

Document: EC 2013/76/W.P.7
Agenda: 9
Date: 14 March 2013
Distribution: Public
Original: English

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Enabling poor rural people
to overcome poverty

Impact evaluation of the Sri Lanka Dry Zone Livelihood Support and Partnership Programme

Approach paper

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Evaluation Committee — Seventy-sixth Session
Rome, 3-4 April 2013

For: Review

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Abbreviations and acronyms

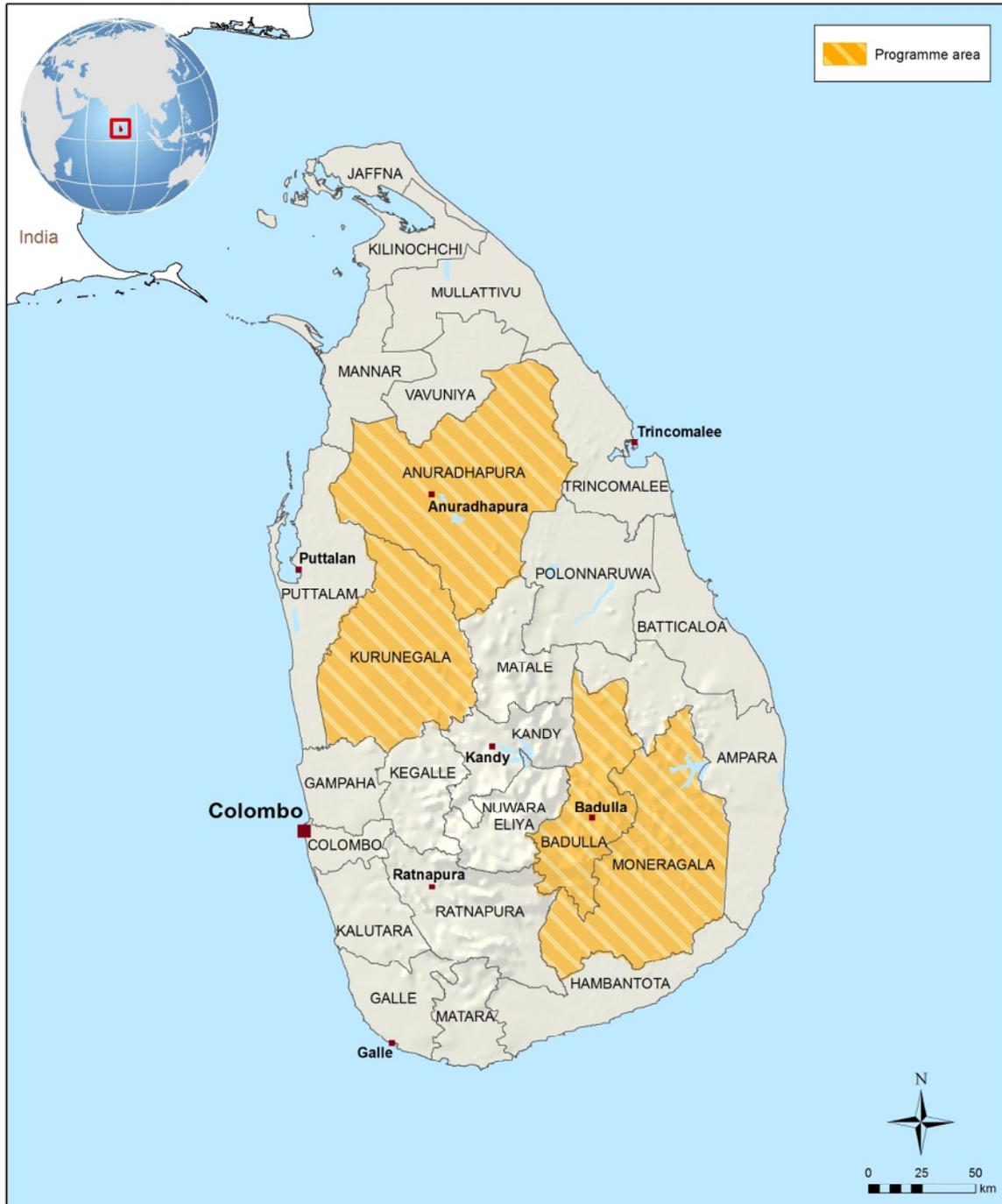
FAO	Food and Agriculture Organization of the United Nations
HARTI	Hector Kobbekaduwa Agrarian Research and Training Institute
IOE	Independent Office of Evaluation of IFAD
M&E	monitoring and evaluation

Map of the programme area

Sri Lanka

Dry Zone Livelihood Support and Partnership Programme

Approach paper



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 14-03-2013

Impact evaluation of the Sri Lanka Dry Zone Livelihood Support and Partnership Programme

Approach paper

I. Background and objectives

1. Between 2013 and 2015, as part of its commitments in the Ninth Replenishment period (2013-2015), IFAD will conduct 30 impact evaluations, applying internationally recognized quantitative approaches, including randomized control trials and quasi-experimental designs, as well as other quantitative and mixed-methods approaches.
2. In line with recent guidance received from the Evaluation Committee and the Executive Board, the Independent Office of Evaluation of IFAD (IOE) will support IFAD in this endeavour through participation in discussions in-house on impact evaluations and through close involvement in major international platforms on impact evaluation (e.g. the Network of Networks on Impact Evaluation, the Evaluation Cooperation Group and the United Nations Evaluation Group) to capture the current thinking and good practices on the topic and share them in-house as appropriate. IOE will also undertake at the end of the Ninth Replenishment period, subject to the agreement of the Executive Board, a corporate-level evaluation on IFAD's approaches to conducting impact evaluations and the results obtained.
3. In addition, in 2013 IOE plans to conduct its first impact evaluation, directly addressing attribution and counterfactual issues in an IFAD-supported intervention, the Dry Zone Livelihood Support and Partnership Programme in Sri Lanka. The evaluation will, among other benefits, help sharpen IOE's capabilities and methods for assessing impact through greater reliance on quantitative approaches, including the advanced statistical techniques contemplated in IFAD's Executive Board document on Methodologies for Impact Assessments for IFAD9.¹ IOE may conduct further impact evaluations from 2014 onwards, based on the 2013 experience and subject to the availability of financial resources.
4. In selecting the Sri Lanka programme for impact evaluation, IOE was guided by various factors: (i) programme design and implementation aspects; (ii) opportunities for selecting comparison groups, which are essential for determining programme-induced changes; (iii) the availability of qualitative studies on the programme; and (iv) the availability of national technical expertise in survey implementation. IOE gave preference to countries, such as Sri Lanka, where it had not recently conducted an evaluation. An additional benefit in choosing Sri Lanka was that an impact evaluation would serve as a useful building block in the country programme evaluation tentatively planned for 2014-2015.
5. Like other project-level evaluations, this impact evaluation will: (i) assess the programme's results and impact; and (ii) generate relevant findings and recommendations for the design and implementation of ongoing and future operations in the country. At the same time, it will pay special attention to the collection and analysis of primary impact data. It will follow the IFAD Evaluation Policy² and adopt the key criteria for project-level evaluations set out in IFAD's Evaluation Manual.³
6. In particular, IOE will consult with the relevant organizational units of IFAD and with central and local government agencies to ensure that available information is made available; that the objectives, approaches and process of the exercise are

¹ <https://webapps.ifad.org/members/eb/107/docs/EB-2012-107-INF-7.pdf>

² <http://www.ifad.org/pub/policy/oe.pdf>

³ http://www.ifad.org/evaluation/process_methodology/doc/manual.pdf

understood; and that stakeholders' use of the evaluation and its recommendations is facilitated.

7. Section II of this paper introduces key programme information. Section III discusses the methodology envisaged for the evaluation. Sections IV and V provide an overview of the organization of and responsibilities for the impact evaluation and its probable timeline.

II. Key programme information

8. The Sri Lanka Dry Zone Livelihood Support and Partnership Programme was approved by the Executive Board in September 2004. It became effective in December 2005 and was completed in March 2013. At design, its foreseen total cost was US\$30.40 million, to be financed by IFAD (a loan of US\$21.97 million, and a grant of US\$0.34 million to the Food and Agriculture Organization of the United Nations (FAO) for policy work and pilot initiatives on land tenure), the Government of Sri Lanka (US\$1.7 million) and beneficiaries (US\$1.7 million). Total cofinancing of US\$5.5 million was also expected, of which US\$1.5 million from the United Nations Development Programme (UNDP) and the remainder from the World Food Programme, the Japan Bank for International Cooperation, and the Canadian International Development Agency. While collaboration with UNDP materialized, the other organizations either financed an entirely separate programme or withdrew from cofinancing due to a shift of emphasis from financing discrete agricultural development programmes to supporting sectoral strategies and policymaking. The actual total programme cost was therefore US\$27.24 million, with the reduction in cofinancing mainly affecting the infrastructure component.
9. The programme targeted 80,000 households in four districts and included the following components: (i) support to rainfed upland agricultural and livestock development through farmer field schools (10 per cent of programme costs); (ii) small-scale irrigation rehabilitation (15 per cent); (iii) marketing and enterprise development (13 per cent); (iv) microfinance and income-generating activities (12 per cent); community infrastructure development (27 per cent); and programme management (22 per cent). The World Bank supervised the programme but did not provide cofinancing. The last supervision mission was conducted in December 2012.
10. According to the available documentation, programme implementation proceeded at slow pace from 2006 to 2008, partly due to programme management difficulties at the capital and field levels. Subsequently, further to changes in the programme management team and following the mid-term review, the programme implementation rate and disbursement levels increased dramatically. As at November 2012, overall disbursement (from all funds) stood at 93 per cent. The achievement rate for physical targets under the different components and subcomponents was, with few exceptions, 90 per cent or more. In view of the programme's historical implementation progress, it can be inferred that 60-70 per cent of the envisaged physical targets were completed in the programme's final 2-3 years and therefore contributed to generating development results and impacts during that period.

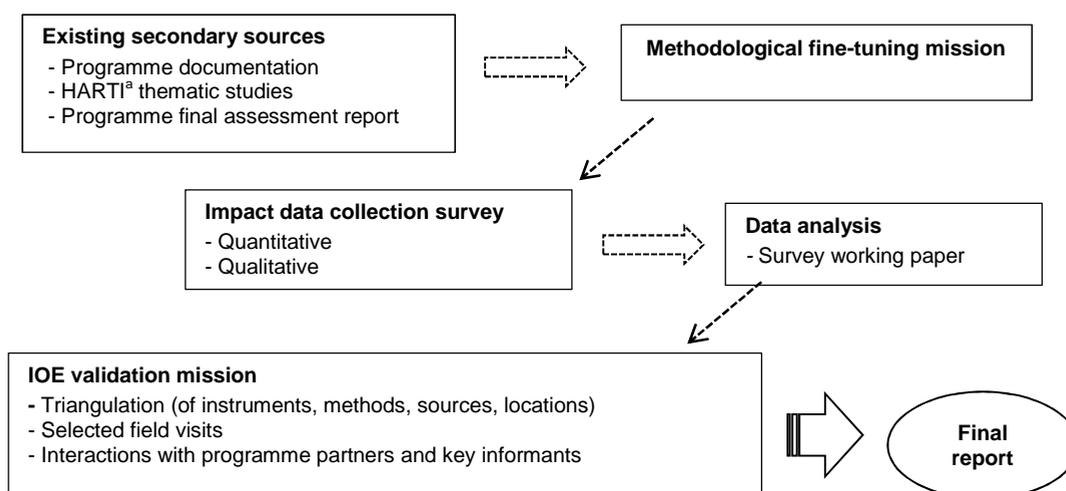
III. Methodology

A. A mixed-methods evaluation

11. The evaluation will be based on mixed methods (quantitative and qualitative) with a particular emphasis on quantitative analysis. There are two reasons IOE chose this method. First, it will be able to capitalize on the data and qualitative information already collected by the programme on implementation and results. Second, by focusing on quantitative analysis, IOE will sharpen its methodological skills and gain further practical experience in designing and conducting impact evaluations.

12. The evaluation will “triangulate”, that is, it will test information using different methods, data collection tools and/or information sources (see Tashakkori and Teddlie, 1998; and Mathison, 1988). It will help establish evidence on selected household and community welfare changes in the programme area, and illustrate the programme’s contribution by assessing plausible cause-effect relations between programme interventions and observed changes. To the extent possible, the evaluation will draw on administrative data and regional statistics to identify areas where the programme’s initiatives may have benefited the district and the provincial economy.
13. As the first step in a sequenced exercise (see figure 1), methods and data collection tools will be customized to the specific programme design and area context. While this approach paper identifies methodological options (based on existing information, specialized literature and current international practices), these options will have to be tested and fine-tuned. This will lead to a more detailed design of a data collection survey. After survey completion, data will be analysed through both statistical and qualitative techniques. The results of the analysis will be triangulated during an IOE validation mission (see paragraph 35).
14. There will be two main products: (i) a survey working paper focusing on the impact domains as per the IFAD’s evaluation manual (see tentative table of contents for the survey working paper in appendix 3); and (ii) a final report encompassing the full set of criteria contemplated in the manual, including relevance, effectiveness, efficiency, impact, sustainability, pro-poor innovation and scaling up, gender equality and performance of partners (see tentative table of contents for the final evaluation report in appendix 4).

Figure 1
Foreseen sequencing and sources of the impact evaluation



Source: IOE (2013).

^a Hector Kobbekaduwa Agrarian Research and Training Institute

B. Existing information and secondary sources

15. Sources will include, first of all, the programme documentation prepared by IFAD, the programme management unit and the World Bank (e.g. appraisal report, mid-term review, supervision and implementation support reports, programme implementation review report). The programme’s monitoring and evaluation (M&E) unit collected data on the programme implementation progress in terms of outputs (e.g. physical infrastructure, number of extension sessions delivered) and, to a lesser extent, results (e.g. crop yield increases, farm-gate prices and some crop-specific enterprise budgets).

16. The M&E unit did not conduct specific surveys for IFAD's Results and Impact Management System (RIMS) but did partly compensate for this by drawing from secondary sources such as the Department of Census and Statistics – Sri Lanka or the Central Bank of Sri Lanka. In 2006, the programme commissioned a baseline survey including households and communities that it assisted (the "treatment group") and households and communities with similar characteristics but without programme support (the "comparison group"). Unfortunately, the survey report did not present data separately on the two groups, and its electronic database is not available. At the recommendation of the World Bank's supervision missions, the programme commissioned a set of thematic studies from a national institution, the Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI). By December 2012, HARTI had completed ten studies, encompassing several programme components and subcomponents (irrigation, physical infrastructure, microfinance, microenterprises, dairy farming, vegetable crops, the onion value chain, agricultural produce collection centres and forward sale contracts).
17. Although secondary data are more abundant than in a typical IFAD-funded project, two information gaps do exist. First, available data do not always correspond to the impact indicators generally used by IOE; and, second, because information is lacking on the comparison groups, it is difficult to attribute the observed changes to the programme. The impact evaluation will seek to close these two gaps.

C. The impact survey

18. The impact survey will cover the five impact domains contemplated in IFAD's evaluation manual. It will also include quantitative and qualitative analytical focus areas (see table 1).

Table 1
Impact domains and analytical focus areas of the survey

Impact domains	Analytical focus areas	
	Quantitative	Qualitative
Household income and assets	Household income sources, household expenditures and their main composition Household productive assets (including agricultural implements, livestock) and durable goods (including house quality improvements)	-
Human and social capital and empowerment	Access to health services and basic infrastructure Access to training, extension and adoption of improved practices Access to farmers' organizations and their networks	Better knowledge of crop and livestock management. Collective action of grass-roots organizations Gender equality in (i) information and training and income-generating activities; (ii) rural institutions; (iii) economic and social benefits
Food security and agricultural productivity	Data on household food self-sufficiency (e.g. number of months of food self-sufficiency). Data on child malnutrition Data on crop yields	-
Natural resources, environment, climate change	-	Soil and water management, vegetative cover
Institutions and policies	-	Changes in policies and pro-poor orientation of public agencies and private-sector organizations

Source: IOE (2013)

19. From the available documentation, it is expected that all impact domains will be relevant to the programme. In fact, in addition to improving households' economic conditions (e.g. incomes and assets) and nutrition status, the programme had an important agricultural extension component aimed at improving knowledge on crop management (a dimension of human capital). Similarly, the support to grass-roots organizations can be expected to have affected community groups and networks (social capital). Agricultural development initiatives are likely to have interacted with the environmental resources (soil and water, for example). Finally, the process of engaging with poor rural clients may also have brought about changes in institutions and private-sector organizations operating in rural areas (e.g. public agencies, NGOs, private companies), and the FAO work on land tenure may have led to policy dialogue activities.
20. Quantitative analysis will be a major feature of the survey. Some qualitative analysis is already available from the programme M&E system or the HARTI studies. For this reason, new qualitative analysis will focus on filling information gaps and will contribute to explaining findings (i.e. responding to the "why" question).⁴
21. Table 2 presents a simplified chain of the effects (derived from the programme's original logical framework, see appendix 2), starting from the programme components, going through the plausible immediate effects and eventually leading to the main impact domains. This model will be reviewed and revised as required in the course of the evaluation in order to orient data collection and analysis.

Table 2
Examples of chain of effects from programme components to impact domains

<i>Programme components</i>	<i>Immediate effects</i>	<i>Impact domains concerned</i>
Dryland agriculture and livestock: technical packages through farmer field schools	<ul style="list-style-type: none"> ▪ Availability of improved seeds, inputs ▪ Exposure to improved crop and fruit tree management and enhanced cattle-rearing techniques ▪ Diversification to higher- value crops and products ▪ Strengthened grass-roots organizations ▪ Intended / unintended effects on soils 	<ul style="list-style-type: none"> ▪ Human capital (technical know-how on crops and water management) ▪ Household income and assets (through higher agricultural profits) ▪ Farm productivity and food security (higher yields and better crop management) ▪ Environment and natural resources, either positive (watershed protection, fertility enhancement) or detrimental (e.g. erosion)
Rehabilitation of village micro tanks	<ul style="list-style-type: none"> ▪ Complementary irrigation and larger command area ▪ Village ponds allow for fish production 	
Microenterprise development, marketing	<ul style="list-style-type: none"> ▪ Processing of agricultural products, demand increase for agricultural products, value chain linkages 	<ul style="list-style-type: none"> ▪ Human capital (entrepreneurial skills) ▪ Household income and assets (diversification of income sources, stabilization of income)
Microfinance	<ul style="list-style-type: none"> ▪ Non-agricultural income-generating activities ▪ Availability of improved inputs 	<ul style="list-style-type: none"> ▪ Institutions and policies (Public and private organization work more with poor clients)
Basic community infrastructure (roads, health posts)	<ul style="list-style-type: none"> ▪ Mobility of people enhanced ▪ Reduced transportation costs for agricultural produce ▪ Storage and collection points for agricultural produce 	<ul style="list-style-type: none"> ▪ Social capital (contacts with people, groups and organizations) ▪ Household income and assets (through better access to roads and markets) ▪ Human capital (better access to health care, education facilities)

Source: IOE (2013)

⁴ See, as a reference, the IFAD Evaluation Manual p. 14.

22. **The quantitative component of the survey.** Within this part of the survey, the evaluation will collect and analyse primary data on socio-economic indicators from both treatment and comparison groups. Provided that treatment and comparison samples have similar salient characteristics, by comparing these two samples, the evaluation can shed light on changes to which the programme contributed.
23. As noted, although a baseline survey was conducted in 2006, no separate tracking was made of the treatment and comparison groups, and the electronic database is not available. Given the absence of baseline data, one option is to use existing administrative or programme datasets as a substitute for the baseline, although these data may not provide the type of information required or may not be sufficiently disaggregated. Another option is to reconstruct baseline information ex post through recall methods.⁵ There are challenges to recall methods, however, such as imprecision in recollection or “telescoping” (i.e. projecting an event backwards or forwards in time from when it actually occurred). Depending on the type of information sought, recall methods may or may not be appropriate (e.g. they cannot be used for anthropometric indicators) and it could be possible to address the above challenges by focusing recall questions on facts and events that can be remembered more easily (e.g. the year a house was constructed or a motorbike purchased) and by anchoring the recall process to major household or community events.
24. A third option is to adopt analytical techniques that do not strictly require baseline data. An example is “propensity score matching” (see Rosenbaum and Rubin, 1983; and Gertler et al., 2011), a statistical procedure that mimics random assignment and has been used in the economic literature and by other international financial institutions (see Jalan and Ravallion, 2003; and Independent Evaluation Department-Asian Development Bank, 2007, 2009, 2011, 2012).⁶ IOE will weigh the above options when finalizing the survey methodology.
25. **Sampling.** The total sample size will be determined at the time of the survey design, using information or estimates on the statistical characteristics of the population. Based on the available literature, it is anticipated that the sample could consist of about 2,500 households, divided equally between treatment and comparison groups. From the experience of other similar studies and common statistical assumptions, it is expected that this will be sufficient to detect significant changes in household incomes and assets.⁷
26. Households will be sampled in the four districts covered by the programme, namely: Anuradhapura, Badulla, Kurunegala and Moneragala. Clusters of households will be selected within subdistricts units, such as: (i) divisional

⁵ Recall methods consist of asking questions about the past, for example whether a household owned certain agricultural implements five years before the interview.

⁶ Given a treatment and a comparison group, the propensity score matching procedure technique works in two steps. First, it calculates for all units (both in treatment and comparison groups) the probability of receiving the treatment (based on a set of observable characteristics that are unlikely to be affected by the treatment). Second, it compares outcome indicators between treatment and comparison units that have a very close propensity score. This ensures that differences in outcome indicators are assessed on a subgroup of units that are comparable according to a set of observable characteristics. An obvious limitation is that matching can only be done on “observable” characteristics but not on unobservable characteristics.

⁷ This estimate is made under the assumption of a 5 per cent type 1 error, 20 per cent type 2 error and a value between 8 and 9 of the ratio between the standard deviation of the outcome and the minimum detectable effect. In this case, a type 1 error means falsely concluding that there is a significant difference between the treatment and comparison group when in fact there is no difference. A type 2 error means failing to detect a difference between treatment and comparison group when there is in fact a difference between the two. As a general formula, the following could be considered: $nT = nC = 2(t_{1-\alpha/2} + t_{1-\beta})^2 (\sigma / \delta)^2$ where nT is the sample size for the treatment group; nC is the sample size for the comparison group; $t_{1-\alpha/2}$ is the t statistics for a significance level of α ; $t_{1-\beta}$ is the t statistics for a probability of committing a type II error; σ is the standard deviation of the outcome variable; δ is the minimum detectable difference in the means of the outcome variable between treatment and comparison. Issues related to intra-cluster correlation and multi-indicator measurement of impacts will have to be considered as well. If cluster sampling is adopted, then the above equation will have to be augmented by the additional factor of $(1 + (m - 1) \rho)$, with ρ as the coefficient of intra-cluster correlation and m as the average number of observations within each cluster (see List, Sadoff and Wagner, 2009; and Carletto, 1999).

secretariats and (ii) *grama nilhadaris* (local government units below divisional secretariats). It is possible that programme benefits spread beyond the initially intended group of beneficiaries. This will have to be dealt with during the sampling phase in order to identify proper comparison groups, for example by selecting households that did not receive programme assistance but are located in communities supported by the programme. As an alternative or complementary option, comparison groups may be extracted in communities that were initially earmarked for programme support but eventually received no assistance. It will be important to review the practical criteria applied by programme staff to select communities and households, and to understand why some communities or households have not been reached in order to avoid sampling bias.

27. The sampling exercise will also take into account the main programme components: (i) farmer field schools for dryland farming; (ii) micro-irrigation; (iii) rural finance; (iv) microenterprise support; and (v) community infrastructure. In any given sampling site, the programme may have implemented one or more of these components. To the extent possible, it will be important to track the number and type of programme interventions to which the sample beneficiaries have been exposed.
28. The sampling framework will be established independently but after consultation with the programme management team at capital and district levels: this will help identify treatment and comparison groups correctly.
29. The variables of interest for the survey will fall into three categories: (i) household characteristics that are not likely to have been modified by the programme (e.g. number of household members, age structure, educational levels attained by adult household members); (ii) site characteristics that are not likely to have been modified by the programme (e.g. village population size, access to electricity grid, distance from a river, distance from a main road, soil characteristics); and (iii) welfare characteristics that may have been affected by the programme (e.g. household expenditures). Variables under (iii) will be considered as dependent variables, i.e. impact indicators. Variables under (i) and (ii) will be considered as independent variables, notably in the propensity score regression, when testing comparability between treatment and comparison households.
30. Following the IFAD evaluation methodology and as per table 1, dependent variables will belong to the following groups and will be further reviewed and elaborated upon during the survey's detailed design phase:
 - a) Household income and assets
 - Household expenditures and their distribution;
 - Household income (from agriculture and non-agricultural sources, including transfers and remittances); and
 - Household durable goods (e.g. radio, bicycles, motorbikes, quality of housing, livestock).
 - b) Human and social capital
 - Access to health services;
 - Access to training and extension and adoption of new practices; and
 - Access to farmers' organizations and their networks.
 - c) Agricultural productivity and food security
 - Number of months of food security from farm production;
 - Trends in months of food security in the past five years (e.g. improving, constant, worsening); and
 - Anthropometric indicators to be collected from children under five (height in centimetres, weight in kilograms, age in months).
31. **The qualitative component of the survey.** Information of a qualitative nature is available through the programme documentation and through the thematic studies

prepared by HARTI. For this reason, the qualitative part of the survey will be conducted on a selective basis. It will provide information and analysis on topics for which the quantitative analysis is not suitable, help probe into issues that emerge from the already available documentation, and contribute to filling knowledge gaps. Qualitative data collection will be carried out at the same time as the quantitative survey. It will take place in 16 sites, four per programme district, preferably evenly split between treatment and comparison communities, and will involve a combination of focus group discussions, participatory ranking exercises, individual interactions and other techniques that are deemed appropriate.

32. The qualitative survey will concern the impact domains highlighted in table 1, notably:
 - The changes facilitated by the programme on local grass-roots organizations and social networks (social capital);
 - The changes in the behaviour of local public institutions and private enterprises (at provincial, district and subdistrict levels) vis-à-vis farmers and their organizations to which the programme contributed (impact on institutions and policies);
 - Community-level natural resources trends; and
 - Aspects of the programme's performance that related to gender equality and women's empowerment: (i) changes in gender roles and women's access to income from productive activities; (ii) changes in men's and women's access to local grass-roots organizations and to services from public institutions (e.g. health and education); (iii) changes in men's and women's roles in household food security and nutrition; (iv) men's and women's access to basic infrastructure (e.g. potable water) and changes in workloads.
33. The data collection and analysis will also include specific subcomponents of the programme dedicated to women clients, and will explain the factors that contributed to or hampered their performance.
34. Selection of programme sites for the qualitative part of the survey will take into account the presence of the above specific activities initiated by the programme (for treatment sites) and the need to find comparable communities (for comparison sites).
35. **IOE validation mission and final evaluation report.** The final validation mission will be conducted by IOE. Its objective will be to triangulate information from various methodologies, tools, sources and sites by consolidating all the available evidence (including the impact survey analysis) and verifying the same through focused field visits. The mission will lead to the preparation of an evaluation report, which will assess the programme along the full set of criteria for programme evaluation that are contemplated in IFAD's evaluation manual (appendix 4).

D. Potential constraints and challenges

36. IOE has solid experience in conducting programme-level evaluations, including primary data collection. In the present case, however, data collection requirements are larger than in past evaluations and IOE will for the first time apply advanced statistical techniques. In order to manage methodological challenges, IOE will mobilize the support of national and international survey design specialists and statisticians (see next section).
37. Also from a methodological perspective, a constraint will be the absence of a baseline dataset. This constraint will be addressed by adopting statistical approaches that are recognized in the literature and current international practices (as described earlier) and by relying on mixed methods.

38. Concerning the “evaluability” of impact, a question relates to the timing of the evaluation and whether there has been sufficient “incubation” time for the programme to generate socio-economic benefits. A review of the documentation suggests that in a large number of programme sites, programme implementation targets were completed 2-3 years before the envisaged survey period and may have contributed to generating impacts in that time frame. However, this might not be the case for some programme sites or subcomponents. In such cases, the programme’s progress will be reviewed through qualitative analysis and interviews with key informants.
39. Practical field-level constraints (e.g. site accessibility, time available to the survey respondents, weather or health conditions) may pose restrictions to the range of data and information that can be collected. These aspects will be reviewed at the time of the methodological fine-tuning mission. Finally, it should be noted that the present impact evaluation is also a learning exercise and that the major constraints encountered will be recorded by IOE and used for preparing or reviewing future similar initiatives within IOE or IFAD-wide. The final evaluation report will acknowledge key limitations.

IV. Organization and responsibilities

40. In line with IFAD’s evaluation policy, IOE will ultimately be responsible for designing and conducting the impact survey, and for preparing the final evaluation report. It has assigned the task to a senior evaluation officer with an educational background in economics, knowledge of econometrics and statistical analysis, and experience in the evaluation of agriculture and rural development interventions.
41. In addition, IOE will select through competitive processes:
 - a) A national company in Sri Lanka, to be in charge of preparing the sampling framework (including comparison group selection) in consultation with the Government and programme staff, developing draft questionnaires, training enumerators, undertaking the survey, ensuring quality control in the field, and compiling data in electronic form; and
 - b) An international company, to be in charge of overseeing the survey (including supporting its preparation), which will cooperate with IOE in the selection of advanced statistical analysis techniques and will draft the survey working paper in collaboration with IOE.
42. Finally, IOE will recruit a senior agronomist with programme evaluation experience who will participate in the validation mission along with the IOE senior evaluation officer and collaborate in preparing the final impact evaluation report.

V. Timeline

43. During the **preparatory phase**, a first reconnaissance mission was fielded to Sri Lanka in December 2012 in order to make contact with the Government and identify national organizations with experience in managing quantitative surveys. An earlier version of this approach paper was discussed internally in IOE and shared with the senior portfolio manager, Asia and the Pacific Division (Programme Management Department), and with the Statistics and Studies for Development Division (Strategy and Knowledge Management Department).
44. Outside IFAD, the earlier approach paper was shared with the Independent Evaluation Department of the Asian Development Bank, the Operations Evaluation Department of the African Development Bank, and the Evaluation Department of the Norwegian Agency for Development Cooperation. These organizations have recently been involved in programme impact evaluations. Comments received from IFAD and external reviewers have been considered in this document. IOE also

conducted a methodological fine-tuning mission in order to prepare a detailed survey design.

45. The **country work phase** will initially involve the fielding of the impact survey. This will be undertaken by a national company in Sri Lanka (see paragraph 41(a)), with international survey consultants providing support and quality assurance. After the completion of data collection, and the coding and cleaning (i.e. detecting and correcting eventual coding errors) of data, the econometric analysis and the qualitative analysis will commence. IOE will comment on the preliminary results of the analysis, which will be revised and refined. Thereafter, IOE will field a validation mission and discuss its preliminary results within IFAD and with the programme management and government authorities.
46. During the **report preparation phase**, IOE will draft the main evaluation report, which will be peer-reviewed within IOE and later shared with the IFAD reference group and the external reviewers, as well as with the Government of Sri Lanka for its comments. The revised and final report will be discussed with the Evaluation Committee at its last session in 2013.
47. **Communication and further methodological development.** Once finalized, the report will be made available on the evaluation section of the IFAD website and through international evaluation networks (e.g. the Development Assistance Committee, Organisation for Economic Co-operation and Development; the United Nations Evaluation Group; and the Evaluation Cooperation Group). Presentations on the findings and methodological issues will be made at IFAD and for national stakeholders in Sri Lanka. IOE may also present the evaluation findings at international forums such as the Network of Networks on Impact Evaluation. Moreover, it may consider additional work of a methodological nature (e.g. further econometric model development) and the preparation of a manuscript for submission to a specialized peer-reviewed journal in collaboration with a university or research institution. Table 3 suggests a tentative timeline for the evaluation.

Table 3
Tentative calendar of the activities

<i>Time</i>	<i>Event</i>
February 2013	Draft approach paper shared with international peer reviewers and IFAD reference group
End-March 2013	Methodological fine-tuning mission
End March-May 2013	Conduct of field survey
April 2013	Discussion of the approach paper with the Evaluation Committee of IFAD
Mid-May 2013	IOE final evaluation mission
May-June 2013	Conduct of impact evaluation analysis, writing of the survey working paper
June-July 2013	Preparation of the final impact evaluation report
Late July 2013	Peer review in IOE and international peer reviewers
End August 2013	Draft report shared with IFAD reference group, external reviewers and the Government
Mid-September	Finalization of the report
October	Presentation of findings and key methodological features to IFAD and the Government
2-3 December 2013	Discussion of the report with the Evaluation Committee of IFAD

A. Selected methodological references

- Bamberger, M., Rugh, J., & Mabry, L. (2007). *Real World Evaluation: Working Under Budget, Time, Data, and Political Constraints*. USA: Sage Publications.
- Carletto, C. (1999). *Constructing Samples for Characterizing Household Food Security and for Monitoring and Evaluating Food Security Interventions: Theoretical Concerns and Practical Guidelines*. IFPRI technical Guide 8. Washington DC.
- Gertler, P.J., Martinez, S., Premand, P., Rawlings, L.B., Vermeersch, C.M. (2011). *Impact Evaluation in Practice*. Washington DC: The World Bank.
- IEG World Bank (2011). *Impact Evaluation in Agriculture. An Assessment of the Evidence*. Washington DC.
- IEG World Bank (2012). *World Bank Group Impact Evaluations. Relevance and Effectiveness*. Washington DC.
- IFAD-Office of Evaluation (2009). *Evaluation Manual. Methodology and Processes*. Rome: International Fund for Agricultural Development.
- Khandker, S.R., Koolwal, G.B., Samad, H.A. (2010). *Handbook on Impact Evaluation. Quantitative Methods and Practices*. Washington DC: The World Bank.
- Mathison, S. (1988). *Why Triangulate?* Educational Researcher, 17 (2), 13-18.
- IED-ADB (2007). *Impact of Microfinance on Rural Households in The Philippines. A Case Study from the Special Evaluation Study on the Effects of Microfinance Operations on Poor Rural Households and the Status of Women*. Manila: Operations Evaluation Department, The Asian Development Bank.
- Idem (2009). *Impact of Rural Water Supply and Sanitation in Punjab, Pakistan*. Manila: Operations Evaluation Department, The Asian Development Bank.
- Idem (2011). *Impact Evaluation Study on Asian Development Bank's Assistance for Low-Income Housing Finance in Sri Lanka*. Manila: Operations Evaluation Department, The Asian Development Bank.
- Idem (2012). *Groundwater Mining for Irrigation: A Match or Mismatch for Human Welfare?—Evidence from Nepal's Shallow Tubewells*. Manila: Operations Evaluation Department, The Asian Development Bank.
- Jalan, J. and Ravallion, M. (2003). *Estimating the Benefit Incidence of Antipoverty Program by Propensity-Score Matching*. Journal of Business and Economic Statistics 21 (1):19-30.
- Rosenbaum, P. and Rubin, D. (1983). *The Central Role of the Propensity Score in Observational Studies for Causal Effects*. Biometrika, 70, pp. 41-50.
- List, J.A., Sadoff, S. and Wagner, M. (2009). *So You Want to Run an Experiment, Now What? Some Simple Rules of Thumb for Optimal Experimental Design*. Carlo Alberto Notebooks No. 125. Turin, Italy.
- Tashakkori A., and Teddlie, C. (1998). *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. Sage Publications, California, USA.

B. Logical framework at programme appraisal

Goal	Indicators	Source of Information	Risks/Assumptions
Incomes and livelihoods of 80 000 households in the dry zones sustainably increased and improved	-Nbr. of households with improved asset indices; -%age increase in households above poverty line, disaggregated by gender; -%age decrease in child malnutrition, disaggregated by gender	-Sample household surveys; -Government surveys & statistics; -Participatory impact monitoring; -Field observations, progress & supervision report	
Purpose	Indicators	Source of Information	Risks/Assumptions
Put in place a mechanism to mobilise resources & services to sustainably increase production and add value to produce in the dry zones	-10% of members graduating from Samurdhi, gender disaggregated; -Incomes of members increased by 20%-60%, gender disaggregated; -Daily returns to labour increased by 20-60%, gender disaggregated; -Volume of investment flows to area	-Household surveys; -Self monitoring and surveys; -Progress and supervision reports	-Stable and secure macro-economic & country setting; -Increased incomes do not induce conspicuous consumption; -No de-capitalisation of the poor due to natural disasters & emergencies;
Outputs component	Indicators (gender disaggregated)	Source of Information	Risks/Assumptions
Improved & increased use of rain-fed lands by 72 000 poor households (50% women)	-Number persons trained in farmer field schools; -adoption rates of new technologies; -Diversification of production packages; -%age increase in productivity per ha of rain-fed; -Ha. of rain-fed areas under production; -Total production of rain-fed crops.; -Nbr. of farmers engaged in rain-fed agriculture; -Cost of production reduced (e.g. rice)	-Self monitoring and surveys (participatory analysis and household surveys) -Progress reports by implementing agencies; -Supervision reports	-No drought occurs; -No negative producer price trends; -Demand for rain-fed crops continue; -Low competition for limited labour. -Rain-fed technologies disseminated;
Irrigated crop production increased over 5 000ha to cover needs of 10 200 small holders (30% women)	-Number and Ha. of micro-tanks rehabilitated; -Irrigated hectareage cropped regularly; -Crop yields in each season and each year -Total production from irrigated plots; -availability of water in micro-tanks; -Nbr. undisputed usufruct rights to micro-tanks; -Cropping intensity on the micro-tanks; -Level of crop diversification away from paddy	-Programme progress reports; -Self monitoring and field surveys; -Supervision reports	-Market channels/linkages function; -Paddy prices do not slump; -Crop diversification feasible -No major drought occurs; -Farmers take charge of O&M; -Competing water uses resolved

Outputs component	Indicators (gender disaggregated)	Source of Information	Risks/Assumptions
Marketing opportunities and linkages expanded and value-added to the agricultural production from rain-fed and irrigated areas	<ul style="list-style-type: none"> -Number of forward contracts executed; -Quantity and %age increase of output marketed -Average farm gate price of major crops; -Ratio of produce disposed off in hungry season; -%age rise in the maximum price of produce; -Volume of crop storage capacity constructed; -Level of investments by MFIs & private sector; -%age increase of farmers selling surpluses; -%age increase in economic activity; -Nbr. of micro-enterprises operating after 4 years; -Success of inventory credit pilot activity; -Number of employment generated -%age increase in micro-enterprises in area; -Expansion of marketing channels available 	<ul style="list-style-type: none"> -Market surveys; -Self monitoring and field surveys; -Progress reports by implementing agencies; -Supervision reports 	<ul style="list-style-type: none"> -Market conditions are not disrupted by external factors (conflict, dumping, etc.); -Market prices are attractive; -Private sector is interested to invest in area over time -Niche markets are identified;
ω Diversification of sources of income for 5 000 families, mainly women (80%) through expanded micro-finance services	<ul style="list-style-type: none"> -%age increase in non-farm economic activity; -Nbr. of farmers engaged in off-farm activities; -Expansion of MFI activities in the area; -Nbr. of viable investment opportunities in area; -Number small economic groups active; -Number of active savers and borrowers; -Amount of savings and loans distributed; -Value of gross loan portfolio 	<ul style="list-style-type: none"> -Self monitoring and market surveys; -Programme progress reports; -Self monitoring and field surveys; -Field and market surveys; -Financial statements of MFIs; 	<ul style="list-style-type: none"> -No competition for family labour; -Terms and conditions of credit right; -Expanded micro-finance services are used for increasing income generating activities
Priority community infrastructure constructed and operated	<ul style="list-style-type: none"> -Nbr. community groups operating successfully; -Nbr. of people belonging to community groups; -Number and types of infrastructure developed; -%age usage of infrastructure disaggregated; -Employment generated in maintenance gangs 	<ul style="list-style-type: none"> -Programme progress reports; -Self monitoring and surveys; -Supervision reports 	<ul style="list-style-type: none"> Conditions are conducive for communities to agree on priority infrastructure eligible under the programme

C. Tentative table of contents for the impact survey working paper

<i>Content</i>	<i>Approx. number of pages</i>
Section A. Description of the sampling framework and strategy for both quantitative and qualitative components	4
Section B. Key characteristics of the programme and comparison sample	5
Section C. Key findings from qualitative analysis on	10-12
- Impact on human and social capital including the <u>gender</u> aspect	
- Impact on natural resources, environment and climate change	
- Impact on institutions and policies	
Section D. Brief presentation of statistical techniques adopted	4
Section E. Key quantitative findings on	
- Impact on household income and assets	
- Impact on human and social capital	15
- Impact on agricultural productivity and food security	
- Impact on natural resources, environment and climate change	
(Gender disaggregation to be included to the extent possible)	
Appendix of statistical Tables	
Appendix on sampling details	
Other Appendices (as required)	

D. Tentative table of contents for the final impact evaluation report

<i>Content</i>	<i>Approx. number of pages</i>
Background and programme context	1
Relevance	2
Effectiveness	3
Efficiency	2
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- Agricultural productivity and food security	
- Natural resources, environment and climate change	
- Institutions and policies	
Sustainability	2
Pro-poor innovation and up-scaling	2
Gender equality and women's empowerment	2
Performance of the partners (IFAD and the Government of Sri Lanka)	2
Conclusions and recommendations	2
Appendix of statistical Tables	
Appendix on sampling details	
Other Appendices (as required)	