

# SOCIAL RETURN ON INVESTMENT 2017

WAWCAS





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## WAWCAS

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Founded: 2007  
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### SOCIAL RETURN ON INVESTMENT REPORT FOR WAWCAS 2017

The report is compiled by Lind Invest with data used from Wawcas in the year of 2014.

The analysis itself is completed 02 March 2017.

Responsible and layout: Jakob Gjeraae Sabroe, Matvei Andersen and Gitte Thordahl Jespersen, Lind Invest.

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» WAWCAS creates a positive return on investment of 2.38 DKK for every 1 DKK in input, and a donation to WAWCAS can be considered a solid investment and not just as charity «



# ABSTRACT

## SOCIAL RETURN ON INVESTMENT

This report contains a Social Return on Investment analysis (SROI analysis) of the WAWCAS Program in Nepal. This is done to estimate how much value is created for the target group and society in general because of WAWCAS' intervention.

The analysis is primarily based on data about the participant's income level before and after the intervention. The data has been gathered by WAWCAS' Local Program Leaders but the data is still considered valid and trustworthy.

Poverty and social problems often follow hand in hand and affect both the individual and society in general. The WAWCAS Program works focused with this by helping women to start their own businesses and by working with them to fight social problems. Doing this and securing education for the next generation have a long-term impact on both the participants, their families, and society in general.

The analysis shows a significant income increase for the women in the program. In addition to that, incre-

ased personal well-being for the volunteers in Denmark is estimated and included in the analysis. If it had been possible to include other improvements for the women in the program or the long-term impact of education for their children, the SROI ratio would be higher and more comprehensive.

The SROI ratio is calculated to be 2.38 over a five-year period. Thereby, WAWCAS creates measurable value for their stakeholders and the Nepalese society. This proves that the program creates a positive return on investment of 2.38 DKK for every 1 DKK in input, and a donation to WAWCAS can be considered a solid investment and not just as charity.

When judging the result, it should be considered that it has not been possible to include all positive outcomes. Also, the impact might last for more than five years and the women might gain real income increases over time. In a future analysis, this perspective can be analyzed further.



# PURPOSE

## SOCIAL RETURN ON INVESTMENT

The purpose of the analysis is to evaluate the value creation of the WAWCAS Program in 2014. Furthermore, the purpose is to show the reader the social impact that is generated for the participants of the program and for the local community. The by-product is also an exposition that unveils how the organization works, who the stakeholders are, and how the value is created.

The analysis can be used both internally and externally. For internal use, the analysis makes it clear where the value is created – and what affects the value creation. For the management of the organization, it can be used as inspiration for further development and improvement of current projects and future projects.

For external use, it can be used to document the value creation to current and future contributors and to support fundraising of the organization.

The analysis focuses on the impact of the organization in 2014, but long-term effects are also included and commented on later in the analysis.

It is a central part of Lind Invest's approach to social responsibility to measure and evaluate if there is a reasonable relationship between the input and output of the projects in order to benefit the target group as well as society in general.

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# INTRODUCTION

## WAWCAS

The vision of the WAWCAS Program is to empower women who live in poverty in Nepal to become independent and able to achieve a better life and a better future for their children. This vision is also expressed in the name of the program – WAWCAS – which is an acronym for “Women at Work - Children at School”.

WAWCAS has created a training program that helps underprivileged women to learn how to establish, operate, and grow a business. Through this process, they become entrepreneurs with an income and they develop personally as individuals and socially in groups. Furthermore, as a requirement for participating in the program, their children must go to school.

Since 2008, the WAWCAS program has grown significantly and helped nearly 2,300 women and their families to overcome poverty and social problems. WAWCAS has an effective long-term strategy for expanding the program and to launch new spin-off projects that will add more value for the participants.

Overall, the organization creates a sustainable development and improvement of the living conditions for women in Nepal. The program is non-profit and is financed entirely by contributions. In 2014, 12 employees in Nepal and around 20 volunteers in Denmark operated it.

### Introduction to the WAWCAS Program

The WAWCAS Program is an entrepreneurial training program over 16 months facilitated by certified Local Program Leaders, who have fulfilled a 17-month theoretical and practical WAWCAS Certification Program<sup>1</sup> training. The primary objective of the program

is to empower poor women to become independent by helping them to start their own business and teaching them how to manage a business<sup>2</sup>.

The program is divided into three different phases:

#### Preparation phase

Duration of 3 months.

The Local Program Leaders arrange weekly meetings with the women who have joined the program. The Local Program Leaders visit them at home in order to learn about the family situation and afterwards they divide the women in groups of 25 women.

The women begin saving up and identify their personal challenges – from this a personal training content plan is developed. In this process, the women become ready to change their lives.

#### Implementation phase

Duration of 12 months.

In this phase the women get settled in groups of 25 women and they establish their businesses.

They organize the group activities and roles such as chairman, secretary and treasurer. Furthermore, they support each other to develop the individual business plans. In this way, they share responsibility to the other members of the group and support each other. The women save in the group and these savings are used for loans among the women. In that sense the women support each other financially and for other needs. The children start to attend school regularly as well.

<sup>1</sup> WAWCAS, “Certified Trainers and Teaching Materials”

<sup>2</sup> WAWCAS, “The Training”

FIGURE 1: THE WAWCAS PROGRAM



# INTRODUCTION

## WAWCAS

When the most important stages of the businesses are planned, each woman receives a loan from WAWCAS of maximum NPR 30,000 without any collateral. These loans help the women to start their business and earn their own income.

The Local Program Leaders follow up on the women and support them in the development of their businesses. The repayment rate of the loans is 98 % due to the successful businesses and close and regularly follow-ups by the Local Program Leaders.

The participating women must save up monthly for investment in the business, for their everyday life and for their children's education.

Twice a month the women get training in business development, market management, financial management as well as social mobilization training on topics such as children, women's rights, nutrition, gender equality and sanitation. They also get personal training based on their individual challenges to develop personally. When the Implementation phase ends, almost all participants have repaid their loans to WAWCAS.

### Exit phase

Duration of 1 month.

The Local Program Leaders and the women evaluate

and document the women's progress throughout the training program in this phase – some key factors they evaluate are: economic status, effects on the family and other change indicators. They help the women create a five-year strategic plan for their businesses and for the groups as well. They help them with contact to relevant authorities so they can get support if needed. The last phase is meant for preparing the women to continue the progress together with the other women in the groups.

### Organizational overview

The WAWCAS Program is implemented in collaboration with WAWCAS International (Danish independent organization) and SLISHA (Nepalese NGO).

Both are non-political and non-profit organizations, and the WAWCAS Program is neutral in relation to ethnicity, nationality, political ideologies, religion and cast. Figure 3 (p9) shows that the relationship between the two as well as how the program is managed<sup>3</sup>.

<sup>3</sup> WAWCAS: Handout presentation (2016)

FIGURE 2: WAWCAS' THEORY OF CHANGE



# INTRODUCTION

## WAWCAS

# WAWCAS

FIGURE 3: ORGANIZATIONAL OUTLINE



# METHOD

## SOCIAL RETURN ON INVESTMENT

With inspiration from traditional economic approaches such as Return on Investment and Cost-Benefit-analysis, a modern method has been developed to quantify and value effects on target groups and society created by social projects and organizations. The method is called Social Return on Investment (SROI).

This analysis of Social Return on Investment is based on the method developed by former Office of the Third Sector (OTS) in the Cabinet Office of the UK Government<sup>4</sup>.

The method is not fully perfect and is still being developed as it is used in practice, and there are also other methods to measure social impact<sup>5</sup>. The method has some strengths and weaknesses but it is the best method developed yet. The method has been used by various research institutes and funds for studies of social projects and organizations.

This analysis is based on this method because it is comprehensive and covers many stages of organizations' social impact.

The method is a process of understanding the social impact being created in an organization and how to measure this impact. The process starts with an identification of the individuals who are affected by the social project and experience an effect from the project. These are referred to as stakeholders.

The stakeholders are categorized in groups as they experience different effects by the project. Afterwards,

the effects are assessed and evaluated. These effects are given a monetary value based on economic principles, and then the total value is calculated. This value is then used as a measure of the impact created by the social project.

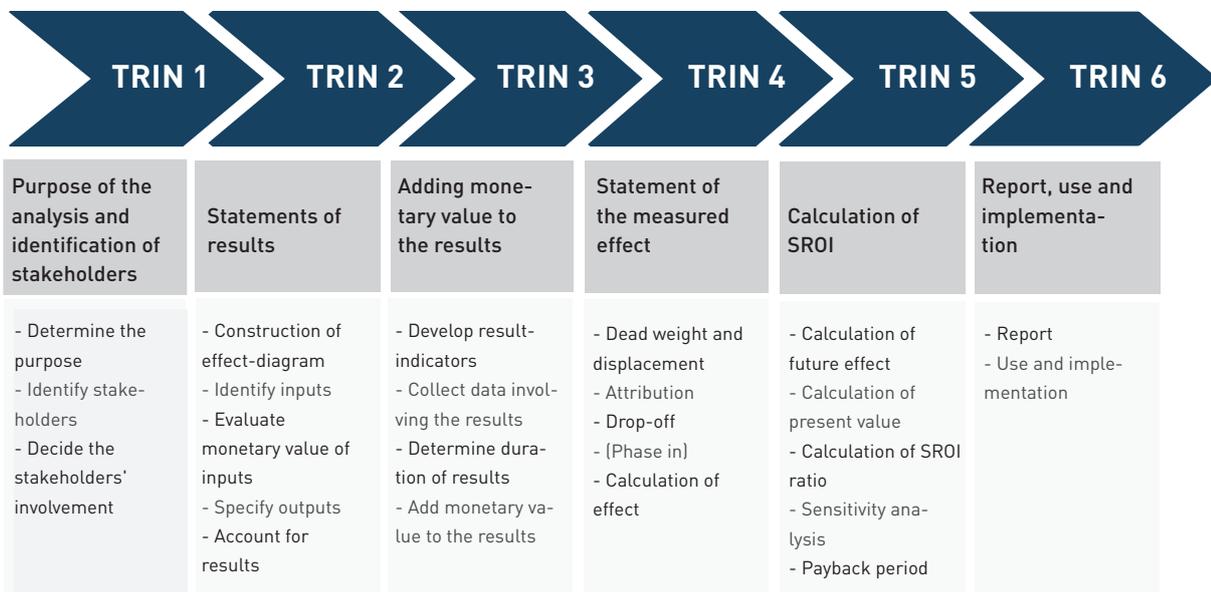
It is important to understand that the SROI analysis is not just a financial measure of the social impact. It is important to consider the process of the analysis as an essential result. The process illustrates which stakeholders are affected and how they are affected. This helps the organization to understand how they help the stakeholders and where they create most value. For management, it must be considered an important tool for further development of the organization to benefit the individuals and society even more. The analysis can also be used to communicate the effects created to external stakeholders.

The SROI method is based on six steps, which will be the setup for this analysis as well. First the purpose of the analysis is defined and the stakeholders are uncovered. Next is an identification of inputs and results that are valued. The SROI ratio is calculated along with a sensitivity analysis of the results. Finally, a conclusion of the analysis can be made. The different steps are illustrated in figure 4.

<sup>4</sup> SROI Network, 2012

<sup>5</sup> Den Sociale Kapitalfond, 2012

**FIGURE 4: THE SIX STEPS IN THE SROI ANALYSIS**



# METHOD

## SOCIAL RETURN ON INVESTMENT

There exist different statistical methods to increase the validity of the results in an analysis<sup>6</sup>. Table 1 shows the levels of analysis and the statistical methods used at each level. Higher levels of analysis result in a stronger cause-effect relationship and more valid results, but lower levels of analysis can still be valid – the cause-effect relationship is not strong, though.

This analysis of the WAWCAS Program is based on level 1 where data on the participants in the program is studied. It will be possible to make an analysis on a higher level in the future when better data can be collected and randomized experiments might be considered.

The design is based on the data of the participants before they joined the WAWCAS Program and after they finished the program. In this way it has been possible to measure the effect caused by WAWCAS. It is very certain that no other variables could have caused the effect in this period as the women were very connected to the program and thus the results are assumed to show the actual effect.

<sup>6</sup> Trochim, W., 2006

<sup>7</sup> Økonomer Uden Grænser, 2016

**TABLE 1: LEVELS OF ANALYSIS AND THE STATISTICAL METHODS<sup>7</sup>**

LEVEL	DESIGN	STATISTICAL METHOD
5	Randomized trials	Evaluations of well-arranged random assignment of treatment to subjects in treatment and control groups
4	Quasi-Experiments	Evaluations that use a naturally occurring event (which makes the treatment assignment as good as random)
3	Matching techniques: Regression analysis	Non-experimental evaluations where treatment and comparison groups are matched on observable characteristics.
2	Simple comparisons	Studies of two groups: a treatment group and comparison group. In this method differences among the groups are not controlled for.
1	Pre- and post analysis	Studies of outcomes measured pre- and post-treatment. No comparison group is used.

# DATA

## SOCIAL RETURN ON INVESTMENT

The analysis is made based on quantitative data from the participants in the program. This data is collected by WAWCAS.

Generally, it is often difficult for social projects and organizations to collect valid data to measure the value created. Thus, some uncertainties might be attached to the data, which will also be commented on later in another section. WAWCAS has focused a lot on data collection since the beginning of the program and has recently developed their own digital data system. This system was not implemented in 2014, but in the future, it will be easier to collect data regarding the participants and their development in the program. The validity of the data used is considered high.

On the input side, the data consists of the financial statements from 2015 – more precisely the operating expenses – and the number of volunteers and the time they spent on volunteer work. It has been chosen to use the operating expenses in 2015 instead of the operating expenses in 2014, as the training of the women entering in 2014 on average influences the

2015 budget more than the 2014 budget. However, a sensitivity analysis has been made to uncover how this decision affects the SROI ratio.

On the output side, the data concerns the number of women who participated and finished the program, the number of businesses were established, the participants' income before and after they joined the program, the number of participants' children going to school, the number of loans were given and repaid, and the number of volunteers.

The increased well-being for the volunteers in the WAWCAS Program has been estimated using a general indicator for voluntary work. This is done instead of interviewing the volunteers.

The number of women and their income changes is based on a pre- and post-income statements from all the participants entering the program in 2014 - and not just a small sample. This makes the analysis more valid.



# STAKEHOLDERS

## WAWCAS

In this section the stakeholders are defined in groups and their involvement in the analysis is described. How the groups are involved or affected is explained in the second column and an account of whether the groups are included in the analysis or not is considered in the last column.

Of the below-mentioned stakeholders, the following are included in the analysis: The participants, the contributors and the volunteers.

**TABLE 2: DESCRIPTION OF THE STAKEHOLDERS**

GROUP	EFFECT	INCLUDED IN ANALYSIS
The women participating in the WAWCAS Program	The participants are a vital stakeholder as the WAWCAS Program is focused specifically on them <sup>8</sup> . They experience education in entrepreneurship and are helped to start their own business. This helps them generate an income and improve their life. In 2014, 307 women entered the program.	Yes, the participants are included. They invest their time as input and receive an output which among many things include education and a higher income. This is an essential part of the analysis. The value of this output is significant for the participants and is expected to have a long-term impact on the stakeholders.
Contributors	The contributors are stakeholders through their financial contributions to the organization. The group is not divided into specific contributors, but most of them are private contributors.	Yes, this group is included in the analysis. Their contributions fund the operating expenses of WAWCAS and are measured as inputs in the analysis. They do not receive any output directly.
Volunteers	A great deal of the organizational work is done by volunteers – primarily in Denmark. They help the organization with administrative assignments and are thus important stakeholders. Throughout 2014, approximately 20 volunteers have helped WAWCAS.	Yes, the volunteers are included in the analysis. They deliver an input consisting of the time they put into the volunteer work, which has an alternative cost for the individual and society. They do also receive an output in the form of experience and better quality of life because of their volunteer work.
Management	WAWCAS was in 2014 operated by 12 employees – one Program Director, one Program Manager, one Finance Officer, one technical assistant and eight Local Program Leaders <sup>9</sup> . All these employees had a big impact on the organization and are helping the participants reaching their goals.	No, management is not included specifically as their salaries are included in the total operating expenses. Thus, management is included indirectly in the analysis.
The families of the participants	The families of the participants are affected by WAWCAS. First, a requirement for the participants to be in the program is that their children must go to school. Second, the families experience a general increase in wealth, which improves their quality of life.	No, the families are not included in the analysis, because it has not been possible to evaluate the effects and measure them by a financial indicator.

<sup>8</sup> WAWCAS, "How it all began"

<sup>9</sup> WAWCAS International, Annual report, 2014

## THE PERSONA OF A WOMAN IN THE WAWCAS PROGRAM<sup>10</sup>

- SHE IS LIVING IN POVERTY AND IS ILLITERATE
- HER CHILDREN GO TO VERY BAD SCHOOLS - IF THEY GO TO SCHOOL AT ALL
- SHE IS EXPOSED TO DOMESTIC VIOLENCE
- SHE HAS DIFFICULTY PROVIDING FOR HER FAMILY
- SHE WORKS HARD AS A LABORER OR CONSTRUCTION WORKER FOR 10 HOURS A DAY
- SHE IS LONELY AND TREATED POORLY BY HER FAMILY AND THE COMMUNITY
- SHE HAS NO SELF-CONFIDENCE

<sup>10</sup> WAWCAS, "The Program"



# CALCULATION

## SOCIAL RETURN ON INVESTMENT

### Input

Input is defined as all resources used to operate the organization and its programs. These inputs consider financial contributions, time invested by volunteers and employees, etc.

In the analysis of WAWCAS the input is mostly based on the operating expenses from the financial statements as this covers all contributions received and how the contributions were spent on the operation of the program.

The operating expenses of 2015 are used as input in this analysis. The reason for this choice can be explained by the financial burden of the participants in the program. The program has a duration of 16 months so the participants who enter in the beginning of 2014 will finish at mid-2015 and the participants who enter in the end of 2014 will finish in the beginning of 2016. This means that on average, the women entering the program in 2014 will burden the 2015 account the most. It is not possible to isolate the costs for the women entering in a specific year but using the 2015 account is the most accurate. From the consolidated financial statement from 2015 is found that the total cost of the WAWCAS Program amounted to 1,118,992 DKK in 2015.

As part of the program, the women will also receive a small loan to start their business. This is, however, not included as the repayment rate is 98 % and because the women also pay interest on the loan.

The volunteers are also included as input because they invest their time to work for the organization. The time they spend has an alternative cost because they could have been working in another job for an income in that time.

The alternative cost is difficult to measure as the volunteer have different educations and could have received different salaries. As a general indicator, the cost is set to be 200 DKK per hour. This hourly rate is then multiplied with the total number of hours spent volunteering. The time spent volunteering is found to be 965 hours in 2014. The total gross input is then calculated to be 193,000 DKK.

However, a 50 % dead weight is applied to gross input from the volunteers as it is estimated that half of the volunteers would have volunteered elsewhere if WAWCAS had not existed. The net input from the volunteers can therefore be calculated to be 96,500 DKK.

The total net input is 1,215,492 DKK.

### Output

The output is a quantitative statement showing the total number of activities, beneficiaries etc. In this analysis, the volunteers and the participants make up the output on an overall level. For WAWCAS' stakeholders the output is found to be:

**Participants:** The total number of women who entered the program in 2014 and completed the program 16 months after entering was 307. The women have families who also benefit from the program, but this has not been included.

**Volunteers:** 20 volunteers worked for the organization in 2014 and spent 965 hours in total.

### Outcome

In this paragraph, a monetary value is added to the outputs found in the previous paragraph.

### Participants

To estimate the value created for the women in the program only data on their income level has been used. This data has been handed to Lind Invest from WAWCAS. The Local Program Leaders in WAWCAS have gathered the data and then it has been stored in a central database. The income increase for the women is individual, which means that no common indicator is used. Instead, the precise income increase for every woman has been applied in the analysis. The number of women in the analysis is 307.

The 307 women had a total annual income of 157,059 DKK before entering in the program. This can be converted into an average annual income of 512 DKK per year.

After completing the training program, the total annual income for the 307 women increased to 753,780 DKK. However, a 10 % discount is applied as a part of the income increase is caused by inflation and a general real wage increase in the country. The inflation in 2015 is found to be 7,9 %<sup>11</sup>.

The discounted total income is then 678,402 DKK. The annual net income increase can be calculated to be 521,343 DKK. The effect is expected to last for at least five years, as WAWCAS has documented that almost all the businesses is running five years later. The total income increase in the period is then – without any real income increases – calculated to be 2,606,715 DKK.

<sup>11</sup> <http://www.worldbank.org/en/country/nepal>

# CALCULATION

## SOCIAL RETURN ON INVESTMENT

### Volunteers

Through their voluntary work for the WAWCAS Program, the volunteers have gained working experience as well as a personal well-being effect from helping others. It has not been possible to measure the value of the working experience, but an indicator for the personal well-being has been identified.

The British organisation HACT has, in cooperation with the acknowledged economist Daniel Fujiwara, developed a data bank with social values for numerous different life changes; having a secure job, living in a safe neighbourhood, having a secure house instead of rough sleeping, etc.<sup>12</sup>

Volunteering at least once a month is found to create an annual personal well-being effect of the equivalent of 3,249€. Converted to DKK it amounts to 28,539 DKK. When this is multiplied with 20 volunteers, the total personal well-being increase amounts to 570,774 DKK.

However, a 50 % dead weight is applied to the gross output as it is estimated that half of the volunteers would have volunteered elsewhere if WAWCAS had not existed.

The net outcome is therefore 285,387 DKK.

The total net value of the outcomes is 2,892,102 DKK.

### Calculating the SROI ratio

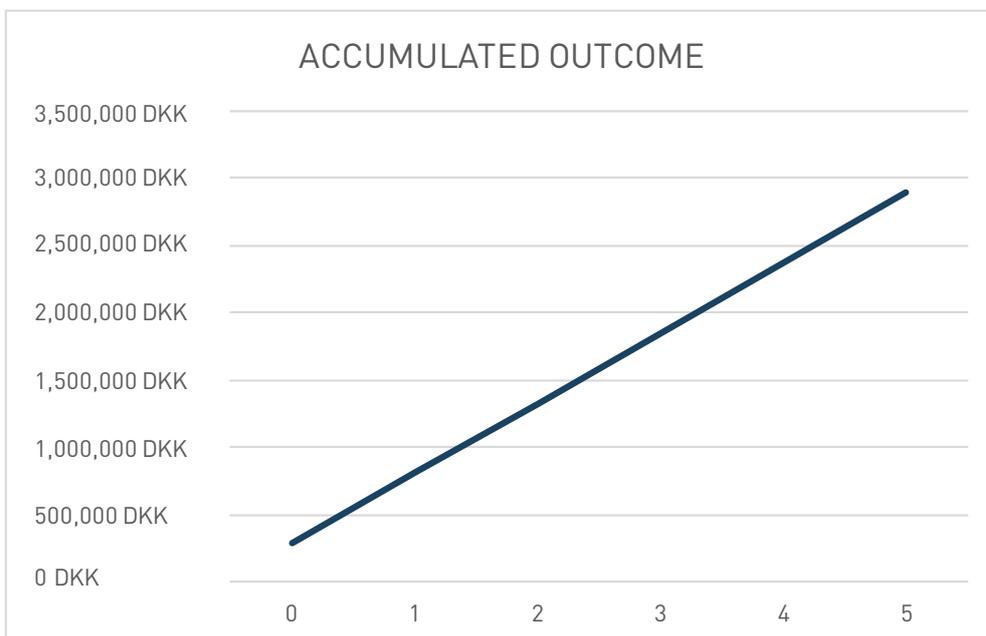
In this step, the SROI ratio is calculated. It is calculated by dividing the value of the net outcome with the value of the net input. The SROI ratio is a metric that shows how much value is generated in output for every 1 DKK spent on input.

When calculating the SROI ratio, it is very important to consider potential factors that can decrease the value of either the input or the outcome. Beneath is a summary of the potential adjustments and whether they are used in the analysis:

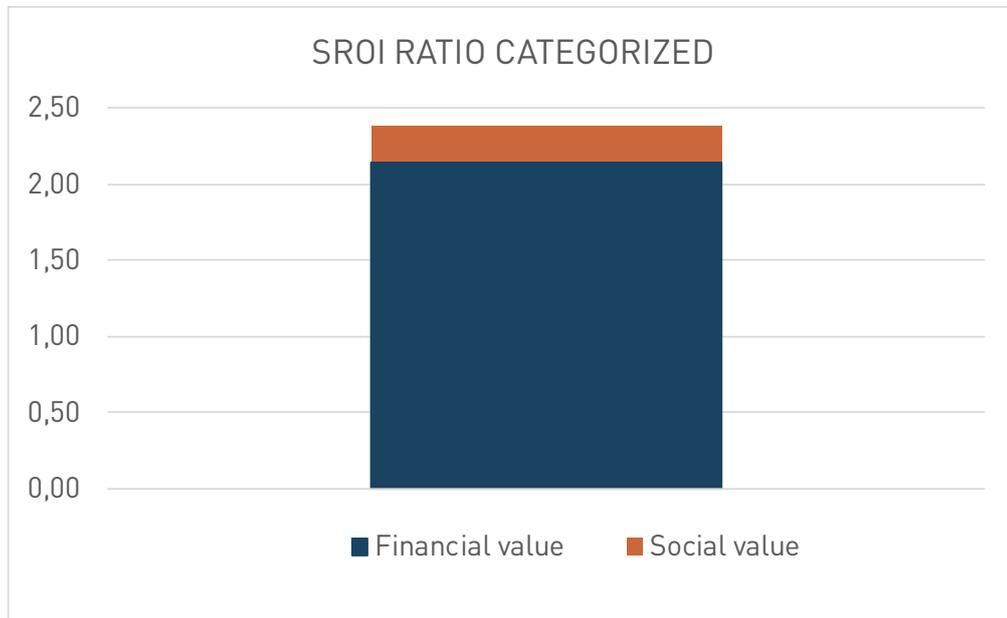
- **Dead weight:** Indicates the percentage of the effects that would have taken place if WAWCAS had not existed. The dead weight for the volunteer’s time investment – both valued as input and outcome – is determined to be 50 %. The dead weight for the women’s income after finishing the program is determined to be 10 % because of inflation.

<sup>12</sup> Measuring the Social Impact of Community Investment: A Guide to using the Well-being Valuation Approach, HACT and Daniel Fujiwara, March 2014

**FIGURE 5: ACCUMULATED OUTCOME AS FUNCTION OF NUMBER OF YEARS**



**FIGURE 6: SROI RATIO CATEGORIZED**



- **Drop off:** Indicates the percentage of the effect that will fade as time passes. The drop off in the five-year period is determined to be 0 %, because almost all the businesses created by the women are operating after five years.
- **Phase in:** Shows if the effects will increase with time. It is likely that the women will experience a gain in income during the five years, but it has not been possible to assess in this analysis. However, a sensitivity analysis showing the impact of a real income increase on the SROI ratio is made later in the analysis.
- **Attribution:** Indicates if some of the created value can be attributed to others. In this analysis, the attribution rate is determined to be 0 % as WAWCAS is considered responsible for the total increase in income for the women.
- **Displacement:** Tells if the effect has displaced another positive outcome. No displacement is found in the analysis of WAWCAS.

The value of the outcome is the sum of effects in a period of five years. The outcome is most significant in year one because both the income increase and the well-being value for the volunteers are included. Figure 5 shows how the output increases as a function of time.

As explained, the SROI ratio is calculated by dividing the net value of the outcomes by the net value of the

inputs. The net value of the outcomes is 2,892,102 DKK and the net value of the inputs is 1,215,492 DKK. By dividing the two numbers, the SROI ratio is determined to be 2.38.

Calculation:  $2,892,102 / 1,215,492 = 2.38$

The SROI ratio consists of both financial value from the income increase and a social value from increased personal well-being for the volunteers. Figure 6 shows how much each kind of value accounts for:

The SROI ratio of 2.38 is a good result and it documents that the WAWCAS Program creates measurable value. It means that it makes sense to support the WAWCAS Program as an investment from a societal point of view, and not only from a charitable point of view. Furthermore, most of the SROI ratio is composed of financial value which substantiates that the WAWCAS Program creates measurable value.

### CALCULATION OF SROI RATIO

$$\frac{2,892,102}{1,215,492} = 2.38$$

# CALCULATION

## SENSITIVITY ANALYSES

### Sensitivity analyses

The calculations are based on assumptions and with assumptions comes uncertainties. These are discussed in appendix 2 "Assumption and measurement uncertainty". In addition, this paragraph presents four different sensitivity analyses that examine how changes in the assumptions changes the SROI ratio. These analyses offer insight into the sensitivity of the SROI ratio and shows a range for the SROI ratio in different scenarios. Hereby, the reader can form an opinion about the conclusion of the analysis.

### Duration of effects

The analysis assumes that the women's income increase will last for five years. This is supported by the fact that almost every business is operating after five years. However, it is possible that the duration will last either shorter or longer than five years. Table 2 shows how this will influence the SROI ratio. The result ranges from 0.66 if the effect lasts for one year to 8.81 if the effect lasts for 20 years. In this calculation, no real wage increase is included. If a real wage increase is included, the SROI ratio will be higher than 8.81 in the best-case scenario.

### Real income increase

The analysis assumes that the real income for the women will be fixed during the five years. However, if a 5 % annual real wage increase is included, the SROI ratio will rise to 2.60. Compound interest means that the impact of an annual real wage increase will grow to be more significant every year.

### Volunteers

The calculations count in the volunteers' time investment as an input and an increased personal well-being for the volunteers as an outcome. If these measures are excluded, the SROI ratio would drop to 2.33. This is only a slight drop compared to the SROI ratio of 2.38.

### Operating expenses

As financial input, the analysis uses the operating expenses from the fiscal year of 2015. As discussed earlier, the operating expenses from the fiscal year of 2014 could also be used. The financial input in 2014 amounted to 981,214 DKK – that is 137,778 less than in 2015. If the financial input is changed, the SROI ratio would rise to 2.68.

Most of the sensitivity analyses show only slight changes in the SROI ratio if different variables are changed. However, changes in the expected duration of the effects have a drastic impact on the SROI ratio. In the worst-case scenario, the SROI ratio drops to 0.66, and in the best-case scenario, the SROI ratio rises to 8.81. In the future, it will be possible to eliminate this uncertainty as we can follow the progress of the women closely. That might result in expanding the duration of the analysis and thereby lead to a higher SROI ratio. Likewise, it will be possible to count in a precise real income increase.

TABLE 2: HOW DURATION OF EFFECTS WILL AFFECT THE SROI RATIO

SROI RATIO	NUMBER OF YEARS WITH THE EFFECT						
	1	3	5	7	10	15	20
	0,66	1,52	2,38	3,24	4,52	6,67	8,81

# CALCULATION PAYBACK PERIOD

» The payback period is calculated to be 1 year and 9.5 months. At this point, the SROI ratio is equal to 1.00. After this period, the additional outcome can be viewed as a yield on the investment «

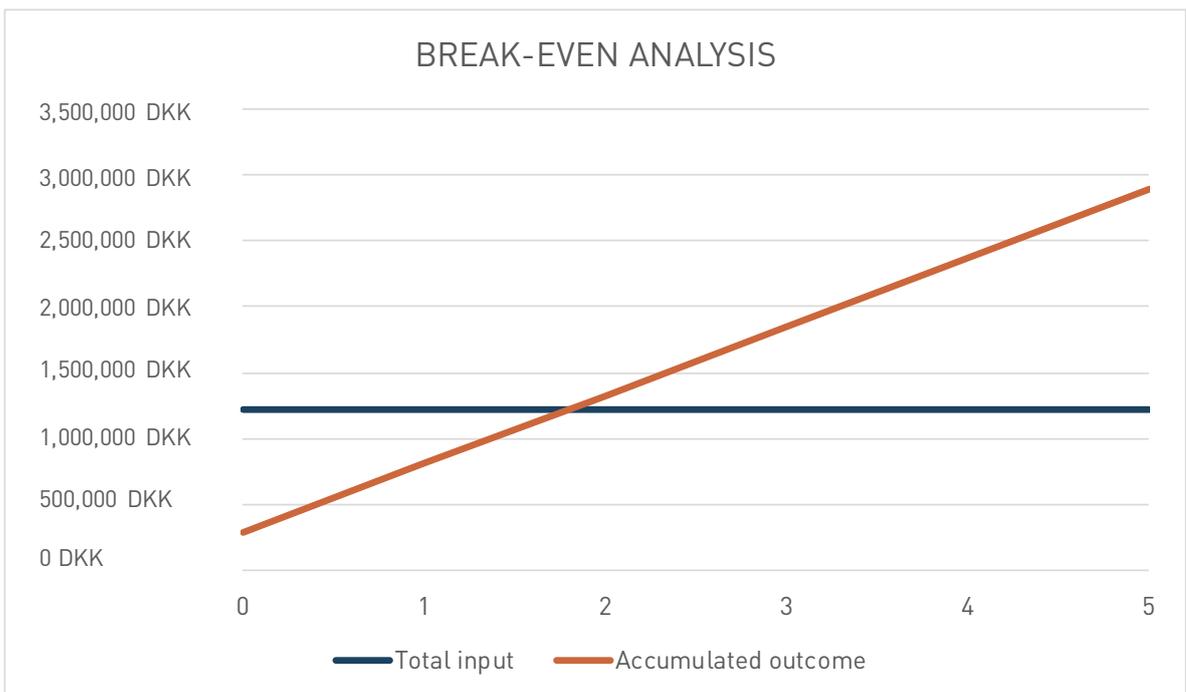
### Payback period

As the impact from the WAWCAS Program set in over time, it is interesting to examine precisely when the accumulated outcome is equal to the total input. At this point, break-even is reached for the investment. The period from the investment is made and until this point is called the payback period.

The payback period is calculated to be 1 year and 9.5 months. At this point, the SROI ratio is equal to 1.00. After this period, the additional outcome can be viewed as a yield on the investment and the SROI ratio will steadily towards 2.38. The graph beneath shows this visually. Year 0 is set to be when the women exit the program after the 16 months of training. Until this point, no income increase is included – only the total input and the well-being effect for the volunteers.

The payback period is relatively short which is uplifting and positive from an investor’s point of view.

**FIGURE 7: BREAK-EVEN ANALYSIS FOR INVESTMENTS IN THE WAWCAS PROGRAM**



# OTHER VALUE CREATION

## WAWCAS

Throughout the analysis process it has become more clear that WAWCAS creates more value than measured in the analysis. Especially the families of the participants experience many positive effects from the program, which are not considered in the analysis. The women's participation in the WAWCAS Program is considered to have improved the living conditions for many close relatives involving children, husbands and other family members.

One positive effect is the increase in children's education level caused by the women's participation in the WAWCAS Program. When the women join the program their children must go to school – that is a condition for participating in the program<sup>13</sup>. Results from WAWCAS show that 100 % of the participants' children have attended school regularly after they joined the program against 20 % before the women joined the program. Furthermore, 90 % of the children in Kathmandu - where they are available - attend private schools as the women now can afford it and are persuaded to do so, because the public schools often have a bad educational level<sup>14</sup>.

Thus, the children get a good education which is believed to gain them throughout life with better opportunities for jobs etc. This is a positive effect of WAWCAS, which is not measured in the analysis, because we – at this point – don't know the total number of children and because it is very difficult to estimate the future value of their education. The value is also affecting society in general as the future workforce becomes more educated and the general wealth level will rise correspondingly. Unfortunately, it is not possible to measure this effect yet, but hopefully it will be possible in the future.

Another positive effect is a decrease in social issues such as domestic violence and abuse. The participating women in the program have reported a significant decrease in domestic violence along with a decrease in consumption of alcohol and cigarettes. This effect is assumed to be caused by the program

and the network that the women become a part of. Through the WAWCAS Program they have joined a strong network of other women and cooperate not only in their businesses, but also against social injustice. They have formed groups where they learn about democratic values and social behaviour. They work together and learn to support each other in struggles. This is assumed to affect the women positively both physically and mentally as well as it improves the health of the husbands. These effects are not possible to measure in financial terms at this point, but hopefully it can be included in the future.

Because of the improvement in quality of life and the decrease in domestic violence and abuse, the women are assumed to experience increased well-being<sup>15</sup>. This effect has also been documented by interviews with the women about the progress they have experienced in the program after they finished. Most of the participants have answered that they feel better because of the program. It has not been possible to value increased well-being, and therefore it is not included as an outcome. The effect must nevertheless be assumed to be a part of the value creation caused by WAWCAS.

As mentioned in the analysis, the outcome for the volunteers is only measured and calculated in form of increased personal well-being. It has been documented that volunteering causes many other positive effects<sup>16</sup>. The working experience is assumed to have a positive outcome for the volunteers' career opportunities and other positive effects such as happiness, social skills, and improved health condition brings additional value to the individuals, which is not accounted for in the analysis.

<sup>13</sup> WAWCAS, "Impact"

<sup>14</sup> Moore, C., 10 July 2014, "7 Facts About Education in Nepal"

<sup>15</sup> WAWCAS, "Meet the women", (Qualitative interviews with participants)

<sup>16</sup> Segal, J. and Robinson, L., 2016

» For every 1 DKK invested in input in WAWCAS, 2.38 DKK are created in financial and social value in return «

IMPROVED QUALITY OF LIFE FOR THE PARTICIPANTS AND THEIR FAMILIES

CHILDREN ATTEND SCHOOL REGULARLY AND MANY IN PRIVATE SCHOOLS

SIGNIFICANT DECREASE IN DOMESTIC VIOLENCE AND ABUSE

IMPROVED HEALTH IN THE FAMILIES

LOCAL COMMUNITIES FLOURISH

## CONCLUSION

The analysis has shown that WAWCAS creates tangible value for the participants of the program and the volunteers in the program. This is created through their unique program that empowers women, builds businesses, reduces social problems and secures education for the participants' children.

Concretely, the SROI ratio is calculated to be 2.38 if the outcome lasts for five years as expected. This means that for every 1 DKK invested in input, 2.38 DKK are created in value. The value is composed by an increase in income for the women in the program and by an increase in personal well-being for the volunteers in Denmark.

Throughout the analysis process, it has been clear that the WAWCAS Program creates a lot of additional value which is not accounted for in the analysis. This covers better social conditions for the families, education for the children and much more. In a future analysis, it will hopefully be possible to estimate and include these factors.

It is also important to consider the number of beneficiaries in the program and not only the financial return. 307 women experience a significant improvement in their standard of living and overall quality of life. In addition to this, even more family members and children benefit from the WAWCAS Program. A relatively small donation of a few thousand Danish kroner can thereby make a long-lasting impact for a whole family.

The calculations are influenced by numerous assumptions and uncertainties. These are challenged in the section "Sensitivity analyses" and accounted for in appendix 2 "Assumptions and measurement uncertainties".

After having assessed these, the conclusion is sustained and the SROI ratio of 2.38 is found very safe and sound. This underlines the positive impact of the WAWCAS Program for their target group and for society in general.

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# APPENDIX 1: IMPACT MAP

## SOCIAL RETURN ON INVESTMENT

	STEP 1		STEP 2			
STAKEHOLDERS	CHANGE		INPUTS		OUTPUTS	OUTCOME/IMPLICATION
The participants	Opportunity to improve life, establish business, provide for the family and secure education for children. Chance to get a better quality of life.		Time (not included)	0	307 participants finishing the program	Improved quality of life, education and increased income. A business to manage and a strategy to follow.
Volunteers	Opportunity to help others, empower individuals to improve their life and support the development of a local community.		Time, skills and energy	DKK 96,500	965 hours	Relevant experiences and improve quality of life.
Contributors	Contribute with financial input to support the program.		Financial contributions	DKK 1,118,991		
TOTAL				DKK 1,215,492		

	STEP 3						
STAKEHOLDERS	INDICATOR	NUMBER	UNCERTAINTY	FINANCIAL PROXY	PRICE PER UNIT	SOURCE	TOTAL VALUE IN DKK
The participants	Income increase	307	The indicators are based on the participants' own documentation supported by the Program Leaders' follow up on income before and after the program	Different indicators based on the individual participant's situation		Data set from WAWCAS	DKK 2,983,605
Volunteers	Personal well-being increase	20	The increase in well-being and value hereof differences from individual to individual. Therefore, an average value is used.	Well-being value estimate for volunteering.	DKK 28,539	Fujiwara, D, HACT, 2014	DKK 570,774
Contributors							

	STEP 4					STEP 5
STAKEHOLDERS	DEAD WEIGHT	DISPLACEMENT	ATTRIBUTION	DROP-OFF	NET EFFECT	FIRST YEAR
The participants	10 %				DKK 2,606,715	DKK 521,343
Volunteers	50 %				DKK 285,387	DKK 285,387
Contributors						
TOTAL					DKK 2,892,102	DKK 806,730

# APPENDIX 2: ASSUMPTIONS AND MEASUREMENT UNCERTAINTY

## SOCIAL RETURN ON INVESTMENT

The analysis is based on many assumptions that affect the conclusion. In addition to this, uncertainties are attached to both measurements and data collection. This table describes these assumptions and explains how they affect the results of the analysis.

### FACTORS THAT CAN AFFECT THE SROI RATIO

▼ NEGATIVE EFFECTS	▲ POSITIVE EFFECTS
<p><b>Data</b> It has been assumed that the data collection process has been correct and unbiased by the Local Program Leaders.</p> <p>Two uncertainties can affect the results: If the women's income before they joined the program were higher than documented, and if the women's income after the program were lower than documented. In that case, the outcome will be lower and the SROI ratio will be affected negatively.</p>	<p><b>Data</b> As mentioned before, the data might have been incorrectly collected. If the income of the participants after the program were higher than documented, then the outcome would increase and the SROI ratio would be affected positively.</p>
<p><b>Long-term effects</b> WAWCAS has documented that most of the participants of the program have continued operating their businesses for at least five years after they finished the program. Thus, the SROI ratio has been calculated under this assumption. If the reality is different and some businesses shut down earlier, this will affect the SROI ratio negatively.</p>	<p><b>Multiplication effects</b> There are many uncertainties involved in predicting the future income of the participants. If the women continue to maintain the successful businesses and develop them, then it could be expected that the incomes will increase over time. Furthermore, the local communities in Nepal are affected positively by the new businesses and increased wealth. This effect will affect other parts of the communities as multiplication effects initially caused by WAWCAS. If these effects could be measured, then the SROI ratio would be affected positively.</p>
<p><b>Adjustments</b> It is assumed with great certainty that no other variables have affected the participants during the program and that the effect of WAWCAS is the main cause to the improvement of the women's situation. If this is wrong or if the effect decreases over time, then the outcome is affected negatively and the SROI ratio will be lower.</p>	<p><b>Other value creation</b> If the other value creation could be measured this would affect the SROI ratio positively.</p>
	<p><b>An increase in the number of participants</b> The marginal cost of expanding the program and helping more women is quite low. This means that an expansion of the program will likely increase the SROI ratio.</p>



