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Method Form – W+ Domain: Time

Method Number: W+ Time 2.0

Name of the proponent:	WOCAN
Title of the proposed small scale methodology:	Quantification of Time saved by women as a result of a Project or Program Level Intervention in the Field of: - Biogas/Biomass for households/small users - Energy efficiency measures of non-renewable biomass - Water supply systems - Transport systems - Other mechanizations that reduce labor
Type to which the new proposed methodology (category) belongs to:	Type I Renewable energy projects Type II Energy efficiency improvements Type III Transport facilities Type IV Mechanizations Type V Other

Other comments (if any): The accompanying questionnaire is based on a biogas project and may need to be adapted for similar technologies. This method is to be used in conjunction with:

- W+ Program Guide
- Guidance on stakeholder process (*4 Step Process for Stakeholder Analysis*)
- Project Design Document Template
- W+ Time Survey Questionnaire (including Do-no-harm Assessment)
- Tool for Verification of Financial Payments to Primary Beneficiaries as a result of a Project or Program Level Intervention

**WOCAN gratefully acknowledges the development of the initial method (Version 1.0) for Biogas/Biomass for households/small users by Ingo Puhl and Tanushree Bagh of South Pole.*

Section A: Introduction

The following describes the key elements of the method:

Section B: Scope, Applicability, and Origination Period

A.1 Typical projects:

Typical projects that can apply this method are as follows:

- Introduction of domestic biogas digesters OR
- improving the operational performance of already installed domestic biogas digesters OR
- introducing high-efficient thermal energy generation units utilizing non-renewable biomass OR
- retrofitting existing units that reduce the amount of time women are spending for the collection of fuel for purposes of household energy use (such as cooking, lighting, heating), and additional time savings that directly result from project implementation (such as reduced cooking and clean-up time OR
- water supply systems that reduce the time women spend for water collection and sanitation OR
- transport systems that reduce the time women spend in travel OR
- mechanizations in agriculture that reduce time women spend planting, weeding, harvesting

A.2 Type of benefit for women:

Displacement of existing household energy, water supply or other solution that results in reduction of time spent on fuel or water collection/ preparation/ handling or other household or farming tasks undertaken by women. W+ Time units are denominated in hours per year and the number of impacted eligible beneficiaries within a vintage year. W+ Time units can be communicated in terms of time (hours) and number of beneficiaries, which are translated into % of change from the baseline.

If a project produces W+ units across multiple domains, the number of beneficiaries cannot be double-counted.

A.3 W+ Project Design Activities:

Project Developers describe the project design elements that are implemented to build readiness for the generation of the benefits for women identified in A.2 and to safe-guard the participation of women in relation to decisions about and control over the use of these benefits.

Typical activities include:

- Stakeholder consultations to raise awareness about the objectives and functioning of W+, identify women's empowerment needs and select domains of W+ to be used (see W+ Program Guide)
- Development of indicators, activities and monitoring plans and mechanisms (see W+ Program Guide)
- Establishment or use of existing women-controlled savings or micro-finance schemes for the processing of W+ linked payments (see *Tool for Monitoring, Reporting and Verification of Financial Payments to Primary Beneficiaries*)

**B.1. Scope**

This category comprises activities for the generation of energy, water supplies, transport or agricultural operations for use in residential, commercial or institutional applications that are conducted by women.

B.2. Applicability

Time-saving benefits shall be accounted for all women within user households.

The time-saving must be material and relevant for women by demonstrating, as a result of a stakeholder consultation, that it is identified as a priority benefit by a simple majority of participants (refer to the guidance on stakeholder processes).

B.3. W+ Unit Origination period

The W+ Unit Origination period refers to the time-period of the project activity or program for which it is permitted to generate W+ units. The W+ Unit Origination period starts from the date of W+ project registration minus two years OR the start of project operation if project operation commenced less than two years after W+ registration.

B.4 Normative References

Project Developers need to refer to the following tools and guidance:

- W+ Program Guide
- Guidance on stakeholder process
- W+ Time Survey Questionnaires (including Do-no-harm Assessment)
- Guidance on how to carry out survey and baseline
- Tool for Monitoring, Reporting and Verification of Financial Payments to Primary Beneficiaries

B.5 Definitions

The definitions provided in the Annex C shall apply.

Section C: Quantification of Outputs

C.1 Baseline Situation

The baseline is the prevailing practice prior to project implementation and prior to the implementation of W+ project design activities. It is established through user surveys (and potentially other means) by comparing representative samples of time-use survey results from **users** with time use survey results of **non-users** from the same or comparable communities.

C.2 Determination of Time Savings as Result of Project Activity

1. Determination of saved time for the initial verification

Time savings are determined by comparing representative samples of time-use survey results from users with time-use survey results of non-users from the same or comparable community. This corrects for risk of user bias in reporting time savings, and for lack of a baseline (e.g. in the case where time savings as defined by W+ are measured for a project which is on-going).

The survey design is in compliance with the general guidance on sampling, as found in Guidelines for Sampling and Surveys for CDM project activities and program of activities: http://cdm.unfccc.int/Reference/Guidclarif/meth/meth_guid48.pdf.

Sample size calculations

a) Small-scale examples

For small-scale sampling, we require 90% confidence that the margin of error is not more than $\pm 10\%$ in relative terms.

b) Large -scale examples

For large-scale sampling, we require 95% confidence that the margin of error is not more than $\pm 10\%$ or $\pm 5\%$ in relative terms.

C.3 Calculation approach/Formula:

The total time saving for women is calculated by comparing women's time-use of non-user households with time-use of user households, making adjustments for time-use shifting to non-women as result of project implementation, and adjustments for days the system (e.g. biogas, water supply, etc.) was not operational.

$$TI = P_{perf} \times \#women \times \frac{[\text{Sum of (A-B) at the time of verification} - \text{Sum of (A-B) at baseline}]}{\text{Sum of (A-B) at baseline}} \times 100$$

Where:

TI refers to **Time Impacts**

P_{perf}: (Performance, to be calculated in cases where results are a function of an operating unit such as biogas digester, water supply unit, transport mechanism, etc.)

Calculation of P_{perf} = % of operating unit in operation x % of usage per day

% of plant in operation = Number of days operating unit (e.g. biogas plant) is in operation / 365

% of usage per day = Number of hours operating unit (e.g. biogas plant) is used for cooking / (total

A refers to time savings contributed by the use of a technology or facility. There will be several components of time savings that result from the technology. It should be noted that the components of time savings will vary with the particular type of technology or facility.

Example of time saving components with biogas technology:

A.1 = *Time saving as a result of reduced fuel collection times* when project is operating as designed. Established by comparing time-use survey results of users vs. non-users within the same community and calibrated on a per-person basis.

A.2 = *Time saving as a result of reduction in cooking time and post-cooking clean-up times* when project is operating as designed. Established by comparing time-use survey results of users vs. non-users within the same community and calibrated on a per-person basis.

A.3 = *Time saving as a result of substitution activities*, such as activity shifting from women to men or time spend on project maintenance/technology application/training as result of project implementation and when project is operating as designed. Established by comparing time-use survey results of users vs. non-users within the same community and calibrated on a per-person basis. Established by comparing Time User Survey results of Users vs. Non-users.

Non-Users. Note: if there is no shift of work then Time Saving Sub can be taken as 0.

Note: If substitution results in activity shifting to children (below 16 years of age) this needs to be addressed within the context of the “do-no harm” guidance within the monitoring report.

B refers to those components or activities that require additional time once a new technology is introduced. Again, these additional activities requiring time will vary in type and amount according to the particular technology being introduced.

Example of additional activities required with introduction of Biogas:

B.1 = Time increased in collection of water after biogas installation, when the project is operating as designed. Established by comparing Time User Survey results of user vs. Non-Users.

B.2= Time increased in collection of dung and application of manure after biogas installation, when the project is operating as designed; established by comparing Time User Survey results of Users Vs Non Users.

B.3 = Time saved by use of other energy sources used for cooking (LPG, Electricity, etc.)

C refers to the ‘quality’ of time savings, in that it looks at how that time savings from a particular technology or intervention is utilized. It therefore become important to ask if the time savings leads to activities that increase women’s drudgery or self- improvement. Some key activities that increase drudgery or enhance self-improvement are as follows:

C.1 = *leisure time (+)*

C.2 = *income opportunities (+)*

C.3 = *learning new skills (+)*

C.4 = *increasing food security (+)*

C.5 = *community related work/activities (+)*

C.6 = *reproductive /drudgery related work (*

Section D : Monitoring Plan for Output and Outcome Indicators

Describe how the project will measure results, through specific indicators, means of verification and procedures for obtaining, recording, compiling and analyzing data and information important for quantifying and reporting of time units.

Explain the organization chart, and persons responsible for each task.

At the time of installation, all operating units should be properly tested and number of households using the units should be recorded and labeled.

D.1 Data and Parameters Available at Validation and Verification for Output and Outcome Indicators

The monitoring of outcome indicators associated with time is required, using the following procedure.

Provide data/parameter for each indicator, which will be required for calculation during validation and verification. Copy/ paste each table with parameter in the benefit evaluation document, as per the PDD Template. Samples are provided in the boxes below.

The following should be described:

- Expected Changes (based on qualitative and narrative indicators) that show a change in the status and condition of women.
- Project indicators, targets, and logic chain that links all the elements of the of the results chain.
- Details of the Baseline Study shall assess the baseline scenario and establish benchmarks in relation to the chosen indicators
- Project Developers will identify the indicators of change to evidence social impact across this domain.
- Anticipated indicators of change to evidence social impact for this project will include, but not be limited to:
 - Reduced drudgery (immediate outcome)
 - Increased discretionary time - (immediate outcome)
 - Increased sharing of tasks– men take on work that is normally considered that of women - (intermediate outcome)
 - Increased perception of well-being – (intermediate outcome)

Sample indicators to measure Outcomes:

- Increased control by women over finances and decision making
- Improved status of women in the community
- Improved family dynamics – relationships with children and partners
- Improved quality of participation in group activities and social interactions

SL no.	1
Monitoring parameter name	Number of women using the technology / cluster size
Indicator	Number of women users
Data Sources	Survey/data of technology providers
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	How is it ensured that the correct number of women users is recorded?
Any comment	

SL no.	2
Monitoring parameter name	Time saving as a result of reduced activity associated with management component of resource (e.g.fuel /water collection)
Indicator	
Data Sources	Survey
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	

SL no.	3
Monitoring parameter name	Time saving as a result of reduced time for cooking and cleaning (example)
Indicator	Number of minutes/hours saved
Data Sources	Survey/national data
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	

SL no.	4
Monitoring parameter name	Time saving as a result of substitution activities, such as activity shifting from women to men or time spent on project maintenance as a result of project implementation and when project is operating as designed
Indicator	Number of minutes/hours
Data Sources	Survey/national/district level
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	

SL no.	5
Monitoring parameter name	Time increased due to management of operating units (example: addition of water for biogas unit)
Indicator	Number of minutes/hours
Data Sources	Survey/national /district level
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	

SL no.	6
Monitoring parameter name	Time increased due to collection of dung and its application after biogas installation (example)
Indicator	Number of minutes/hours
Data Sources	Survey
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	

Monitoring parameter name	Time saved by use of other energy sources used for cooking (LPG, electricity, etc.)
Indicator	Number of minutes/hours
Data Sources	Survey/observations

Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	

SL no.	8
Monitoring parameter name	Saved time used for leisure
Indicator	Number of minutes/hours spent resting, watching television, reading, socializing, visiting parents and family
Data Sources	Survey/observations
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	Indicators of leisure time can be context specific, and such indicators of leisure should be generated from women themselves

SL no.	9
Monitoring parameter name	Saved time used for income generating activities
Indicator	Number of minutes/hours spent participating in marketing, income generating activities
Data Sources	Survey
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	Income generating activities will be determined by the context, and identification of these should be generated in discussion with the women themselves

SL no.	10
Monitoring parameter name	Saved time used for learning new skills
Indicator	Number of minutes/hours spent in training courses, reading materials
Data Sources	Survey data
Monitoring requirements/frequency	At each survey At each verification

Justification of data source	Representative sample
QA/QC procedures	
Any comment	New skills will depend on what opportunities are available and accessible to women in any particular area.

SL no.	11
Monitoring parameter name	Saved time used for increasing food security
Indicator	Number of minutes/hours spent in gardening, agriculture, securing food
Data Sources	Survey
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	Food insecurity periods and levels of intensity may vary according to context. Indicators of food (in) security should be developed in consultation with women themselves

SL no.	12
Monitoring parameter name	Saved time used for community- related work/activities
Indicator	Number of minutes/hours spent in activities with women's groups, savings groups, forest or water management groups, etc.
Data Sources	Survey
Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	Community related activities that are available depend on the context.

SL no.	13
Monitoring parameter name	Time saved used to perform reproductive / drudgery related work
Indicator	Number of minutes/hours spent in: • Cooking • Child care • Cleaning • Fetching water • Fetching fuelwood • Providing care for elderly parents / in-laws • Other
Data Sources	Survey/national /district level data

Monitoring requirements/frequency	At each survey At each verification
Justification of data source	Representative sample
QA/QC procedures	
Any comment	In the case where time saved is used for drudgery related work, it is important to ensure that this does not cross the DO NO HARM threshold.

Section E: Do No Harm

Do No harm Indicators specific to the Time Method are described below. Corresponding questions should be included in the survey questionnaire.

Do No Harm Indicators and Questions

Indicators for Time Domain	Not less than 97% of both women and men report that the project has not caused negative impacts on women, either directly or indirectly, or other any unwelcome effects (check for risks of increased labor for children).
Questions for Time Domain	Has the project led to harmful working conditions? Has the time saved been reallocated to activities that are more burdensome? Have you needed to spend more time on burdensome activities and drudgery due to the project? Has the project caused any emotional maltreatment or physical abuse?

Section F: Stakeholder Processes

Project Developers should refer to the Program Guide for Guidance on Stakeholder Processes:
<https://www.wplus.org/wp-content/uploads/2020/07/Wplus-Program-Guidance.pdf>

Annex A- References and Other Information

Include any relevant references and any other information relevant to the methodology/revision.

Annex B- Declaration of Intention to Generate W+ Units and Ownership

Project Developers need to establish that a) a project has received financing with the explicit intention to create W+ units and b) that there are no overlapping claims to W+ units, neither explicit nor implicit.

In case of new projects, Project Developers need to document the intention and rationale of all project sponsors. This document needs to state how much financing was provided and which outcome was expected in return for financing. Should more than one project sponsor lay claims to W+ unit related outcomes, the document needs to provide information related to how such claims are shared, i.e. by means of a benefit sharing agreement.

In case of existing projects, whose start-date precedes the launch of the W+ Standard, Project Developers need to document that financial supporters had the implicit intention to create W+ units and that they accepted a material concession (such as a financial loss) as a result of their support that goes beyond their normal return expectation. The consideration of existing projects is limited to those with a start-of-operation date of January 1st 2010 or after.

Section G: Annexes

Annex A– Definitions: Definitions below refer to the parameters to be used during monitoring:

Project Boundary: The project boundary is the physical and geographical project site within which all users and non-users are residing in.

Time use surveys: study or surveys based either on a sample of clusters which are representative of whole population, or the whole population on the time use during baseline and project activity.

Fuel collection: time spent on collecting firewood/fuel. This includes the time spent walking from the residence to the area of collection and back.

Cooking and Cleaning time: time spent on cooking and daily chores done at home that are affected by the project (like sweeping, washing dishes, tidying up).

Substitution time: time spent on activities previously primarily done by women identified in the baseline survey, taken up by other household members (males, other females in the household).

Women: female members of households who are at least 16 years of age.