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Desk review to conduct assessment of ‘value for money’ provided through CARE International’s programmes to vulnerable and marginalised populations in Asia

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Title

Desk review to conduct assessment of 'value for money' provided through CARE International's programmes to vulnerable and marginalised populations in Asia

Client

CARE International UK

Client contact (name, title)

John Lakeman, Monitoring and Evaluation Manager

Author(s)

Natalie Nicholles, Olivier Vardakoulias, Elizabeth Cox

nef consulting limited

nef (new economics foundation)

3 Jonathan Street

London SE11 5NH

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Introduction

CARE International (CI) is currently undertaking an assessment of its contribution to long-term impact achieved in the Asia Pacific region between 2005 and 2012. As part of this review process, CI commissioned a socio-economic cost benefit analysis on a sample of CI projects undertaken in Asia from 2005 to 2010, using an adaptation of the Social Return on Investment (SROI) methodology. The projects selected for analysis were initiatives within wider programmes and as such, were not intended to be illustrative of the overall programme's magnitude or effectiveness.

The aim of the analysis was to:

- Gain a better understanding of CI's ability to deliver added benefit and value to participating communities and their societies, given invested resources (an assessment of value for money); and
- Test the feasibility and challenges of applying the SROI methodology to the context and strategies employed by the selected initiatives, and the implications its use would have for CI's monitoring and evaluation systems.

More broadly, it was intended that the analysis would be used to support a wider discussion within CI on the usefulness and applicability of demonstrating value for money in the international development context.

It is important to note that the projects selected for analysis were initiatives within wider programmes and, as such, were not intended to be illustrative of the overall programme's magnitude or effectiveness. Due to the desk-based nature of this study, the findings should be seen as purely indicative as field research would be required to build a definitive and an accurate picture of impact.

We should be clear about the scope of this study and how CI's projects sit within wider country or programmatic contexts. It is our understanding that CI is currently undergoing a shift in delivering long term sustainable change from a project-approach to a programme-approach. The programme approach constitutes a different way of working for CI; one that places the theory of change at the heart of delivering long term sustainable change to target impact groups through a range of initiatives rather than through a single project. The approach is about determining the most effective way of addressing the contextual underlying causes of poverty by leveraging CI's comparative advantage to make a real, lasting change to the people CI works with. Built upon the foundations of the rights-based approach to development, and CI's unifying framework, the programme approach will allow the testing of theories of change, and be able to constantly adapt to a dynamic and changing world. The aim is that this will result in greater accountability and more effective delivery.

1. Approach and methodology

The approach to the review had two main strands, conducting an analysis based on secondary project sources, and documenting the learning and recommendations.

Selection of initiatives

In order to ensure relevance to CI's current shift to a long-term programming approach, it was proposed that the analysis would include initiatives which have been incorporated into or have informed programme frameworks developed by Country Offices, and cover a wide range of initiatives representative of CI's focus on women's empowerment. Each initiative assessed was to be considered within its programmatic context.

Eight initiatives were initially identified for possible inclusion in the study, including humanitarian assistance projects. Ideally for inclusion in the study, initiatives needed to have well established, functioning and participatory-based monitoring and evaluation systems.

An initial scoping review of project documents was conducted to establish if the data available would support an SROI analysis from secondary sources. Documents reviewed included:

- Project situational analysis and programme-level analysis documents on underlying causes of poverty.
- Baselines, needs assessments, progress reports, case studies, mid-term and final evaluations
- Country Office programme frameworks, country context analysis, proposals, log-frames, and monitoring and evaluation plans.

Following this review and discussions between the consultants and CIUK's Monitoring and Evaluation Manager, the humanitarian assistance projects were not included in the study due to: concerns regarding the timeframe for interventions to capture impact data, problems involved in assigning a cost to the value of saving a human life, and the scoping review of available project documentation. Other approaches that ascertain the quality of process have been demonstrated to be useful in determining the effectiveness of these programmes.

Based on discussions in Bangkok with the Asia Impact Review CORE team and Country Offices, the four interventions selected by the CIUK's Monitoring and Evaluation Manager included:

- Plantation Community Empowerment Project (PCEP), Sri Lanka
- Poverty Alleviation in Remote Upland Areas (PARUA), Laos

-
- Integrated Rural Development and Disaster Mitigation (IRDM) Project, Cambodia
 - Social & Economic Transformation of the Ultra Poor (SETU), Bangladesh

Conducting a social cost-benefit analysis

The retrospective nature of the research, and learning requirements of the study required adaptations of the standard SROI methodology. These adaptations are summarised in Table 1 against the seven principles of measuring what matters.

Conducting the analysis included three key activities.

Constructing a Theory of Change

For each of the selected initiative, documentation provided by Country Offices was reviewed, and a working Theory of Change model was constructed for each which detailed:

- The project timeframe and budget;
- A summary of the project's purpose, goals and objectives;
- A theory of change statement;
- A list of the material stakeholders who benefits from, or are impacted by the project, and a summary of outcomes for each; and
- Detail of how outcomes are evidenced, and any gaps in information.

Semi-structured interviews

Interviews* were held with key project staff to:

- Explore the summary theory of change.
- Confirm and clarify understanding of the initiatives.
- Ascertain any unintended consequences (positive and negative) of the work.
- Draw on the respondent's experience of the project to capture the wider impact from the project, which they may not have been able to report previously.

* An interview format is detailed in Appendix 1.

Table 1: Adapted SROI Process

Principle	Standard SROI	Adapted SROI
Measure for social, economic & environmental outcomes	<p>Develop a theory of change* for each project to understand which elements of each project bring about social, economic and environmental changes (positive, negative, intended and unintended). This is constructed by engaging with those directly affected by the project.</p> <p>Measure with those affected by the project the social, economic and environmental change using direct, indirect, objective and subjective indicators.</p>	<p>Verify the theories of change for each project through a review of the background documents.</p> <p>Material stakeholders identified, allowing a disaggregation of the data (i.e. women affected).</p> <p>A working theory of change will be clarified and confirmed with project-level stakeholders. Existing project data mapped into theory of change. Identify gaps where the data does not evidence the outcomes.</p>
Measure with people	<p>Engage stakeholders who are experiencing the intervention because they are best placed to describe the change.</p> <p>Engage through focus groups, in-depth interviews and workshops.</p>	<p>Project level staff used as 'proxy' source for beneficiary feedback where primary data has not been collected</p> <p>Estimates are identified and tested through secondary sources where necessary.</p>
Value the things that matter the most	<p>Use financial proxies to value the things that matter, not just those that are tangible market goods.</p> <p>Use the market to select proxies for outcomes.</p>	<p>Project staff interviews used to test assumptions of financial proxies for non-market traded outcomes.</p>
Be responsive	<p>Being responsive to the findings of this research and the need to have good data to evidence change and inform decisions. This principle will be addressed by Strand 2 of the research.</p>	
Avoid over-claiming	<p>This principle is vital and requires the evaluators to impartially determine what evidence must be included in the assessment to give a true and fair picture.</p> <p>Attribution, deadweight and displacement are understood through direct measurement systems, secondary research or stakeholder engagement.</p>	<p>Secondary research used to support estimations of impact, benefit period and drop-off.</p>
Transparency and accountability should inform everything	<p>Transparency is fundamental to all stages as economic analysis requires a number of assumptions to be made. Each decision taken in conducting the assessment requires the recording of sources e.g. assumptions based on secondary data to stand in for insufficient primary data.</p>	
Measure strengths as well as risks and deficits	<p>Identify positive factors that contribute to change being achieved in the short, medium and long terms.</p>	

* Approach developed by the Aspen Institute see www.aspeninstitute.org

Analysis

An SROI or social cost benefit analysis type appraisal is highly reliant on the availability of systematic quantitative data on outcomes pre and post an intervention. Where this data is not empirically available it is possible to make a number of assumptions to fill the gaps, but it must be noted that this approach impacts on the robustness of the assessment. The conceptual and modelling steps required to perform this analysis are summarised:

- **Defining a theory of change** in order to illustrate, and eventually demonstrate, how the activities of an organization create the expected outcomes, or change for the stakeholders involved. There is no 'one best' theory of change that can be selected, it is driven by the change an organization or programme seeks to trigger, and the logical link between activities and intended change. Once this is specified, unintended consequences are identified, both positive and negative. It is when building a theory of change that stakeholder groups are defined, i.e. those groups which are affected by the initiative. Different theories of change can be defined for different stakeholder groups, if this is judged to be necessary. It is worth noting that the terminology can differ between projects, and organizations when developing a theory of change.
- **Measuring the outcome incidence** in order to understand how much change occurs for each stakeholder, and how this is calculated. Two steps are required: the first consists of defining indicators to represent and measure outcomes. The second consists of collecting two types of data: how many stakeholders are affected, i.e. experiencing change, as a consequence of the programme; and how large that change is, otherwise referred to as the magnitude. To achieve a strong and robust understanding of change for projects, evidencing outcome incidence is an empirical exercise requiring data collection rather than secondary research.
- **Defining proxy values.** This is a process of understanding the value of the change created by a programme by assigning (a) appropriate economic (rather than strictly financial) values to components that have a market price, and (b) monetary values to things that do not have a market price using financial approximations i.e. "proxy values". This process is generally referred to as "social valuation" or "environmental valuation" respectively for "monetizing" social or environmental wealth/capital. It is worth noting that while environmental valuation (e.g. of greenhouse gas emissions, ecosystem services, or other natural resources) is a relatively robust exercise, and has been mainstreamed throughout the past decade, monetizing social

goods can be more challenging given a relative lack of robust studies to guide that valuation process. Many economic techniques exist such as contingent valuation (asking people through willingness to pay exercises) and revealed preference (observing spending habits and behaviour to derive values). This study used revealed preference to value outcomes through a benefits transfer approach from secondary research.

- The **overall value creation** observed is calculated by the combining outcome incidence with the monetary values of respective outcomes, outputs or indicators. How this is done in practice is influenced by the context in which the analysis is applied, as well as the available information. The value calculation obtained represents a gross figure of which, it can be deducted (a) which part can be attributed to other projects/organizations (attribution); (b) the change that would have happened even in the absence of project (deadweight) or even, and (c) those benefits which are offset by unintended adverse impacts.
- As such, the **attribution** process consists in defining which percentage of overall change can be considered to be triggered directly by the project. This requires the potential identification of other organizations, actors (e.g. local government or other NGOs) and projects which could have influenced the outcome incidence. Attribution thus assesses the proportion of credit that a programme can take for the change that has occurred - taking account of other actors involved.
- A second adjustment to the overall value thought to be created by the initiative can occur when considering **deadweight**, defined as an assessment of the amount of change that would have happened anyway in a “no intervention” scenario. This requires the definition, conceptually and statistically, of a “business-as-usual” scenario. Three scenarios can be depicted: (a) a “status quo” situation whereby no significant change occurs in the absence of intervention; (b) an improvement even in the absence of intervention, which is synonym of a lower net benefit compared to initially computed aggregate outcome incidence; (c) a decrease of the social, economic and environmental capital if there is no intervention (i.e. the situation worsens for the people and place). The latter scenario can be particularly challenging, since net benefits should not be compared solely to initial baseline, but equally to a potential decline of socio-economic capital in a hypothetical scenario in which a project had not been undertaken. As such, the third scenario requires the measurement of “avoided costs” brought about by a project, i.e. socio-economic costs that a specific group/community would have experienced in a business-

as-usual scenario. These avoided costs were not included in this study to avoid confusion over value created and to whom.

- A final adjustment to the overall value calculation needs to be made when considering **displacement**. This is an assessment of how much of the change (remaining after considering attribution and deadweight) can be considered as a net benefit (i.e. a new change), or if it is the result of a movement or change from one place to another. In employment, for instance, if a group of individuals get jobs, it could be at the expense of others – i.e. these are not new positions being created, but rather different people in these jobs. In development projects, a recurrent example concerns adverse environmental impacts: an agricultural development project, for example, can trigger adverse environmental impacts on, or reduce resource availability for, other communities or stakeholder groups – if the project is not designed in a such a way as to avoid adverse impacts. In this case net benefits are the benefits accruing to the targeted community minus costs incurred on other communities. In a sense, displacement can be defined, in a more traditional economic vocabulary, as an accounting process of “negative externalities”.
- **After an analysis of displacement, attribution and deadweight** the **benefit period** is defined i.e. the length of time that a change lasts and the benefits associated with that change. This may be influenced by the duration of the activity or by other changes that occur. Similarly, the effects might last for a long period but be decreasing over time. A decreasing trend is defined as “drop off”.
- Last but not least, benefits – and costs – are **discounted to represent their present value**. In the UK, the social discount rate (as opposed to financial/market discount rate, which is generally higher) is provided by the treasury at a 3.5% level. This rate represents time preferences: a high discount rate implies a greater preference for the present; this means that present streams of benefits and costs are given more weight than future streams of benefits and costs. Whilst a high discount rate tends to favour projects which have high returns in the short run. Discount rate choice is a statement in itself of how a society values returns, which is inherently a normative exercise. As such, it is generally good practice to consider a range of discount rates, for e.g. 1%, 3.5% and 8%. Some authors consider that upper bound discount rates (6% to 8%) should be used for projects in developing countries: put simply, some economists assume a higher preference for the present in developing countries given poor socio-economic conditions and immediate short-term livelihood

concerns. This study models benefits on three discount rates: 1%, 3.5% and 8%.

- **SROI ratios**, or cost benefit ratios, are finally obtained by dividing aggregate net present value of benefits by aggregate net present value of costs. If a project's ratio is above 1, then the project is considered efficient from a socio-economic perspective, i.e. the wealth it creates surpasses the costs it implies: net social value creation is thus ensured.

Identifying learning and recommendations

Documentation on CI approaches to M&E were reviewed and a discussion held with CIUK's Monitoring and Evaluation Manger to identify implications and adjustments that would be needed to CI monitoring and evaluation systems to better facilitate socio-economic cost benefit analysis in the future.

A Comparative Case study of IRDM, PARUA, SETU and PCEP was developed to illustrate challenges of applying the analysis to empowerment projects.

2. Findings and results

Constructing a theory of change in order to evidence outcomes and their measurement can be carried out using different terminologies and different definitions of outcomes. The latter can be grounded in strict economic terminology (i.e. economic capital, financial capital, human capital, social capital) or aiming to reflect other types of well-being definitions, such as the ones provided by nef's *National Accounts of Well Being*.¹

The aim of this work is to explore the extent to which SROI or other value-for-money techniques, such as cost benefit analysis, can be applied given current data and information availability. As such, we chose to present different possible ways of representing outcomes within an economic analysis, rather than “uniformizing” data analysis across the four case studies used. This choice is guided by a wish to investigate the extent to which SROI can be tailored into different contexts and using different forms of indicators as well as, eventually, impacts. Hence, this is a *conscious* methodological choice. As such, while most projects are appraised using their pre-stated objectives, as per their logical framework matrixes, we do adapt PCEP's objectives in order to adjust them to classical well-being outcome definitions usually used in SROI, such as the *National Accounts of Well Being*.

Last but not least, the results obtained are only indicative and cannot be considered as definitive. As is true for other studies scoping the possibilities of applying value for money techniques, the important aspect of this work consists in the “process” rather than the “results”. A considerable amount of additional information would indeed be required to provide for precise and robust results: firstly, some we did not have access to part of collected data for some projects; secondly, some key outcomes could not be quantified, either due to lack of sufficient information or as a consequence of qualitative components which we could not quantify, e.g. some empowerment aspects. The above remarks imply there could be an under-estimation bias which could not be resolved due the desk-based nature of the present report. Thus, it should be reminded that this study provides only an indication of the value created for the projects studied and highlights where CI can strengthen their systems to allow for consistent understanding of value for money.

Plantation Community Empowerment Project (PCEP)

The project

PCEP aims to empower vulnerable communities and ethnic groups in rural Sri Lanka. PCEP is part of an overall plantation programme within the country. Our analysis focuses on Tamil speaking communities (coming from South India) which are often subject to discrimination – and thus present, on average, lower livelihood standards compared to other Sri Lankan groups. Along with providing the means for economic development and social empowerment, the project aims to reduce the levels of discrimination felt by these communities.

It is worth mentioning: (1) that PCEP, albeit being analyzed in the present paper as a self-sustained project, is part of an overall development strategy in Sri Lanka; and (2) that in order to tackle its objectives, the project acts upon multiple drivers of discrimination and overall development constraints. As such, its holistic nature should be kept in sight.

Given these communities are plantations working in tea growing and tea production, PCEP focuses primarily on socio-economic empowerment within plantations and *vis-a-vis* tea companies.

Underpinned by this approach are the facts that (1) recurrent conflicts within plantations have been driven by poor socio-economic conditions of plantation workers, which have (2) lowered the profit margins of tea companies. As such, the project seeks to find “win-win” scenarios between socio-economic empowerment *via* improvement of working conditions and the increase of production within tea plantations – by including companies operating in the area in the Ethical Tea Partnership (ETP). Hence, while the intended beneficiaries are primarily communities themselves, stakeholders are tea companies operating in these plantations.

The theory of change

While broad characteristics of change intended by the programme were outlined above, it is necessary to define specific linkages between inputs, activities, outcomes and final impacts through the use of precise indicators, if aiming to conduct a social-cost benefit analysis or SROI appraisal. The definition of these might include (1) both intended and unintended outcomes and impacts of a project, whether positive or negative ones or (2) indicators measured through primary data collection or via assumptions derived from secondary data and research. Since there are admittedly numerous possible indicators which could illustrate the outcomes of a project, it is necessary to be transparent in the selection of indicators as these

drive how change is measured, as well as the assumptions used to derive economic figures.

The theory of change, or story of how PCEP creates change, can be summarized through the following key outcomes:

- From an economic standpoint, PCEP aims to increase the income of the community by increasing the bargaining power of workers, as well as creating structures allowing negotiation to take place with the plantation management. The direct outcome of this is an increase in the **autonomy** of the community. Nonetheless, economic empowerment has also profited tea companies as a consequence of rising productivity in the workplace and reduction of workdays lost as a consequence of labour conflicts.
- An increasing level of social mobilization and organization, coupled with increasing bargaining power within plantations, and increased revenue management capabilities lead to an increase in the **control** communities have over their livelihoods i.e. by improving their decision-making processes.
- **Gender equality** has been identified as an independent outcome in order to highlight its importance within the intended changes of CI programmes. The theory of change is as detailed in the two points above. That is, by directly focusing on the empowerment of women in terms of increasing their bargaining power and improving their working conditions through involvement in collective bargaining structures results in an increase in autonomy and control.
- There are additional **health and education outcomes** from the above outcomes, albeit being inextricably tied with autonomy, control and gender equality. These are detailed separately to support reference to the Millennium Development Goals.

It is worth noting that the PCEP project is by and large well documented in terms of primary data collection. As such, empirical information collected by respective CARE offices was used for evidencing the change created by most of the identified outcomes on communities concerned. Impacts on the tea industry were measured using reports from tea companies themselves. A third stakeholder was added to the analysis: the State. Albeit not included as a potential stakeholder by CI, there is evidence of benefits to the State as virtually all tea production is directed to exports with the resulting benefit of increased export tax returns which is an important income source for low tax base countries.

Modelling process

In a context in which all primary data is directly collected to meet the theory of change, assumptions based upon secondary data are mainly for (1) indicators for some outcomes, where primary data was

insufficient, (2) proxies (i.e. monetary valuation of outcomes), and (3) occasionally deadweight, i.e. counterfactual, attribution and forecasted drop off. These are presented in Table 2.

Table 2: PCEP outcomes and indicators

	OUTCOMES	INDICATORS	COMMENTS
COMMUNITY	AUTONOMY	Increased collective revenue	CARE data complete
	CONTROL	Increased social organization/Increased bargaining power Increased revenue management	For the three indicators: what is available is the absolute number or % of people having experienced an outcome, but not the “distance travelled”, i.e. how significant is the change that has happened. CARE data combined with assumptions based upon secondary sources ^{2,3}
	GENDER EQUALITY	Decrease in gender violence Increase bargaining power (workplace/plantations)	Qualitative information available ⁴ Based upon interview with CARE staff
	EDUCATION	Increased education access (school and training)	Based upon estimation of CARE staff (number of people + change that occurred). Completed by nef assumptions based upon secondary data ⁵
	HEALTH	Reduced alcoholism ⁶	Based upon estimation of CARE staff (number of people + change that occurred)
TEA COMPANIES	INCREASED PRODUCTION	% Increase in overall production	Empirical data derived from CI reports
	REDUCTION OF WORK CONFLICTS	Incidence of labour conflict	Empirical data derived from tea companies reports
	IMPROVING IMAGE (CSR)	Positive externalities of labelling through the Ethical Tea Partnership	Ethical Tea Partnership data on commercial benefits of labelling
REGION / STATE	BENEFITS TO OTHER COMMUNITIES (REGIONAL PLANNING)	Number of replications of scheme by regional/local authorities (on other communities)	Empirical data derived from CI reports
	INCREASED TAX REVENUE	Net revenue from export tax	Derived from tea companies reports and interview with CARE staff
	BENEFITS TO OTHER COMMUNITIES (REGIONAL PLANNING)	Number of replications of scheme by regional/local authorities (on other communities)	Empirical data derived from CI reports

Data analysis combined primary data collected from CI's project evaluation reports along with assumptions based upon secondary literature. After defining outcomes and indicators used to measure these outcomes an SROI analysis requires the measurement of outcome incidence. The latter combines both the **amount of population** affected and the **amount of change** experienced for the population affected. While the former was based upon primary data, the latter was mainly derived from secondary sources, *i.e.* transferring and adjusting figures from similar studies and/or projects to the project concerned. Here we present a worked example for the education outcome experienced by the community of PCEP. Taking the example of the education outcome, we provide an example of calculation steps used in this analysis and Table 3 presents the assumptions used to value the outcomes:

1. One indirect outcome of PCEP consists in human capital increase *i.e.* an increase in schooling and training and this example focuses on the training. According to data collected by CI, 5% of communities' populations managed to get access to training. However, the amount of change *e.g.* type of course undertaken, length of course and course completion, were not available through empirical data. Using a study by Brewer and McEwan (2010)⁷ we assumed that individuals who accessed the training also completed the course.
2. Training enhances overall human capital in the form of enhancing communities and local/regional development, as well as personal income. An average figure for this outcome, which refers specifically to low income countries, is provided by Patrinos and Psacharopoulos (2004⁸, 2010⁹). We assume that the returns from the training are lower than returns from higher education, using returns from secondary education level as a guide. Following this assumption, social returns from training, *i.e.* private returns and positive impact of education on the rest of society, are of the order of 15.7% for low income countries on average. Evidently, this is a rough figure that does not reflect country/regional/local specificities. Nonetheless, it is sufficient for us to evaluate change and as such is the most complete analysis available.
3. We then use the national minimum wage as a benchmark and calculate the average value of increase in income per year for an individual and society in terms of total external effects. The net benefits are the difference between the minimum wage and the new hypothetical future income stream brought about by participation to a training course.
4. This provides us with the overall educational value created in terms of the socio-economic impact of training.

5. From this total figure is then subtracted the deadweight, i.e. the estimated amount of change that would have happened anyway and attribution i.e. the percentage change which can be attributed to other organizations. A benefit period is applied i.e. time span over which benefits last beyond the project implementation period and this is estimated to be five years. This benefit period represents best practice is estimating change over time according to SROI guidance but it is preferable to ascertain more accurate duration of outcomes through longitudinal research.
6. All values are placed into net present value using a discount rate of 1%, 3.5% and 8%, which represent the discounted future value of value-added created as a consequence of more people participating in training programs.

Table 3: PCEP proxies

OUTCOMES	INDICATORS	PROXIES	RATIONALE / COMMENTS	REFERENCE
AUTONOMY	Increased collective revenue	National minimum wage	The choice can be debatable as usually “informal” minimum wage is more relevant in developing countries	n/a
CONTROL	Increased social organization Increased bargaining power Increased revenue management	Health impacts of increased bargaining power Value of reduced consumption on alcohol (national prices assumed)	Choice made through Ethical Tea Partnership indication of inappropriate chemicals. Pesticides used in tea production Revenue is widely spent on alcohol consumption and empirical evidence suggests a reduction	Godoy et al (2007) ¹⁰ CARE data on increased revenue derived from bargaining within workplace Shende (2002) ¹¹ Clancy et al (2001) ¹²
GENDER EQUALITY	Decrease in gender violence Increase bargaining power (workplace/plantations) Increase in household revenue management	Secondary data through willingness-to-pay Value of improved health conditions Increase of savings (value) when women management increases	Study conducted in Africa, adjusted to national prices. Secondary data adjusted to national revenue Secondary data, adjusted to national prices	Quisunmbing and Mallucio (2000) ¹³ Derived from CARE reports Clancy et al (2001) ¹⁴ Valdivia and Gilles (2000) ¹⁵
EDUCATION	Increased education access (school) Increased education access (training)	Returns on investment to education Returns on investment to training	Global study expressed in percentage of income and as such adjusted to national income	Brewer and McEwan (2010) ¹⁶ Patrinos and Psacharopoulos (2004) ¹⁷

				Patrinos and Psacharopoulos (2010) ¹⁸
HEALTH	Reduced alcoholism	Health costs of immoderate alcohol consumption	Secondary data based on QALYs valuation / adjusted to national prices	Benega and Velayudan (2000) ¹⁹
INCREASED PRODUCTION	% Increase in overall production	Increase in capital turnover	Tea plantation industry reports	n/a (Derived from CI reports)
REDUCTION OF WORK CONFLICTS	Incidence of labour conflict	Cost of lost labour time	Tea plantation industry reports	n/a (Derived from CI reports)
INCREASED IMAGE (CSR)	Positive externalities of labelling	Commercial gains	Ethical Tea Partnership data	n/a (Derived from CI reports)
BENEFITS TO OTHER COMMUNITIES (REGIONAL PLANNING)	Number of replications of scheme by regional/local authorities (on other communities)	25% of the value of PCEP applied to other communities	It is unknown whether replication is similar and to what extent. We thus consider a conservative value	n/a
INCREASED TAX REVENUE	Net revenue from export tax	Tax level multiplied by total additional exported production	Government data (for tax level) and tea plantation industry reports	State data ²⁰
OPPORTUNITY COST OF NOT UNDERTAKING THE PROJECT	Net benefits of the project	Net benefits of the project	Opportunity cost of not undertaking the project ("poverty traps")	n/a

Additional assumptions, which ought to be invested in a more detailed fashion, are the following:

- We assume no deadweight. This means that the counterfactual would be a continuation of the status quo. Put simply, we assume none of these changes would have occurred had the programme not been undertaken.
- We assume a full attribution. The impacts of the programme are completely attributed to the project, and not to any external source such as other NGOs, syndicates, collective organizations or local political power. The exception to this assertion is educational impacts – given that public investment in education has been pushed in the region.
- We assume a 5 year period of duration of benefits. This constitutes an assumption, on the grounds that while the effects of

the programme will not last over a year, the potential duration of the effects is unknown – especially when the project ends. Nonetheless it is more likely than not for PCEP to present longer benefits. For example, private benefits accruing to companies’ means these have a direct interest in maintaining the broad functioning of such an approach. And other project components such as gender equality or socio-political empowerment are inherently longer-run processes and might not succeed in case of a lack of external support, i.e. when the project ends. The long-run effects of “cash for work” schemes could also be questioned in this respect.

Results and interpretation

Overall calculated benefits are divided by the investment in PCEP, i.e. the “costs” of the intervention, in order to obtain SROI ratios (Table 4). While we do not provide an extensive analysis of the “costing” exercise, since the latter is fairly straightforward and well documented, some caveats should be noted. A social cost-benefit analysis generally requires accountancy of costs in a manner which allows determining when these costs are borne across the life cycle of a project. If wanting to explore the future stream of benefits and costs incurred by a project, it is thus considered “best practice” to distinguish clearly (a) “fixed” upfront costs from (b) “operating”, i.e. ongoing, and (c) capital replacement costs. This distinction is critical to forecast ongoing costs in a social CBA, as well as subjecting future cost streams to discounting in the same manner than benefits are discounted²¹. Nonetheless, it was barely feasible to distinguish clearly between these costs in the reviewed reports – despite the exhaustive nature and completeness of financial statements. As such, we assumed the costs of the project as a one-off investment, summing all invested funds since the implementation of PCEP.

Similarly, it is generally considered “best practice” to adjust financial costs in order to represent their economic value using “shadow pricing techniques”²². This was not considered in this analysis.

Table 4 presents the indicative SROI ratios per stakeholder based on a 3.5% discount rate.

Table 4: PCEP SROI ratios

RESULTS PER STAKEHOLDER GROUP	SROI RATIO
OVERALL SROI	8.52
COMMUNITY (PROJECT BENEFICIARIES)	2.25
TEA/PLANTATION INDUSTRY	5.33
REGIONAL IMPACTS/STATE	0.94

The overall SROI ratio for a 1% discount rate is 9.16 and for an 8% discount rate is it 7.53. The SROI ratios indicate that PCEP is socially and economically efficient at creating outcomes. A snapshot of the SROI model is presented in Appendix 2.

PCEP is the only project for which we modelled benefits accruing to the State and private sector. This is due to the nature of the project as well as to data availability. In PCEP private benefits accruing to companies are high since tea production is exported and benefits are therefore expressed in international market prices using 'hard currency' (USD). This is not synonymous with an overall higher outcome incidence, if considering percentage change. As such, the magnitude is artificially inflated although it represents the actual figures rather than a measure of purchasing power parity. The same is true for accounting for the export tax benefits that accrue to the State.

Poverty Alleviation in Remote Upland Areas (PARUA)

The project

The main objective of PARUA I and II is to provide for sustainable livelihoods in remote uplands areas of Laos. Beyond the fact that these zones are prone to natural disasters, these are exacerbated by extremely poor infrastructure, weak capacity of linkages to national/regional markets and therefore poor access to both services and production inputs. The project thus entails five main characteristics:

1. Ensure economic livelihood by investing in livestock/agriculture;
2. Improve infrastructures within communities;
3. Enhance regional infrastructure investment linking these communities to other urban centres of the country;
4. Empower communities from a social/participatory perspective;
5. Improve resource management of the surrounding ecological system, notably water, both for the purpose of economic sustainability and for disaster mitigation.

It is equally worth mentioning two additional critical elements. Firstly, the action plan falls within regional strategic priorities of Laos itself and can be situated within the broad context of regional development initiatives of the state. Secondly, targeted populations are ethnic groups. According to existing literature, there is significant correlation between poverty and deprivation levels and ethnic background, in large part because areas where ethnic groups are situated attract less investment from government and other sources.

Theory of change

Given an overall objective to “sustainably increase livelihood security among poor ethnic groups in remote upland areas” numerous means are utilized:

In order to spur **economic empowerment**, the project seeks (1) to increase local government and private sector capacities so as to manage and deliver livelihood services in target district; (2) to increase food security of poor and middle income households in target villages classified as poor; both objectives entailing productive investment into agriculture, livestock, market infrastructure as well as insurance schemes.

In order to spur **social empowerment** the project aims (1) to improve quality of life in target villages through access to education, health and other public services; (2) to “increase Prai women’s and men’s ability to participate meaningfully in household and community development processes” – notably providing them with the opportunity to participate in community decisions-making processes.

Modelling process

The data collection system used for evidencing and evaluating PARUA is the most comprehensive among the four case studies. Indeed, it encompasses, for the measurement of numerous outcomes, both the amount of population impacted upon as well as a measurement of the magnitude of change in an inter-temporal fashion. Nonetheless, the project does not provide evidence regarding any additional stakeholders except for targeted populations themselves. A possible list of outcomes and respective indicators constructed are presented in Table 5.

Most outcomes are illustrated using both impacted population and amount of impact although this is not the case for all outcomes. In order to provide a worked example of the approach used and the application of assumptions, we here present the calculation steps for the measurement of one of the outcomes from the theory of change, which is time savings for women. For this outcome, data was only available for the number of women affected

1. Women are often disproportionately impacted from lack of infrastructure, particularly in developing countries. Improvement of infrastructure, e.g. related to water distribution systems, is often undertaken to contribute to addressing gender inequalities.
2. PARUA aims to reduce the household work load of women. From data collected, 26% of women declared having more time available since the start of the project, as a result of a decreased work load. However, the amount of time saved is not available from the data and as such; we assume a modest reduction of the order of one hour per day for women positively affected.

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3. The value of time savings can be calculated in a number of ways: the most robust being the opportunity cost of time, i.e. the value of activities undertaken as consequence of time savings including for instance child care or even income generating activities aimed to increase a woman's autonomy. We here use a study conducted by DFID (2005)²³, which conducts a willingness-to-pay exercise for computing the value of time savings for women in Bangladesh, Ghana and Tanzania. Using the average percentage (57%) of values per income, we transfer the findings of DFID (2005) to this case study calibrating figures into local percentage of income – derived from rural household incomes in Laos as per Komoto and Stone (2009).
 4. The financial approximation (proxy) figure used to illustrate the value of time saving is thus of 0.16\$ per hour gained per woman affected.
 5. The same form of analysis was replicated for outcomes in PARUA which required secondary sources to be calculated, while some outcomes were computed using uniquely primary data. Finally, the standard SROI process relative to deadweight, attribution, benefit period and application of net present value using a 1%, 3.5% and 8% discount rate was applied.

Tables 5 and 6 present the comments and assumptions used to evidence and value outcomes.

As per the section presenting SROI analytical steps, the figures derived from the above analysis were tailored to represent attribution, deadweight, and displacement. While more detailed comparative information is presented in the overall discussion section (below), it is worth mentioning that due to relative lack of data, we did not fundamentally alter gross impacts: attribution to the project, deadweight low and we assumed no amount of displacement. Finally, we modelled benefits over a five-year period, given that the programme has already been in place for four years.

Table 5: PARUA outcomes and indicators

	OUTCOMES	INDICATORS	COMMENTS
COMMUNITY	ECONOMIC EMPOWERMENT	<p>Increased income</p> <p>Improved access to health services (livestock)</p> <p>Increased access to local markets</p> <p>Livestock bank capital</p>	<p>This figures encompasses direct cash-flow increase (CARE data sufficient)</p> <p>Augmentation of veterinary services (CARE data sufficient)</p> <p>Includes both physical infrastructure enhanced by the project as well as the promotion of market information (CARE data sufficient). Amount of post-harvest loss % reduction²⁴</p> <p>Number of project financed (amount invested) and overall spurring of economic reciprocity structures i.e. amount deposited in livestock bank (CARE data sufficient, some secondary assumptions made²⁵)</p>
	SOCIAL EMPOWERMENT	<p>Increase in schooling</p> <p>Access to health services</p>	<p>Increase of attendance (CARE data and secondary data combined)²⁶</p> <p>Increase of medical services provided to the population (CARE data) and impact of this increase in terms of amount of coverage (secondary assumptions²⁷)</p>
	POLITICAL EMPOWERMENT	<p>Increased overall participation/involvement in community structures</p>	<p>Increase of number of people attending and frequency of attendance per person (CARE Data)</p>
	GENDER EQUALITY	<p>Women time savings</p> <p>Women social participation level</p>	<p>Amount of women experiencing reduced work load and amount of time saved</p> <p>Increase of number of women attending and frequency of attendance per woman (CARE Data and secondary assumptions)²⁸</p>
	ECOLOGICAL SUSTAINABILITY	<p>Ecosystem services</p>	<p>Number of livestock, ratio of cattle and goats and relative impact on ecological sustainability. Avoided impact via goat “specialization” (CARE information and secondary data)²⁹</p>

Table 6: PARUA proxies

OUTCOMES	INDICATORS	PROXIES	RATIONALE / COMMENTS	REFERENCES
ECONOMIC EMPOWERMENT	<p>Increased income</p> <p>Improved access to health services (livestock)</p> <p>Increased access to local markets</p> <p>Livestock bank capital</p>	<p>Level of income increase</p> <p>Willingness to pay study</p> <p>Value of reduced post-harvest losses</p> <p>Level of investment</p> <p>Amount in common fund</p>	<p>Expressed in USD / PPP as all other values in this study</p> <p>Willingness to pay for veterinary services in rural India (value adjusted as a % of income)</p> <p>National market prices (rice and livestock)</p> <p>While the investment level is used to represent wealth/re-investment increase, the amount in the common fund is used as a proxy for increase in redistribution/reciprocity structures</p>	<p>CARE data</p> <p>Ahuja and Sen (2006)³⁰</p> <p>ADB (2006)³¹</p> <p>Knips (2004)³²</p> <p>Komoto and Stone (2009)³³</p>
SOCIAL EMPOWERMENT	<p>Increase in schooling</p> <p>Access to health services</p>	<p>Returns on investment to education</p> <p>Value of improved health conditions</p>	<p>Global study expressed in percentage of income and as such adjusted to national income</p> <p>Secondary data adjusted to national revenue (value of QALYs)</p>	<p>Brewer and McEwan (2010)³⁴</p> <p>Patrinos and Psacharopoulos (2004)³⁵</p> <p>Patrinos and Psacharopoulos (2010)³⁶</p> <p>Donfouet and Makautze (2011)³⁷</p>
POLITICAL EMPOWERMENT	<p>Increased overall participation/involvement in community structures</p>	<p>Productivity approach</p>	<p>Economic value of reciprocity structures and social capital (impacts on income)</p>	<p>Godoy et al (2007)³⁸</p>
GENDER EQUALITY	<p>Women time savings</p> <p>Women social participation level</p>	<p>Value of time to undertake other activities</p> <p>Willingness-to-pay (WTP)</p>	<p>National minimum wage per hour (proxy for opportunity cost of time)</p> <p>Based on same analysis as supra (political empowerment) using impact on gender only</p>	<p>Quisunmbing and Mallucio (2000)³⁹</p> <p>Clancy et al (2001)⁴⁰</p> <p>Valdivia and Gilles (2000)⁴¹</p>
ECOLOGICAL SUSTAINABILITY	<p>Ecosystem services</p>	<p>Differential value between external ecological impacts of cattle vs. goats</p>	<p>Based upon global estimates of the impact of livestock on greenhouse gas emissions and broader ecosystem services (cattle vs. goats)</p>	<p>Ninan et al (2009)⁴²</p> <p>Steinfeld et al (2006)⁴³</p>

Table 7: PARUA results and SROI ratios

STAKEHOLDER	DISCOUNT RATE	SROI RATIOS
COMMUNITY (PROJECT BENEFICIARIES)	1%	7.41
	3.5%	6.89
	8%	6.10

In the case of PARUA, we did not include state benefits or regional benefits due to lack of any sort of consistent information. The SROI ratios indicate that PARUA is socially and economically efficient at creating outcomes. A snapshot of the SROI model is presented in Appendix 2.

Integrated Rural Development and Disaster Mitigation (IRDM)

The project

The poor and chronically food-insecure populations in the project areas do not have enough reserves to see them through the next harvesting period. One of the major contributing factors to food insecurity is weather (flood-drought cycles). Vulnerabilities are exacerbated by minimum infrastructure. In Prey Veng and Svay Rieng population pressure is causing land fragmentation, and intensive agriculture is degrading soil fertility and quality. Rice yields below national average, 83% households reported quantity insufficient to feed families. Krong Pailin is one of the most landmine and UXO affected areas in Cambodia with the highest poverty rate and high influx of internal migrants causing increased land pressure, resulting in soil erosion and increased danger of landslides from forest clearance. The main objective of the project is to reduce poverty in rural Cambodia through: 1) improving livelihood security of vulnerable households in Prey Veng, Svay Rieng and Pailin through (a) improved access to resources, markets and appropriate technologies and (b) developing technical, operational and management capacity; 2) reducing the exposure to natural disasters through a) strengthening local governance, social capital and local networks, .b) strengthening government capacity to respond to disasters through documenting and sharing lessons learnt. From Phase 1 to Phase 2 of the project CARE has progressively moved from being an implementer of activities to being a facilitator, assisting partner organizations and stakeholder groups. Project focused on 80 core villages in Phase 2

Theory of change

The greater the share of resources devoted to food and health service acquisition, the higher the vulnerability of a household to food and nutritional insecurity. Livelihoods are secure when households have secure ownership of or access to resources (both tangible and intangible) and income-earning activities (scaling up existing and diversifying), including reserves and assets - to offset risks, ease shocks and meet contingencies. Underlying causes of vulnerability identified in areas as: limited availability of irrigation; traditional technologies that were poorly adapted to changing climate; low quality agricultural inputs; and poor terms of trade for producers.

Vulnerabilities are addressed through:

- **Increasing food production** achieved by a) improving rice production; b) increased access to irrigation; c) diversifying production (vegetable, fish, livestock); d) access to financial services (rice/cash loans); e) reducing post harvest losses.
- **Increased access to markets/market information** via infrastructural development.
- **Reducing health vulnerabilities** through access to clean drinking water.
- **Developing managerial and technical capacity in communities** through a) increasing accountability b) developing inclusive Village action plans and allocation of investment through Community Commune c) self-help groups;
- **Developing capacity within villages to manage disaster** through: a) Drought/Flood Preparation and Mitigation Action Plans and b) vulnerability maps.
- **Increasing Government's capacity to respond to disasters** through disaster management mechanisms developed and implemented at commune, district and provincial levels.

Modelling process

Secondary data was necessary to derive reliable indicators for a SROI analysis. Indeed, indicators used in the empirical assessments do not represent actual magnitude of change for individuals and the community but are rather illustrate of the magnitude of uptake by the population. As aforementioned these two elements are complementary and both are required for a robust assessment of impacts. Deriving these through extant literature limits the robustness of results.

The data collection system to evidence outcomes for IRDM provides for the amount of population experiencing change as a consequence of the program, but not the amount of change. We provide a worked

example of calculation steps for the measurement of an economic resilience outcome incidence based upon both primary and secondary data:

1. IRDM aims, among other objectives, to increase economic resilience by increasing income generated through agricultural and livestock production. This broad objective entails the reduction of post-harvest losses, an endemic feature of agricultural production and distribution systems in developing countries (Rosegrant et al., 2009)⁴⁴.
2. Available studies estimate post-harvest losses at about 10% of total production in Cambodia (Soalaga, 2004)⁴⁵. While overall post-harvest loss improvement potential is estimated to be of about 5 percentage points (Soalaga, 2004) IRDM targets only some of the factors which are thought to reduced post harvest losses, most notably investment in road infrastructure and linkage to local markets.
3. Taking this into account, we assume a decrease of 2.5 percentage points relative to baseline conditions. Such a decrease increases half of the overall gains accruing to producers (“sellers”) of the poorest population decile following the analysis of Soalaga (2004), i.e. 2.3% instead of 4.6%. Similarly it induces a gain to consumers (“buyers”) of the poorest decile by 1.35% - regardless of whether these are situated in targeted communities or not. If not then this benefit can be considered as a “positive externality” of IRDM on other communities.
4. The above percentages were applied to current production levels and revenues. As there was limited empirical data available it was assumed, in line with rural population profiles provided by Komoto and Stone (2009)⁴⁶, that the targeted population has an income below poverty line (1\$ a day), i.e. 0.50\$ a day. Taking account of producers and consumers as stakeholders we calculated the mean gains from a reduction of post-harvest losses in income terms. This results in an increase of roughly 0.03\$ per person per day, i.e. 10.8\$ dollars per person per year.
5. The same form of analysis was replicated for all outcomes, while applying a standard SROI process relative to deadweight, attribution and computation of net present value using a 3.5% discount rate.

Tables 8 and 9 present the comments and assumptions used to evidence and value outcomes.

Table 8: IRDM outcomes and indicators

	OUTCOMES	INDICATORS	COMMENTS
COMMUNITY	ECONOMIC RESILIENCE	Avoided losses / natural disasters	Secondary data information ⁴⁷
		Increase of agricultural production	Empirical data (no of households covered) combined with secondary data to derive the amount of change ⁴⁸
		Reduced indebtedness	Empirical CARE data (no of households covered and amount of change)
Increase of savings		Empirical CARE data (no of households covered and amount of change)	
Increase of collective economic schemes (e.g. Micro-finance, water groups)		Empirical data (no of households covered) combined with secondary data to derive the amount of change ^{49 50}	
Increased market access		Empirical data (no of households covered) combined with secondary data to derive the amount of change ⁵¹	
		Reduction of post-harvest losses	Empirical data (no of farmers experiencing reduction) combined with secondary data to derive the amount of change ^{52 53}
	SOCIAL RESILIENCE	Health 1: Improved nutrition	Ibid ⁵⁴
		Health 2: increased access to safe water	Ibid ⁵⁵
		Increased educational levels	Empirical CARE data (no of households covered and amount of change)
	GENDER EQUALITY	Decrease of work load	Empirical CARE data (no of households covered and amount of change)
		Opportunity cost of time of water collection	

Table 9: IRDM proxies

OUTCOMES	INDICATORS	PROXIES	RATIONALE / COMMENTS	REFERENCE
ECONOMIC RESILIENCE	<p>Avoided losses / natural disasters</p> <p>Increase of agricultural production</p> <p>Reduced indebtedness</p> <p>Increase of savings</p> <p>Increase of collective economic schemes (e.g. Micro-finance, water groups)</p> <p>Increased market access</p> <p>Reduction of post-harvest losses</p>	<p>Avoided costs</p> <p>Increase of yields in terms of additional income</p> <p>Amount of debt per capita</p> <p>Amount of savings per capita</p> <p>Socio-economic impacts of micro finance</p> <p>Additional income</p> <p>Avoided loss in terms of additional income</p>	<p>Benefit transfer from a study conducted in Nepal (adjusted to local income figures)</p> <p>CARE data and secondary assumptions (% income increase)</p> <p>CARE data</p> <p>CARE data</p> <p>Review and meta-analysis of economic impacts of micro-finance in South Asia</p> <p>Derived from Cambodian national figures</p>	<p>White and Rorick (2010)⁵⁶</p> <p>Soalaga (2004)⁵⁷</p> <p>Komoto and Stone (2009)⁵⁸</p> <p>n/a</p> <p>n/a</p> <p>ADB (2007)⁵⁹</p> <p>Soalaga (2004)⁶⁰</p> <p>Soalaga (2004)⁶¹</p> <p>Komoto and Stone (2009)⁶² _</p>
SOCIAL RESILIENCE	<p>Health 1: Improved nutrition</p> <p>Health 2: increased access to safe water</p> <p>Increased educational levels</p>	<p>Productivity gain/loss</p> <p>Avoided health costs</p> <p>Economic impacts of reciprocity structures</p> <p>Returns to education (social returns)</p>	<p>Benefit transfer</p> <p>Benefit transfer</p> <p>Benefit transfer</p>	<p>Haddad and Bouis (1991)⁶³</p> <p>Alderman et al (1996)⁶⁴</p> <p>Hutton and Haller (2004)⁶⁵</p> <p>Godoy et al (2007)⁶⁶</p> <p>Patrinos and Psacharopoulos (2010)⁶⁷</p>
GENDER EQUALITY	<p>Decrease of work load</p> <p>Opportunity cost of time of water collection</p>	<p>Value of time savings (combined)</p>	<p>Benefit transfer</p>	<p>DFID (2009)⁶⁸</p>

As per the section presenting SROI analytical steps, the figures derived from the above analysis were tailored to represent attribution, deadweight, and displacement. While more detailed comparative information is presented in the overall discussion section (below), it is worth mentioning that due to relative lack of data, we did not fundamentally alter gross impacts: attribution is high, deadweight low and we assumed no amount of displacement. Finally, we modelled

benefits over a five-year period, given that the programme has already been in place for four years

Results and interpretation

In this case, we have not estimated the benefits for the State, i.e. by not including the opportunity cost of not undertaking the project the SROI ratio for the State is considerably lower. The bulk of benefits flow towards the community, project beneficiaries. It is equally worth mentioning that the extremely low regional impacts is inherently unrealistic and due to lack of available data. Hence, our assumptions were extremely conservative and cautious. Nonetheless, it is possible that local and regional impacts could be considerable even for small scale projects either via direct impacts (production and capital circulation) or indirect ones, e.g. socio-institutional mimesis, if there is scope for inclusion.

Table 10: IRDM results and SROI ratios

RESULTS PER STAKEHOLDER GROUP	DISCOUNT RATE	SROI RATIO
COMMUNITY (PROJECT BENEFICIARIES)	1%	14.53
	3.5%	13.51
	8%	11.95

The SROI ratios indicate that IRDM is socially and economically efficient at creating outcomes. A snapshot of the SROI model is presented in Appendix 2.

Social and Economic Transformation of the Ultra Poor (SETU)

The project

The overall objective of the project is to lift 80,000 disadvantaged people out of poverty by 2015. This purpose highlights the need to facilitate collective action by the extreme poor and the institutionalization of poverty reduction initiatives by the local state. It also emphasizes the need to address the underlying causes of extreme poverty which shape and perpetuate the exclusion, marginalization and vulnerability of the extreme poor. This purpose will extend beyond the initial three-year long primary phase of the project life.

Phase one targets 20,000 extreme poor and poor households in 1,250 of the poorest communities in 24 unions in Northwest Bangladesh. These are empowered to collectively address the causes of their economic, social and political exclusion that keep them in extreme poverty. Phase 1 equally focuses on 14,000 households to achieve graduation as defined by the *Shiree* criteria for increased

expenditure and asset-holdings. SETU is implemented in 4 districts North West Bangladesh which are characterized by severe seasonal food insecurity (monga). According to WFP maps (2004) vulnerability maps, 38 of 62 Upazilas (communal unions) have 37-55% of their population facing extreme poverty. These figures illustrate the lack of regional economic development in North West.

The region is characterized by some of the following elements and structural constraints: 60 percent of households earn livelihoods through agro-related activities, and wage rates are low compared to other regions, with 40 % incidence of landlessness. Food insecurity is recurrent, caused by deficit of employment and income during last stages of gestation period of rice harvest (Aman). This triggers a spiral of poverty through the distressed selling of assets and taking on unsustainable levels of debt. The weakness of local government institutions adds to the severity of seasonal food insecurity, not least linked to social exclusion - including: loss of social entitlements; loss of access to common or public resources; and public goods and services such as relief, Vulnerable Group Feeding (VGF) cards, Vulnerable Development Group (VDG) cards and finally old age pension.

Theory of change

The project aims to address the underlying causes of extreme poverty which is defined as powerlessness through three interconnected domains of change which together form a process of social transformation for social, economic and political empowerment of extremely poor people to find their own solutions for development. From a social perspective, it aims to alter social relationships to address exclusion and marginalization and reduce exploitation by, and dependence on others. From an economic standpoint it aims making the poor more powerful through better access to, and use of resources and services-including market and employment opportunities. Finally, from a political perspective it seeks to make the poor more powerful by facilitating the creation of spaces for the poorest to participate in local government and development processes. More concretely identified desired impacts, and related outputs and outcomes, include:

- **Economic empowerment via improved access to services which support economic and human capital:** through (1.1) creating a cleaner living environment (access to sanitation) and so reducing incidence of disease; (1.2) increasing access to other basic services including education and health; and (1.3) increasing involvement in community-led decision-making resulting in changes in social relations within and between communities..

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- **Economic empowerment via improved access to and control of resources:** through (2.1) collective action and income generating activities , developing savings groups, increasing access to fallow land and community ponds; (2.2) adoption of improved and/or diversified livelihood options providing increased income; (2.3) increasing the level and value of household assets (housing and livestock); which support an improvement in the varying levels of food security, and overall increase in income in an area.
 - **Social empowerment via reduced exploitation and dependence on others:** through (3.1) a reduced incidence of discriminatory and exploitative practices which lead to an increased level of indebtedness (sale of advance labour, work as maidservant); (3.2) strengthened community solidarity which support reduced levels of conflict, dignity and, increased levels participation; (3.3) increasing women's empowerment and agency, which support positive self-perception, improved education, increased mobility, income generating opportunities, equal wages and reduced incidences of violence against women,; which support an increased school attendance levels .
 - **Political empowerment via creation of spaces for the poorest to participate in local governance and development processes:** through increased participation in, and influencing of, local governance processes; improved relations with local regional governments, and increased access for extreme poor and poor households to government safety net transfers of productive assets such as land and fish ponds.

As evidenced in the above points, some intermediary outcomes can fit into multiple impacts: education for instance is both a driver of economic empowerment but can equally be considered as an essential component of political and social empowerments and awareness. The same holds for health which is both a component of economic, but equally social, empowerments. As such, avoiding double counting should be kept in mind when analyzing data.

Modelling process

This study is based on SETU's work with 18 unions only, as this is where information was most available. As such, the findings are partial and should be viewed as such.

As is the case of other projects, a particular challenge with the data reviewed was that it provided for the number of those in the community experiencing change in an array of domains (economics, health, educational and socio-political), but does not provide sufficient evidence as to the amount of that change that has happened for these community members. While the number of people experiencing change is a necessary component of any quantitative appraisal, it is

nonetheless insufficient: the degree of experienced change is equally critical to derive reliable figures. As such, since empirical information relative to the value of “distance travelled” is virtually inexistent except for anecdotic qualitative information, secondary literature figures should be treated with caution.

It is worthwhile mentioning that the outcome incidence represents the amount of change multiplied by the number of community members experiencing change. As aforementioned, it is only the latter which is based on actual empirical information derived from these specific communities.

The following worked example is on a reduction of malnutrition outcome for the community.

1. One of the direct outcomes intended by SETU is the reduction of malnutrition. While the amount of population having increased its number of meals per day is evidenced as 18%, there was no data about how much change has occurred – especially if wanting to relate this outcome to specific nutrition deficiencies.
2. Following a study by Horton (1999)⁶⁹ we assume individuals pass from a stage of “heavy” to “moderate” malnourishment as a consequence of the project, given that the latter targets heavily vulnerable populations which are consequently likely to be in a heavy malnourishment condition. Equally, we consider it unlikely that affected individuals will to progress from a heavily malnourished condition to an equilibrated diet within a short time frame.
3. In order to value this outcome, thus reflecting on the actual impacts of reducing malnourishment, we used findings of Haddad and Bouis (1991)⁷⁰ and Alderman et al (1996)⁷¹: the combination of these studies suggests that adults who were moderately malnourished as children are, on average, 4% less productive than non-malnourished population, while adults who were heavily malnourished as children are, on average, 5.5% less productive (Horton, 1999). It is worth mentioning that these figures are only representative of some forms of malnourishment, e.g. vitamin A and iron deficiencies. Other aspects can encompass, for instance, anaemia. Therefore, this is a very conservative estimate. Similarly, we only calculate costs in terms productivity loss, and this is admittedly representative of part of the costs of malnourishment, i.e. the figure does not reflect on so called broader “social” costs or even mortality and morbidity (Darnton-Hill et al., 2004)⁷².
4. Productivity loss is assumed for a five year period for simplicity in the analysis and to avoid over-claiming. The productivity gain is assumed to increase household incomes by 1.5% over 5 years.

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5. Attribution and deadweight are deducted and a length of outcomes of five years, following the analysis of productivity loss, is applied. All figures are converted into net present value using a 3.5% discount rate. The same analytical steps are replicated for all outcomes – except for the ones where primary data was available for both impacted population and amount of change.

Tables 11 and 12 present the comments and assumptions used to evidence and value the outcomes.

Table 11: SETU outcomes and indicators

	OUTCOMES	INDICATORS	COMMENTS
COMMUNITY	ECONOMIC EMPOWERMENT	<p>Increased collective revenue: <i>cash for work, no of businesses, increase of harvest</i></p> <p>Education: <i>Regular attendance to school</i></p> <p>Health level: <i>access to medical services; incidence of diseases</i></p> <p>Food security: <i>meals per day</i></p> <p>Collected saving schemes: <i>increase of investment through collective banks</i></p>	<p>Combined CARE empirical data with nef assumptions based on secondary research⁷³</p> <p>Combined CARE empirical data with nef assumptions based on secondary research⁷⁴</p> <p>CARE data complete to evidence both impacted population and outcome incidence</p> <p>CARE data complete to evidence both impacted population and outcome incidence</p> <p>Combined CARE empirical data with nef assumptions based on secondary research⁷⁵</p>
	SOCIAL EMPOWERMENT	<p>Conflict occurrence within community</p> <p>Reduced indebtedness: <i>social aspects</i></p> <p>Reduction of early marriages</p>	<p>CARE data complete to evidence both impacted population and outcome incidence</p>
	POLITICAL EMPOWERMENT	<p>Number of collective organizations/unions with established forums</p> <p>Number of eligible people to public services</p> <p>Number of natural leaders</p>	<p>CARE data combined with nef assumptions based on secondary literature⁷⁶</p>
	GENDER EQUALITY	<p>Increased dignity</p> <p>Reduced violence</p>	<p>CARE data combined with nef assumptions based on secondary literature^{77 78 79}</p>

Table 12: SETU proxies

OUTCOMES	INDICATORS	PROXIES	RATIONALE COMMENTS	/ REFERENCE
ECONOMIC EMPOWERMENT	<p>Increased collective revenue: cash for work, no of businesses, increase of harvest</p> <p>Education: Regular attendance to school</p> <p>Health level: access to medical services; incidence of diseases</p> <p>Food security: meals per day</p> <p>Collected saving schemes: increase of investment through collective banks</p>	<p>Monetary value of increased production / national minimum wage (cash for work)</p> <p>Return on investment of education</p> <p>Willingness to pay for community health services study. Cost of malnutrition</p> <p>No of households multiplied by amount invested</p>	<p>Combination of both according to respective outcome incidence</p> <p>Global study expressed in percentage of income and as such adjusted to national income</p> <p>Study conducted in Africa Productivity loss/gain approach This could be "proofed" by entailing the multiplier effects of investments</p>	<p>n/a</p> <p>Brewer and McEwan (2010)⁸⁰</p> <p>Donfouet and Makautze (2011)⁸¹</p> <p>Haddad and Bouis (1991)⁸²</p> <p>Alderman et al (1996)⁸³</p> <p>n/a</p>
SOCIAL EMPOWERMENT	<p>Conflict occurrence within community</p> <p>Reduced indebtedness: social aspects</p> <p>Reduction of early marriages</p>	<p>Cost of injuries/death</p> <p>n/a</p> <p>Productivity and life quality approach</p>	<p>Value of statistical life (VSL) / injury approach (study conducted in India) Study conducted in Bangladesh</p>	<p>Madeswharan (2004)⁸⁴</p> <p>Field (2004)⁸⁵</p>
POLITICAL EMPOWERMENT	<p>Number of collective organizations/unions with established forums</p>	<p>Willingness to pay for social services, thought the constitute the main "grievance" of political empowerment</p>	<p>Aggregate figures adjusted to local currency/income level</p>	<p>Gertler and Van der Gaag (1988)⁸⁶</p>
GENDER EQUALITY	<p>Reduced gender violence</p>	<p>Meta analysis of evidence in developing countries</p>	<p>Study conducted in Africa reproduced here by transferring it in terms of % of revenue</p>	<p>Morrison and Orlando (2004)⁸⁷</p>

With reference to the section presenting SROI analytical steps, the figures derived from the above analysis were tailored to represent attribution, deadweight, and displacement. While more detailed comparative information is presented in the overall discussion section below, it is worth mentioning that due to relative lack of data, we did not fundamentally alter gross impacts: attribution is virtually complete, deadweight low and we assumed no amount of displacement. Finally, we modelled benefits over a five-year period, given that the programme has already been in place for four years

Results and interpretation

Table 13 presents the indicative SROI ratio for the sample of groups analysed as part of SETU's work.

Table 13: SETU results and SROI results

STAKEHOLDER	DISCOUNT RATE	SROI RATIO
UNIONS (PRIMARY BENEFICIARIES)	1%	9.36
	3.5%	8.71
	8%	7.70

The indicative ratios illustrate that, using this study and the parameters of SETU analysed, the project can be considered socially and economically efficient in creating added value. The SROI model for SETU is presented in Appendix 2.

One of the particular challenges of SETU is to evidence the value of socio-political empowerment. Any monetary valuation has to acknowledge that in a context of a lack of primary data measuring change, estimating the entire value of empowerment as an inherent end *per se* is very difficult. Nonetheless, what is possible is to provide for an estimation of *part* of the value induced by empowerment. Indeed, we can analyze empowerment under the following angle: socio-political organization and resultant access to local/regional political structures. This can provide the means to achieve broader change, such as access to public services for marginalized populations. Using this approach, empowerment can be analyzed in terms of a “means” to achieve socio-economic change. As aforementioned, this narrative only represents part of the story since empowerment can be considered as an “end” in itself⁸⁸. For the sake of providing a quantitative estimate, thus valuing empowerment, we here we here use an instrumental definition - with the associated cautionary footnotes. A brief overview of the valuation process is explained through an example:

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1. SETU socio-political empowerment aspects aim to give a voice for marginalized populations in order to access public authorities, represent their interests, and eventually win access to public services from which these populations are excluded.
 2. Socio-political empowerment takes concrete forms: (1) The creation of forums and unions; (2) number of natural leaders; and the resultant (3) access to public services. The latter can be considered as an outcome per se – and is documented as such in SETU data.
 3. In order to value indicators (1) and (2), we assume that collective representation schemes as well as the increase of natural leaders for the communities spur access for communities to public authorities in order to express their needs and grievances.
 4. We also assume that such a process, mentioned in SETU documents from a qualitative perspective, spurs access to public services for targeted populations – doubling the amount of population having access to public services.
 5. In order to value increased access to public services, we proceed in the following way: using education as an independent variable and outcome, we use two other forms of public services to illustrate the value of empowerment: (1) additional (to already attained) access to health services (2) access to water and (3) access to telephone, transferring the findings of three willingness to pay studies, respectively Gertler and Van der Gaag (1988),⁸⁹ Littlefair (1998)⁹⁰ and Torrero et al., (2002)⁹¹.
 6. Valuation is completed by transferring these values as a percentage of income, rather than absolute figures, which allows us to reflect for differences between the countries in which these studies derived their figures, and Bangladesh in which SETU operates.

In the same manner that empowerment shapes the attainment of socio-economic ends, another characteristic of SETU consists in its multi-level approach, involving households empowerment, community empowerment as well as broader socio-institutional structures – not least focusing on local government structures. Admittedly, such a holistic combination can spur and magnify expected impacts as extensively analyzed by Hinton (2010)⁹². However, the complex nature of these linkages, and their potential direct or indirect impacts on livelihoods, did not allow us to include a quantitative analysis of the benefits arising through this holistic approach. Quantifying these should indeed entail a complex analysis clearly demonstrating that parts of the observed quantifiable/tangible outcomes are specifically brought about through the combination of household/community empowerments and action on political authorities. This was far

beyond the scope of this work. These remarks highlight the fact that only part of the outcomes are captured, being some of the most critical and/or quantifiable ones, and that a full SROI analysis would encompass a larger number of outcomes for the maximum possible number of stakeholders.

3. Challenges

This section considers the challenges of retrospective analysis and the lessons learned.

It is important to distinguish between the lessons learnt from particular projects in a comparative perspective, and the common challenges that this study has identified. Both points are addressed in this section.

Particular challenges

Out of the four projects analysed, some were more widely documented than others, either from a quantitative or qualitative perspective. Whilst this presents challenges of consistency and systematic use of data, the varying degrees of documentation also has implications for particular projects e.g. an exhaustive appraisal of SETU requires far more data given the extensive nature of the project both in its geographical scope as well as its multiple socio-economic objectives. Furthermore, underpinning SETU is an in-depth theory of change that requires much more intangible and long-term data to be collected, than a more straightforward project such as PCEP. Out of the four projects, PARUA appears to have the most applicable quantitative data as it considers not only population affected but equally the amount of change that has occurred for these populations – albeit not for all outcomes.

This study has highlighted the following data challenges for CI in terms of applying SROI to its projects:

- **Benefit period:** An important characteristic of these projects is understanding the longer term impact of the outcomes achieved or the sustainability of these outcomes, particularly in terms of creating the necessary conditions for the impacts to be long-lasting. That is notably the rationale for community-based socio-political empowerment and creation of collective structures, norms and forms of organization apt to sustain long-term sustainability and development. In other words, bottom-up definitions of activities and appropriation of structures and project components by communities themselves are considered more efficient in bringing about medium to long term socio-economic development. Nonetheless, data indicating the benefit period is often unavailable in the absence of longitudinal data. Numerous qualitative elements point towards long-lasting effects in terms of benefit period, but are insufficient for generating assumptions regarding the “how long it will last” debate. As such, the time span defined here is an estimate only, notably based on the fact that two of the four projects are only in their first phase. As such, assuming the impacts last only for a year is erroneous. It is hence important for CI to delimit time spans when conducting appraisals. For example, if impacts are evaluated after two or three years from project

inception, it is sensible to assume the impacts will last for at least another two or three years – especially when the project is ongoing. Likewise, if it is possible to identify a trend to an increased uptake of the project and/or non-linear increase of impacts, it is sensible to assume a longer benefit period.

- **Multiple stakeholders:** SROI and social cost benefit analysis aim to evidence outcomes and benefits accruing to all stakeholders. It is therefore notably essential to assess broader benefits accruing to societies, other communities, regions and respective governments (often referred to as the State and used a proxy for wider society). Information on these secondary stakeholders is more difficult to obtain, especially if the project does not engage with them directly. In terms of State impacts, for example, we were able to identify relatively precise outcomes for PCEP only and this is mostly due to the specific nature of the project. **While State outcomes can be qualitatively defined and analyzed for all projects, translating this conceptual work in quantitative terms was challenging.**
- The same holds true for **overall community and other community benefits** that go beyond impacts on targeted population *per se*. Empirical data collected for SETU, for instance, allowed this study to partly determine impacts on community members not specifically targeted by the project. As such, we were able to derive community benefits by enlarging stakeholder scope. This is not the case for the other projects for which such information was either non-existent or insufficient. Nonetheless, it is evident that these projects present broader impacts, including: (a) local/regional economic multiplier effects; (b) impacts and/or influence on broader local or regional socio-institutional norms. **These potential benefits were not captured in this analysis.**
- IRDM is unique in that a large part of project activities are carried out through municipalities. As such, CI provides a facilitative and supportive role. Therefore redefining attribution and deadweight (the counterfactual) in these circumstances is more challenging. Indeed it requires the identification of components which would have been implemented had CI not supported municipalities, as well as linking this support to specific activities. This means deriving the precise activities undertaken, their outcomes and finally their benefits. Again, the need for systematic data here would have allowed for a stronger and more robust social cost benefit analysis.

Common challenges

- Comparison between SROI ratios is highly guarded against due to the nature of the analysis. The objective of a project passing a “SROI test” means that it is judged economically and socially

efficient on its own right i.e. that the benefits it creates to society outweighs its costs. In this sense, the objective is not to rank different projects according to their SROI ratios. Rather, it is to investigate a project's relative efficiency at creating outcomes, while taking into account broader assumptions used to derive results. A higher cost-benefit ratio can indicate higher returns but this assertion holds true only if the data used across projects and across different geographical areas is comparable. Such is often not the case for a variety of reasons.

- Although a necessary part of economics, making assumptions adds uncertainty to the measurement of outcomes. While making assumptions is necessarily part of any analysis i.e. perfect information is impossible to obtain, it is nonetheless critical to minimize their use and thus the layers of uncertainty where possible. In this respect, while the number of people affected is certainly an essential indicator in order to understand the scope and scale of the impacts of a project, the distance travelled i.e. the amount of change that has occurred within the affected populations is equally critical when quantifying benefits of a project. A lack of empirically-collected outcomes data requires the building of an array of assumptions to conduct a holistic cost-benefit analysis. Admittedly, collecting this additional information requires more resources: as such there is a range of potential monitoring and evaluation options to collect this type of information, such as one-off before and after focus groups or retrospective distance travelled information collected in a qualitative or quantitative format. While this would equally constitute an assumption, the biases linked with transposing impacts of different projects from different countries (as per this study) on a specific site would be substantially reduced and therefore the results would be a more robust reflection of the project's effectiveness and impact.
- Secondly, a full social cost benefit analysis should consider the full array of inputs associated with a project: these go beyond strict financial value of the investment, i.e. it should equally consider using "shadow prices" of inputs for e.g. regarding labour costs and/or volunteering time used to carry through the projects. Indeed, a social cost-benefit analysis or SROI measures the whole range of benefits (including non financial ones) but also the whole range of costs to society – which are not merely represented by financial costs of the project. Such information is not currently available and was not included in this analysis.
- Thirdly, it is crucial to conceptualize, through theories of change, whether social and political empowerments are conceived as means or as ends – or both. This definition impacts on the manner through which an appraisal is conducted. If, for instance, one aims

to increase uptake of programme activities through social participation, or even aims to spur socio-economic outcomes through socio-institutional transformation, then social empowerment is economically conceived as an instrument rather than an end. The statistical translation of this conceptual definition means that, through a model, social empowerment will behave as a magnifier of socio-economic ends. On the other hand, if considering socio-political empowerment as an end, then it should be valued for its inherent properties – as an impact or final outcome. Nonetheless this requires another set of valuation methodologies since it results impossible to link back social empowerment with precise and quantifiable project components – e.g. health outcomes or even income increase. In short, if aiming to put a monetary value on socio-political characteristics is conceived as an end, then only *willingness-to-pay* or *willingness-to-accept* methodologies are appropriate, and these should be carried on site. Needless to say, such an exercise requires additional resources.

- Fourthly, defining broader outcomes, benefits and impacts for the State and the regions: evidencing wider impacts can be important both for developing countries as a whole but equally on a regional level. While, admittedly, quantifying multiplier effects and/or different forms of positive “externalities” (i.e. spillovers) is a tenuous exercise, identifying these can at least shed light on potential broader impacts. This can notably be important when working with local or regional governments in developing countries. Finally, externalities need not to be positive: negative ones, environmental most notably, can arise under specific circumstances. As such identifying broader impacts can prevent potential adverse unintended effects while explicating positive ones.
- Fifthly, a more robust analysis could include both direct and indirect effects of activities, i.e. positive feedback loops between different activities and outcomes. For instance, an increase in income can determine educational as well as health outcomes – beyond direct targeting of health and education through programme activities. Likewise, these can impact on social participation and overall political empowerment.
- Last but not least, it is important to remember that costs of a project are a determinant of its ultimate cost-benefit or SROI ratio. Some projects and/or organizations can be more efficient in use of financial resources. On the other hand, higher costs are often correlated with geographic and topographic characteristics. Put simply, it is more costly to reach and implement projects in remote areas or communities. This should be taken into consideration when reviewing the final ratios from the analysis. It could be

possible to address this difficulty by adjusting impacts following a decreasing marginal utility concept (i.e. a dollar accruing to an ultra-poor is worth more than a dollar accruing to a person living above 2\$ a day), and weighting benefits in order to represent distributional issues. This approach could overcome bias in favouring easier to reach populations or working in “cheaper” environments. It is suggested this is a point of particular relevance to stress with funders who may be inclined to compare value for money of interventions by crudely comparing cost benefit ratios.

An overview of challenges is presented in Table 14.

Table 14. A condensed overview of challenges

CRITERIA	ANALYSIS	LEARNING
BENEFIT PERIOD	<p>It is certain benefits last but unclear for how long in particular in the context of possible adverse shocks.</p> <p>We thus assume a period of 5 years while admitting that autonomous developments (post-project financing) are speculative. Nonetheless most projects have a average duration of 2-3 years and therefore it is realistic to conceive their impacts last for two years beyond completion</p>	<p>One issue is to assess resilience and sustainability of projects once the CI intervention is over. That is, the question is whether after the project communities are capable of self-sustainable resilience, maintaining / improving socio-economic condition as well as ensuring the position of women does not revert to the per-project conditions. Experience from previous projects in this respect is critical. Indeed while assuming a reduction of impact can be sensible in some context, in others the actual impacts could be non-linearly increasing following an external "push" and break away from "poverty traps"</p> <p>Time spans need to be defined by project designers and construct realistic assumptions to this respect.</p> <p>A requirement is particularly to define when do specific project components start to create benefits, to what extent, and for how long</p>
ATTRIBUTION	<p>We generally assumed high attribution levels for all projects</p> <p>For specific components of the projects, we chose a lower level of attribution where information was available to support this (e.g. State investment in roads for IRDM; State investment in education for PCEP)</p> <p>While actions of other NGOs were mentioned, including possibilities for collaborations in order to spur socio-economic impacts, precise information with respect to project components was not provided. As such, we did not take these elements into account when determining attribution.</p>	<p>It is evident that our attribution assumption does not deal with whether previous projects/programmes of CI have an impact on identified improvements. If aiming to do so, and provide for combined cross-project data/information, additional information and data would be required to model possible knock-on effects of other programmes on a regional scale.</p>
EVIDENCE OF OUTCOMES	<p>In order to value empowerment we apply an instrumental perspective i.e. we consider empowerment as important to drive other types of outcomes such as bettering of the socio-economic condition. Nonetheless it is possible to take an "intrinsic" perspective i.e. considering that empowerment has a value in and of itself.</p> <p>We derived "distance travelled" through secondary data for most projects and most outcomes. PARUA data collection is the</p>	<p>In order to assess a possible intrinsic value of empowerment at a community level, i.e. assess the importance of mobilization (socio-institutional) as an impact per se, it is necessary to carry on-site willingness to pay valuation exercise. This was beyond the scope of this study as a primary data collection exercise.</p> <p>It is absolutely critical to develop data collection systems which measure the amount of change – even if this is done through small focus groups. If failing to do so, it results impossible to measure</p>

	exception to this since it does measure in part the amount of change that has occurred	actual change – i.e. not based upon secondary data
STAKE-HOLDERS	<p>Although other communities were included as stakeholders, data on positive spillovers on other communities is non-existent - and thus based upon assumptions, i.e. transferring values and impacts from other development projects/sites to this project. Admittedly this is a speculative exercise and should be treated with caution.</p> <p>An exception to this respect is SETU: the data collection system evidences impacts and uptake of activities not only for targeted population but also for the entire communities.</p>	<p>Capturing broader impacts on adjacent communities can allow (1) to evidence additional positive externalities and outcomes on a regional scale and (2) avoiding potential negative externalities (e.g. Environmental / resource uses) on adjacent communities.</p> <p>Appraising impacts on other community members and positive spillovers within communities is a welcomed first analytical step to extend stakeholder impacts.</p>
UNINTENDED CONSEQUENCES	We assume no unintended consequences due to lack of evidence and linkages to other regional project/programmes	In order to assess the impacts of this particular project on overall country/regional objectives of CARE international, it is critical to replicate this analysis in a holistic fashion, which is evidently a much more time-consuming and complex exercise - if wanting to provide an accurate picture.
COUNTER-FACTUAL/ DEADWEIGHT	We assume the counterfactual is high and therefore there would be little chance that the project is undertaken under a scenario where CI would not intervene. This is notably due to the fact that this project is carried through in regions which are (1) difficult to reach; (2) left aside by the State. The sole exception within this framework consists in school investment impacts (PCEP) as well as road construction (IRDM, PARUA).	Recording other undertaken projects supports the establishment of a counterfactual, which may not be zero. For instance, a counterfactual in a situation of resource over-exploitation can mean that socio-economic capital of communities would not be stable under a counter-factual but rather decreasing. In such case, our measurement of benefits underestimates the impacts. The benefits of the project should not be necessarily assessed relative to the original condition but also in terms of avoided losses (in this case we assume that the capital of communities would be decreasing rather than being stable under a "no intervention" scenario).
VALUATION	We use (1) instrumental proxies in order to value intangible components (see supra) and (2) we carry through our valuation methodology through simple benefit transfer, i.e. Transposing values from other sites and adjusting them to revenue of the specific communities (for rigor) and exchange rate (Purchasing Power Parity) of the country concerned.	A more precise exercise would consist in on-site valuation of both tangible components which were unavailable in CI's collected data or willingness to pay exercises for intangible components. This would notably allow capturing in a more holistic fashion the intrinsic value of items such as community empowerment and mobilization beyond "utilitarian" criteria.
APPLYING	Although existing data allows providing for a "basic" (SROI-type) cost-benefit analysis,	While compiling on-site information is the "best" bet, it is often difficult to administrate for all sorts

CBA / SROI	it is evident that there are gaps which were covered through secondary data. Nonetheless, the latter is often based upon other sites and geographic areas (i.e. countries), which is an important caveat. Said simply, there could be a selection bias which could skew the results towards either optimistic or alternatively pessimistic ratios.	of projects. Nonetheless, a viable alternative is to carry this through in selected sites in each country (or, at a regional level) in order to establish values in a more robust manner.
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4. Recommendations and next steps

The indicative results for the four projects illustrate positive SROI ratios, demonstrating that added-value is being created over and above the investment.

A participatory and stakeholder-led approach such as SROI is well suited to CI's projects given the strong focus on empowerment and beneficiary-defined development. In order to adopt SROI or a cost-benefit approach, CI should invest in collecting outcomes data that would permit an understanding and valuation of change. Once this data is captured systematically and consistently across the project cycle (from definition to evaluation) it will be possible to conduct a number of cost-effectiveness analyses and studies with ease.

This section outlines recommendations and further considerations for CI to use social cost benefit analysis in its projects and programmes.

Programme Approach

In addition to desk-based assessments of the four selected projects, CARE's wider M&E functions were considered in order to ascertain the extent to which they could be adjusted to facilitate future cost-benefit analysis. The following were reviewed:

- Programme Quality Assessment Tool (PQAT)
- Plans for a new Programme Information and Impact Reporting System (PIIRS)
- Project-level M&E documentation CARE Uganda Guidelines to M&E 1997
- CARE's strategic shift towards a programme approach.

Review of the relevant documentation and a one to one meeting with CIUK's Monitoring and Evaluation Manager allowed us to better understand the wider context of this work and how cost benefit analysis may fit in. This section presents this study's recommendations for conducting prospective cost-benefit analysis at multiple levels within the context of the programme approach.

It is our understanding that the programme approach constitutes a different way of working for CI; one that places the theory of change at the heart of delivering long term sustainable change to impact groups through a range of initiatives rather than through a single project. The approach is about determining the most effective way of addressing the contextual underlying causes of poverty by leveraging CI's comparative advantage to make a real, lasting change to the people CI works with. Built upon the foundations of the right-based approach to development and CI's unifying framework, the programme approach will allow for the testing of theories of change in

order to adapt to a dynamic and changing world. And as such result in greater accountability and more effective delivery.

The drive to deliver and demonstrate effectiveness is twofold: first to enable internal understanding of impact and facilitation of learning and second, to present this to existing and potential funders. The theories of change that underpin CI's work with impact groups are complex and often long-term, thus requiring a co-ordinated approach to delivery and a systematic method of understanding effectiveness and impact.

Coherent approach to demonstrating effectiveness

CI is currently focusing on all the right areas in order to determine its effectiveness through its approaches to M&E. The PQAT addresses these in a systematic manner, allowing decision-makers to know whether the right areas have been considered at a programme level. The PIIRS is an initiative which will over time address high level impacts across its country offices, partners and programmes.

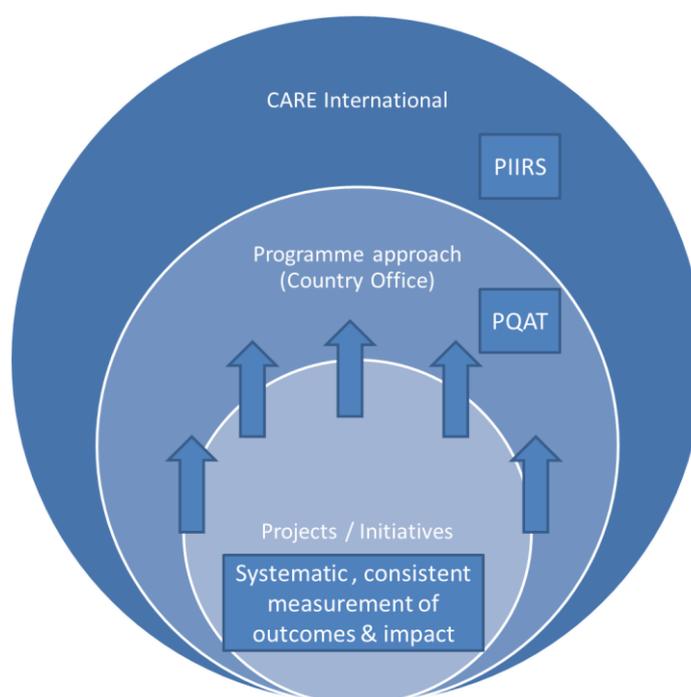
A crucial question for CI is about what it wants from an impact monitoring system, and how best to adapt its existing systems to accommodate change.

Measurement of outcomes is key to understanding effectiveness. Systematic and consistent measurement of outcomes not only allow for inter-project learning and comparison over time, but also for scaling up and application to higher-level decision making.

Measuring complex, intangible outcomes that are created over time is not easy and therefore yields the best results when done in participation with stakeholders, who are able to see the value for them in their work. That is, it is best done at the project / initiative level and a good reason as to why an approach like SROI is well-suited.

Figure 1 presents a diagram of where this study recommends CI's M&E systems be adjusted to accommodate cost-benefit analysis and demonstration of effectiveness more widely.

Figure 1: Programme approach within wider CARE context



Foundation: Rights-based approach and Unifying Framework

Change happens at a local or country-level: this is where the theory of change is rooted. It is therefore crucial that **consistent and systematic measurement** of outcomes and impact is captured at this level, as denoted by the arrows moving upwards from the projects/initiatives circle in Figure 1, for the following reasons:

- It is the most **useful**: effectiveness captured at this level can support decisions at multiple levels:
 - Project/initiative level: the theory of change can be tested, beneficiaries engaged and staff empowered to understand whether and how the project/initiative is performing and where adaptations need to be made to achieve the programme goal.
 - Programme level: the success of the programme approach is dependent on the effectiveness of the projects/initiatives and their inter-connected relationships. It is only by looking at the whole that the effectiveness of the programme approach can be assessed and learned from. Furthermore, the PQAT could be adjusted to capture what the key areas of interest look like; in addition to finding out if they have been considered.
 - CI level: information from the project/initiative level can be cascaded to provide robust and rich data for the PIIRS in terms of progress towards set goals and standards.
- It is the most **flexible**: changes in external environments such as economic, social, political and environmental contexts inherently

impact theories of change and the assumptions made when designing a programme/project/initiative. Measurement at the project/initiative level allows these changes to be identified and actioned effectively.

Adjustments

We identified some common challenges in applying a social cost benefit analysis in the previous sections and possible responses to these at the initiative level are detailed below.

Measuring outcomes especially empowerment in a systematic and coherent manner

- A major problem, identified throughout this study, is a relative lack of measurement of “distance travelled”. Indeed, empirical data overwhelmingly (and correctly) focuses on number of people / communities affected. This is not sufficient for a coherent socio-economic appraisal. Measuring the amount of change occurring is at least as important to evidence as actual uptake and relations between inputs, outputs and outcomes.
- Measuring empowerment first requires the definition of empowerment in an instrumental (captured through resulting change) or intrinsic sense (has a value in and of itself). If this is stated explicitly it facilitates subsequent quantitative analysis and equally determines which indicators and valuation methodologies are appropriate in each specific context. This requires *a priori* conceptual development of this approach to ensure coherence in the analysis.

Consistently capturing unintended outcomes

- Unintended consequences, whether positive or negative, should be identified and mapped regardless of whether this information can subsequently be used or not in a quantitative analysis. A first step is to be aware of unintended consequences. These can be impacting on other (non-targeted) community members, as evidenced in SETU data collection, or surrounding communities / region. Potential negative unintended consequences are equally important in order to avoid situations where benefits are offset by costs somewhere else in the system.

Seeing the bigger picture

- While information regarding potential partnerships with other organizations/regional authorities was mentioned in the project literature, evidence was lacking in terms of attributing this benefit to an outcome even despite extensive baseline analyses. Admittedly identifying whose impact is an outcome in regions or communities where multiple development actors are intervening is difficult. A programme led approach however will require an

understanding based on evidence of how interventions interact with each other to create the desirable environment for communities in a socio-political / economic sense. The M&E system needs to be able to account for this complexity, and be able to track the relationship between initiatives and the Unifying framework, and CI's contribution to this in light of other interventions and activities. At the initiative level a more consistent approach to capturing other interventions as part of their theory of change would be a useful first step.

Establishing robust values

- Literature on valuation is unfortunately limited in developing countries. Often, there are problems in transposing values (i.e. “benefit transfer” in an economic terminology) from one country to another. This can either exaggerate or under-estimate the benefits particularly when that data originates from a developed country source. For example, the value of an extra quality-adjusted life year is not the same in developed as in developing countries for numerous reasons. A very simple adjustment consists in transposing values using purchase parity prices (PPP) conversion; another simple adjustment can consist of valuing an item as a proportion of income of a region, and thus reproducing the proportion rather than the value itself – which is the methodology used in this study.
- Nonetheless, less tangible components, such as the value women put on gender equality, could and probably should be valued on site - notably using willingness-to-pay (WTP) exercises. Despite its polemical nature, WTP is the only valuation method apt to capture “intrinsic” values for use in a social Cost Benefit Analysis, rather than partial ones based upon an “instrumental” (as a mean to pursue economic ends) perception of social or environmental wealth. There are other ways to capture intrinsic value, for example well-being measures but without using WTP they cannot be incorporated into a cost benefit analysis, which is a reflection of the nature of this type of analysis.

Evidencing duration of impacts

- A final element, perhaps more sensitive than the above problems, is the one of duration of impacts as well as possible non-linear nature of these impacts. On the one hand, CI should define a time-frame for its actions i.e. defining its goals in terms of duration or expected duration of benefits. For instance, CI might well encourage public authorities to continue a project after setting it up. In such case, defining this ex ante could be useful when conducting a cost-benefit analysis. This requires no less than a “dynamic” theory of change – as opposed to “static” one. It implies that the horizon of action does matter, especially when considering behavioural change. Applying the same logic, it is

sensible to think that benefits might well be increasing, rather than decreasing, over time and while the uptake augments for example as a consequence of behavioural change, or of scale economies being achieved. As such, time frames might well, in fact, work “in favour” of a project, in the sense of increasing (rather than decreasing) drop off rate – especially in a development context.

A number of technical challenges have been identified in this report alongside possible responses in terms of applying social cost benefit analysis within CI. In taking this forward, the approach could be most usefully tested at the programme and project level to assess effectiveness in a more meaningful and robust way.

Next steps

Two options that CI could undertake to take forward the learning presented in this study are:

- To apply SROI to a project in the field, either from an evaluative or project design position. This would allow the full methodology to be tested with beneficiaries and project staff, providing a more robust assessment of the value for money of that project as well as process learning.
- To investigate what value for money means to CI and how cost effectiveness could be applied to the project and programme cycle in a systematic manner.

To support either of the two aforementioned options, we suggest a range of questions that CI should address in taking this forward:

1. Assessing effectiveness of programmes

- **“How can CI evidence effectiveness and value for money of the programme approach?”**

The projects selected all sit within a programmatic context, and we emphasize that the analysis itself cannot be used to illustrate the effectiveness of those programmes. Currently there is a lack of a systematic approach to evidencing the effectiveness of programmes. Follow-on questions on this topic include how CI can account for a dynamic theory of change, in a static manner that allows reporting. One option is to apply a value for money approach to the project and programme cycle, ensuring that the correct data is collected to allow for a number of analyses.

“If CI does apply social cost-benefit analysis, what does it mean for CI M&E systems?”

At the programmatic level we understand that social cost benefit analysis **would be only one part of a system** of information to understand change and impact that is being supported at the Country

Office level, but that it adds to an information system by requiring that information system to provide: objective evidence of the change, the magnitude of that change and both intended and unintended outcomes. How can this be captured in a systematic manner to allow for a) usefulness for the Country Office and b) reporting at broader organisational levels?

2. *Understanding and evidencing empowerment*

From the case studies we believe that CI projects recognise the value of empowerment in two ways.

- (i) Intrinsically i.e. it has a value in and of itself, it is an outcome in itself (it is an end as opposed to a means to an end).
- (ii) Instrumentally i.e. it can be recognised in the change it leads to i.e. it is a driver for change (a means to an end).

From our understanding the programme approach is about **development being defined by those experiencing the change**. Therefore, please consider the following questions:

- **“How can CI capture this information and monitor impact?”**
- **“What does this mean for CI’s M&E systems and at what levels?”**

We believe that it could be appropriate to establish an explicit understanding of empowerment (for example) at the Country Office programmatic level, within the theory of change (an example of this from the review being the graduation model of SETU). This will then support application of approaches to evidence if this change has happened in a more systematic way, including evidencing value from the individual to a greater societal shift.

3. *Reflecting a CI ethos in the analysis*

- **“How to capture instrumental value?”**

Willingness to pay is a methodology that can be used to express the intrinsic value of empowerment to people, by the people themselves. It would require a standard methodology to be part of mid-term reviews and end of evaluations which elicited values from a structured sample of respondents. This is an experimental approach that would sit well within the participatory processes and could then be used as a set of country values (improving on the transposed valuing processes used more generally in social cost benefit analysis), and informing donor discourse on value for money.

- **“What is the most appropriate discount rate?”**

The focus on gender and societal shifts for excluded groups could be used to justify differential discount rates could be applied within CI

across country offices, and even within programmes. This would then, within the analysis process, make the investment return ratios reflective of / more sensitive to the short and longer term value of the development pathways described at the programmatic level. We would also suggest that the discount rates should be established through a deliberative process at the country office level and that this should be reflected in the PQAT review.

4. *Generating sufficient data for the analysis*

- **“How to capture the long-term sustainability of projects and programmes?”**

To understand better the change created by an intervention – we need to understand if the benefits last beyond the intervention period. This requires information flows beyond the project period, which could be usefully achieved in a programmatic context framed around specific action research questions across interventions – e.g. testing structures viability, and inclusiveness of groups, or more in-depth analysis of specific projects.

5. *Redefining value for money concepts*

- **“How does CI capture the inherent added- value of the programme approach and of its projects?”**
- **“Social cost benefit analysis is not the be all and end all, so what else is required to evidence value for money?”**

CI is well-placed, particularly given the programmatic shift, to develop greater understanding of value as expressed in different units of value, in addition to evidencing the effectiveness using social cost benefit analysis. Value, to truly understand it, needs to be viewed from a number of perspectives.

Appendix 1

Semi-structured Project Interviews

Interviews were conducted with:

- | | |
|-------------------|--|
| 9 November, 2011 | Mr Faizal Cader, Programme Director, Plantations (9 November 2011)
Plantation Community Empowerment Project (PCEP), Sri Lanka |
| 15 November, 2011 | Mr Boris Frangi, Provincial Coordinator, Sayabouli
Poverty Alleviation in Remote Upland Areas (PARUA), Laos |
| 18 November, 2011 | Mr Phai Phoeun, Emergencies and DRR Coordinator
Mr Bill Pennington
Integrated Rural Development and Disaster Mitigation (IRDM) Project, Cambodia |
| 27 November, 2011 | Ms Jamie Terzi, Assistant Country Director (Programme Quality)*
Social & Economic Transformation of the Ultra Poor (SETU), Bangladesh |

Semi-structured Interview questions

With the exception of the SETU interview, the semi-structured interviews followed the example format detailed below for PCEP:

Interview format example: PCEP

This project is a learning project to determine how we can capture the impact of CARE projects using a cost benefit approach which captures social impact. The objective of the interview is to hear first hand from the team involved in the project to:

1. Explore the theory of change.
2. Test what we already know (from the data) - confirming and clarifying our understanding of the initiatives.
3. Ascertain any unintended consequences (positive and negative) of the work.
4. Draw on your experience of the project to capture the wider impact from the project, which you may not have been able to report previously.

* A discussion was held on the programme approach and the challenges of capturing change through social economic cost benefit when applied to interventions such as SETU was discussed.

1. Theory of Change

From the documents received on the project, we have outlined a summary theory of change to support developing a cost benefit analysis which includes qualitative as well as quantitative social changes (see attached spreadsheet). This represents our overview understanding of your project, and this interview and the analysis process will be used to further develop our understanding of the theory of change.

For the analysis it is important that we identify the key stakeholders, identify what has changed for each stakeholder group (the outcome which should be both qualitative and quantitative), and the evidence we have for that change.

The questions in this section of the interview allow us to test our thinking, clarify information, and seek to fill some of the data gaps on outcomes we currently have.

Question 1.1: Does the theory of change currently capture all the elements of the project, and the key stakeholder groups?

Question 1.2: What have been the unintended outcomes from this project i.e. those benefits, or dis-benefits not originally foreseen in the project design?

Question 1.3: How would you describe this project's role in relation to achieving the wider impacts of the CARE programme within the country?

2. Testing thinking behind the analysis

We have identified outcomes for each main stakeholder group; these are detailed below and in the spreadsheet with specific questions for each stakeholder group.

Looking at each stakeholder group we would like to understand:

- 1. Are the outcomes right?** If the outcomes in the list reflect the key outcomes achieved? And particularly if there are any key qualitative outcomes that should be reflected in the changes within the community stakeholder category that we have not represented in the summary?
- 2. Evidence:** Can we evidence all of the outcomes detailed?
- 3. Attribution and Deadweight.** In your opinion how much of the change recorded can be directly attributed to the project for each outcomes? That is, what do you think would have happened anyway? Are there other projects / activities in the area that have supported that outcome to happen?

-
4. **Benefit period.** In your opinion, how long does the benefit from the outcome last? And what is this dependent upon?

Specific questions for each stakeholder group are detailed below:

Communities

The key outcomes we have identified are:

1. Increased income (cash flow)
2. Increased bargaining power
3. Reduced time load
4. Increased participation
5. Increased autonomy
6. Increased gender equality
7. Improved health conditions
8. Improved education access

Specific questions:

Can the project provide evidence of the following outcomes for the named stakeholders? That is, how is this change recognised?

1. Increased autonomy
2. Increased gender equality
3. Improved health conditions
4. Improved education access

Entrepreneurs / tea companies:

The key outcomes we have identified are:

1. Reduced labour conflicts
2. Increased productivity of labour
3. Increased overall production
4. Value added gains from certification scheme

Specific questions:

We particularly need to understand the difficulties faced by companies before the CARE project was established.

Local /Regional governments / State

The key outcomes we have identified are:

1. Increased revenue (border tax collection)
2. Local/regional multiplier effects
3. Avoided development costs (opportunity cost)
4. Human capital increase

Specific questions:

Do you have community consumption pattern information? This would allow us to determine local multiplier impacts.

Are regional level health and education statistics available? This will allow us to determine improvements relative to baseline.

What are the export tax rates?

Long term Sustainability

In your opinion are there any changes (risks or uncertainties) that would undermine the longer term impacts of the project – this will allow us to construct a sensitivity analysis.

E.g. risks regarding actual sustainability of community participation can have impacts on the overall project uptake/success and therefore on other stakeholder outcomes as well).

Appendix 2

PCEP SROI model

Stakeholder	No. stake holders	Outcome	Indicator description	Outcome incidence (amount of change from baseline)	Proxy	Value of change per stakeholder	Total value	Deadweight proportion	Attribution proportion	Displacement proportion	Value after attribution, deadweight & displacement	Value Year 1	Value Year 2	Value Year 3	Value Year 4	Value Year 5	Total Value	NPV 1%	NPV 3.5%	NPV 8%
Community	15	Autonomy	Increased collective revenue (+additional activities)	32.00%	£500.0	£160.0	£2,400	0.00	1.00	0.00	£2,400.0	£240,000	£240,000	£240,000	£240,000	£240,000	£1,200,000	£1,164,823	£1,083,613	£958,250
	58	Control	Increased social organization / bargaining power (workplace)	14.00%	£150.0	£21.0	£1,218	0.00	1.00	0.00	£1,218.0	£121,800	£121,800	£121,800	£121,800	£121,800	£609,000	£591,148	£549,933	£486,312
			Increased revenue management skills	5.90%	£320.0	£18.9	£1,812	0.00	1.00	0.00	£1,812.5	£181,248	£181,248	£181,248	£181,248	£181,248	£906,240	£879,675	£818,344	£723,671
	96	Gender equality	Increased bargaining power/working conditions (workplace)	45.00%	£120.0	£54.0	£5,184	0.00	1.00	0.00	£5,184.0	£518,400	£518,400	£518,400	£518,400	£518,400	£2,592,000	£2,516,019	£2,340,603	£2,069,821
			Decreased gender violence (alcohol consumption)	25.00%	£200.0	£50.0	£4,800	0.00	1.00	0.00	£4,800.0	£480,000	£480,000	£480,000	£480,000	£480,000	£2,400,000	£2,329,647	£2,167,225	£1,916,501
	42	Education	Increased educational access (training)	15.00%	£120.0	£18.0	£756	0.00	1.00	0.00	£756.0	£75,600	£75,600	£75,600	£75,600	£75,600	£378,000	£366,919	£341,338	£301,849
43	Health	Reduced alcoholism	12.50%	£200.0	£25.0	£1,075	0.00	1.00	0.00	£1,075.0	£107,500	£107,500	£107,500	£107,500	£107,500	£537,500	£521,744	£485,368	£429,216	
Tea /plantation Industry	1	Increased production	% increase in overall production	32.00%	£120,000.0	£38,400.0	£38,400	0.00	1.00	0.00	£38,400.0	£3,840,000	£3,840,000	£3,840,000	£3,840,000	£3,840,000	£19,200,000	£18,637,176	£17,337,801	£15,332,007
	1	Reduced work conflicts	Incidence of work conflicts per year	75.00%	£2,000.0	£1,500.0	£1,500	0.00	1.00	0.00	£1,500.0	£150,000	£150,000	£150,000	£150,000	£150,000	£750,000	£728,015	£677,258	£598,907
	1	Increased sales (CSR)	Positive indirect externalities of labeling on sales	10.00%	£10,000.0	£1,000.0	£1,000	0.00	1.00	0.00	£1,000.0	£100,000	£100,000	£100,000	£100,000	£100,000	£500,000	£485,343	£451,505	£399,271
% direct increase in turnover			32.00%	£0.0	£0.0	£0	0.00	1.00	0.00	£0.0	£0	£0	£0	£0	£0	£0	£0	£0	£0	
State / Regional government	1	Increased tax revenue	Net tax revenue from additional exports	28.00%	£24,000.0	£6,720.0	£6,720	0.00	1.00	0.00	£6,720.0	£672,000	£672,000	£672,000	£672,000	£672,000	£3,360,000	£3,261,506	£3,034,115	£2,683,101
	1	Benefits to other communities	Benefits of regional planning principles based on PCEP (pilot), number of additional regions	2	£250.0	£500.0	£500	0.00	1.00	0.00	£500.0	£50,000	£50,000	£50,000	£50,000	£50,000	£250,000	£242,672	£225,753	£199,636

Investment	Benefits (discount rate 1%)	Benefits (discount rate 3.5%)	Benefits (discount rate 8%)
£3,465,000	£31,724,686	£29,512,857	£26,090,541

SROI Ratios	9.16	8.52	7.53
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Based on 3.5% discount rate, SROI Ratios per stakeholder

SROI Ratio Community	2.25
SROI Ratio Tea/Plantation industry	5.33
SROI Ratio State	0.94

PARUA SROI MODEL

Stakeholder	No. stake holders	Outcomes	Indicator description	Outcome incidence (amount of change)	Proxy	Value of change per stakeholder	Total value	Deadweight proportion	Attribution proportion	Displacement proportion	Value after attribution, deadweight & displacement	Value Year 1	Value Year 2	Value Year 3	Value Year 4	Value Year 5	Total Value	NPV 1%	NPV 3.5%	NPV 8%
Communities	354	Improvement of economic condition	Increased income	32.00%	£5,000.0	£1,600.0	£566,400	0.80	0.80	1.00	£362,496.0	£362,496	£362,496	£362,496	£362,496	£362,496	£1,812,480	£1,759,349	£1,636,688	£1,447,341
	523	Socio-economic resilience	Improved access to health services (livestock)	14.00%	£1,500.0	£210.0	£109,830	0.80	0.80	1.00	£70,291.2	£70,291	£70,291	£70,291	£70,291	£70,291	£351,456	£341,154	£317,368	£280,652
			Increased access to local markets	5.00%	£3,200.0	£160.0	£83,680	0.80	0.80	1.00	£53,555.2	£53,555	£53,555	£53,555	£53,555	£53,555	£267,776	£259,926	£241,805	£213,830
			Livestock bank capital	45.00%	£1,200.0	£540.0	£282,420	0.80	0.80	1.00	£180,748.8	£180,749	£180,749	£180,749	£180,749	£180,749	£903,744	£877,252	£816,090	£721,678
	138	Gender equality	Women time savings	25.00%	£2,000.0	£500.0	£69,000	0.80	0.80	1.00	£44,160.0	£44,160	£44,160	£44,160	£44,160	£44,160	£220,800	£214,328	£199,385	£176,318
			Women social participation level	9.00%	£1,200.0	£108.0	£14,904	0.80	0.80	1.00	£9,538.6	£9,539	£9,539	£9,539	£9,539	£9,539	£47,693	£46,295	£43,067	£38,085
	671	Education	Increase in schooling	11.00%	£4,500.0	£495.0	£332,145	0.80	0.80	1.00	£212,572.8	£212,573	£212,573	£212,573	£212,573	£212,573	£1,062,864	£1,031,707	£959,777	£848,742
	2500	Ecological sustainability	Improvement in water management (avoided cost)	5.00%	£2,100.0	£105.0	£262,500	0.80	0.80	1.00	£168,000.0	£168,000	£168,000	£168,000	£168,000	£168,000	£840,000	£815,376	£758,529	£670,775
1127	Health	Access to health services	12.00%	£6,230.0	£747.6	£842,545	0.80	0.80	1.00	£539,228.9	£539,229	£539,229	£539,229	£539,229	£539,229	£2,696,145	£2,617,111	£2,434,647	£2,152,985	

Investment	Benefits (discount rate: 1%)	Benefits (discount rate: 3.5%)	Benefits (discount rate: 8%)
£1,074,391	£7,962,496	£7,407,356	£6,550,406

SROI Ratios	7.41	6.89	6.10
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IRDM SROI model

Stake holder	No. stake holders	Outcome	Indicator description	Outcome incidence (amount of change from baseline)	Proxy	Value of change per stakeholder	Total value	Deadweight proportion (keep amount)	Attribution proportion (keep amount)	Displacement proportion (keep amount)	Value after attribution, deadweight & displacement	Value Year 1	Value Year 2	Value Year 3	Value Year 4	Value Year 5	Total Value	NPV 1%	NPV 3.5%	NPV 8%	
Community	1200	ECONOMIC RESILIENCE	Avoided losses / natural disasters	50.00%	£17,000.0	£8,500.0	£10,200,000	1.00	0.80	0.8	£6,528,000.0	£6,528,000	£6,528,000	£6,528,000	£6,528,000	£6,528,000	£32,640,000	£31,683,199	£29,474,262	£26,064,411	
			Increase of agricultural production	13.00%	£30,000.0	£3,900.0	£4,680,000	1.00	0.80	0.8	£2,995,200.0	£2,995,200	£2,995,200	£2,995,200	£2,995,200	£2,995,200	£14,976,000	£14,536,997	£13,523,485	£11,958,965	
			Reduced indebtedness	7.00%	£5,400.0	£378.0	£453,600	1.00	0.80	0.8	£290,304.0	£290,304	£290,304	£290,304	£290,304	£290,304	£1,451,520	£1,408,971	£1,310,738	£1,159,100	
			Increase of savings	8.50%	£1,250.0	£106.3	£127,500	1.00	0.80	0.8	£81,600.0	£81,600	£81,600	£81,600	£81,600	£81,600	£408,000	£396,040	£368,428	£325,805	
			Increase of collective economic schemes (e.g. Micro-finance, water groups)	0.00%	£775.0	£0.0	£0	1.00	0.80	0.8	£0.0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
			Increased market access	32.00%	£5,000.0	£1,600.0	£1,920,000	1.00	0.80	0.8	£1,228,800.0	£1,228,800	£1,228,800	£1,228,800	£1,228,800	£1,228,800	£6,144,000	£5,963,896	£5,548,096	£4,906,242	
	1200	SOCIAL RESILIENCE	Health 1: Improved nutrition	500	£42.0	£21,000.0	£25,200,000	1.00	0.80	0.8	£16,128,000.0	£16,128,000	£16,128,000	£16,128,000	£16,128,000	£16,128,000	£80,640,000	£78,276,139	£72,818,765	£64,394,427	
			Health 2: increased access to safe water	50.00%	£310.0	£155.0	£186,000	1.00	0.80	0.8	£119,040.0	£119,040	£119,040	£119,040	£119,040	£119,040	£595,200	£577,752	£537,472	£475,292	
			Increased educational levels	9.00%	£730.0	£65.7	£78,840	1.00	0.80	0.8	£50,457.6	£50,458	£50,458	£50,458	£50,458	£50,458	£252,288	£244,892	£227,819	£201,463	
1200	GENDER EQUALITY	Decrease of work load	45.00%	£260.0	£117.0	£140,400	1.00	0.80	0.8	£89,856.0	£89,856	£89,856	£89,856	£89,856	£89,856	£449,280	£436,110	£405,705	£358,769		

Investment	Benefits (discount rate: 1%)	Benefits (discount rate: 3.5%)	Benefits (discount rate: 8%)
£9,190,965	£133,523,997	£124,214,769	£109,844,474
SROI Ratios	14.53	13.51	11.95

SETU SROI MODEL

Stakeholder	No. stake holders	Outcome	Indicator description	Outcome incidence (amount of change from baseline)	Proxy	Value of change per stakeholder	Total value	Deadweight proportion	Attribution proportion	Displacement proportion	Value after attribution, deadweight & displacement	Value Year 1	Value Year 2	Value Year 3	Value Year 4	Value Year 5	Total Value	NPV 1%	NPV 3.5%	NPV 8%
Unions	18	Economic empowerment	Increased revenue (cash for work, no. of businesses etc)	32.00%	£5,000	£1,600	£28,800	0.80	0.80	1.00	£18,432.0	£1,843,200	£1,843,200	£1,843,200	£1,843,200	£1,843,200	£9,216,000	£8,945,844	£8,322,145	£7,359,363
			Education (regular attendance to school)	14.00%	£1,500	£210	£3,780	0.80	0.80	1.00	£2,419.2	£241,920	£241,920	£241,920	£241,920	£241,920	£1,209,600	£1,174,142	£1,092,281	£965,916
			Health level (incidence of diseases)	14.00%	£3,200	£448	£8,064	0.80	0.80	1.00	£5,161.0	£516,096	£516,096	£516,096	£516,096	£516,096	£2,580,480	£2,504,836	£2,330,200	£2,060,622
			Food security (meals per day)	45.00%	£1,200	£540	£9,720	0.80	0.80	1.00	£6,220.8	£622,080	£622,080	£622,080	£622,080	£622,080	£3,110,400	£3,019,223	£2,808,724	£2,483,785
			Number of collective action groups	25.00%	£2,000	£500	£9,000	0.80	0.80	1.00	£5,760.0	£576,000	£576,000	£576,000	£576,000	£576,000	£2,880,000	£2,795,576	£2,600,670	£2,299,801
			Value of capital assets (households, livestock)	15.00%	£5,300	£795	£14,310	0.80	0.80	1.00	£9,158.4	£915,840	£915,840	£915,840	£915,840	£915,840	£4,579,200	£4,444,966	£4,135,066	£3,656,684
			Number accessing public resources	12.50%	£2,000	£250	£4,500	0.80	0.80	1.00	£2,880.0	£288,000	£288,000	£288,000	£288,000	£288,000	£1,440,000	£1,397,788	£1,300,335	£1,149,900
	18	Social empowerment	Reduced indebtedness	5.50%	£6,800	£374	£6,732	0.80	0.80	1.00	£4,308.5	£430,848	£430,848	£430,848	£430,848	£430,848	£2,154,240	£2,091,091	£1,945,301	£1,720,251
			Participation rate within community	57.00%	£380	£217	£3,899	0.80	0.80	1.00	£2,495.2	£249,523	£249,523	£249,523	£249,523	£249,523	£1,247,616	£1,211,044	£1,126,610	£996,274
			Precoce marriages (occurrence)	1.50%	£2,000	£30	£540	0.80	0.80	1.00	£345.6	£34,560	£34,560	£34,560	£34,560	£34,560	£172,800	£167,735	£156,040	£137,988
	18	Political empowerment	Number of Unions with established forums	100.00%	£210	£210	£3,780	0.80	0.80	1.00	£2,419.2	£241,920	£241,920	£241,920	£241,920	£241,920	£1,209,600	£1,174,142	£1,092,281	£965,916
	18	Gender equality	Reduced violence against women	6.30%	£10,000	£630	£11,340	0.80	0.80	1.00	£7,257.6	£725,760	£725,760	£725,760	£725,760	£725,760	£3,628,800	£3,522,426	£3,276,844	£2,897,749

Investment	Benefits (discount rate: 1%)	Benefits (discount rate: 3.5%)	Benefits (discount rate: 8%)
£3,465,000	£32,448,814	£30,186,499	£26,694,250

SROI Ratios	9.36	8.71	7.70

- ¹ Michaelson et al (2009) *National Accounts of Well-being* London: nef
- ² Godoy et al (2007), "On the economic importance of income and the economic unimportance of social capital" *Journal of Anthropological Research*, Vol. 63.
- ³ Clancy et al (2001), "Financial Education and Savings Outcomes in Individual Development Accounts." Working Paper No. 01-2, Center for Social Development, Washington University in St. Louis.
- ⁴ Quisumbing and Mallucio (2000) "Intrahousehold Allocation and Gender Relations: New Empirical Evidence from Four Developing Countries". *International Food Policy Research Institute*, Working Paper Series No.2
- ⁵ Arunatilake (2006). "Education participation in Sri Lanka- Why all are not in school?". *International Journal of Educational Research* 45(3), 137-152.
- ⁶ This outcome was derived from stakeholder engagement and discussions with CARE project manager in Sri Lanka
- ⁷ Brewer and McEwan (2010): *Economics of Education*. Elsevier publications.
- ⁸ Patrinos and Psacharopoulos (2004) "Returns to investment in education: A further update". *Educational Economics*, Vol. 12, No2
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