



Approach Paper for
**Scoping Study on Women's Entrepreneurship and Livelihood Generation
through Renewable Energy**
CAMBODIA AND VIETNAM

1. Purpose and scope of the study

The purpose of the scoping study is to carry out a preliminary assessment in cluster of villages, which have potential for developing and enhancing women's enterprise and their income generating activities through renewable energy. The specific objectives of the study are:

1. In-depth understanding about women's existing livelihood and household activities, impact of climate hazard-prone rural livelihoods, challenges faced and possible livelihood and enterprise development options that is climate resilient and can be supported through renewable energy (both as selling of renewable energy products as well as using renewable energy for other enterprise development). This will be done through detailed discussion with the community and local stakeholders (men and women).
2. In-depth understanding of the interventions in the past, current and planned, and a record of success and failures of existing schemes, etc. This will be done through detailed discussion with other institutional players such as Government Departments, NGOs, network of social institutions, financing institutions/Bank or any bilateral livelihood programs in the area.
3. Strategies developed for project interventions in order to create and develop sustainable, climate resilient livelihood options through renewable energy

The districts and cluster of villages will be identified based on the interactions with the provincial and district administrations, partner's view and experience as well as on certain selection criteria as mentioned below. The scoping studies will also cover listing down other developmental activities/initiatives undertaken by government or any other institutions in the districts, any existing funding mechanism to support women or livelihood generation activities, any capacity building programmes and or similar relevant information

2. Approach for site selection

2.1. Selection of Provinces

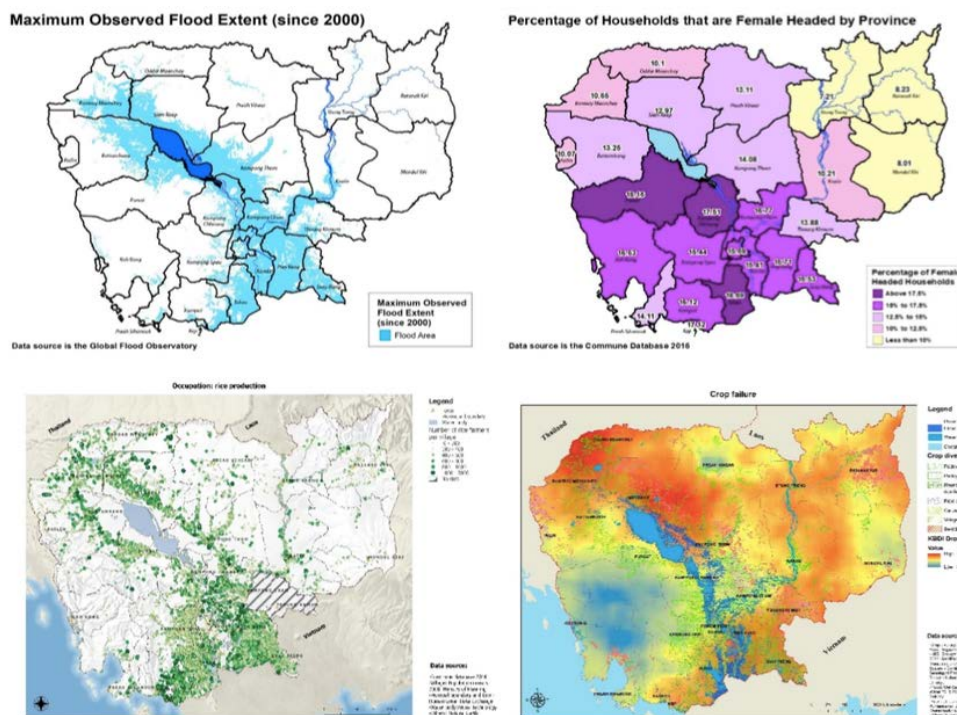
To roll out scoping and pre-feasibility studies (in implementation phase) for renewable energy and women's entrepreneurship, the following regions/provinces are identified during the inception phase. The provinces are identified based on the following preliminary selection criteria which was also validated by relevant stakeholders in each of the three country.

- Provinces ranking high on poverty and low on gender equality: The regions with high poverty rate where more than 40-50% of the population is below poverty line
- Regions/provinces impacted by climate change and disasters: The highly vulnerable regions with high risk index due to flood, drought, river bank erosion, saline water intrusion
- Locations where women are predominant in some value chains which offer high potential gains from energy interventions
- Existing access to energy
- Existence of local organizations/NGOs/women's groups that would take ownership of the intervention. It would be good if the energy entrepreneurship interventions can add value to an existing programme
- Supportive government machinery and developmental programmes and potential linkages with UN Women or potential partner's programmes
- Existing financing schemes for women entrepreneurship or renewable energy

For Cambodia:

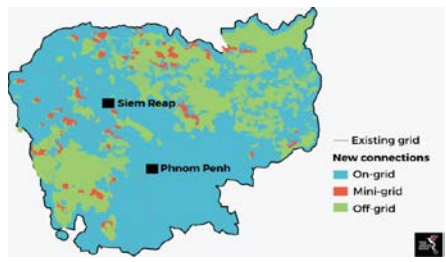
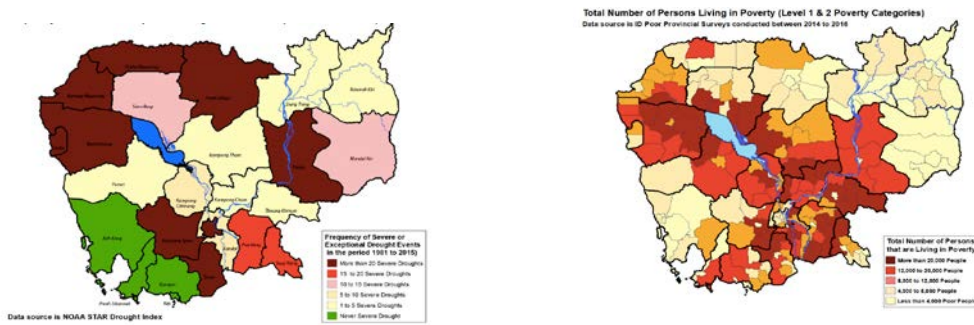
The following maps shows the various profiles of cambodia .

These maps suggest that the southern region (in Takeo, Kampot, Kampang Speu) may be a productive area to engage in efforts to simultaneously empower women (as the percentage of households that have female head is maximum) and increase the resilience of their communities (as these provinces have maximum observed flood extent and have a greater possibilities of crop failure either due to flood or drought) Strategies could include increasing services for and working with women farmers, particularly those in female-headed households, to promote women's leadership within communities; expanding nonfarm environmentally-resilient income-earning opportunities for women by using renewable energy technologies; and developing resilient agricultural practices and technologies through renewable energy and other practices that improve yields.

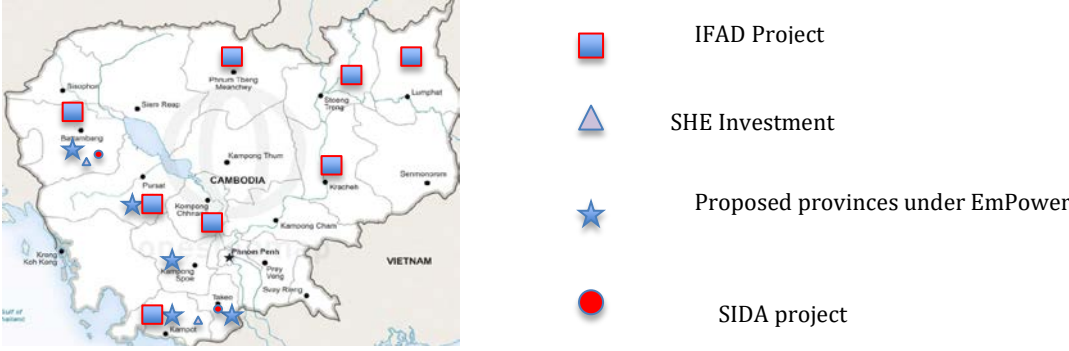


It may include solar pump with utilizing drip irrigation and exploring climate- resilient farming techniques such as aquaculture or crop diversification and phasing. Scaling up nascent initiatives to provide farmers with reputable crop insurance or expand women's landholdings would also do much to increase women's climate resilience and improve income and food security.

Similarly if the following maps are seen, besides the southern region, 1-2 provinces in the western region (Battambang and Pursat) should also be chosen based on the poverty scenarios, access to electricity and the drought prone areas.



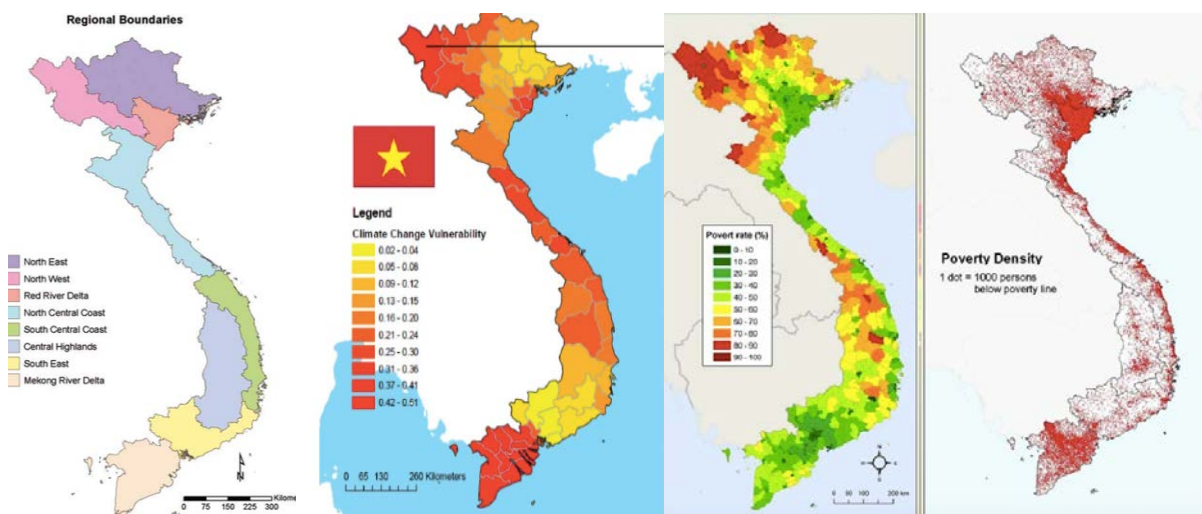
Finally, considering all different criteria and project’s priorities , 1 province i.e Pursat from western region and 1 province i.e Takeo in southern region are selected for the scoping study.



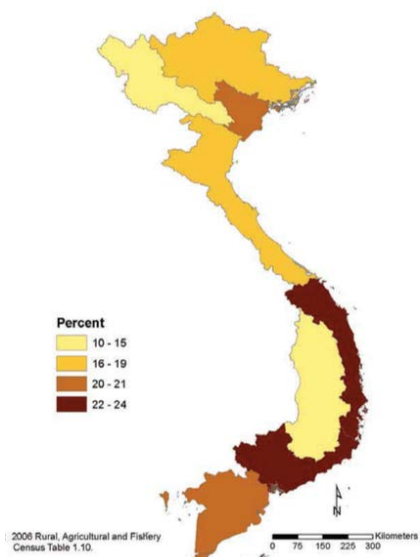
These provinces also have other interventions as shown in the map. Besides it, these two regions have livelihood generation and renewable energy financing programmes with other initiatives/agencies (such as NCDD-S, Nexus for Development, ADB etc) and thus the scope/possibilities for synergizing the activities with other initiatives in order to get maximum impact is more prominent here.

For Viet Nam:

The climate vulnerability and poverty map of Vietnam is shown below. As per the map, the northern mountain region, mekong delta region and central highland region are the regions which can be selected for scoping and pre-feasibility studies.



Percent female headed households



The Bac Kan and Lau Cai provinces in North and An Giang Provinces in Mekong Delta region as well as Dak Lak in the Central highland region will be selected for the scoping and pre-feasibility studies.. The northern and central high land have ethnic minority groups living in a climatically vulnerable condition because these are the most draught prone as well as flash flood areas in Vietnam. The poverty scenarios in these areas are very high although these communities, specially the women are engaged with number of traditional livelihood activities. Hence integrating renewable energy to enhance their economic productivity has a huge potential and can set an example for other similar provinces to follow. Besides these there is a probability of considering one site in Mekong delta region where there is different level of climate change challenges with respect to the intrusion of saline water and the possibility of showcasing innovative low-cost renewable energy technology interventions through women entrepreneurship-based business models to address these challenges.

Besides this, it was learned that in all these selected provinces, number of other developmental programmes and interventions are going on which can be lined to this project (Vietnam Women's Union, Green ID, UN Women). Such options will be explored further during scoping studies under implementation phase.

2.2. Selection of districts and clusters for the women's livelihood assessment and primary survey

Once the provinces are finalized, the implementing partner will shortlist the districts and clusters for carrying out the primary survey and overall scoping assessment.

The selection of districts and clusters will be done based on the consultation with the provincial departments, review of secondary sources and determination of criteria such as:

- i. Existing engagement of women for any type of enterprise development and livelihood generating activities (both formal and informal)
- ii. Presence of progressive¹ women groups with business acumen
- iii. Women with traditional skillsets for livelihood generation
- iv. Challenges on rural livelihoods due to climate change impact
- v. Electricity availability near the village/cluster
- vi. Presence of micro-finance institution or local bank and women availing loan/credit
- vii. Government initiatives on RE and/or livelihood support
- viii. Willingness and interest to accept changes and cooperate
- ix. Presence of people's organizations like SHG (Self Help Group), Farmer's association, women's group, others and participation of women members in the SHGs
- x. Cooperation with the Govt. Departments in the village
- xi. Access to primary market places and approachable road communication

3. Investigating team and preparation for survey

The implementing partner team members will be involved in the process of developing the structured questionnaire for the analysis. Several rounds of discussions are to be held for understanding the objective and scope of the study. The members, particularly the field staff, are to be briefed on the objective of the project, its activity components, approaches and the meaning of every question to be asked. They should be trained on the methods and tools of data collection. The first design of the schedule may be pre-tested in the field and the necessary modifications can be made before finally administering it in the sample villages.

All members may also be involved in a model demonstrative exercise of FGDs (Focus Group Discussions) and interviews with the individual target group, in order to make everyone understand the process and techniques of collecting information and leading FGDs.

4. Approach for women enterprise and climate resilient livelihood assessment

The assessment will be done at two levels

- (A) Women's involvement where Renewable Energy is used **FOR** other enterprise and livelihood options
- (B) Possibility of women's involvement where Renewable Energy is used **AS** Enterprise (i.e. selling and marketing of renewable energy products)

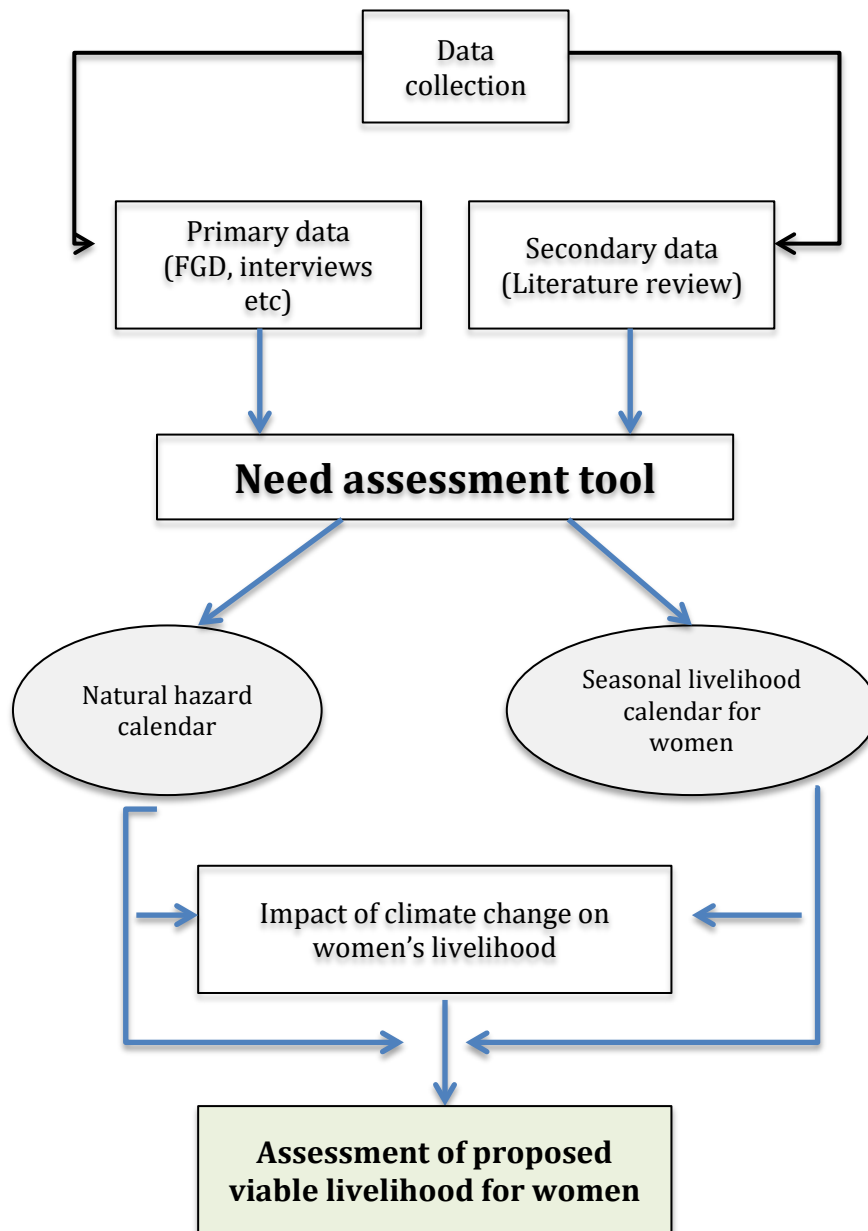
¹ Women's groups supporting women's economic empowerment and gender equality

4.1. Approach on renewable energy for enterprise and livelihood options

A comprehensive needs assessment tool will be used to assess the viable enterprise and livelihood options for women (shown in below diagram), which comprises of

- I. Natural hazard calendar;
- II. Seasonal livelihood calendar for women;
- III. Mobility calendar for women;
- IV. A hazard and livelihoods index; and
- V. A viable livelihood options index.

The needs assessment of viable livelihoods for women is proposed based on primary data (Focused Group Discussion, in-depth interviews, observations), secondary data, needs assessment tools (natural hazard mapping, seasonal livelihood calendar for women, hazards and livelihood index) and impacts of natural hazards or climate change on women livelihoods.



Once the viable livelihood and enterprise options are identified, the scope for integrating it with various renewable energy sources will be explored in order to improve the productivity and environmental sustainability.

4.1.1. Method for data collection

Major data will be collected through **Primary sources** with the help of *Structured Questionnaire*. Additional information will also be collected from **secondary sources** through discussions and literature review.

A) PRIMARY SOURCES

4. *Individual Interviews*: Individual woman in a family, women members of the local SHGs / women groups will be individually interviewed to seek personal opinions. Individual interviews will be conducted either with 25 samples per village/cluster or 30% of the women's population in the village. Female farmers, female involved in other businesses, female household head should be included in the individual interviews. Individual interview should also be conducted with the traders and other

intermediaries who have been associated with the livelihood systems.

5. *Focus Group Discussions (FGDs)*: FGDs are useful in terms of extracting qualitative information and cross-checking the same to have concrete understanding of the situation. It is necessary to keep the discussions focused and cautiously make the participants give the information sought. Each village should have at least one FGD and therefore 10 such FGDs in the sample villages (in 10 villages). Along with individual female member, female members from SHGs/women's group, women's association, farmer's group, opinion leaders (such as teacher, health worker etc), village head, other male members should be included in the FGD.
 - *Observations*: the information collectors need to be careful and should verify facts through their own observations as well.
6. *Key Informant Interviews*: Opinion leaders at the village level, district level Govt. officials and the Chief Functionaries of the NGOs, manager of Micro-financing institutions or banks are to be interviewed as key informants.

B) SECONDARY SOURCES

- Collection of relevant documents and information from relevant local government offices such as District offices, Agriculture/Horticulture Office, office for rural development, NGOs, renewable energy technology providers, private sectors involved in RE or livelihood generating activities etc. who have been closely associated with the work and life of the rural women.

4.1.2. Target groups and sample size

Random sampling is used to ensure that the sample is representative of the study area, while avoiding bias in the results. To summarize, following sample size will be used from various categories /target groups

Target groups:

- Female household head, female farmers, female involved in other business
- Female SHGs/women's group
- Village head
- Opinion leaders
- Local govt officials, NGOs
- MFIs/Banks
- Private sectors
- Traders/intermediaries

Total number of villages surveyed	
Total number of individual woman interviewed (in % as well),including women with existing business	
Women group members interviewed	
Member of Farmer association interviewed	
Number of traders/intermediaries interviewed	
Number of opinion leaders interviewed	

Number of private sector/RE technology provider interviewed	
Any other	

4.1.3. Type of data collected

The following minimum information needs to be collected for subsequent analysis.

4.1.3.1. General information

General information such as name of village, district, province, geo-physical zone (coastal, flood prone, drought prone), demographic detail of the village is to be collected.

4.1.3.2. Access to basic amenities

Collect information regarding access to basic amenities such as health, drinking water, access to rural credits, access to nearby market, source of irrigation etc. Also find out the type and source of energy used at household for cooking, lighting, water heating

4.1.3.3. Information related to natural hazard calendar

Type of hazards (drought, flooding, salinity intrusion, river erosion etc) possible months of occurrence of those hazards and hazard risk intensity (low/medium high) in the cluster

4.1.3.4. Existing livelihood practices with seasonal livelihood calendar for women

This will include broad information regarding the current occupation of men and women in the selected cluster/village. In addition to it, the seasonal livelihood calendar (for individual woman interviewed as well as women as a whole in the cluster) (may be represented as below) should be prepared, which would give a fair idea about the involvement of women in different activities in different time of the year.

LIVELIHOOD	% of women	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	Affected due to which hazard
Livelihood 1														
Livelihood 2														
Livelihood 3														
Livelihood 4														
Livelihood 5														

4.1.3.5. Degree and duration of climate hazards impact on women's livelihood

For each of the above livelihood, find out the impact (degree and duration) of various climate hazards and its impact on the overall life of the community.

4.1.3.6. Traditional skills of the women for livelihood generation

List down the traditional skills of the women (contributing to livelihood generation and household work) and whether they do it individually or in a group.

4.1.3.7. *Women's group*

Collect information regarding the working culture in the community, specifically within women. Find out if they work in a group, if there is any women's group or not. If yes, what are their main activities and if there is no group culture then what is the reason behind that.

4.1.3.8. *Type of institutions in the village/cluster*

List down the name and activities of different institutions present in the village (e.g.. NGO, Women's SHGs, women's group, farmer's group, Micro-financing institutions etc.)

4.1.3.9. *Government and other interventions*

Collect information regarding the past and on-going government activities and other developmental activities in the village/cluster

4.1.3.10. *Viable livelihood options identified by the women in the study clusters*

Identify the potential viable livelihood options that can be taken up by women along with its social acceptance and future risks of these livelihood options in the community. Information such as proposed list of livelihood options, its justification, type of resources required, whether manages individually or in a group, future risk and constraints, type of institutions/organization to be involved, is to be collected. Along with the viable livelihood option, the list of potential women groups who can take up such livelihood options should also be identified and prepared.

4.1.3.11. *Information regarding energy requirement for each of the abovementioned livelihoods*

Find out the input/motive power/heating/drying/energy required (and their existing source) for each of the existing and proposed livelihood options

4.1.3.12. *Information regarding women and rural credit*

Access to credit and finance, bank loans and supporting mechanisms for women in small-scale businesses and commerce.

4.2. Approach on women's involvement in Renewable Energy used AS Enterprise

Here the main objective is to assess various energy demands and energy supply options of each of the cluster/village and if there is any potential market that exist for the sale and after sale service for energy efficient and renewable energy products. Besides this, the assessment will also include the identification of potential individual or group of women who would be interested to take up such business if there is a potential market.

4.2.1. Method for data collection

The data can be collected through community meeting and through interviews with key Informant such as Opinion leaders at the village level, district level Govt. officials and the Chief Functionaries of the NGOs, manager of Micro-financing institutions or banks

4.2.2. Type of data collected

The following information will be collected

4.2.2.1. *Existing energy scenario in the village*

Find out the information regarding electrification scenarios, quality and reliability of power supply, how the cooking energy demand is fulfilled (Fuelwood/cow dung/LPG/induction heater/biogas/others); what is the source of irrigation (rain-fed only/ Diesel pumpset/electric connection etc.)

4.2.2.2. *Existing energy use pattern*

Find out the existing type and usage pattern of various products used for cooking, lighting and other household electrical appliances, heating water, along with its benefits and challenges. Also find out information on if there is any pump-set, other appliances used for any productive application in the village. Getting information on how they manage during climate hazards would be useful Find out why they are NOT using energy efficient and renewable energy products so far.

4.2.2.3. *Potential demand for various energy efficient and renewable energy products*

Identify the potential demand for various energy efficient and renewable energy products along with any potential individual/group who can take up the business of selling such products

5. Way forward

The information collected will be used for analysis and further assessment

References

1. Sustainable livelihood guidance sheets by DfID
2. Assessment of women's livelihood needs in three eco-zones of Bangladesh by BCAS and UN women
3. Baseline survey for project output and Livelihood support assessments by UNHCR and DCA Actalliance, 2017
4. A study on the livelihood situation of Tribal communities in Raigad district of Maharashtra state prepared by Prayas, India in January 2005
5. Rural electrification and livelihood generation for women enterprises in rural India: Experiences of implementing two state biomass gasifier- by Sunil dhingra, Barkha Tanvir, Ulrik Birk Henriksen, Pierre Jabyedoff, Shrish Sinha and Daniel Ziegerer
6. A report on livelihood analysis in Rayagada district of Odisha, prepared by Centre for Community Development and International Development Enterprises
7. Practical guide for socio-economic livelihood, land tenure and rights surveys for use in collaborative ecosystem based land use planning by Centre for International Forestry Research (CIFOR)
8. Women's empowerment through electricity access scoping study and proposal for a framework analysis- by Tanja Winther, Margaret N Matinga, Kirsten Ulsrud and Karina Standal
9. Sustainable livelihoods and project design in India- Working Paper No 127 , Turton, C. (2000) London: ODI
10. Sustainable Rural Livelihoods: Practical Concepts for the 21st Century, by Chambers, R. and Conway, G, IDS Discussion Paper No. 296, Brighton, UK, Institute of Development Studies
11. Detailed discussions with implementing partners of EmPower (i.e CHIASE, Green ID, Nexus for Development, NCDDS and IDCOL)
12. Informal interactions with experts from The energy and Resources Institute (TERI)
13. Personal interactions with Mr Swapnil Sekhar, Chief Operating Officer and Director Evaluation, Sambodhi Research and Communication
14. Focused Group interaction with experts from Oxfam, Cambodia
15. Informal interactions with Mr Ashok Choudhury, Director, Odisha Renewable Energy Development Agency