



W+ PROJECT DESIGN DOCUMENT (PDD)

Version 1.2
Pilot Phase (2015)

This template is for the development of W+ projects. The key elements of the W+ PDD are:

- 1. Conduct a gender and stakeholder analysis along with a stakeholder consultation*
- 2. Identify indicators for selected W+ domains*
- 3. Identify any additional activities to be undertaken within the Project*
- 4. Calculate budget and other inputs needed for additional activities*
- 5. Identify potential benefit sharing mechanisms*
- 6. Develop a plan with clear end, intermediate & immediate outcomes; outputs, activities with indicators for each level on the results chain with costs for each*
- 7. Develop a Monitoring, Evaluation and Reporting Plan*

Instructions for completing the PDD:

TITLE PAGE: All items in the box on the title page must be completed. This box (on following page, below) must appear on the title page of the final document. Project descriptions may also feature the project title and preparers' name and logo more prominently on the title page, using the format below.

PROJECT DESCRIPTION: Instructions for completing the project description template are given under the section headings in this template. This template must be completed in accordance with the W+ Standard, Program Guide, and any other relevant guidance documents, and the preparer will need to refer to these program documents in order to complete the template. Note that the instructions in this template are intended to serve as a guide and do not necessarily represent an exhaustive list of the information the preparer should provide under each section of the template.

All sections must be completed. Where a section is not applicable, "not applicable" must be stated under the section and the section must not be deleted from the final document. Use a sans serif font (such as Arial or Calibri), 12pt, black, regular (non-italic) font.

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Measuring Time Savings generated by the Indonesia Domestic Biogas Programme

Document Prepared By W+ team for HIVOS IDBP

| | |
|------------------------|---|
| W+ Project Name | Measuring Time Savings generated by the Indonesia Domestic Biogas Programme |
| W+ Project ID | 02 |
| Version | 1.2 |
| Date of Report | January 2015 |
| Prepared By | W+ Team, WOCAN |
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1. PROJECT DETAILS

1.1 Summary Description of the W+ Project

WOCAN was commissioned by HIVOS to apply the W+ Standard to the existing Indonesia Domestic Biogas Program (IDBP), forming the “W+ Project”. The W+ Project was implemented with 4452 women who have been using biogas digesters distributed through the IDBP in East Java and Nusa Tenggara Barat Provinces. The IDBP is implemented by HIVOS and Yayasan Rumah Energi (YRE), in collaboration with the Indonesian Ministry of Energy and Mineral Resources, and the Netherlands Development Organization (SNV). The project aims to disseminate domestic biogas digesters as a local and sustainable source of energy. The project began implementation in 2009 and is currently in its second phase that will run till 2015. In the period between its inception in 2009 and October 2014, an estimated 13,035 digesters have been constructed in nine provinces of Indonesia. These include Lampung, West Java, Central Java, Yogyakarta, East Java, Bali, Nusa Tenggara Barat, Sumba and South Sulawesi.

The main objective of the W+ project was as follows:

- To quantify the time saved by women through the use of biogas using the W+ Time method and to understand how women have used the time saved;
- To generate W+ Time units that can be sold, to generate revenues for women’s groups;
- To identify mechanisms for revenue sharing with women beneficiaries.

1.2 Project Type(s)

The W+ project is applied to the renewable energy sector. In particular, it will measure time saved by women as a result of biogas digester instalment and use.

1.3 W+ Project Developer(s)

| | |
|---|---|
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1.4 Other Entities Involved in the W+ Project

| | |
|---------------------|---|
| Organization name | WOCAN |
| Role in the project | Providing technical assistance |
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1.5 W+ Project Start Date

The project start date was November 10, 2014. The start date indicates the time when the feasibility study for W+ was commenced.

1.6 W+ Project Crediting Period

The W+ Standard allows for back crediting for a period of two years, so IDBP projects that were functional as of two years ago were eligible for the W+ measurement.

This PDD is valid for 10 years from the date of its submission so can be used until January 2025.

| <i>Start Date (First Crediting Period)</i> | <i>End Date (First Crediting Period)</i> | <i>Total Years/Months</i> | |
|--|--|---------------------------|----------------|
| | | Crediting Period | Project Period |
| February 2013 | January 2015 | 24 months | 12 years |

1.7 Description of the W+ Project Activity (ies)

The W+ project implemented the time method to measure time saved by women users. The implementation of the W+ Time method will be conducted between February - June 2015 with the following activities:

- Gender and stakeholder analysis
- Adaptation of existing survey questionnaire for W+ Time Domain to the local context
- Selection of sample survey size for users and non-users in consultation with BIRU



- Training of enumerators
- Implementation of survey for baseline and results
- Supervision of enumerators in the field
- Compilation of raw data
- Analysis of data
- Registration of project with WOCAN
- Identification of benefit sharing mechanisms
- Preparation of Monitoring and Results report
- Arrangement for W+ verification by independent auditor

1.8 W+ Project Boundary and Scope

The W+ project is implemented within the existing IDBP project, which was initiated in 2009 and covers 9 provinces in Indonesia: West Java, Central Java, East Java, Yogyakarta, Bali, West Nusa Tenggara, East Nusa Tenggara, South Sulawesi and Lampung. For this W+ project, two provinces were selected: **East Java** and **West Nusa Tenggara** Provinces.

East Java

East Java Province is located in the eastern part of Java Island covering the area around 47,800 km² (Latitude: S9°0' - 4°50'; Longitude: E110°30' - 116°30'). The province is known for its rich potential from industry, agriculture, plantation, tourism, among others. The inhabitants of East Java Province are predominantly Javanese, with some ethnic minorities such as Maduranese, Tengger, Samin and Osing people. There are also significant other ethnic groups living in the province, such as Chinese, Indians and Arabs. Most biogas users who engage in IDBP project in this province are dairy farmers. As of October 2014, the total biogas users in this province are 6657.

West Nusa Tenggara

Lombok is an island in West Nusa Tenggara Province (Latitude: S9°20' - 6°20'; Longitude: E115°30' - 119°30'). The island that has a total area of 4,514 km² is divided into 4 districts and 1 municipality. The lowlands are highly cultivated with variety of commercial crops, such as paddy, coffee, clove, and others whilst the highland is covered with forest. The majority of the population in Lombok Island (Nusa Tenggara Barat Province) is of the Sasak ethnic group, with minority Balinese and Javanese population and other ethnic groups. The majority of biogas users in the province who are involved in the IDBP project are cattle farmers. As of October 2014, the total biogas users in the province reached 2423.

1.9 Baseline Conditions Prior to W+ Project Initiation



Prior to the implementation of the IDBP, many households within the selected project areas were entirely dependent on firewood and expensive fossil fuels (e.g. kerosene and liquefied petroleum gas) for their household energy needs. The instalment of biogas digesters is aimed at providing local access to an alternative source of energy. The biogas digester can enable individual households with livestock to convert the dung into biogas that can be utilized for cooking and lighting. Moreover, the bio-slurry generated from the biogas digester can be utilized as organic fertilizer to improve crop yields. The IDBP project began to be implemented in 2009 and is currently in its second phase that will run until 2015. Based on the feasibility study carried out by the W+ team, women and men outlined the following benefits derived from the installation of biogas and ranked them as follows, in focus group consultations:

- Time savings: the largest benefit was the time saved in cooking and fuel wood collection. On an average, women reported a saving of approximately 90 minutes (1.5 hours) per day.
- Cost savings: from reduced purchase of other energy sources such as kerosene and liquefied gas for cooking
- Increased productivity: the production of bio slurry and its subsequent application on crops and vegetables has led to increased productivity. In turn, people cited increased income from sales of vegetables, as well as increased consumption at home
- Reduced smoke: women in particular cited improved health from reduced smoke inhalation and general cleanliness in the kitchen after installation of the bio gas
- Increased fertilizer: the production of bio slurry was cited as a useful source of organic fertilizer that increased production of crops and vegetables
- Non-dangerous: women stated that biogas appealed to them because it was less “dangerous” than traditional cook stoves and LPG units. They or other household members, especially children, were less likely to get burned while cooking with biogas than other traditional means.
- Environmental friendly
- Reliability as an energy source, and as an alternative to electricity from the town grid. In Lombok, households perceive biogas as a good alternative to the intermittent supply from the state-owned power grid.

1.10 Compliance with Laws, Statutes and Other Regulatory Frameworks

There are several laws and regulations that are relevant to efforts to promote gender equality and women’s empowerment:

- Indonesia’s constitution (*Undang Undang Dasar 1945*) and various national laws and regulations have acknowledged the importance of protecting rights, freedom and welfare of its citizens (men and women). In addition, Indonesia has also ratified CEDAW (the Convention on the Elimination of All Forms of Discrimination Against Women) in 1984.



- In terms of gender mainstreaming in development programs, the President has stipulated, through a Presidential Instruction No.9/2000, that national development should promote gender equality in the family, society and nation.
- The decree mandates all government agencies to mainstream gender throughout all phases of national development. The State Ministry for Women's Empowerment and Child Protection (SMWC) is responsible for ensuring gender mainstreaming and women's empowerment in the government's policies and programs at the national and local level.
- The SMWC Spell out has developed a National Development Master Plan for women's empowerment (RIPNAS 2000-2004) and the Development Policy on Improvement of Women's Lives 2010-2014 that is aimed at enhancing women's status in education, health, economic activities, society and culture and through increased political participation. The Ministry of Home Affairs, through Regulation No. 15/2008, has provided guidelines for mainstreaming gender to assist local government officials in integrating gender in the plans and activities of local governments and local development agencies.
- Additionally, the Ministry of Finance through Regulation No. 119/PMK. 02/2009 on Gender Responsive Budgeting has introduced gender responsive budgeting and named seven departments to pilot its implementation.¹

In line with the goal of laws and policy measures described above, it is hoped that the W+ project could contribute to gender equality and women's empowerment.

1.11 Project Developer's Right to Engage in the Project

The IDBP is implemented by HIVOS and YRE (*Yayasan Rumah Energy*), in collaboration with the Indonesian Ministry of Energy and Mineral Resources, and the Netherlands Development Organization (SNV). The project aims to disseminate domestic biogas digesters as a local and sustainable source of energy. The program is also getting support from the Embassy of Norway and programs Energizing Development (EnDev).

1.12 Other Forms of Environmental or Social Credit

IDBP has been officially registered within the Gold Standard carbon scheme in 2013. In July 2014 a first volume of 33,046 GS VERs were issued (average 2.6 tons of CO₂ per household per year).

1.13 Additional Information Relevant to the Project

Not Applicable

¹ These departments include: Ministry of National Development Planning (BAPPENAS), Ministry of Agriculture, Ministry of National Education, Ministry of Health, Ministry of Public Works, State Ministry of Women's Empowerment and Child Protection (SMWC) and Ministry of Finance.

2. STAKEHOLDER ENGAGEMENT AND COMMUNITY INPUT

2.1 Gender and Stakeholder Analysis

A gender and stakeholder analysis was conducted to map the actors influencing the result of biogas installation/use, determine the roles of women and men in the management and operation of biogas, and determine if there is differential access to resources (e.g. loans and services) related to biogas technology. This was followed by the identification of opportunities within the existing IDBP project that could be built upon to generate pathways to other W+ domains beyond the Time Domain. Local savings and loans schemes were also identified to explore the potential for a benefit sharing mechanism that would be needed for the direct share payments that would accrue from the sale of W+ units in the future.

In carrying out the gender analysis, a total of 43 people were involved in focus group discussions and/or one-on-one interviews during the feasibility study in November 2014. The majority of those interviewed and participating in focus groups were female, with a few males participating. The focus groups and interviews were conducted with biogas users and non-users, representing community / producer groups for beef cattle and dairy farmers. The composition of people interviewed described in the table below:

Table 1: Number of people interviewed

| Province | Sub-district | Village | # Interviewed | Type of Group |
|----------|--------------|-----------------------|---|---------------------------|
| Lombok | Kayangain | Sesait | 3 individual males | Vegetable producers |
| | | (Batu Jompong Hamlet) | 16 females | Beef cattle farmers group |
| Malang | Pujon | | 5 female users and 5 non-users | Dairy Cooperative |
| | Jabung | | 12 female users 2 males: head (s) of the dairy cooperative | Dairy farmers group |
| | | | TOTAL: 43 | |

The result of the gender analysis is as follows:

Women's contribution in production activities

Women are significantly engaged in production activities while also assuming household and community-level responsibilities outside the home. Activity profiles generated from several focus group discussions demonstrate that women are extensively engaged in production activities such as livestock care (milking cows, fetching fodder and grasses, cleaning stalls),



growing vegetables and engaging in small micro enterprises such as selling produce from food stalls etc. Within the household, women are largely expected to take care of children and the elderly, cook for the family, clean the home and also take care of livestock. At the community level outside the home, women are engaged in saving groups, Koran recitation, and PKK² education for women and community support groups.

Role of women in Biogas management

Women are also engaged in the management of biogas units. Management activities include the following:

- Separating dung from grass
- Dung collection from inlet valve
- Mixing water with the dung
- Stirring the digester
- Cleaning the inlet valve

Overall Satisfaction with biogas

Women and men cited their overall satisfaction with biogas units after installation. Almost all those interviewed said that they had converted almost totally to biogas to meet household energy needs, and retained older cook stoves and energy use (kerosene and larger amounts of firewood) only for the occasional community cooking events such as feasts and ritual events. Women in particular, saved significant time in cooking chores, and some said that their husbands were more likely to cook themselves when the women were away from home: in the past, women usually pre-cooked and saved food for their husbands and other family members when they had to occasionally be away from the home. Time saving was also generated from the reduced time in fuel wood collection after the installation of biogas.

There was also considerable economic savings from reduced purchase of fuel wood and other sources of energy such as kerosene and liquefied gas for cooking. To a lesser extent, people interviewed stated an increase in crop and vegetable production as a result of the application of bio slurry on their crop and vegetable plots. Some families sold vegetables in the market but this activity was rather limited in scope due to distance (s) from the village to the market.

All those interviewed mentioned improved individual health as a result of decreased smoke and dust in the kitchen. There were generally less respiratory illnesses (coughing and sore throats) due to the clean cooking mechanism of the biogas. However, there has been a noticeable increase in the mosquito population in and near the bio digester located outside the home, although there was no linkage (s) with mosquito borne diseases.

²PKK: *Pembinaan Kesejahteraan Keluarga*. Established in 1972, it is a national program for the advancement of women through mutual cooperation, improving education, food, clothing and health; and maintaining a healthy environment

The majority of those who had installed biogas appreciated the subsidy they received.³ Non-users who were interviewed also demonstrated keen interest in installing biogas, though they were still unable to afford the price of installation even with the existing subsidy.⁴

2.2 Results of Initial Stakeholder Consultation

Aside from the IDBP project proponents, no stakeholders with significant influence on women's timesavings have been identified.

Based on consultations with community women, the only existing means for any form of benefit sharing are the informal savings groups that are organized among women members. Such savings groups are managed through a monthly savings scheme generated by each member contributing a specified sum of money. Each member is allowed access to a certified amount by turn. This forms an effective foundation for the benefit sharing mechanism that is to be established (see Section 4 below).

3. SELECTION OF DOMAINS

3.1 Selection of W+ Domains

An initial assessment has been carried out to gauge the applicability of all six of the W+ domains. The results are described below:

Time

- *Benefits:* The most significant impact of biogas is the time savings generated for women. The saving in time accrue largely from reduced time in cooking and collection of fuel wood, as well as spending less time in cleaning the kitchen and cooking pots. The clean energy produced by the biogas produces minimal smoke soot, which in turn decreases cleaning time. In general, women cited a time saving of 90 minutes per day.
- *Challenges/Risks:* There are many women from poor households who are unable to access loans to install biogas and there exists the potential risk that such a situation could further widen the gap between users and non-users over the long term.

Income and Assets

- *Benefits:* The installation of biogas has also led to decreased reliance on other sources of fuel such as kerosene and liquid purified gas (LPG). This has resulted in some savings for household. Additionally, the increase in crop and vegetable production through the

³ A subsidy of Rupiah 3 million (approximately USD 240) is provided from various sources such as the project, government. The total cost of the biogas unit is Rupiah 7 million (approximately USD 560)

⁴ Nestle provides a soft loan for the installation costs to members of its dairy cooperative (s).

production and application of bio slurry has led to some increase (s) in household income.

- *Challenges/Risk:* This however remains limited to some households only; more significantly, increased income in these households has yet to translate into an increase in assets. There are several challenges that limit the income potential from these activities. In the first instance, women and men stated there are limited markets for their products, citing their limited skills and opportunities to access larger markets further afield. While there is tremendous interest, particularly among women's groups to increase production, the absence of skills, market opportunities and limited access to loan schemes inhibits the very real potential for increased income.

Food Security

- *Benefits:* Many of those interviewed stated that increased production of vegetables and crops through the application of bio slurry also contributed in some measure to their household food security. However, most people were unable to state the precise extent to food security that higher production achieved.
- *Challenges/Risk:* Increased production for income and food security is still largely limited by little or no access to a sustainable source of improved seed varieties. This is compounded by the limited knowledge of women and men of nutrition related to food and crop varieties.

Knowledge and Education

- *Benefits:* There are no noticeable education and knowledge benefits that have been generated from the biogas amongst users thus far.
- *Challenges/Risk:* This could be attributed to several reasons; although there has been focus on providing skills and knowledge for biogas maintenance, there is demand for marketing of bio slurry, how to identify market opportunities, improved nutritional skills, etc.

Health

- *Benefits:* All those interviewed stated noticeable decline in respiratory illnesses such as coughing, sore throats and teary eyes when comparing cooking with biogas and open stoves. They also noticed reduced dust in the kitchen, and cleaner utensils after cooking with biogas.
- *Challenges/Risk:* Although there is reported decrease in respiratory illnesses, there has been an increase in the mosquito population, particularly inside the digesters. As of yet, most people have not noticed any relation to incidences of mosquito borne diseases (e.g. fever from malaria etc.), but the potential nevertheless, exists.

Leadership



- *Benefits:* There are no noticeable benefits in terms of leadership opportunities for women with the introduction of biogas technology.
- *Challenge/Risk:* In the absence of women playing a leadership role at the household and community level (s), many of the multi-sectoral benefits generated by biogas technology could potentially be lost to the existing social asymmetries based on inequitable gender relations.

Table 2. Assessment of Applicability of W+ Domain

| W+ DOMAINS | Benefits | Challenges/Risks |
|-----------------------------|---|---|
| Time | Time savings of approximately 1.30 minutes from reduced cooking time; reduced fuel wood collection time | Limited number of households with access to biogas could potentially widen the well-being gap between users and non-users |
| Income and Assets | Money saved: decreased expenditure of kerosene and LPG; sale of vegetables; sale of bio slurry | Limited access to markets and loan institutions Limited skills for marketing (crops and bio slurry), business management and organization skills. |
| Food Security | Increased food resource: increased crops and vegetable from application of bio slurry; | Limited access to improved seed varieties Limited knowledge of nutrition related to food and crop varieties |
| Knowledge and Skills | Not noticeable | Limited knowledge of bio-gas maintenance, particularly amongst women Limited knowledge and skills for developing saleable bio slurry products |
| Health | Less respiratory illnesses: due to reduced smoke and dust inhalation; | Although there is a reported decrease in respiratory illnesses, there is a marked increase in the incidence of mosquito population (s) around the digester |
| Leadership | Not noticeable | In the absence of women playing a leadership role at the household and community level (s), many of the multi-sectoral benefits generated biogas technology could potentially be mitigated by existing social asymmetries based on inequitable gender relations |

Based on the feasibility study conducted by the WOCAN team in November 2014, the most significant observable impact of biogas instalment for women is timesaving's. The saving in time accrue largely from reduced time in cooking and collection of fuel wood, as well as spending less time in cleaning the kitchen and cooking pots. The clean energy produced by the biogas produces minimal smoke soot, which in turn decreases cleaning time. Therefore, the proposed W+ application would focus on the application of the time method to measure the time saved by women biogas users. The time units generated by the W+ project will be used for further empowering women's groups in the selected project areas.

3.2 Description of the domain method (s) to be employed

Time Method and Scope



The W+ Time Method measured employed the following indicators to measure timesavings for women biogas users:

Table 3. Indicators of W+ Time Method

| RESULTS CHAIN | INDICATORS |
|-----------------------|---|
| Immediate Outcome | Increased discretionary time ⁵ |
| Intermediate Outcomes | Reduced drudgery Increased sharing of household work– men take on work that is normally considered that of women |
| End Outcomes | Increased perception of well- being by women |

A do no harm indicator was also employed for the Time method, followed by corresponding questions included in the survey questionnaire. The Do No Harm questionnaire was applied to fifty percent of the total sample size. For the time domain, the indicator for Do No Harm is: *not less than 97% of both women and men report that the project has not caused any unwelcome and non-remunerated increase of time spent or either productive on reproductive activities (on daily activities excluding leisure time) (check for risks of increased labour for children)*

The Time Formula

The following time formula is used to determine the total amount of time saved by women through the adoption and use of biogas technology.

$$TS(S) = W_{c,p} * P_{perf,c,p} * [\sum (TS_{coll,c,p} + TS_{cc,c,p} + TS_{subs,c,p}) - \sum (TI_{wc,c,p} + TI_{dca,c,p})]$$

Where:

TS(S) = Time saved by women during project operation that will be used for additional activities for women.

W_{c,n,p} = Number of women user/beneficiaries within a cluster of “like” projects within a verification period

P_{perf,c,p} = Project performance

TS_{coll,c,p} = 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.

⁵ The aim of the Time methodology is to measure the immediate outcome of increased discretionary time for women as a result of biogas. To measure higher level outcomes that are outlined above will require additional project interventions beyond provision of biogas alone, and measurement of such outcomes will require the use of one or another W+ Domain such as Income and Assets etc.

- TScc,c,p** = 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.
- TSsub,c,p** = Time saving as a result of substitution activities, such as activity shifting from women to men or time spent on project maintenance/technology application/training as result of project implementation and when project is operating as designed. Established by comparing Time User Survey results of Users Vs. Non Users (note: if there is no shift of work then TS Sub can be taken as 0)
- TI wc c,p** = Time increased in collection of water after biogas installation, when the project is operating as designed. Established by comparing Time User Survey results of Users Vs. Non-Users.
- Tldca c,p** = Time increased in collection of dung and application of manure after biogas installation, when the project in operating as designed. Established by comparing Time User Survey results of Users Vs. Non-Users

Calculation of Pperf:

*Pperf = % of biogas plant in operation * % of biogas usage per day*

% of biogas plant in operation = Number of days biogas plant is in operation /365

% of biogas usage per day = Number of hours biogas is used for cooking/(total number hours for cooking cumulative of all stoves; biogas + Mud stove + Improved cook stove).

3.3 Details for Each Selected Domain

Objective:

To develop results to demonstrate the timesavings generated for women using biogas technology

Immediate Outcome:

Women biogas users have increased discretionary time

Indicators:

Number of minutes/hours per day of women's discretionary time.

Activities:

1. Adapt existing W+ Time Method survey questionnaire to local context
2. Select survey sample for users and non-users. This will be determined in consultation with the BIRU team
3. Code baseline survey for statistical analysis



4. Train enumerators for 3 days
5. Implement survey for users and non users
6. Supervise enumerators in field
7. Compile raw data
8. Aggregate data
9. Analyze data
10. Register project with WOCAN
11. Establish Benefit Sharing Mechanism
12. Prepare Monitoring and Results report
13. Arrange for W+ Verification by independent auditor

Timeline:

All activities will be carried out in February – July 2015.

4. BENEFIT SHARING MECHANISM

A key requirement of the W+ Standard is to describe the system for a benefit sharing mechanism that would be capable of transferring Direct Share payments generated from the sale of W+ units, the purpose of which is to reward women for their contribution to the creation of W+ social asset units and to empower them by giving control over the Direct Share. The W+ Standard requires that a defined minimum payment, corresponding to at least 30% of the market price⁶ of all issued and transacted W+ units is to be made directly to primary women beneficiaries. This payment is called the “Direct Share”.

The informal benefit distribution mechanism at the local level (reported in Section 2.2 above) can significantly be supplemented by a higher-level distribution mechanism, which is yet to be identified. During the next few months, a more comprehensive assessment will be conducted involving HIVOS team members to identify key local or regional institutions that could provide benefit distribution mechanisms for profits generated from the sale of W+ units. The results of this assessment will be reported in the Monitoring and Result Report.

5. MONITORING EVALUATION AND REPORTING PLAN

5.1 Monitoring Evaluation and Reporting Plan

Proposed approaches

Household survey will be conducted to measure time saved by women after the biogas instalment. Data will be collected using a structured interview with biogas users and non-users. To triangulate the data, in-depth interviews will also be conducted with several respondents. Before carrying out the household survey, a two-day training will be carried out for the

⁶ The market price is the price at which a W+ unit is sold from an originating W+ Project Developer to a buyer.

enumerators in each province by the WOCAN W+ team. The training ensures that each member of the enumerator team is sufficiently familiar with the survey and the key gender concepts and sensitivities that are required to ensure appropriate responses from the respondents. Additionally, the W+ team members will accompany the enumerators to each of their sites while conducting in-depth individual interviews to triangulate the trends that appeared from the previous day on interviews.

Sample size and method

Survey participants will be selected only from users who had used biogas under two years and less to ensure sufficient memory recall. The selection of first year users selected for the survey will be based on them having used the technology for more than 0.5 years, while second year users will be selected from those who have used the technology for at least 1.5 years. Two provinces are selected for this study: East Java and West Nusa Tenggara Province. As shown in the table below, there are a 1,831 first year users and 2,621 second year users, making a total of 4,452 users in the two selected Provinces. Purposive sampling will be used to determine the sample size.

Table 4. Total Biogas Users for First and Second Year in East Java and West Nusa Tenggara

| Province | | Year 1 | Year 2 | TOTAL |
|--------------|--------------------|--------------|--------------|--------------|
| 1 | East Java | 873 | 1,579 | 2,452 |
| 2 | West Nusa Tenggara | 958 | 1,042 | 2,000 |
| TOTAL | | 1,831 | 2,621 | 4,452 |

Table 5. Time Method Monitoring Plan

| RESULTS | INDICATORS | ACTIVITIES | TIME LINE |
|---|---|-----------------|-----------|
| <u>End Outcome</u> <ul style="list-style-type: none"> Increased perception of well-being among women | <ul style="list-style-type: none"> Increase in assets owned by women Increased income opportunities for women Increased opportunities for self-improvement | NA ⁷ | NA |
| <u>Intermediate Outcome</u> <ul style="list-style-type: none"> Increased | <ul style="list-style-type: none"> Women report that men | NA ⁸ | NA |

⁷ Refer to the future activities of other W+ Domains

⁸ Same as above

| | | | |
|--|---|--|-----------------------------|
| <p>sharing of reproductive activities (men assume more tasks normally considered women's work);</p> <ul style="list-style-type: none"> • Reduced drudgery from time saved | <p>share household work</p> <ul style="list-style-type: none"> • Women report increased use of extra time for leisure and self-improvement • Women report increased control of household financial decision | | |
| <p>Immediate Outcome</p> <ul style="list-style-type: none"> • Increased discretionary time | <p>Women use increased time for income generating activities, leisure activities</p> | <ul style="list-style-type: none"> - Adapt existing W+ Time method questionnaire to local contexts - Conduct baseline survey - Develop monitoring mechanism - Select survey sample for users and non-users for baseline - Code baseline survey for statistical analysis - Train enumerators (10 women) for 3 days - Implement survey - Supervise enumerators in field - Compile raw data - Aggregate data - Analyze data - Register project with WOCAN - Prepare report based on monitoring mechanism - Arrange for W+ Verification by independent auditor | <p>February - July 2015</p> |
| <p>Outputs</p> <ul style="list-style-type: none"> • PDD • Evaluation Report • Auditor Report | | | |

W+ project template documents have incorporated relevant elements of the combined Voluntary Carbon Standard/ Social Carbon template documents. WOCAN acknowledges the intellectual property of the VCS and Social Carbon and appreciates the leadership and examples set by these organizations.



