statistic used in the formulation the policy?  Are sex-disaggregated data and gender statistic collected and used systematically in planning and reporting?  What are the prospects and challenges in collecting and analyzing sex disaggregated data and gender statistics in the energy sector? |
| **Implementing organisation** | Do the organisations that will implement the energy policy have the capacity and resources to work with gender mainstreaming strategy?  What is the attitude of key actors in the implementation of the policy to a gender responsive energy policy?  Do women’s organization, networks, and gender experts advised or participate in the implementation of the energy policy. |
| **Monitoring & evaluation** | Are there gender-sensitive indicators for monitoring or evaluation i.e. tracks progress and measure differential impact on men and women?  Do they indicators measure gender aspects of each policy objective?  Are the indicators used to monitoring or evaluation the energy policy disaggregated by sex?  Do the indicators measure how the energy policy contributes to national and international gender commitments. |
| **International, Regional & National Context** | Is the energy policy informed and taking into account (e.g. setting priorities, partnering etc.) the international UN conventions on Gender Equality, ratified by the government of Lesotho?  Is the energy policy informed and taking into account regional conventions (e.g. African Women’s Protocol)?  Is the energy policy informed by national policy on Gender Equality, legislative frameworks on Women Rights/Gender Equality and gender in the PRSP or national development plans? |
| **International partner** | Do key international actors linked to the energy sector consider gender equality and women’s empowerment a priority?  Is gender mainstreaming included as part of their development cooperation objectives for the energy sector?  How do key international actors influence gender mainstreaming in the energy sector?  What, mechanisms or resources do they use to support gender mainstreaming in the sector? |
| **Budget** | Are gender equality objectives reflected in both regular budget allocations and extra-budgetary allocations?  Does the implementation report of the energy policy include a budgetary analysis?  Is the format for budget reporting transparent and disaggregated by gender according to activities, research, area of work, etc.?  Are there separate budget allocations for women and gender mainstreaming (e.g. gender trainings)?  Are DoE staff members encouraged to earmark funds for gender mainstreaming in technical cooperation projects? |
| **Communication strategy** | Does the communication strategy for informing various publics about the existence, progress and results of the energy policy include a gender perspective?  Do women’s organisations and gender experts have a role in these public arenas? |
| **Employment** | What factors affect the different levels and types of employment of women and men in different energy subsectors, both formal and informal? |
| **Financial mechanisms** | To what extent have gender issues been taken into consideration in subsidies, tax incentives, tariff, and other financial mechanisms in the energy sector?  Are there incentives to support small and informal sector businesses? |

*Integrating gender analysis at the implementation/programme planning level*

A gender analytical tool is just a way of organizing and presenting information to help the planner understand the situation and make well-founded decisions. Basically there are two types of gender analytic tools in development planning and implementation:

* gender matrices: which are tables that tend to compile data on male/female differences (e.g. in roles, in access to resources), or use other dichotomies, and which by their nature lend themselves to quantitative (or very brief qualitative) types of data.
* gender checklists: which are sets of questions which work as aides-memoires and provide a structure for compiling gender related data, and which on the whole ask for qualitative responses.

There are many gender tools which are commonly used by development planners, for example the Harvard matrix and the Gender Assessment Matrix. However, experience has shown that these tools are not very helpful for *energy* planning since:

* Firstly, they give no direct guidance on how to determine desired gender development directions (they do not work from the basis of identified gender goals).
* Secondly, they do not ask the very simple question: What forms of energy do women use, for what activities? What forms of energy do men use, for what activities? What kinds of energy would increase women’s welfare, increase their productivity, and help empower them? And how do I need to design my project to ensure that women have some say over the outcomes?

For these reasons, ENERGIA together with the University of Twente has developed a set of analytical tools and an analytical framework based on specific gender questions related to energy needs of women and men in their community. The tools are intended to be used by the planner as a guide to structuring and organising data in a gender sensitive way. In order to obtain the necessary data to put in the matrixes and the checklists, different sources will be used (see above). These tools are integrated into the analytical framework outlined on the next page which include the gender/energy questions that are likely to come up in each stage in project planning are listed. At the stage of problem analysis and project formulation, there are two sets of questions in parallel: one set for projects of the energy technology type and one for the integrated development project type. Questions about the stakeholders, assumptions and external factors, as well as the summing up, are common to both types of project. This construction is to reflect the reality there are at least two different project planning situations in which gender and energy need to come together, and some variations of these.

* **Energy technology projects**: In the first place there are the kinds of projects which are promoting one or two particular types of technology, such as solar home systems, or improved stoves, or decentralised mini-grids. These are focused on the problems of dissemination and adoption of this type of technology. In some ways such projects can the thought of as supply driven; the purpose is to promote certain kinds of energy technology, for the good of a given population. In this case the main question that arises from a gender point of view is, to what extent will this technology, or these technologies, bring about positive gender impacts? An energy technology project does not necessarily have to be initiated in the energy sector, for example, smokeless stoves could be initiated as a health sector project.
* **Integrated development projects**: Integrated development projects try to assist communities to develop over a broad range of sectors, of which energy may be just one, and in which energy may be just a component necessary for achievements in other sectors. The gender/energy question then becomes, what are the energy components necessary to achieve overall goals, including gender goals, and how can these energy requirements best be satisfied? A variation on this model is women’s development projects, where the target is clearly women. The question then becomes: to what extent is energy hindering the achievement of the gender goals and how can energy be used as a vehicle for the furtherance of women’s development?

The Ministry of Energy, its agencies and the utilities will probably be involved in the first type of project. The starting point for these two types of project is different, and therefore it is logical that to some extent the approach to gender must reflect this, particularly in the problem analysis and project formulation stages. However, in both cases the main line of reasoning is the same. The assumption for both is that a participatory approach is used in policy formulation and implementation in which the community (target group) plays a significant role in defining the problems and setting priorities. In general one could say the main steps in both types of planning will be as follows:

* Identifying stakeholders: Who is involved?
* Problem analysis – what is the problem and how could we solve it (= project formulation)
* Identifying assumptions and external factors that could influence the project in a negative way
* Summing up before moving on to project implementation

These steps are normally carried out in all implementation planning where a standard project cycle, logical framework, or a sustainable livelihoods approach is used. The gender mainstreaming approach is to introduce the gender element at every stage, using gender analytic tools specially designed for energy.

The framework is not supposed to be rigid – it is only a suggested path to guide the GFP and planner. It is up to the GFP and planner to use those aspects of the framework that she/he thinks will be useful.

**Concluding remarks**

Identifying needs and gaps in energy policy forms an important part of the Gender Action Plan. Once the analysis has been done, the next step is to define gender goals as part of creating a gender-aware energy policy.

**Sources**:

ENERGIA *Handbook for Gender Audit of National Energy Policy for Lesotho* (Draft), December 2010.

ENERGIA *Gender Tools for Energy Projects*, Module 2, The Gender Face of Energy

Kyran O’Sullivan and Douglas F. Barnes (2006), Energy Policies and Multi-topic Household Surveys: Guidelines for Questionnaire Design in Living Standards Measurement Studies. Energy and Mining Sector Board Discussion Paper No.17, The World Bank, Washington, DC.

**The ENERGIA Gender Planning Framework**

*in the future, could they be used?*

**Project**

**Integrated Development**

*technologies?*

*What are people's views on the proposed energy*

*B\*4.*

*A4. What indicators should be used to measure achievement of gender goals?*

*sensitive way?*

*Is the implementing agency sufficiently aware of gender issues to ensure the project is implemented in a gender*

*C5.*

*A1. Who are the stakeholders?*

*or control over energy sources and technologies used?*

*B\*3. Who (men/women) has access to and/*

*a high priority for people?*

*B\*5. Is the adoption of this energy technology*

*be applied? In what ways are they involved?*

*involved in the activities to which this technology might*

*B\*2. Who (men/women) are, or will be,*

*undertaken, or which are likely to be undertaken*

*and Z) in what kinds of task currently*

*can offer energy technology type X (or types Y*

*B\*1. Given that the project is working with /*

**B\*. Problem analysis / Project formulation**

are you involved in?

What kind of project

*D1. What are the appropriate gender indicators for the project's gender goals?*

*these benefits relate to the gender goals?*

*D2. Given the proposed energy technologies, what effect will they have on the quality of life of men & women and how do*

**D. Summing up**

*C6. What opportunities follow from international, national or regional policies?*

*C4. Who (men/women) are going to be involved in management and under what arrangements?*

*building necessary? If so, for whom?*

*C3. Who (men/women) are going to be involved in maintenance and repair; and is capacity*

*use of the energy technology and participation in implementation?*

*C2. Who (men/women) have access to and control over key resources critical to adoption and sustainable*

*and by the proposed means of implementation?*

*C1. Who (men/women) will benefit/be disadvantaged, and in what way, by adoption of the proposed energy technologies*

**C. Identifying assumptions and external factors**

**Project**

**Energy Technology**

*energy technologies and what are their priorities?*

*the views of men and women on the value of the proposed*

*as possible solutions to improve their lives? What are*

*B5. What energy technologies do people themselves see*

*controls energy sources and technologies used?*

*B4. Who (men/women) uses, and who*

*activities which they plan to undertake in the future?*

*and what are the energy requirements of any new*

*are involved in the activities people presently undertake*

*B2. What energy sources and technologies*

*women) have prioritised?*

*play a part in improving the tasks that people (men/*

*B3. In what way could energy technology*

*and in what way?*

*community (men/women) most like to improve*

*B1. What tasks would people in the*

**B. Problem analysis / Project formulation**

*A2. What subdivisions among men and women in the community need to be recognised?*

*What opportunities/constraints do local cultural practices pose to the planning process?*

*A5.*

*A3. What are the gender goals of the stakeholders and subgroups?*

**A. Identifying stakeholders**

**EXERCISE**

For this assignment the facilitator will organise you into working groups.

In the box you will find an extract from the Energy Policy of an African State which addresses gender issues (alternatively the facilitator may provide you with an extract from your own Energy Policy). Using the questions below (which are from the quick scan in Table 2) make a gender analysis of the energy policy. Some questions you may not be able to answer. These should be noted since they form gender gaps in the policy.

You have 30 minutes. The facilitator will ask you to present your analysis in plenary.

|  |  |
| --- | --- |
| **Energy Policy Issues** | **Checklist of Gender Related Questions** |
| **Overall** | Conduct a quick search and indicate how many times the following key words are mentioned in the document: gender, women, men, women’s empowerment, gender mainstreaming, and gender equality, female-headed household, men’s participation, women’s participation, women’s income generation, men’s income generation. |
| **Policy vision and goals** | * Is promoting gender equality and women’s empowerment included as one of the policy goals? * Do the policy goals contribute to correcting gender imbalances through addressing practical and/or, productive and/or strategic needs of men and women? |
| **Supply and Demand** | * Are gender constraints and other gender issues considered in: energy production/supply by source and energy demand and consumption by sector? * Has the data on these been analysed for gender differences that may affect achievement of policy objectives? * How does the energy policy combine energy needs with gender needs in order to address gender inequalities in access, availability and affordability of energy services? |
| **Target groups** | * Are the target “beneficiaries” of the energy policy identified by gender, ethnicity, age, and socioeconomic status? |
| **Policy measures** | * Do the policy measures consider the potentially differential benefits/impact on men and women to increased access and affordability to energy services especially: * extension of power grids, * promotion of renewable technologies and decentralised small-scale energy systems * increased availability of liquefied petroleum gas (LPG) and Kerosene * sustainable use of biomass and biomass based technologies, etc * increase extraction and supply of oil and gas * Has the potential negative impact of the policy measures been considered (e.g/ potential increased burden on women or social isolation of men)? * Do the modalities of implementation of the measures reflect the integration of gender roles and strategic, productive and practical gender needs? * Do the modalities of implementation reflect separate measures to empower women? |
| **Energy statistics, data and indicators** | * Was the analysis of sex disaggregated data and gender statistic used in the formulation the policy? |
| **International, Regional & National Context** | * Is the energy policy informed and taking into account (e.g. setting priorities, partnering etc.) the international UN conventions on Gender Equality? * Is the energy policy informed and taking into account regional conventions (e.g. African Women’s Protocol)? * Is the energy policy informed by national policy on Gender Equality, legislative frameworks on Women Rights/Gender Equality and gender in the PRSP or national development plans? |

**Energy Policy Extract**

As is typical in developing countries [*in our country there is*] limited access to modern fuels and electricity contributes to gender inequality. Women and children are responsible for most household cooking, gathering firewood or making charcoal, and fetching water. This takes time away from other productive activities as well as from educational and social participation.

Access to modem fuels eases the domestic burden on women and children, reducing the strain on their health and allowing them to pursue educational, economic, and other opportunities. Modern energy services allow health clinics to refrigerate vaccines, treat patients at night, and educate via television and radio. Improvements in health raise human productivity, which in turn raises incomes. Access to electricity also leads to significant reductions in maternal mortality. Women who have no opportunity for school during the daytime can take advantage of night literacy classes, which require electricity to function.

Economic productivity can increase significantly once women and children are free from the daily burdens of fetching firewood, making charcoal, and walking long distances to fetch water. They can become gainfully employed in industries such as tailoring, which makes use of electric sewing machines, and other cottage industries such as small bakeries, canteens, and laundry services, which require very little electricity yet can transform lives. Women can also become active in the development of rural energy services around the country, as well as carrying out marketing campaigns and teaching others about new lighting, cooking, and other technologies.

It is vital to identify and mitigate the negative impacts arising from the differentiated social and economic roles of men and women in the context of energy policy. Millennium Development Goal 3 addresses "promoting gender equality and women's empowerment." The Government will need to ensure that provision of energy services is targeted at narrowing the opportunity gap between men and women. Although the GOL has a ministry dedicated to gender affairs, it has no program or capacity to address energy-related gender issues. The Ministry of Energy, which should take a lead role in developing and implementing appropriate policies to address these important considerations, does not currently have the necessary resources to do so.

**APPENDIX 1**

**PARTICIPATORY TOOLS FOR QUALITATIVE DATA GATHERING**

This appendix contains some information on how to conduct focus group discussions and other common participatory tools which are used as tools for gathering mainly qualitative data. These approaches can be used in combination with quantitative household surveys. Qualitative data do not replace quantitative data entirely but they should complement each other. Each has its own advantages and disadvantages and most appropriate applications. Qualitative methods are particularly useful for dealing with sensitive issues, such as political influence within a community or ownership of project resources, and thus also for many gender issues, that are not necessary for obviously quantitative information, such as energy use. Qualitative data can, if necessary, be quantified at some stage in the analysis. Qualitative surveys can be carried out before quantitative surveys to help formulate and pre­ test questionnaires, or after a quantitative survey to follow-up interesting lines of enquiry. Qualitative surveys can help identify the most significant energy end-uses at the household and non-household level (agriculture, village enterprises, transport and utilities).

Before any energy field survey is undertaken it is necessary to characterise the population and area to be surveyed, identifying the different socio-economic groups, including their differentiation by agro-ecological zones and farming systems. It is important to recognise the strong linkage between agriculture and other rural activities, which in tum influence the form and amount of energy used. Next, the user groups can be identified. Gender is a very important way of disaggregating the target population, but it is of course only one means of classifying user groups. As has been noted earlier, it may be necessary to disaggregate men and women into subgroups if they have very different needs and potentials. Qualitative methods can then be used to identify significant energy end-uses and the possibilities for interventions. Initial surveys should deal with factual information. A rapport between the interviewer and interviewee needs to be established before complex social processes and private family relationships are discussed.

To ensure that gender aspects are incorporated into the data gathering, the survey team itself should preferably have a good gender division, as well as being multi-disciplinary. The responses to the gender of a survey team members by villagers is highly culturally dependent. Women team members should help to facilitate getting women involved in questions/discussion/interviews. However, it is not always the case that women team members get automatic access to wives. Young, single people are not always taken seriously in all cultures. On the other hand older people (and sometimes expatriates) are treated with such veneration it might be difficult for them to make contact with all social groups or develop a level of trust with them. Women team members are certainly not always rejected by male villagers. Some female researchers claim that their status as professionals allows them to be treated in a different way from village women.

The tools described here were developed for use in rural areas. Some researchers have expressed reservations as to whether or not the tools which require input from a group are as effective in urban settings where people do not have the same type of relationship with others as they do in rural areas. However, in-depth household interviews are considered to work in both urban and rural settings.

**In-depth household interviews**

Household surveys are probably the most well-known data tool, and they involve interviews with members of a household. Naturally where gender is a concern, care must be taken that women's views are heard as well as men's. In a family with a male head of household, often interviews begin with him and continue with other members (including wife or wives). However, if the man is present at the wife's interview, there is often a problem either because she does not like to speak up in front of him and allows him to answer for her, or because she gives the answers she thinks he will want to hear. One way around this is to have two interviewers working simultaneously with male and female members of the household, at different places in the compound or house. Ideally, a woman interviewer would interview the women and vice versa, but this is not always necessary. Interviews can be as a group or on an individual basis - the latter might avoid domination of the discussion by one member. Even within a group of women, there can be deference paid by junior members to the opinions of the senior wife, for example.

Household composition can be complex indeed there is no accepted standard definition of a household. In many cultural settings households can be seen to share common features (such as co-residence, joint production, shared consumption, and kinship links); however, anthropologists would caution that even within cultures there are possibilities for diversity. Households are also dynamic. The composition changes over time, through natural life processes of birth, marriage and death – but also temporary relocation for a range of reasons such as schooling or employment. In many cultures the man is regarded as a head of the household, even if he is working away from home. So a woman can be the actually head of a household, if there is no senior male family member who is part of the household, or she can be the temporary head in her husband’s absence. Both situations can bring different challenges. There are also increasingly child headed households. Therefore in order to get an accurate reflection of the situation it is very important that not only households with the male head in residence are interviewed.

A structured questionnaire is easy for the interviewer to work with - the questions are all set out - and the results can be directly compared from household to household, and easily tabulated (even computerised). On the other hand it limits the possibilities for gathering rich data, and does not allow interesting avenues to be explored should they suddenly become apparent. An example of a structured questionnaire can be found in Appendix 2.

If the sample size is not too big therefore, it is recommended that semi-structured methods are used. Interviewing starts with more general questions or topics which have been identified before-hand, for example stoves or grain milling, and some relevant issues such as availability, expense, effectiveness which can form the basis for more specific questions which do not need to be prepared in advance. The advantage is that it allows for flexibility to discuss details or issues. The conversation can go in any direction the interviewer wants, provided he/she knows roughly what topics might be of interest.

The art of doing semi-structured interviews is firstly in listening very carefully, and understanding not only the words that the interviewee says, but finding out why certain answers are given, and knowing when to press the interviewee for a bit more detail. This is known as 'probing', and it can only be done if the interviewer has some ideas already in the back of his/her mind about why certain answers are being given. If the first question is 'where do you go to gather fuelwood?' and the answer is 'I go to a forest about 6 km away', the probing question is then 'why do you go to that forest particularly, it is a long way?'; the answer may be, 'there is enough wood there, I don't get into trouble if I gather there', and the second probing question might be 'what sort of trouble do you get if you go elsewhere?' and so on. A semi-structured interview should aim at a conversational, two-way communication; the interviewee should not only feel free to ask questions back to the interviewer, but that he or she is actually in a debate or discussion with the interviewer, a debate in which all kinds of opinions can be voiced and discussed.

For semi-structured interviews a framework for guiding the interview is needed otherwise the information may be too general to be of any use for the intended purpose. The framework could be in the form of a matrix, for example:

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Awareness of energy technology options | Problems | Suggestions |
| Grain milling |  | Questions about problems with milling |  |
| Beer brewing |  |  |  |
| Water collection etc | Questions about awareness of tech options |  |  |

Only brief notes should be taken during the interview. Too much writing will inhibit the conversation and make it more formal and one sided. Ideally the interviewer should then immediately spend at least a quarter of an hour writing up in more detail the main things that have been learned as a result of the interview. If you go on instead right away to the next house for a second interview, much of your impression of the first interview will be lost.

**Focus Groups**

A focus group should consist of a homogeneous group of people based on a common characteristic eg fishermen, women street vendors. Depending on the community you may be able to hold a focus group of women and men together but one should precede this with separate women and men’s meetings. If there are too great a degree of variation, discussion can be too one sided, for example,

A group is anything from 5 to 15 individuals (not more). You will need to identify your group(s), usually through a key informant who knows the community well. You then need to organise a meeting that is at a time convenient to the group not to you. Remember women are particularly time poor. If the meeting is after dark you will need to give some thought as to how women will get to and from the meeting.

Be clear what the purpose of the focus discussion group is about. Do not raise expectations that participants can expect to benefit directly as an outcome of participating the meeting. The aim is to gauge people’s opinions only. Indicate the length of the meeting (maximum 2 hours – people get bored if it goes on too long).

Make a list of the questions you want to bring to the discussion or issues about which you need information. Consider carefully how you will express these questions (do not use terms like ‘empowerment’ and ‘efficiency’ which will clearly not be understood). It is a good idea to try out the wording of your questions with someone who is familiar with the village, before the session takes place. Use concrete terms rather than abstract ones and always have examples from the local context to explain any terms you using.

Identify, possibly with the help of village leaders, suitable candidates who are willing to take part in the focus group. Verify that they are indeed members of the group intended. Arrange a time which is convenient for the participants, and schedule about 2 hours. It is particularly important to check when women can attend since they are generally more time poor than men.

Make sure the meeting place is reasonably comfortable and provide some refreshments (eg cool drinks)

The facilitator should make it clear by seating position and body language that he/she is there as facilitator and not as leader of the discussion. It may be sensible to use female facilitators in female groups and vice versa but this is not always necessary. The facilitator should have a good grasp of the local language, or have a translator on hand who is sensitive to the gender issues being discussed. Note that women are less likely to speak the national language than men.

Someone should take notes. This could be a colleague of the facilitator, or one of the group members (if the group is large and if there are people who are really skilled at note taking). If the facilitator doubts the ability of the note-taker, he/she can interrupt the discussion occasionally by saying to the group “I think that’s an important point, don’t you? Shall we ask XXXX (the note-taker) to record that?” The note taker should read out the notes before the session ends, so that people can make comments and corrections.

Introduce the session by explaining in general terms what the discussion is going to be about and why it is being carried out; also why this particular group of people has been chosen (mention that other groups are also discussing the same issues elsewhere or at other times).

Start with a general question which is easy to discuss (not necessarily a simple question, which can be answered with a yes or a no – the idea is to get people used to the idea of discussing). Do not start with a controversial issue. If you have controversial issues leave these till later or even to another session, when people are used to the idea and to you.

Encourage different points of view and explore the reasons behind these to find out whether they are really differences of opinion, or just different ways of using words.

If one or two people begin to take over most of the conversation while others remain quiet, trying to bring this more into balance. You can quite openly say, “Mrs X has contributed a lot of useful ideas to the discussion, but I would really be interested to hear also what Mrs Y has to say”. Do not blame people for not speaking up.

If some people really persist in silence, you need for find out whether this is because they disagree with the way the discussion is going but are afraid to contradict. You cannot do this during the session itself; do not embarrass people by asking such a question, especially not in public. Another reason could be that they really do not understand the issues that are being discussed. It is also possible to ask a key informant with knowledge of the community (eg teacher) for clarification.

People also use "body language" to express disagreement, for example, quiet laughter or shuffling in their seats.

You can use a variety of PRA methods within a focus group, such as priority ranking and pebble ranking. The Box below gives examples of questions used with focus groups at a participatory workshop to identify gender needs and gaps in the energy policy of Liberia[[7]](#footnote-7).

**Questions used with a Focus Group Workshop**

**for Women and Men from Monrovia, Liberia**

One of the assignments during the workshop was to divide the group of around 25 participants into four groups: one women’s group, one men’s group and two mixed groups. They were then asked to answer the following questions:

1. What types of fuels do you use for cooking?
2. What types of fuels do you use for lighting?
3. What fuels do you use in undertaking business activity?
4. What fuels are used to provide community services? (eg safety at night, clinics, schools, entertainment)
5. Any others?
6. Have there been changes in the above uses over time? And why?
7. What problems do you have in relation to the fuels you use?
8. What fuels do you want to use to improve your life?
9. Any other issues/concerns/comments?

**Priority ranking**

Priority ranking is a very simple way of getting people to say which things are more important and which are less important. The number of items should not be more than five (with more than five the technique does not work well, and pebble ranking is a better method).

First of all the items which have to be ranked are discussed so that it absolutely clear to people what they are. For example, women might be asked which task takes up most of their time: preparing grains, cooking, fetching firewood, fetching water, working in the field. First some discussion may be needed to ensure that the differences between these activities are distinct. This may not always be the case: for example, firewood may be fetched on the way home for working in the fields; preparing grains may be considered part of cooking (eg parboiling of rice). This has first to be sorted out.

Then each activity is indicated by a symbol: perhaps a cooking pot for cooking, a small bag of flour for preparing grains, a twig for fetching firewood etc.

Discussion then starts about: “which is the most time consuming?” The groups must collectively decide which this is, and place the symbol on a flat surface (the ground or a table). Then ask what the least time consuming activity is and place the symbol for this activity at the opposite end of the space.

Pick up one of the remaining symbols and ask where this should go. There will always be discussion at this stage – but by this time people will have got the idea, and the remaining 3 symbols will be placed in their correct order between the two extreme ones. If the group is really on the ball, they might even space out the symbols to represent the relative differences in time taken!

This technique can also be used for questions of value: for example, priorities between different wishes for the future: What is more important; a new school building, a clinic, a public telephone or street lighting.

Or for preferences with regard to close substitutes for each other: for example, different models of improved stoves.

The trick with using this kind of technique is to get people not just to make the ranking but to explain their reasons for the ranking.

The note –taker should note the final ranking and also the reasons that were given.

**Pebble ranking**

Pebble ranking is useful when there are more than five items to consider.

Again symbols are agreed which represent the items to be ranked. For example, the importance of different fuels (how often each type of fuel is used for cooking). In the worked example given in Unit 2.3, there were seven different types of fuel being used in the village.

The symbols representing the items are lined up in any order, in a straight line.

The group is given a small bucket full of pebbles of approximately the same size (any other counters will do just as well: grains of maize would do, but slightly larger, heavier and more visible counters, which will not blow away or get eaten by a passing chicken are to be preferred).

If there are seven items, the group is asked first to take seven pebbles out of the bucket and place them all beside the item which is most important. Allow time for discussion about this.

Then ask the group to take out six, and place them all by the second most important item, and so on.

This method gives simple ranks. If several different focus groups perform this exercise, it may be possible to combine the results. This is what was done in the example given in the worked example on the different kinds of fuel used. In that example, there were six groups each of which made a ranking of seven types of fuel. The results for each fuel were simply summed across all the groups.

A variation on this method which is a little more sophisticated but which may give more reliable quantitative results, is to given the group a fixed number of pebbles, say 100, and ask them to distribute them over the various items so as to represent the relative importance of each of them. Thus if one item gets 20 pebbles and one get 10, one is saying that the second is only half as important as the first.

**Village meetings**

Although focus groups are very helpful and informative, there will be cases when meetings involving a whole community need to be held.

The difficulty in such meetings is (a) that they are usually more formal than focus group meetings and (b) often, large numbers of people will not contribute to the discussion but wait for the ‘elders and betters’ to do the talking. Women in particular might feel reluctant to speak. This is just the way things go normally and you cannot do much about it.

Village meetings are particularly useful at the beginning of the process, to legitimate the whole process that you are beginning: they are a kind of protocol which is necessary to start work, and if you have not had such a meeting, at which normally the village leaders preside, people may not be willing to participate in focus group type meetings later. Such a meeting is necessary to give the villager leaders blessing to the work and to inform the villagers what the whole thing is about.

Village meetings are also very useful at the end of the process, to present the findings, and to allow people to discuss these findings and make adjustments in them.

With more than 20 people or so it is difficult to use PRA techniques so you have to rely on simple old fashioned presentation and discussion.

**Village mapping**

For some aspects of village energy planning a map may be very useful. In most cases there is no detailed map of the village which shows the relevant resources.

For example, if the aim is to improve the supplies of firewood, it may be necessary to know where firewood at present comes from.

Participatory mapping is best done outside in a flat, sandy (preferably shady!) area. The facilitator draws one or two (only one or two) highly recognisable land marks on the sand – for example, the road that runs through the village, with the mosque (symbolised perhaps by a stone) and the café at the other end (represented by a coke bottle).

Participants are then asked to place symbols for other landmarks – their houses, the river, the well etc, in the immediate vicinity of the village. Different people should be asked to do this – do not let one well-meaning individual do all the work.

Then ask where the fuel wood comes from and use twigs to cover the area indicated. The facilitator should try and check the accuracy of the scale of the map by asking: how far is it? How long does it take to walk to that area? And then pointing out the distance between the mosque/church/temple and the café/health centre/school for reference. Absolute accuracy will never be obtained, but some sense of order of magnitude as regards distances is not hard to get, in this kind of exercise.

This might also be useful for getting indications of where things might in the future be placed, for example, if the project is planning to start a woodlot, the location of this can be debated with the help of the map.

Areas of forest or other land which need special attention – eg degraded areas, can also be identified in this way.

An alternative is (if they are available) to use aerial photographs (not remote sensing satellite images which are confusing and too small scale). Air photos especially if they are blown up to 1:10,000 or so can easily be understood by people who have had no experience of them at all. Allow time for the group to orientate themselves – “here’s the road…. There’s the river…..that must be the reservoir! Etc. Such aids can be very stimulating because they are intrinsically interesting and challenging. People like challenges of this sort.

If you have a duplicate photograph, it is a nice "thank you" gesture to make it a present to the village.

**APPENDIX 2**

**GENDER DISAGGREGATED ENERGY BASE LINE SURVEY**

This survey protocol was developed for the AFREA Gender and Energy Programme. It is based on World Bank Working Paper No. 90: Energy Policies and Multi-topic Household Surveys: Guidelines for Questionnaire Design in Living Standards Measurement Studies. [It is recommended that you read this publication which was developed for ESMAP.] It has been tested in Kenya, Mali and Tanzania[[8]](#footnote-8).

The baseline data collected will help to assess which energy services are being used for a number of common household activities and income generating activities. The example of productive activities is based on agriculture in a rural setting. However, productive activities can be tailored to fit the local context. The later impacts survey will measure trends in transition to modern energy services and more efficient conversion technologies rather than absolutes.

There are **five** tables:

**Table 1**: identifies what the main household and productive activities are for a rural household, who does them and what energy technologies and services are used.

**Table 2**: identifies who takes the decisions. Who decides about acquisition and use is important in determining energy transitions and the improvements in intra-household well-being, as well as to who benefits.

**Table 3**: identifies who benefits and who decides about introducing a new energy service.

**Table 4**: gathers standard data about the type(s) of energy used in a community service, what it is used for and who uses it.

**Table 5**: identifies who uses and who has control over the public services in the community.

Indications of changes in gender relations, linked to women’s empowerment, can be seen if men become involved in household tasks (there is evidence for this in the World Bank EnPoGen study which showed this transition when electric equipment, such as irons, were bought). Women having control over income and opting to purchase modern energy carriers would not only result in impacts on well-being but can be interpreted as signs of their empowerment.

Asking men and women about their perceptions of change brought about by energy carriers is useful to cross-reference interpretations of data. In compiling the data a number of assumptions are made about the use of energy services:

*Household activities*

* The use of biomass for cooking (unless in an improved stove or used outside) will be assumed to be bad for women and children’s health.
* The use of kerosene for cooking and lighting will be assumed to be bad for women and children’s health but less so than biomass
* The use of modern energy carriers for cooking and lighting (LPG, biogas, electricity) will be assumed to be good for women and children’s health
* Health improvements for the household are assumed to accrue from reduction in drudgery, reduction in time poverty, increased time for rest, improved quality of food & drinking water.

*Productive activities*

* Household incomes will be assumed to increase if irrigation or mechanisation is introduced into the farming system
* Electricity or LPG will be assumed to enable new income generating activities or in existing activities improve productivity (increased output or quality improvements).
* Household income based on marketing of traditional energy carriers being threatened by transition to modern energy carriers.

*Indicators*

* Proxy indicators are used for *well-being* measured in terms of impacts on:
* Drudgery (access to modern energy carriers and technologies)
* Time to collect energy carrier
* Rest (due to reduction in time poverty)
* Improved quality of food (through mechanical or electrical processing technologies & storage),
* Health (energy carrier transitions)
* Perceptions of change (new energy carrier technologies bringing changes)

*Household income*

* Income improvements through irrigation, mechanisation, electricity use
* Income threats through transition to modern energy carriers

*Changes in gender relations:*

* Women buying modern energy carriers
* Men participating in household activities

**Adapting the tables**

The categories need to be adjusted to reflect the energy carriers available in the country as well as the types of activities to be surveyed.

**Tips on data collection**

* The data collection team should have good gender balance and should receive gender-sensitive training.
* Qualitative data should be used to complement quantitative data.
* Developing partnerships with different groups, women’s groups, NGOs, research institutes can be useful for data collection, particularly related to monitoring and evaluation. Such an approach also helps to build local capacity.

**Table 1**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **T1**  **Who does this activity?** | | |  | **Form of energy** |  | **Indicate which is the main form of energy for an activity & which is supplementary (M/S)** | | | | | | | **Electricity** | | | | |
| **Energy services** | **Men** | **Women** | **Children** | **Technology used**  **T2** | **Human or Animal[[9]](#footnote-9)**  **T3** | **Firewood**  **T4** | **Charcoal**  **T5** | **Agro waste**  **T6** | **Biogas**  **T7** | **LPG**  **T8** | **Kerosene**  **T9** | **Petrol**  **T10** | **Diesel**  **T11** | **Grid**  **12** | **Solar Home System**  **&/or solar lantern**  **T13** | **Generator**  **T14** | **Batteries** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Dry cell  T15 | Car  T16 |
| **Household activities** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Food preparation* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grain and legumes preparation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Obtaining water |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cooking |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Boiling water |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Storing food |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Other* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ironing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Study/Homework |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Watching TV/films; listening radio |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Reading |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Entertaining |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Productive activities** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Agriculture* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Field work |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Irrigation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transport of crops |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Processing of crops |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Livestock* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Preparation of food |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Milking |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Non-agricultural production* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Products made for sale, e.g. beer, food, clothes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production of charcoal for sale |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Collecting of firewood/ agrowastes for sale |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Table 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **For the main energy type only for each activity** | | | | | | | | | | | | |
| **Energy services** | **W1**  **Who decides on energy type & technology?** | **W2**  **What is the typical price your household pays per unit?** | **W3**  **How many units did your household buy in the last 30 days?** | **W4**  **Who pays?** | **W5**  **Who decides how much & when to purchase?** | **W6**  **Where is energy obtained from?** | **W7**  **Who is responsible for its collection?** | **W8**  **What form of transport is used?** | **W9**  **What is the one-way distance travelled to collect it?** | **W10**  **How long does the one-way journey take?** | **W11**  **Has the main energy type for the activity changed in the last 3 years?** | **W12**  **Why did you change?** | **W13**  **Has the change brought improvements to your life or your family’s life?** |
| **Household activities** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Food preparation* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grain and legumes preparation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Obtaining water |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cooking |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Boiling water |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Storing food |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Other* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ironing |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Study/Homework |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Watching TV/films; listening radio |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Reading |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Entertaining |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Productive activities** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Agriculture* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Field work |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Irrigation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transport of crops |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Processing of crops |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Livestock* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Preparation of food |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Milking |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Non-agricultural production* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Products made for sale, e.g. beer, crafts |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production of charcoal for sale |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Collecting of firewood/ agrowastes for sale |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Table 3 Energy and community services**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Facilities** | **Does the community have this facility?** | **Who uses this facility?**  **For what purpose?** | | | **Form of energy: (i) which is the main form of energy in the facility & which is supplementary (M/S)**  **(ii) indicate what it is used for (cooking/water boiling/lighting/space heating or cooling/refrigeration/entertainment/driving equipment/other)** | | | | | | | | | | | |
| **Electricity** | | | | | **Biomass** | | | | **Petroleum based** | | |
| **Men** | **Women** | **Children** | **Grid** | **Solar Home System**  **&/or solar lantern** | **Generator** | **Batteries** | | **Firewood** | **Charcoal** | **Agro waste** | **Biogas** | **LPG** | **Kerosene** | **Candles** |
|  |  |  |  |  |  |  |  | **Dry cell** | **Car** |  |  |  |  |  |  |  |
| **Health clinic** |  |  |  |  | (i) |  |  |  | |  |  |  |  |  |  |  |
| (ii) |  |  |  | |  |  |  |  |  |  |  |
| **Post Office** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **School** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Community Centre** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Local Government Office** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Grain mill** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Bakery** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Grocery Shop** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Barber/hairdresser** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Church/mosque/temple** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Street lighting** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Water pump (may be hand or animal operated)** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Telephone** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |
| **Other ….** |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |
|  |  |  |  | |  |  |  |  |  |  |  |

**Table 4 Benefits from existing community facilities**

This table should be completed for each existing public facility.

|  |  |  |
| --- | --- | --- |
| **Control** | **Men** | **Women** |
| *Acquisition* |  |  |
| * Who was the driving force behind the facility (e.g. community members, NGOs, government)? |  |  |
| * Who was involved in setting up / design of the facility? |  |  |
| * Who has paid/is paying for the facility? |  |  |
| * What energy technologies were available, and why was this one chosen? |  |  |
| *Access and benefits* |  |  |
| * Who owns the facility (private, community, government)? |  |  |
| * Is there a management committee and if so who is represented on it? |  |  |
| * Who appoints or elects the management committee/board? |  |  |
| * What benefits does it bring and for whom? |  |  |
| * Who decides on location? |  |  |
| * Are there any negative aspects? |  |  |
| *Maintenance* |  |  |
| * Who is responsible for maintenance? |  |  |
| * Who has access to resources necessary for maintenance? |  |  |

**Table 5 Who benefits and who decides about introducing a new energy service**

If a new energy technology is to be introduced then an analysis needs to be made to ensure that both men and women benefit from the technology, not only in terms of the end-use energy service but also in any opportunities that might arise such as improving knowledge and skills and employment opportunities. The knowledge and skills questions are also useful for training needs assessment.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Men** | **Women** | | |
| **Access** | | | | |
| Whose (men’s or women’s) problems does the energy technology or service solve? | | |  |  |
| Who (men or women) will benefit the most from it? | | |  |  |
| If there is to be a charge for the facility, who (men or women) will be able to afford to use it? | | |  |  |
| **Control** | | | | |
| Who decides whether to adopt the technology (men or women) | | |  |  |
| Who will be the ‘owner’ of the technology/service (man or woman) | | |  |  |
| Who decides which model or type (men or women) | | |  |  |
| Who decides where it will be located? | | |  |  |
| Who chooses (and pays for) any ancillary equipment or appliances? | | |  |  |
| Who is in contact with the supplier? | | |  |  |
| **Knowledge and skills** | | | | |
| Who (men or women) has the knowledge and skills to: | | |  |  |
| * + - Use the equipment | | |  |  |
| * + - Manage the system | | |  |  |
| * + - Install the equipment | | |  |  |
| * + - Maintain the equipment | | |  |  |
| * + - Understand and explain the safety aspects of the equipment | | |  |  |
| Who (men or women) is going to be trained to: | | |  |  |
| * + - Use the equipment | | |  |  |
| * + - Manage the system | | |  |  |
| * + - Install the equipment | | |  |  |
| * + - Maintain the equipment | | |  |  |
| * + - Understand the safety aspects of the equipment | | |  |  |

1. A gender gap is an observable and sometimes measurable gap between men and women in terms of socioeconomic indicators, such as ownership of land, attendance at school or participation in the labour force, which is understood to be unjust and provides evidence of a gender issue to be addressed. A gender gap in the energy sector in terms of end-users would include a measure of gender equity in access to, control over and use of sufficient quantities of modern energy carriers. [↑](#footnote-ref-1)
2. One should not underestimate the cost of these surveys. The World Bank estimates that a specialized household energy surveys with a sample size of between 2,000 to 5.000 households will cost in the range of US$50,000 to 150,000. Cost factors include sample and questionnaire size, local per diem, and salaries (O’Sullivan and Barnes, 2006). [↑](#footnote-ref-2)
3. Data gathering for a gender-sensitive organisation is dealt with in the Unit *Gender Organisational Assessment.* [↑](#footnote-ref-3)
4. One of the reasons relates to the collection and interpretation of qualitative data which leads some engineers and economists, who are more familiar with quantitative methods, can question the validity of the data. [↑](#footnote-ref-4)
5. See Appendix 1 for details of how to conduct such a workshop. [↑](#footnote-ref-5)
6. Kabeer (1994) quoted in March, Smyth and Mukhopadhyay (1999) [↑](#footnote-ref-6)
7. Workshop, held with financial assistance from Norad, to identify needs and gaps for gender mainstreaming in the Liberia energy sector, Monrovia, 24 November 2011. Some of the output in response to these questions can be found in the Unit Why is gender important in energy policy? [↑](#footnote-ref-7)
8. The data gathering in World Bank Working Paper P 90 is primarily quantitative related to amounts of energy carriers used and the price paid or time taken to collect fuels. Questions are posed in a gender neutral way. For example, while data is gathered about time taken to gather or fetch fuels, the question about who collects the fuel is only asked for fuelwood. Therefore the tables included here were designed to supplement the module in WP90 for use by the AFREA SWAT Team which collects data related to gender issues in rural energy. The AFREA module can be used in combination with the module WP 90 or as a standalone assignment. [↑](#footnote-ref-8)
9. Human and animals means work done by their physical effort (known respectively as metabolic and animate energy) [↑](#footnote-ref-9)