

The Perfect Balancing Act with an Imperfect Outcome: Malegam Committee Recommendations on Microfinance Sector

An Intellecrap White Paper

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The Malegam Committee was constituted by the Reserve Bank of Indiaⁱ as a Sub-Committee of its Board of Directors (referred to in this paper as “the Malegam Committee” or simply “the Committee”), to review the definition and practice of microfinance in India, delineate a regulatory framework, and make related recommendations.

The Committee’s recommendationsⁱⁱ were released on 19 January 2011. This paper represents Intellecrap’s effort to examine the Malegam Committee’s recommendations for the private-sector commercial microfinance industry (referred to in this paper as “the industry”), some questions that its recommendations raise, and the impact of its recommendations on the industry.

Background

The Ordinanceⁱⁱⁱ issued by the Andhra Pradesh (AP) State Government to regulate microfinance institutions (MFIs) in the state in October 2010 triggered a serious crisis for the industry, well beyond the state. The call by some political leaders to stop repayment, the issue of the Ordinance and its conversion to a Bill, and several other signals to borrowers, combined to prompt cessation of recoveries. The Indian banking industry, which funded much MFI lending, stopped disbursement of credit to MFIs. The Reserve Bank of India constituted a Sub-Committee of its Board of Directors, headed by Mr Y H Malegam, to review the definition of microfinance, examine prevalent microfinance practices, delineate a regulatory framework, and make recommendations in a number of related areas. The Committee was chaired by Mr Malegam, a serving member of the Board of Directors of the Reserve Bank of India, and included Mr Kumar Mangalam Birla, Dr K C Chakrabarty, Mr U R Rao, Mrs Shashi Rajagopalan, and Mr V K Sharma as its Member Secretary.

This paper presents our analysis of the Malegam Committee recommendations, in five parts:

- Part I examines the Committee’s attempt to create a distinctive identity for microfinance itself;
- Part II reviews the Committee’s attempt to define the activities of microfinance business;
- Part III focuses on the outcomes of microfinance businesses both social and commercial; and
- In Part IV we examine some grey areas that remain following the report.
- In Part V, we offer some financial analyses, which:
 - Examine in detail some of the implications of the Committee’s recommendations on

- financial results for the industry; and
- Examine the extent to which microfinance remains a commercially attractive sector for investors.

We conclude with a summary of our recommendations.

I: Defining Microfinance: The World According to Malegam

At the outset, the Malegam Committee’s recommendations are welcome simply for recognising the important role of microfinance in the larger objective of financial inclusion, and legitimising the business through the creation of the new category of NBFC called NBFC-MFI. At least part of the relative cheer with which its recommendations have been greeted by the sector can be attributed to this simple relief.

While the act of definition brings major benefits, the constraints that the Committee has placed around defining the borrower (at or below an annual household income of ₹50,000) and the loan amount (₹25,000) may merit revisiting. The result may, in practice, be some disincentive for the private sector to participate in financial inclusion at these income levels.

Requiring MFIs to make an assessment of borrowers’ household income is eminently reasonable. However, establishing a mandatory cut-off at ₹50,000 may be questionable. The income of a poor household is inherently volatile, and it may not be possible at the start of a 12- (or now, sometimes, 24-) month loan period to confirm that the household income will not exceed ₹50,000 during the tenure of the loan. Finally, this regulation (like some others in the Committee’s

recommendations) imposes a single value across all segments of the immense economic and social diversity of India.

In addition, this proposal effectively discourages families from improving their income – or at least from reporting such improvements. There remains significant financial exclusion at incomes well above the proposed ₹50,000 level, which is still not sufficient for inclusion in the formal financial sector. Under the Committee's proposal, once a household's income crosses ₹50,000, they have no alternative but to go back to moneylenders (or conceal part of their income).

Mr Malegam has clarified in subsequent interviews that ₹50,000 was “just a number”, which can be changed. We respectfully suggest that this “number” needs more serious consideration; beyond a line to be moved up or down. It may change by environment (Rural, Urban or Semi-Urban), or by geography. Undoubtedly, with the best of intentions, the Committee may have created some disincentive for enterprising poor people.

Similarly, in restricting the loan amount, it appears that the Committee went by current practice, but allowed (again justifiable) concern over multiple lending to override the reality that a borrower seeks multiple loans simply because no single MFI or Self Help Group meets her needs. While the Committee has taken the position that no individual should borrow from more than two lenders, by limiting the amount to ₹25,000 they may have overlooked some ground realities and inflation. A quick trip to a cattle mart will reveal to the Committee that a single buffalo costs almost exactly as much as their proposed loan limit. If a household has no alternative but to use its entire loan to buy one buffalo, they have no protection if something untoward happens to that buffalo, or if the family suffers other emergency; nor can they (for example) supplement the production of milk with a motorcycle for delivery.

On the other hand, while there may be arguments raised against the requirement that 75% of the loans be for productive businesses, we believe this is a good decision, as is the flexibility on repayment frequency. We also welcome the continuation of Priority Sector Lending.

Overall, while the affirmation of the status of the microfinance business is welcome, we would suggest that the limits on target customer income and loan amounts be re-visited.

II: Defining the Business of Microfinance

The Committee has put considerable effort into

addressing some of the key challenges facing the microfinance sector. Its recommendations have interesting long-term ramifications for the microfinance business model.

One contributor to the rapid growth of the Grameen model has been the belief that the poor understand what they need, and the microfinance service provider should confine itself to acquiring the customer and disbursing the loan. That approach worked well, and allowed MFIs to scale rapidly, but in the new context the customer acquisition based business model must change, and should transform itself into a unique customer acquisition and retention (UCAR) model.

The impacts of this change are manifold. One is that lenders cannot disburse loans unrestrainedly. It also makes it difficult to poach clients. Finally, the unique client acquisition means that loan officer would need to invest time closing each loan, and would need to understand not only the borrower's need for the specific loan but her other potential needs as well as also her current and potential cash-flows.

The MFI will need to be able to meet the broader life-time financial needs of the client. This may mean that the loan size will have to move up, and that the loan officer will need to understand the client's cash flows more completely. The MFI would need to understand the full range of financial requirements of the client's family, and find ways to fulfil them within the limit of ₹25,000.

In this context, the Committee's requirement that 90% of assets be “qualifying assets” is welcome in terms of improving sector focus, but may constrain the industry's ability to innovate and diversify products.

The Committee reiterates that thrift services should not be provided by MFIs. While this restriction is seen as a major constraint by Indian MFIs (and incidentally, invalidates many of the comparisons between the microfinance sector in India and those in some other countries), keeping in mind the past position of RBI on such issues, this was probably inevitable. *(But is it possible to ask for an open mind on the possibility of MFIs, with their demonstrated reach to the poor, functioning as Banking Correspondents, with appropriate safeguards?)*

Other key recommendations are linked to the public display of effective interest rates, and ensuring beyond reasonable doubt that the borrower is made aware of her outstanding and her repayments. These are welcome,

and should be implemented rigorously to stop malpractices and indeed the very appearance of malpractices.

The Committee also made recommendations that nullify (or at least moderate) some provisions of the AP Act, including the requirement to distribute and collect loans at government offices. The recommendations do specify that all interaction with the borrower must be in public places. Read alongside the recommendation that severe penalties will be imposed on management in case of coercive practices, these provisions, we believe, provide adequate safeguards for the borrower.

For all the positive notes above, we are left wondering if registering as an NBFC-MFI remains commercially attractive. We are unsure if the Committee has achieved the balance needed to continue building the sector. We believe the Committee's recommendations incorporate too many disincentives to register as an NBFC-MFI, and leave too much ambiguity around the line between an NBFC-MFI and a general NBFC. We will continue to revisit this as the Committee's recommendations are debated, before becoming law.

III: Defining Social and Commercial Outcomes

Commercial microfinance has been on an upsurge, and the two factors that have made this possible are the excellent track record of repayments by the poor, and the belief that businesses can continue to grow at annualised rates above 40-50% and still maintain quality. The partnership between investors and lenders over the past few years allowed the sector to soar.

Growth, it would seem, also helped bring about the practices that caused the crisis. The receptive, crowded communities of Southern India became overcrowded, as more MFIs pursued the same borrowers, creating the challenges of multiple lending and over-indebtedness. These challenges caused stress, mismatched cash-flows, and pressure on the defaulters.

The Committee has made some strong recommendations which are likely to raise some barriers to this hitherto easy entry – intentionally, as we read it.

The first such recommendation is the enhancement of capital adequacy requirements. The Committee has recommended that the net owned funds should be in form of Tier I capital. It has also set the minimum capital for NBFC-MFIs at ₹15 Crore.

These recommendations essentially do two things. First,

they restrict MFI promoters to corporates, or individuals backed by strong investors with significant capital. While this may not seem a bad thing, we are left wondering if any promoters have the backing of so much capital. The Committee may recall that even MFIs considered “large” today attracted such capital only *after* some years of growth. In fact we cannot recall any MFI currently operating in India that started with the kind of capital backing the Committee appears to expect. Given the restrictions on commercial upsides, we are unsure if promoters have the ability to attract such large sums of start-up capital; larger, indeed, than are required to set up as a NBFC -specifically for microfinance.

We believe the proposed minimum capital requirement for an NBFC-MFI is too steep a jump from the current requirement of ₹2 Crore. We note that it is far in excess of the amount required to start a regular NBFC or even a Housing Finance Company. It might make sense to raise this capital requirement in stages (to perhaps ₹5 Crore to start with), and in a uniform manner for all categories of NBFCs falling under the purview of RBI.

The recommendation that all capital has to be Tier I capital is also restrictive, as it makes MFIs capital-inefficient. Effectively the Committee has removed incentives for promoters to innovate, or build more efficiency, in the use of capital.

The Committee's recommendations on provisions are stringent, but perhaps essential for the sector, given its small loan sizes and rapid deployment. However given the context of the large defaults that have occurred in AP since the introduction of the AP Ordinance, most MFIs with any significant presence in AP are facing the possibility that their entire net worth could potentially be wiped out, if the Committee's recommended provisioning policy is strictly enforced. Since these defaults have occurred under exceptional circumstances, we ask if the Committee will consider some interim relief for these beleaguered MFIs. Otherwise many will struggle to maintain capital adequacy from April onwards, once these provisioning requirements start to apply.

The Committee's recommendation on disclosure regarding assignment and securitisation is welcome. The recommendation that the full value of securitised assets should be considered as risk-based assets for capital adequacy, and the suggestion to deduct credit enhancement from Net Owned Funds will reduce the attraction of assignment for MFIs.

Most MFI promoters would be delirious with joy over a

recommendation to issue preference capital with a ceiling on the coupon. However, at a time when small MFIs are finding it difficult to find pure debt from financial institutions at 12% interest rate, finding a preference capital option with a ceiling looks difficult. Still, the recommendation is positive in light of lack of options that MFIs face in diversifying their fund sources.

The recommendation to establish a domestic Social Capital fund is potentially exciting. We believe that domestic equity has avoided the microfinance world partly due to difficult inter-regulatory issues. However, we believe it will be extremely difficult to raise a meaningful amount of domestic social capital, based on our experience and the track record of domestic investors' participation in social venture funds already operating in India. We welcome the move and look forward to follow-up.

IV: Grey Areas

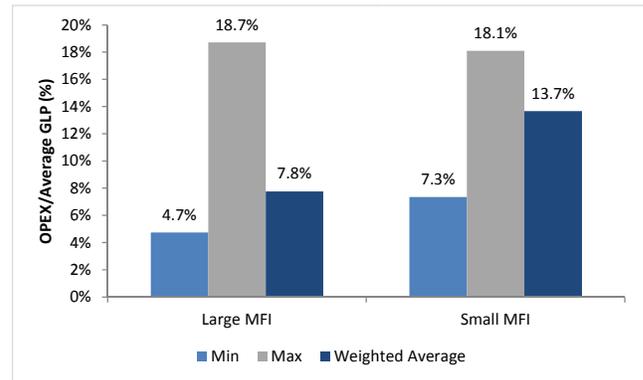
The Committee's recommendations on interest rate caps and margin caps are still being debated. We believe that an overall cap on the interest rate without a cap on the cost of borrowing is asymmetric. The Committee may not have taken into account all the costs that MFIs incur, from cash collateral to processing fee, to secure loans. We recognise and welcome the intention to protect the borrower, but if the Committee must cap, we would wish it had capped both sides.

The margin-based pricing policy is an interesting concept but could lead to some skewed results. While working on the financials of an entity that would start as an NBFC-MFI following the Committee's recommendations, we found that as soon as an MFI starts operating under margin cap pricing, every decrease in cost of debt impacts the PAT negatively. This is because the impact of the cost of borrowing only applies to the 75% of the portfolio (assuming a debt-equity ratio of 3:1) that has been financed by loans, whereas the impact of margin cap on the income side applies to 100% of the portfolio. Since a 100 basis point drop in the cost of borrowing would require a corresponding 100 basis point drop in the interest charged to the borrowers, any reduction in the borrowing cost actually has a negative impact on the bottom line of the MFI.

Conversely, if we were to apply the cost of capital formula as illustrated in the report to arrive at the cost of funds, then given the steady-stage leverage ratio of around 80%, and average borrowing rates from banks of around 12-14%, the weighted cost of this capital will always be in excess of 14%. Therefore, given the margin cap of

10%/12%, the NBFC-MFI would always be operating at the maximum cap of 24%. The margin pricing mechanism would therefore become redundant.

We question some of the numbers that the Committee presents in making its arguments. Intellecrap applied the same analysis which the Committee presents, to the financials of the top ten NBFC-MFIs by portfolio size, and five high-growth smaller NBFC-MFIs, and we see somewhat different results. For instance, the weighted average operating expenses to average outstanding portfolio (GLP for 2009 and 2010) ratio for larger and smaller MFIs in our sample are 7.8% and 13.7% respectively, while the same numbers in the Committee's report are 13.7% and 8.1% respectively. Intellecrap's numbers are in line with the logic that scale leads to efficiency while the Committee's numbers are counter-intuitive in this respect.



Additionally, for a start-up MFI, it will be very difficult to raise debt from the banks at the same rates as the larger MFIs. Typically, we have found that the differential in interest rate charged by the banks to the smaller MFIs ranges from 100 to 200 basis points. This is well-known to industry practitioners, but curiously seems to have been misinterpreted in the cost ratios presented by the Committee. Moreover it is very unrealistic for a smaller MFI in the first couple of years of operation to target a capital adequacy ratio of 85% as has been assumed in the report for the purpose of calculation of cost of capital. Even the larger MFIs would typically operate with an average Capital Adequacy ratio of around 80%; and even that will get skewed during an equity raise, which is quite a frequent event in capital-hungry businesses such as microfinance.

For these reasons, we would suggest there should be some relaxation of the pricing cap for smaller MFI either based on time (say for the first two years of operation) or till they reach a certain minimum size (say ₹50 Crore

portfolio).

More broadly, since the pricing recommendations are based on calculations of various cost elements for an MFI, we would strongly recommend that the financial ratios (especially those for the smaller MFIs) used in the Committee's recommendations are validated using a bigger and more representative sample. The report itself admits that these numbers are significantly skewed as they do not take into account assigned portfolios which are not reflected on the balance sheet of the MFI. In the Intellecrap White Paper^{iv} that was released following the issue of the AP Ordinance, we had provided what in our view is a realistic estimate of the cost ratios of the MFIs based on the size of their portfolio. It is re-produced below:

GLP	<50 cr	50-500 cr	> 500 cr
Branch Cost	11%-12%	6%-8%	4%-6%
Area Office & HO Cost	4%-5%	3%-4%	1%-1.5%
Total Cost of Operations	15%-17%	9%-12%	5%-7.5%
Loan Loss Provisions	1%-2%	1%-2%	1%-1.5%
Cost of Financing	13%-15%	12%-14%	11%-13%
Total Cost	29%-34%	22%-28%	17%-22%

It is evident that under the proposed pricing caps it becomes extremely difficult to start and run a commercially viable business as an NBFC-MFI.

Further, the Committee's recommendation that MFIs should not levy an insurance administration charge is difficult to justify. There is a real expense involved in negotiating and arranging insurance, and paying over premiums to the insurance company. Further, the Committee has asked MFIs to recover insurance premium as part of loan repayments, and not up front. Effectively this means the premium amount has to be financed by the MFI. When even the IRDA allows fees or commissions up to 10% of the premium, it ignores business realities to require MFIs, with capped rates, to provide this service for free.

In summary, the enactment of the Committee's recommendations will moderate enticements for players to become NBFC-MFIs serving households below the ₹50,000 income threshold. It may not be a surprise if some of the larger MFIs redefine themselves as "financial service providers" and continue to serve households at slightly higher income levels, but still financially excluded.

The recommendation that no more than two MFIs should lend to a client might prompt a 'real estate' rush, with scale-oriented MFIs actively moving to low-penetrated geographies. Such a rush might initiate consolidation in

the market, with larger MFIs acquiring smaller players in newer geographies; while mid-sized MFIs merge to acquire scale. This could be positive in the medium-term.

Operationalization of some recommendations will be nightmarish, both for RBI and the MFIs. There will be new reporting and monitoring requirements, changes in processes and products, and MFIs are expected to bleed somewhat during the preliminary phases of implementation.

V: Financial Projections for a MFI and Returns for Investors under the New Paradigm

In order to ascertain the impact of these recommendations on the financial viability of an MFI, we created five year financial projections for a start-up MFI under three different growth scenarios. The key outreach parameters and the investment requirements under these three scenarios are summarised in the table below:

Scale of Operations	Low Growth	Moderate Growth	High Growth
Branches in Year 5	218	329	452
GLP in Year 5 (₹Cr)	423	651	886
Clients in Year 5	527,269	806,827	1,103,022
Fresh Equity Infusion	Year 1: ₹15 Cr	Year 1: ₹15 Cr	Year 1: ₹15 Cr
	Year 3: ₹15 Cr	Year 3: ₹25 Cr	Year 3: ₹50 Cr
	Year 5: ₹40 Cr	Year 5: ₹50 Cr	Year 5: ₹75 Cr
Total Debt Raised in five yrs.	~ ₹750 Cr	~ ₹1,160 Cr	~ ₹1,540 Cr

In the financial projections under each of the scenarios we assume that we start with an initial equity capital of ₹15 Crore. Further infusion of Equity and Debt is factored on the basis of the cash required for the business under each growth scenario ensuring that the capital adequacy requirements are not breached at any point of time.

The following table provides a quick summary of the key financial outcomes under the different scenarios at the end of the 5 year projection period:

Financial indicators (Year 5)	Low Growth	Moderate Growth	High Growth
GLP (₹Cr)	423	651	886
Total Income (₹Cr)	78.8	122.4	165.9
PAT (₹Cr)	6.4	11.2	15.9
Operating Expense Ratio	8.00%	7.78%	7.77%
ROA	1.90%	2.31%	2.40%
ROE	11.03%	14.82%	13.49%
Break Even	Year 3		

A quick glance at the financials shows that a start-up MFI under all the three growth scenarios breaks even only in its third year of operations. Even in a mature steady state it is able to generate an ROA of only 2.0-2.5%. The post-tax Return on Equity that such an MFI would be able to generate barely stands at 11-15%. The Malegam Committee report suggests creation of “domestic social capital funds” which are willing to accept “muted” returns of 10-12%. Therefore based on these projections one could argue that they have got their recommendations spot on. Perhaps it will be such domestic social capital funds (if and when they get created) that will be willing to take this kind of early stage risks, wait for five years and then be satisfied with such ROEs from the business – perhaps.

So, does it mean that if these recommendations are implemented, there is no case for a commercially minded investor to invest in microfinance? That is not necessarily the case, in our view. We have found that the ROEs generated by an MFI are often used as a proxy for the returns that the investors in the MFI are making on their investment. While the ROEs certainly influence the valuation of the company, the actual return made by the investor is simply a function of the valuation of the entity at the time of the entry and exit of the investor and time period for which the investor is invested in the company. This is usually expressed in the form of an IRR (Internal Rate of Return). We will use the same set of financial projections to demonstrate how a commercial investor can still make adequate returns on their investment in our start-up MFI.

Let us take three different investors who come in at the three different rounds of equity in our start-up MFI. Let us assume that under each of the above scenarios, out of the initial equity requirement of ₹15 Crore, ₹5 Crore is brought by the Promoter and the balance ₹10 Crore by an Angel Investor who invests at par value along with the

Promoter. Further rounds of equity investments take place at the start of Year 3 and Year 5 and are invested by Series A and Series B investors respectively at a conservative (given the muted returns generated by the business we are assuming much lower multiples than comparable transactions in the past) BV multiple of 1.5X. In order to remove any kind of valuation bias that can distort the end results we will also assume that the final exit takes place for all the 3 investors at the end of year 5 at the same BV multiple of 1.5X. The investment outcomes for each of these investors under the different scenarios are summarized in the table below:

Scenarios		Low Growth	Moderate Growth	High Growth
Angel Investor	Amount Invested (₹Crore)	10	10	10
	IRR	19.86%	22.36%	22.55%
Series A Investor	Amount Invested (₹Crore)	15	25	50
	IRR	22.14%	25.83%	27.68%
Series B Investor	Amount Invested (₹Crore)	40	50	75
	IRR	32.96%	35.66%	33.35%

These IRR figures could fluctuate quite a bit if one were to change the entry and exit valuation multiples. It is evident that even under these very conservative assumptions our Angel investor is able to generate an IRR in the range of 20-22% over a five year investment period, which means that even in the worst case scenario (low growth projection), the Angel Investor’s original investment of ₹10 Crore is worth ₹25 Crore at the end of year 5. This kind of return would be adequate to meet the hurdle rate for most of the socially oriented double bottom-line seeking HNI investors, microfinance-focused funds and Development Finance Institutions but may not be sufficient to meet the requirements of the purely commercial Venture Capital and Private Equity funds.

However, the same commercial funds might want to come in at a slightly later stage as either a Series A or Series B investor and they could still generate IRRs in the range of 25-35% as demonstrated in the table given above. Clearly, these returns pale in comparison to those that some investors historically saw in their microfinance portfolios over the last 5 years. But this exercise does demonstrate that equity investments in microfinance remains a viable proposition (even if not as spectacular as before), under these very conservative estimates.

One may ask what happens to our poor Promoter who had originally invested the ₹5 Crore along with the Angel Investor. If he continues with the business, even in the worst case scenario, his fully diluted stake of around 10.52% (assuming there are no ESOPs) at the end of five years is worth close to ₹12.5 Crore. One can safely say that under the proposed regulatory framework, microfinance will longer not create overnight billionaires, but in our opinion, it still remains a value creating business venture for all stakeholders that also has huge potential to create significant social impact.

In spite of all the limitations and practical difficulties in implementing the recommendations of the Malegam report, as long as there is an unmet need for credit amongst the financially excluded, and if one is prepared to build a long-term sustainable business around that need, we believe there is still a reasonably solid business case for investments in this space.

Rumours of microfinance's death, as Mark Twain might have said, are much exaggerated. That is certainly what our analyses seem to suggest.

Our Recommendations

In conclusion, we thank the Malegam committee for their work and respectfully offer the following summary of our key recommendations:

1. Consider increasing the limit on annual household income to ₹1,50,000 which is realistic for the client segment that MFIs currently serve. The Committee could also consider different household income limits for urban, semi-urban and rural areas, and index the ceiling to inflation;
2. Provide flexibility to MFIs to design their products around appropriate tenure, loan amounts, and interest rates, while retaining measures that protect borrowers. Any cap on the loan should be linked to the borrower's repayment capacity, provided there is a credible system in place to track her income;
3. Revisit the minimum capital requirement for an NBFC-MFI. If it must be raised, we suggest it be done in stages, and uniformly for all categories of NBFCs regulated by the RBI;
4. Revisit the calculations of operating efficiency and capital adequacy with a larger sample of MFIs, and the pricing recommendations based on those calculations. We also suggest that there should be some relaxation of the pricing cap for smaller MFIs based on either time or portfolio size. The proposed margin-based pricing mechanism will lead to skewed results and hence we suggest it should be done away with;

5. Moderate the applicability of the new provisioning norms with some interim relief for the MFIs affected by the microfinance crisis in AP;
6. Recognise that there will be some significant practical implementation and reporting difficulties, in the first 12 to 18 months at least of this new regime, and support MFIs in making the transition; and
7. As perhaps a relatively small matter, but on the principle of recognising business imperatives, we would also ask if it is possible to remove the requirement that MFIs should pass on insurance at cost.

All said and done, we remain optimistic about the microfinance sector, and unabashedly positive about its potential to continue contributing to financial inclusion in India.

About Intellecrap

Intellecrap is a pioneer in providing innovative business solutions that help scale profitable and sustainable enterprises dedicated to social and environmental change. The company's unique positioning at the intersection of social and commercial business sectors, allows it to attract and nurture intellectual capital that combines business training of the commercial world with passion and commitment of the social world to create distinctive solutions that include best practices and principles of both cultures.

Intellecrap operates in multiple capacities in the social-commercial space: facilitating investments, providing strategic consulting and business advisory services, supporting operational planning and implementation, and developing information-sharing and industry-enhancing platforms that promote and build SUSTAINABLE, PROFITABLE and SOCIALLY RESPONSIBLE enterprises.

For more information, please visit www.intellecrap.com.

ⁱ www.rbi.org.in

ⁱⁱ <http://indiamicrofinance.com/wp-content/uploads/2011/01/Malegam-Report-Issues-Microfinance-India.pdf>

ⁱⁱⁱ Andhra Pradesh Micro Finance Institutions (regulation of money lending) Ordinance 2010 Source: <http://www.serp.ap.gov.in/SHG/files/MFIOrdinance.pdf>

^{iv} Indian Microfinance Crisis of 2010: Turf War or a Battle of Intentions? http://intellecrap.com/assets/82/Intellecrap_Microfinance_White_Paper_Oct_20202010.pdf

Quick conversions: 1 Crore = 10 million, US\$ 1 = ₹ 45