What is the Evidence of the Impact of Micro-credit on the Incomes of Poor People?[1]

DFID Systematic Review

Protocol

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[1] We propose amendments to the review question as described in section 1.4

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1 Background

While systems of credit provision for poor people have a long history (Shah et al, 2007), a new wave of microcredit provision has emerged in the past thirty years, inspired by pioneering innovations in Bangladesh, Bolivia, Indonesia and elsewhere. Microcredit has subsequently innovated in many ways, and is now more commonly viewed as one component of microfinance, along with savings, insurance and payment services for poor people. Microfinance institutions (MFI) have become important in the fight against poverty, growing worldwide in number of organisations and clients, and donor funding [http://www.mixmarket.org/]. The sector continues to develop and innovate (Collins et al, 2009). A common feature of microcredit has been the targeting of women on the grounds that, compared to men, women both perform better as MFI clients and that their participation can have more desirable development outcomes (e.g. Garikipati, 2008). Because of this close link we will address the micro-credit component of Q36 "What is the evidence of the impact on family well-being of giving economic resources (e.g. microcredit, cash or asset transfers) to women relative to the impact of giving them to men?" in addition to Q7 "What is the evidence of the impact of micro-credit on the incomes of poor people?", to which we suggest further adjustments in section 1.4.

Despite the popularity of microcredit there is evidence that these programmes do not have uniformly positive impacts. Case studies and ethnographic evidence demonstrate it can have both positive and negative effects on the lives of the poor, but rigorous quantitative evidence on the nature, magnitude and balance of effects is scarce and inconclusive. There have been three major reviews of microfinance (MF) impact, two of which are fairly old (Sebstad and Chen, 1996; Gaile and Foster, 1996, and Goldberg, 2005). A very recent review has been published by Odell (2010) which is essentially a follow-up of Goldberg (2005). There are several books reviewing microcredit (Hulme & Mosley, 1996; Khandker, 1998; Ledgerwood, 1999; Robinson, 2001; Johnson and Rogaly, 1997; Armendáriz de Aghion and Morduch, 2005 (A&M); Ledgerwood et al, 2006; Dichter and Harper, 2007; Bateman, 2010; and Roy, 2010). There have been numerous studies assessing the impact of microfinance in different countries (e.g. Copestake et al, 2005; Copestake, 2002). But none of these constitute systematic reviews because they do not set out protocols for search, quality assessment, or analytical synthesis. We know of two other systematic reviews currently underway but none attempts to assess impacts on a wide range of outcomes, which we consider likely to be interlinked in complex and context specific ways, in all major developing regions.

There have been a number of widely quoted studies that suggest positive social and economic impacts of microcredit (e.g. Pitt and Khandker, 1998, and Matin and Hulme, 2003 on Bangladesh; Patten and Rosengard, 1991, and Robinson, 2002 on Indonesia); others report that MF is not always beneficial (Adams and von Pischke, 1992; and Rogaly, 1996). Hulme and Mosley (1996) imply that MF does on average have positive impacts but does not always reach the poorest; other studies claim that they can (e.g. among others Rutherford, 2001; and

Khandker, 1998). There is no well known study that robustly shows any strong impacts (A&M, p. 199-230); some recent RCTs (Banerjee et al, 2009) may prove more convincing, although their restricted provenance limits external validity.

1.1 Research design issues

Most of the useful literature acknowledges two major problems with assessing microcredit impact using observational data – programme placement bias and self, peer, and lender selection of participants. Probably the most authoritative studies are by Pitt and Khandker, 1998 (P&K), and Khandker, 1998; 2005 (see also related papers Pitt et al, 2006; 2003; 1999) These authors argue that MF has significant benefits for the poor, especially when targeted on women; "P&K and Khandker (2005) thus remain the only high-profile economic papers asserting large, sustained impacts of microcredit", Roodman and Morduch, 2009, p. 40-41 (R&M). The reliability of the P&K results has been contested (Morduch, 1998); Pitt (1999) vigorously rebutted these criticisms, but neither paper was published, and, although Goldberg (2005) clearly views P&K as unreliable (p. 17-20), he writes that Khandker (2005) is "much less controversial" (p. 19). The matter rested until R&M replicated these four papers. R&M find that "decisive statistical evidence in *favor* of [the idea that microcredit helps families smooth their expenditures, lessening the pinch of hunger and need in lean times … especially so when women do the borrowing] is absent" (R&M, p. 39; emphasis in original).

Another approach has been to exploit 'pipeline' quasi-experiments, in which control groups are constructed from randomly chosen people with apparently similar characteristics who have not yet participated in the MFI, but will join later (Coleman, 1999; 2006). However, these designs may be vitiated if the persons joining later have different characteristics compared to the earlier participants (Karlan, 2001), as is often the case (Goldberg, 2005).

Partly in response to critical reviews of evaluations using observational (qualitative and quantitative) data there has been a trend towards conducting randomised control trials (RCTs) of many development interventions including MFIs (Karlan and Zinman, 2009; Banerjee et al, 2009; Banerjee et al, 2007). However, MF RCT interventions often lack some crucial characteristics of valid RCTs, particularly proper randomisation of microcredit allocation and, or double blinding; this has given rise to criticisms based on the possibility of measurement and detection biases (Hawthorne and John Henry effects), so there is a continuing role for observational methods (Deaton, 2009). The limited circumstances in which RCTs have been conducted affect their external validity.

1.2 Evidence for replication or reinterpretation

Taken together these arguments (which are extended and supported by the use of Propensity Score Matching (PSM) in ongoing work by Duvendack and Palmer-Jones) undoubtedly pose challenges to impact evaluation (IE) using observational and randomised control data and draws attention to the need for replication (Hamermesh, 2007). They also have implications for this Systematic Review (SR). Firstly, results from papers published even in top rank peer reviewed journals may not be reliable; secondly, replication is often highly advisable and requires access at least to original data. This suggests further criteria for quality assessment namely, preferably, the existence of supportive replications, or the

availability of raw data to enable replication; repetition and replication in other locations are also desirable. This argument equally applies to qualitative data, where evidence (as opposed to assurances) of proper and ethical conduct of research (unbiased sampling, avoidance of leading questions, and so on) is not easy to provide. For qualitative studies replication is substituted by reinterpretation based on fully documented methods and texts giving assurance of ethical and professional conduct with regard to the production and interpretation of qualitative information (see http://www.timescapes.leeds.ac.uk/the-archive/ for best practice in the UK).

1.3 Measuring impacts

Many impact studies, including those employing predominantly qualitative methodologies with careful selection of comparison groups (e.g. Todd, 1996), have explored the effects of microcredit on incomes, and, generally speaking, MF researchers, practitioners, donors and policymakers conclude that microcredit has beneficial effects (A&M). However, this is not always the case; Snodgrass and Sebstad (2002) and Mosley (1996) find that microcredit does not work for everyone. Coleman (2002) and Alexander (2001) find that wealthier households are more likely to be involved with MFIs. Furthermore, income is not the only outcome variable assessed, in part because of the difficulties of measuring income and interpreting its effects on well-being and other outcomes (e.g. health, nutritional status, school enrolment, especially of girls, fertility, and so on) which are common donor objectives. Apart from income and consumption patterns there are a number of channels through which microcredit can influence household outcomes. Microcredit can also affect other economic, social and political variables which may be instrumentally and, or intrinsically valuable (e.g. asset accumulation, business profits, health, nutrition, education, and female empowerment (A&M; see Sen, 1999 for arguments assessing interventions in terms of capabilities rather than instrumental variables and resources)). Other authors have suggested that MF can crowd out other investments and might in this way distort or even slow development (Bateman, 2010).

1.4 Adjustments to the review question

There are several implications for the review question arising from these considerations. We suggest adjusting the main review question which is "***What is the evidence of the impact of micro-credit on the incomes of poor people?***" and include the following sub-questions:

1) What is the evidence of the impact of micro-credit on other money metric indicators such as micro-enterprise profits and revenues, expenditure (food and non-food), assets (agricultural, non-agricultural, transport and other assets), housing improvements?
2) What is the evidence of the impact of micro-credit on other human development indicators such as education (enrolment and achievements for adults and children), health and health behaviour as well as nutrition?
3) What is the evidence of the impact of micro-credit on women's empowerment?

4) Is the impact of microcredit on any of these outcomes modified by a) gender of borrower, b) poverty status of household, c) rural/urban setting, d) geographical location, e) presence of second income earner in the household, and f) type of product?

We do not propose to address the "crowding out" hypothesis.

Even though a 3ie-financed study investigates the impact of microcredit on women's empowerment (see section 3 for details), we will include this outcome variable in our study because women's empowerment is so integral to many claims as to the mechanisms and efficacy of MF that to exclude it would limit the utility of our study, especially if it comes to somewhat different conclusions to this other study.

1.5 Summary

Microfinance is commonly heralded as the wondrous tool that alleviates poverty and empowers women. The empirical evidence, however, is inconclusive. Moreover, no systematic review on the impact of microcredit on the socio-economic well-being of households has so far been collated. 3ie has funded one systematic review on the impact of microcredit but apart from the protocol which is available on: http://www.3ieimpact.org/admin/pdfs_synthetic/19.pdf, no further details can be found on this study, although, from correspondence with the authors, we understand that the review will now focus on the impact of microcredit on women's empowerment. DFID is funding another MF SR which focuses on the impact of microcredit on the incomes of poor people in Africa only. Our SR casts its net wider and includes outcome variables that go beyond income; hence studies assessing the impact of microcredit in Africa will not be excluded from our review.

To sum up, there is a need to compile a systematic and comprehensive review of the impact of microcredit which would allow a judgement of the quality and reliability of those studies to convincingly assess what difference microcredit makes to the lives of the poor.

2 Objectives

To assess the impact of microcredit on health, wealth and well-being of people living in developing countries and poor, excluded or marginalised within their own society.

Secondary objectives include

- To understand whether the impact of microcredit on any of these outcomes modified by a) gender of borrower, b) poverty status of household, c) rural/urban setting, d) geographical location, e) presence of second income earner in the household, and f) type of product?
- To scope and characterise the qualitative studies for future systematic review.

3 Review team

Dr James G Copestake (JGC), Reader in International Development, University of Bath. Before joining the University of Bath in 1991, James worked for development agencies in Bolivia, India and Zambia. He has carried out research in the fields of agrarian change, aid management, microfinance, measurement of poverty, and social protection. Recent research projects include: Imp-Act ("Improving the impact of microfinance on poverty: an action research project") sponsored by the Ford Foundation. He has a degree in economics from Cambridge University, and an MSc and a PhD in agricultural economics from Reading University. In this project he is responsible for content and review.

Dr Yoon Loke (YL), Senior Lecturer in Clinical Pharmacology, University of East Anglia (UEA). He is based in the School of Medicine at UEA which also houses the Campbell & Cochrane Economics Methods Group (http://www.c-cemg.org/) and Adverse Effects Methods Group of which YL is co-convenor. YL has published widely on systematic reviews and meta-analyses and is an expert in the field. He is a qualified MD and has a MB BS from London University. YL has an advisory role in this project on systematic review and meta-analysis methods.

Dr Lee Hooper (LH), Senior Lecturer in Evidence Synthesis & Nutrition, UEA. Lee is an editor of the Cochrane Heart Group and has published over 30 peer-reviewed publications, most of which are systematic reviews. She has a degree in biochemistry from UEA, a Diploma in Dietetics from Leeds and a PhD on systematic reviews in diet and cardiovascular disease from Manchester University. LH will provide advice and training in data search, development of a study inclusion and exclusion form; development of a data extraction and study validity assessment forms; data synthesis including narrative synthesis and data tables.

Dr Richard Palmer-Jones (RPJ), Reader in the School of International Development, UEA. Richard is an economist with interests in poverty and inequality, microfinance, nutrition, health, education, agriculture, irrigation and natural resources, and impact evaluation. He has degrees in both economics and agriculture and has worked extensively in Malawi, Nigeria, Bangladesh and India. His recent research has focused on South Asia, in particular on the analysis of secondary data on poverty and ill-being, pro-poor growth, the attainment of MDGs, and governance of natural resources, as reflected in recent research grants and publications. He has been working on impact evaluation of development projects and programmes; he has led teams to review NGO activities in Bangladesh (RDRS and World Vision) and worked with Proshika, Grameen Bank and BRAC. He is an editor of the Journal of Development Studies. RPJ will be responsible for content and statistical analysis, i.e. survey, meta-analysis and replication.

Dr Nitya Rao (NR), Senior Lecturer in Gender Analysis and Development at the School of International Development, UEA. Nitya's research interests include gendered changes in land and agrarian relations, migration, livelihood and well-being, equity issues in education policies and provisioning, gendered access and mobility, and social relations within environmental and other people's movements. She has degrees from Delhi University, a MA on Gender Analysis in Development and a PhD on land and livelihoods in India from UEA.

In this project NR is responsible for content and particularly focuses on the role of microfinance on women's empowerment.

Maren Duvendack (MD), Senior Research Associate and PhD Candidate in the School of International Development, UEA. She has an interest in rigorous impact evaluations, microfinance, micro-development economics and applied micro-econometrics. She just submitted her PhD entitled: "Smoke and Mirrors: Evidence from Microfinance Impact Evaluations in India and Bangladesh". MD has completed an impact evaluation of SEWA Bank in India and replicated the results of an impact evaluation of 3 major microfinance interventions in Bangladesh. MD will be responsible for content, information retrieval and statistical analysis, i.e. survey, meta-analysis and replication.

JGC, RPJ, NR and MD have extensive experience in literature reviews, expert commentaries, and, in the case of RPJ and MD, in critical replication studies. YL and LH are SR experts.

4 Methods

We will base our methods on the Centre for Evidence Based Conservation and EPPI-centre guidelines as these are suited to the quantitative and mixed methods used in MF evaluations. In order to conduct an unbiased stakeholder relevant review, we will set up an (unpaid) advisory group to support the systematic review and will recruit a balanced team of reviewers by approaching representatives of major stakeholders and MF adepts. The main objective for this advisory group is to comment on the final outcome of our searches and to evaluate whether the relevant MF impact evaluation studies have been included. Also, the advisory group will be instrumental at the dissemination stage to ensure a wide circulation of this SR. We propose the following individuals as members of the advisory group – yet to be approached:

Syed Hashemi, BRAC University

Glenn Westley, Inter-American Development Bank

Isabelle Guerin, CERISE

Robin Gravesteijn, ILO and *Oikocredit*

Johan Bastiaensen, University of Antwerpen

Marguerite Robinson, independent consultant

The lead reviewers provide a range of skills and orientations to the MF industry (see conflicts of interest).

4.1 Inclusion criteria

The included studies will have the following characteristics:

Participants: Individuals living in poor, lower and upper-middle income countries (see appendix 2) that have very few assets that could be used as collateral (Fernando, 2006). Participants need to be classifiable as poor, excluded or marginalised within their society. The target group may include individuals, households or micro- enterprises.

Exposure or intervention: Micro-credit or 'credit plus' programmes, including provision of credit of any sort to relevant participants; 'credit plus', including savings, insurance and other financial services; and/or 'credit plus plus' that combines financial services with complementary non-financial services such as business advice. Such services or programmes may be provided by basic, transformed or commercial MFIs, NGO-type MFIs (including those supporting informal or user-controlled financial services such as village banks), commercial banks, credit cooperatives and other public sector providers of financial services. Purely informal credit and savings associations such as ROSCAs (Rotating Savings and Credit Associations) will be excluded since they are not classic MF providers. The duration of any microcredit program will be at least 3 years.

Comparison groups: All included studies need to make use of some form of comparison or control group where microcredit has not been formally introduced. This may be a historic control (before/after comparison) or a concurrent control group where microcredit has not yet been introduced (by the assessed institution).

Outcomes: Primary outcomes include income, health and education. Secondary outcomes include micro-enterprise profits and/or revenues, expenditure (food and/or non-food), labour supply, employment, assets (agricultural, non-agricultural, transport and/or other assets), housing improvements, education (enrolment and/or achievements for adults and children), health and health behaviour, nutrition, women's empowerment.

Cut-off point: Studies published since 1970 will be considered for the review.

Methodologies: Controlled trials, before/after studies, action and observational studies and impact evaluations, and social survey datasets with pertinent indicators. Qualitative studies will be assessed for inclusion but set aside and used to scope the literature in this area. Minimum sample sizes (subject to search outcomes) >100 (treatment and control combined) for quantitative and >10 for qualitative studies.

Intervention studies including randomised controlled trials, controlled trials, before/after studies and action research will assess the impact of introduction of microcredit to some participants compared to the lack of such introduction in other participants (or at an earlier time).

Observational studies will assess outcomes in populations served by microcredit and compare them to outcomes in areas not served by microcredit (or an earlier time before microcredit was introduced).

Qualitative research will ask participants what they feel were the impacts of the introduction of microcredit to themselves and/or their family and/or community (compared to before such introduction or compared to nearby areas without such access to microcredit). We will use a purposive strategy to include qualitative studies to represent gender relevance, geographical locations and urban/rural settings.

Publication status: Studies may be formally published or available in abstract, web-based, PhD thesis or organisational report form.

4.2 Search strategy

The electronic search strategy will search major on-line academic databases; systematic review databases; websites of relevant NGOs and funders as well as search for PhD thesis abstracts; we will complement our sources with suggestions from stakeholders (see Table 1). The search will include text and indexing terms, and Boolean operators in the format '[microfinance OR microcredit] AND [outcomes]'.

We will experiment with these and other search terms that may be suggested to us, including by our advisory panel, until we obtain optimal results; then we will save these searches and set them up as alerts for reasons which will be discussed in section 7. Those saved searches will at the same time leave a documentation trail which will allow others to reconstruct and validate our searches. Titles and abstracts will be screened during these searches.

Table 1: Selected databases and websites to be searched:

Academic	**External**	**NGO/Funder websites**
EconLit (EBSCO)	BLDS	AfDB, ADB, IDB
informaworld	ELDIS	CGAP
ISI Web of Knowledge	JOLIS	DFID
JSTOR	Google Scholar	Microfinance Gateway
AMED		MicroBanking Bulletin
SCOPUS (Elsevier)		Microfinance Network
Zetoc		USAID
The Cochrane Library		World Bank
Medline		
EMBASE		
PsychInfo		

We ran a draft search in ISI Web of Knowledge using the following search terms to assess the viability of our search strategy:

> #1 Topic=(evaluat* OR impact* OR benefit* OR poverty* OR empower* OR income* OR profit* OR revenue* OR employ* OR "labour supply" OR job* OR expenditure* OR consume OR consumes OR consumed OR consumption OR asset* OR housing OR education* OR health* OR nutrition*) OR Title=(evaluat* OR impact* OR benefit* OR poverty* OR empower* OR income* OR profit* OR revenue* OR employ* OR "labour supply" OR job* OR expenditure* OR consume OR consumes OR consumed OR consumption OR asset* OR housing OR education* OR health* OR nutrition*)
>
> #2 Topic=(microfinanc* OR microcredit* OR micro-credit* OR micro-financ* OR

microenterprise* OR micro-enterprise* OR "group lending" OR "credit program*" OR "credit plus*" OR credit-plus*) OR Title=(microfinanc* OR microcredit* OR micro-credit* OR micro-financ* OR microenterprise* OR micro-enterprise* OR "group lending" OR "credit program*" OR "credit plus*" OR credit-plus*)

#3 #1 AND #2

The draft search for Medline, EMBASE, AMED and Psychinfo (all on OvidSP) and the Cochrane Library (without the "mp" at the end) was:

(microfinanc* or microcredit* or micro-credit* or micro-financ* or microenterprise* or micro-enterprise* or "group lending" or "credit program*" or "credit plus* or credit-plus*").mp.

This did not need limiting by outcome as few studies were located.

Our preliminary search found 868 studies, many studies of which we were not aware and many which have not yet been screened in the major reviews of microcredit evaluations. However, the key MF IEs we would have expected to be there were among these studies. We intend to build up on this preliminary search and adapt it to the requirements of the various databases as listed in Table 1. Studies to be included will surely encompass at least the 11 in Gaile and Foster (1996), the 32 in Sebstad and Chen (1996), those in Goldberg (2005) and Odell (2010), and the main RCTs referred to above such as Karlan and Zinman (2009), Banerjee et al (2009), and so on.

The reference lists of included quantitative studies and relevant reviews will be checked for further relevant studies. The list of included studies will be sent to the members of the advisory group to help with identification of further studies.

4.3 Data handling

The searches will initially be screened by MD who will retrieve full text publications, reports or web-sites with potentially relevant text and data, which will then be assessed independently in duplicate by the 2 lead reviewers (JGC & RPJ) using inclusion forms (see appendix 1) developed for the review.

Quantitative studies: Data extraction and validity assessment of included quantitative studies (including all publications/reports etc of a single dataset) will be carried out by MD on forms developed for this review (see appendix 1 and appendix 3), then checked by either JGC or RPJ to create a final study dataset.

Data extracted and tabulated will include study characteristics: target group, exposure, comparison group and study relevance (distinguishing between those with different degrees of focus on our questions), validity criteria (developed to be relevant to each study's methodology and the review question), and outcome data (including sample sizes, data processing and analysis methods, values of categorical and ordinal impact variables, and parametric descriptive statistics of continuous data).

Qualitative studies: These will be formally included /excluded using the inclusion form, and will be partially characterised during inclusion. These inclusion forms will be used to

characterise the qualitative data for future systematic review, but will not be included in the current review. The remaining steps in the methodology and analysis refer solely to quantitative studies.

4.4 Assessment of validity and study quality

Criteria for judging validity used in this review are adapted from the Cochrane Handbook[2] and EppiCentre[3,4]. The Cochrane Collaboration suggests that the key components of bias (and therefore in assessment of validity) in any study are:

A. selection bias (systematic differences between baseline characteristics of the 2 groups);

B. performance bias (systematic difference between care or support provided to the 2 groups);

C. attrition bias (systematic differences between the 2 arms in withdrawals from the study);

D. detection bias (systematic differences between groups in how outcomes are determined); and

E. reporting bias (systematic differences between reported and unreported findings).

EppiCentre formulates the risk of bias as being composed of the

F. trustworthiness of results (methodological quality, as discussed by Cochrane, including transparency, accuracy, accessibility and specificity of the methods);

G. appropriateness of the use of that study design to address the review question (methodological relevance, including purposivity);

H. appropriateness of focus for answering the review question (topic relevance, including relevant answers and legal and ethical propriety); and

I. overall weight of evidence (a summary of the above).

See appendix 3 and appendix 4 for the full set of criteria to be used in this review. Validity assessment will focus on checking the delivery and adequacy of the intervention (e.g. provision of microcredit), reliability of the outcome measures (e.g. income, expenditure, assets, and so on), contextual factors affection heterogeneity of outcomes (including other MF services), and potential existence and likely significance of confounding factors. If a large number of studies are identified with lower validity they will be tabulated and removed from further study. Potential risk of bias and confounding for each included study will be summarized in tabular format.

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[2] Higgins JPT & Green, S., 2008, eds. Cochrane Handbook for Systematic Reviews of Interventions Version 5.0.0 [updated February 2008]. *Available at: www.cochrane-handbook.org*.

[3] Gough, D. 2007. Weight of Evidence: A Framework for the Appraisal of the Quality and Relevance of Evidence. In Furlong, J. & Oancea, A., eds. *Applied and Practice-based Research. Special Edition of Research Papers in Education,* 22, (2), 213-228.

[4] EppiCentre website: 'Quality and relevance appraisal', http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=177 (accessed July 2010).

4.5 Methods of data analysis

Where possible, we will check the data to determine suitability for further evaluation by meta-analysis and/or meta-regression techniques to highlight outcome and contextual variability and to appraise its usefulness for subsequent work, i.e. replications. In some key cases unit level data may be accessed to assess data and data processing reliability but not to undertake replication (or re-analysis) of this study, because of resource constraints. Candidates for replication/reanalysis will merely be identified, and the possibilities described in terms of access to data and code.

Narrative synthesis will be structured by the pathways between micro-credit and well-being identified and will be stratified by methodology (for studies insufficiently quantitative or homogeneous to allow statistical pooling). In this we will use the range of narrative summary techniques suggested in Arai et al, 2007 and Rodgers et al, 2009. The search protocols, results, coding and research synthesis will be open to scrutiny by others.

In addition, if raw data are available they will be extracted and made available for subsequent replication exercises which, however, will not be performed in this study. Some replication exercises of studies which are expected to be included in this review are already under way. For example, ongoing work by Duvendack replicates the IE conducted by USAID on SEWA Bank in India; further to this Duvendack and Palmer-Jones replicate the IE conducted by P&K and related papers.

5 Timeline

Table 2: Timeline of SR

Task	**Due date**
Preparation of protocol	**15 July 2010**
DFID and external review of protocol	5 August 2010
Study search	15 August 2010
Assessment of study relevance	25 August 2010
Extraction of data	6 September 2010
Synthesis and/or statistical analysis	15 October 2010
Draft report	**6 December 2010**
DFID review of draft report	1 December 2010
Dissemination of draft report	15 December 2010
Revision of draft report	1 January 2011
External review of draft report	2 February 2011
Revision and submission of final report	**15 February 2011**

Policy brief and short summary	25 February 2011

Notes: Milestones in bold

6 Plans for updating

We have signed up for weekly notifications which some of the databases listed in Table 1 provide in order to obtain references to new relevant studies. We receive weekly alerts from Zetoc, Metalib, ISI Web of Knowledge, Google Scholar and SCOPUS. We are continuously refining the search terms used in those alerts to improve the search results. The references of those studies are then downloaded into Endnote with the objective to build a comprehensive and up-to-date database that includes all relevant MF impact evaluations. Additional funding will be required to conduct a follow-up of the SR which we are currently compiling.

7 Sources of funding

We would like to thank DFID for funding this systematic review.

8 Statement of conflict of interest

JGC has extensive professional involvement in MF policy analysis and evaluation.

LH and YL have no prior involvement with MFIs.

RPJ is involved in a bid to conduct an impact evaluation of a MF intervention in India (with MD and others), but no previous involvement with MF or MFIs .

NR has gender expertise and has worked extensively on MF as part of broader resource access issues in relation to women's empowerment and family well-being, especially in India.

MD's PhD is on the impact evaluation of MF interventions, focussing on SEWA Bank in India and three major MF interventions in Bangladesh in the early 1990s, and is bidding to undertake an impact evaluation of an MFI in India (with RPJ and others).

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Appendix

Appendix 1: Inclusion/exclusion form - Microcredit systematic review

Study: author year journal ref/website

Reviewer: MD JGC RPJ

	Issue	Reviewer decision
1	**Participants**: Individuals living in poor, lower and upper-middle income countries that have very few assets that could be used as collateral, and are poor, excluded or marginalised within their society. Participants can be individuals, households and micro- enterprises.	**Yes / No/ ?**
2	**Exposure or intervention**: Micro-credit, 'credit plus' or 'credit plus plus' programmes of any sort that include one or more of loans, savings, insurance or other financial services. Provision is by basic, transformed or commercial NGO-type MFIs, commercial banks, credit cooperatives and other public sector providers of financial services.	**Yes / No/ ?**
3	**Duration of the microcredit program at least 3 years.**	**Yes / No/ ?**
4	**Methodologies**: Controlled trials, before/after studies, action research, observational and qualitative research, impact evaluations, or social survey datasets (circle which)	**Yes / No/ ?**
5	**Sample size**: Quantitative studies >100 (treatment and control combined), qualitative studies >10.	**Yes / No/ ?**
6	**Comparison group**: Is the effect of microcredit compared to the effect of a lack of microcredit (a comparison group, such as a time before microcredit or another location without microcredit)?	**Yes / No/ ?**
7	**Outcomes**: At least one of the following is reported: Income, micro-enterprise profits and/or revenues, labour supply, employment, expenditure (food and/or non-food), assets (agricultural, non-agricultural, transport and/or other assets), housing improvements, education (enrolment and/or achievements for adults and children), health and health behaviour, nutrition, women's empowerment.	**Yes / No/ ?**

If all 'yes's are circled the study is 'in'. If any 'no' is circled the study is 'out'. If any '?'s are circled the study is 'pending'. Decision (circle):

in out pending

If study is qualitative please note the following:

1. Gender relevance:

2. Geographical location:
3. Urban or rural:

Appendix 2: Low, lower middle and upper middle income countries - Microcredit systematic review

Income groups correspond to 2009 gross national income (GNI) per capita (World Bank Atlas method). Source: http://data.worldbank.org/about/country-classifications/country-and-lending-groups

Low income	Lower middle income		Upper middle income
Afghanistan	Angola	Sri Lanka	Albania
Bangladesh	Armenia	Sudan	Algeria
Benin	Belize	Swaziland	American Samoa
Burkina Faso	Bhutan	Syrian Arab Rep.	Antigua and Barbuda
Burundi	Bolivia	Thailand	Argentina
Cambodia	Cameroon	Timor-Leste	Azerbaijan
Central African	Cape Verde	Tonga	Belarus
Chad	China	Tunisia	Bosnia and Herzegovina
Comoros	Congo, Rep.	Turkmenistan	Botswana
Congo, Dem. Rep.	Côte d'Ivoire	Tuvalu	Brazil
Eritrea	Djibouti	Ukraine	Bulgaria
Ethiopia	Ecuador	Uzbekistan	Chile
Gambia, The	Egypt, Arab Rep.	Vanuatu	Colombia
Ghana	El Salvador	Vietnam	Costa Rica
Guinea	Georgia	West Bank and	Cuba
Guinea-Bissau	Guatemala	Yemen, Rep.	Dominica
Haiti	Guyana		Dominican Republic
Kenya	Honduras		Fiji
Korea, Dem. Rep.	India		Gabon
Kyrgyz Republic	Indonesia		Grenada
Lao PDR	Iraq		Iran, Islamic Rep.
Liberia	Jordan		Jamaica
Madagascar	Kiribati		Kazakhstan
Malawi	Kosovo		Lebanon
Mali	Lesotho		Libya
Mauritania	Maldives		Lithuania
Mozambique	Marshall Islands		Macedonia, FYR
Myanmar	Micronesia, Fed. Sts.		Malaysia
Nepal	Moldova		Mauritius
Niger	Mongolia		Mayotte
Rwanda	Morocco		Mexico
Sierra Leone	Nicaragua		Montenegro
Solomon Islands	Nigeria		Namibia
Somalia	Pakistan		Palau
Tajikistan	Papua New Guinea		Panama
Tanzania	Paraguay		Peru
Togo	Philippines		Romania
Uganda	Samoa		Russian Federation
Zambia	São Tomé and Principe		Serbia
Zimbabwe	Senegal		Seychelles
			South Africa
			St. Kitts and Nevis
			St. Lucia
			St. Vincent and
			Suriname
			Turkey
			Uruguay
			Venezuela, RB

Appendix 3: Draft data extraction and validity assessment form - Microcredit systematic review

Study details - Author(s): Year: Journal ref:

Reviewer:

(Note: questions in bold italics are validity questions – see the validity section for details of how to answer these)

1	**Study information**			
1a	Research question as expressed in study			
1b	***Clarity of research question***	Done	Not done	
1c	Study design – describe			
1d	***Methodology – allocation***	Done	Not done	Unclear
1e	***Methodology – control for external circumstances***	Done	Not done	
1f	Describe the funding sources for the study, and financial or other issues declared			
1g	***Researcher bias***	Done	Not done	

	Participants	**Microcredit group**	**No-Microcredit group**
1h	Number of study participants		
1i	Ethnicity, religion and caste		
1j	Gender mix		
1k	Marital status		
1l	Age		
1m	Level of education		
1n	Household size and composition		
1o	Baseline income		
1p	Baseline assets		
1q	***Description of participants***	Done Partial Not done	
1r	***Similarity of participants***	Done Partial Not done	
1s	***Confounding re participants***	Done Partial Not done	
1t	Country of study		
1u	Country income	Low lower middle Upper middle	Low lower middle Upper middle
1v	Setting characteristics (eg urban/rural)		
1w	Numbers dropping out from baseline to outcome assessment and reasons		
1x	***Attrition bias***	Done Unclear Not done	

2	**Microcredit and non-microcredit conditions**	**Microcredit group**	**No-Microcredit group**
2a	Types of microcredit provided by study (eg credit plus, insurance, advice etc)		
2b	Types of microcredit available in area (outside of intervention if trial, generally if observational study)		
2c	Accessibility of microcredit to disadvantaged groups		
2d	Accessibility of microcredit to women		
2e	***Description of conditions***	Done Partial Not done	
2f	Confounding interventions – describe (eg land reform, aid, employment intitiatives, new job opportunities, public-private partnership etc)		
2g	***Confounding re interventions***	Done Partial Not done	
2h	Duration of participants accessing microcredit		
2i	***Duration of microcredit***	Done Partial Not done	
2g	Microcredit provider(s)		
2h	Other data on the microcredit provided		

Provide quantitative data as feasible, including mean and variance or median and inter-quartile range, units and descriptions of tools for assessment. Collect data at the latest time point available. For complex data use highlighter pen in original document (& page numbers below).

3	**Outcomes**	**Microcredit group**	**Non-Microcredit group**
3a	Time point for outcome assessment (study and participant points of view)		
3b	Income data		
3c	Profits or revenues		
3d	Labour supply/ employment		
3e	Expenditure (food/ non-food)		
3f	Assets (agricultural, non-agricultural, transport, other)		
3g	Housing changes		
3h	Education (enrolment/achievement, adults/children)		
3i	Health or health behaviours		
3j	Nutrition (intake or status)		
3k	Women's empowerment		
3l	Tools used to assess the outcomes above		
3m	***Outcome ascertainment***	Done Partial	Not done

4	**Additional information and summary**	
4a	Additional validity problems:	
4b	**<u>Any other validity problems?</u>**	Done Not done
4c	Does the study offer additional information to help address any of the following (if so please describe here)? Is the impact of microcredit on any outcome modified by a) gender of borrower, b) poverty status of household, c) rural/urban setting, d) geographical location, e) presence of second income earner in the household, or f) type of product?	
4d	**<u>Summary of validity</u>**	Risk of bias: Low Moderate High

Appendix 4: Suggested marking criteria for assessing validity

Criterion	**Score as:**
Clarity of the research question (F)	• 'done' when the question addressed by the research is clear, specific and addressed by the methods & results • 'not done' when there are any major problems with the above
Description of Participants (A,F)	• 'done' when the participants are in both groups are well described (eg gender, marital status, age, level of education, religion, caste, household size and composition, baseline (pre-microcredit) income and assets) • 'partial' when one or two of these 10 factors are not well described or only in one group • 'not done' when three or more factors are not well described
Similarity of participants between microcredit and control sites (A,B,F)	• 'done' when before/after study or when populations in microcredit and control sites appear very similar (e.g. geographically close, similar participant characteristics (above), and no consistent trend that puts either group at greater risk of poor outcome) • 'partial' when there are both similarities and differences, and no consistent trend of disadvantage (or some factors are similar and some unclear) • 'not done' when the 2 sets of participants exhibit substantial differences (or several factors are unclear)
Methodology – allocation (A, F)	• 'done' when the intervention and control participants are allocated to microcredit or not randomly • 'unclear' when method of allocation is unclear • 'not done' when allocation to microcredit or not was by a non-random method (e.g. marketing decision, choice of an appropriate population for microcredit etc)
Methodology – control for external circumstances (F)	• 'done' where there is assessment of change between baseline and a time point at least 3 years later in the microcredit group, and this change is compared to change in the control group over the same time period • 'not done' where this design is not used (e.g. simple before after design with no separate control group or separate control group but no before/after assessment)
Duration of microcredit (G)	• 'done' when all the individual participants assessed have had access to microcredit for at least 5 years • 'partial' when the individual participants assessed have had access to microcredit for 3-5 years or at least 50% have had access for at least 5 years. • 'not done' when not either of the above
Confounding re	• 'done' when the study attempts to account for and minimise the

participants (B)	effects of any differences in gender, marital status, age, level of education, religion, caste, household size and composition, baseline (pre-microcredit) income and assets (or these are equivalent in both settings) • 'partial' when one or two of these factors are not equivalent, accounted for or minimised (or are unclear) • 'not done' when three or more factors are not equivalent, accounted for or minimised (or are unclear)
Confounding re interventions (B)	• 'done' when where there is a similar presence/absence of other poverty-alleviating interventions (such as land reform, public-private partnership, employment initiatives etc) • 'partial' where there are some differences but they are not major • 'not done' where there are any major differences • 'unclear' where the presence or absence of these is not described
Description of conditions (F)	• 'done' when the microcredit and no microcredit conditions are well described (e.g. types available, from which providers, accessibility for disadvantaged, women etc) • 'partial' when one or two of these factors are not well described • 'not done' when three or more factors are not well described
Researcher bias (A-E)	• 'done' when study funding and financial interests of authors are declared, and no bias is apparent • 'not done' when either funding or financial interests are not declared or there is potential bias apparent
Outcome ascertainment (D)	• 'done' when outcome measures are appropriate for both conditions, carried out the same way for both conditions, and appear valid and well executed • 'partial' when any one criteria above is not met • 'not done' in other cases
Attrition bias (C)	• 'done' when the participants who drop out are accounted for by study arm, and there do not appear to be big differences in the numbers dropping out, or their reasons, between arms (in before after studies the reasons for dropping out do not appear related to the outcomes assessed, 'done' for surveys without follow up • 'not done' when there are important differences in attrition • 'unclear' when not clearly described
Any other validity problems for this study?	• 'Done' if no further issues around validity • 'not done' if additional validity issues are raised
Summary of validity (I)	• Low risk of bias when all criteria above are 'done' • Moderate risk of bias when confounding of both participants and interventions is 'done' but one or two other criteria are partial, unclear or not done • High risk of bias for all remaining studies