CHAPTER 2
INSTITUTIONAL DIMENSIONS OF MICRO-FINANCE GROUPS

2.1. Introduction
Credit is important for the poor to bridge the gap between income and expenditure. The poor do not have sufficient and reliable access to credit from the formal banking system for a number of reasons, which illustrates the risks and uncertainties in the credit market. These relate to the inability of the poor to provide adequate physical collateral and transaction costs due to cumbersome banking procedures while dealing with large number of small borrowers and risk costs of lending institutions associated with timely repayment of the loans. The risks or uncertainties in the credit market often arise from the problem of asymmetry of information. As it is difficult to gather information in advance about the transactions which are going to happen in future, there are problems of adverse selection and moral hazard, which ultimately reduce the volume of transactions and hence, result in welfare loss. The problem of information asymmetry can be solved; but, it is costly for the lending institutions. The micro-finance groups, based on the principle of joint liability, have the potential to solve the problem of information asymmetry and improve access to credit for the poor.

In this context the following questions become relevant: How do imperfections emerge in the rural credit markets? How can these imperfections be reduced in micro-finance groups? What factors play an important role in ensuring collective action at the group level while selecting the creditworthy borrowers, monitoring the utilisation of the loan and ensuring repayment under micro-finance groups? What are the different mechanisms and incentives incorporated to bring about collective action among micro-finance group members? An attempt has been made in this chapter to review the theoretical and empirical literature to answer these questions.
The section relating to imperfect information in the rural credit market explains the asymmetry of imperfections experienced by both the lenders and borrowers at various levels of credit transactions. As imperfections act as a hurdle for the members to access credit, the governments of developing countries have introduced specialised poverty alleviation programmes and banking reforms. Instead of improving the availability of credit, they have widened the existing inequality in the distribution of credit. In this context, the group approach of micro-finance groups assumes significance. Under them, members access credit based on the principle of joint liability and the group guarantees the repayment of the loans. Since collective responsibility is a public good, it is quite possible that the members may free ride. Therefore, members should be provided with adequate incentives and mechanisms, which constitute the major focus of the present study.

2.2. Imperfections in the Rural Credit Market

Unlike market for goods and services, credit market transactions have future implications. A credit transaction involves a relationship between the lender and the borrower in time and hence, in the context of uncertainty. A credit transaction is said to be complete only when the borrower repays the amount borrowed and there is no certainty about this repayment” (Bhatt 1987). This implies that both lenders and borrowers face risks about the completion of a credit transaction. Borrowers face the risk that the expected increase in income from an investment project for repayment may or may not materialise. On the other hand, lenders’ risks have two elements: one relates to the same risks which the borrowers face, and the other relates to the borrowers’ commitment to repay; even if she/ he is able to repay, she/ he may not be willing to repay (Hoff and Stiglitz 1990).

Asymmetry of information in the rural credit market results in a situation similar to Akerlof's (1970) market for lemons. In these markets, the sellers of good quality products withdraw from the sale as their products are ranked equivalent to bad quality products. Therefore, the difficulty to gather information on risks that are faced by the borrowers forces the lenders not to extend credit to large number
of borrowers with varied risks. When the lenders cannot obtain information on risks of the borrowers and assume that they are all the same in terms of risks, adverse selection arises. The second problem of information relates to the difficulty in gathering information regarding the utilisation of the money borrowed. The lenders have to monitor the purposes for which the borrowers have invested and hence, it examines whether the investment leads to repayment. In short, the information problems in the credit market impose certain costs on the lenders and they are *ex-ante* costs of adverse selection and *ex-post* costs of moral hazard (Lin and Nugent 1995). The former relates to the imperfections on the information regarding the creditworthiness of the borrower or his/her willingness to make repayment, whereas the latter relates to his/her ability to make repayments. As it is costly to gather information on these two major aspects of credit transactions, the rural credit markets deviate from the classical assumption of perfect competition and therefore, these markets are imperfect. The imperfect credit markets bring down the total volume of the loanable funds transacted. The costs involved in acquiring information about these two aspects often lead to a market failure and constrained Pareto efficiency\(^{13}\) (Besley 1994). However, credit market failure of such kind in the institutional sources of credit can be brought down once information about the transactions is obtained.

As it is difficult to gather information on creditworthiness of large number of small borrowers without adequate collateral, formal lenders find it difficult to lend in the rural areas. Moreover, the credit markets of these rural areas are characterised by covariant risks, especially in the absence of portfolio diversification and segmented markets (Besley 1994). As in the case of lenders, the borrowers too face problems in rural credit markets. The poor lack adequate physical capital to provide as collateral. Moreover, they face certain imperfections in the banking system such as complicated procedures, unimaginative lending policies and procedures, absence of provision for

\(^{13}\) Credit market imperfection occurs due to costs on information and enforcement, and it results in an outcome where inefficiency exerts the lender to reduce the amount lent to the borrower. It has efficiency costs to the society, but from an operational point of view such costs have no relevance. Market failure is taken to mean the inability of the free market to bring about a constrained Pareto efficient allocation of credit (Besley 1994).
consumption credit, political interference, distant location, cultural gap between the officials and borrowers and short banking hours etc., which restrict their access to credit (Rajasekhar 1996).

According to Hoff and Stiglitz (1990), lenders are entrusted to examine imperfect information problems of three kinds in the rural credit markets. They are problems of screening, incentive and enforcement. The first one relates to the problem of ensuring the likelihood of default of the borrowers and it looks into the willingness of the borrowers to make repayment. The incentive problem relates to the problem of borrowers to take actions, which makes repayment more likely. The third problem relates to the problem of ensuring repayment. The information costs involved for both lenders and borrowers for bringing about the transactions are called transaction costs. As a result, the availability of credit to the rural poor from formal banking institutions has always remained as an outstanding issue.

For a long time, the rural credit demands of the poor are being met by informal sources of credit. The poor borrowed from these informal sources, even at higher rates of interests charged by these lenders. But, their higher rates of interests can be justified in terms of the transaction costs for gathering information about the creditworthiness of the borrowers. According to Braverman and Gusach (1986), the informal sources of credit were better in reaching the poor through their informal linkages to output market and also through the information acquired about the creditworthiness of the borrowers through their prior credit dealings. With this objective, the lenders generally lend to those borrowers with whom they have a longer duration of credit dealings. Besides, in these informal credit markets, the administrative costs of the credit dealings on account of complicated procedures for bringing about credit transactions have been observed to be zero.

In short, the imperfections or market failures in the rural credit market impose costs for both lenders and borrowers. The explicit transaction costs experienced by the rural poor from the formal credit market and the implicit transaction costs
in terms of higher rates of interests charged by the informal sources of credit put a stumbling block on the rural poor to access credit.

2.3. Innovations in the Rural Credit Market

Realising the problem of inadequate access to credit to the rural poor, governments in the developing countries have been introducing specialised banks and rural development programmes from time to time. Without giving due attention to the costs of administration and default risks in the credit market, these specialised banks were instructed to impose interest rate ceilings for their transactions. But, such an action resulted in an increased demand for credit and led to credit rationing, whereby non-rationed rich borrowers received larger amounts of the loan (Vega 1984; Adams et al 1984; Sahu and Rajasekhar 2005). Consequently, the rich received higher amounts and larger number of loans at the cost of the poor. Thus interest rate ceilings also widened the already existing inequality in the distribution of wealth.

The policies of administered interest rates were criticised by the economists of Ohio School (Adams et al 1984; Vega 1984; Cuevas and Douglas 1984). These economists were of the opinion that the market forces of demand and supply should be left free in determining the interest rates in the credit market. The rate of interest determined by the market should cover the costs of administration, in addition to the risks of default. According to the proponents of Ohio School, the rate of interest charged by the informal sources of credit are market determined as it covers the transaction costs of acquiring information about the creditworthiness of the borrowers.

As the interest rate ceilings widened the already existing inequality in the distribution of wealth, the Ohio School criticised the professed objective of outreach of the specialised banks. Because, instead of reaching the needy, these deliberately constituted institutional credit mechanisms taxed the poor while subsidising the rich (Vega 1984). Subsidised credit programmes encouraged corruption, capital flight and unproductive investment. Many of the financial
institutions created to channel and allocate credit to the rural sector lacked accountability, fostered arbitrary practices and allocated credit more on political rather than on economic grounds (Braverman and Gusach 1993).

Another significant criticism levelled against the interest rate ceilings of the specialised banks relates to the long run sustainability of the financial institutions. The proponents of the Ohio School questioned the financial sustainability of the lending institutions in the context of subsidised rates of interests and they argued that institutional sustainability could not be realised under interest rate ceilings. The lower interest rates could not only not cover the costs of administration and risks of default but also failed to stimulate savings of the rural poor. According to Vega (1984), interest rate ceilings had three aggregate and distributive effects on the portfolio of formal financial institutions. Firstly, it reduced the ability of the financial institutions to attract savings. Secondly, it brought down the relative profitability of lending. Finally, ceilings altered the composition of the loan portfolio of the financial institutions and hence, relative profitability of loans to different borrower classes.

In the regime of administered rates of interest the propensity to save was low or the people were tempted to utilise their small savings on dead investments. Moreover, lending institutions assumed that the poor were unbankable as they could not make regular saving contributions due to their fluctuating income. However, the Ohio School strongly recommended that savings contributed by the poor, even if they were small, gave information about their creditworthiness, provided continual flow of resources for lending and acted as an incentive to repay lenders’ money (Vogel 1984). Inability of the formal institutions to mobilise savings in the context of interest ceilings leads to inadequate loanable funds. In the absence of adequate loanable funds, banks were forced to depend on internal and external sources of funds for lending and it created dependency. Thus, the proponents of Ohio School argued that the specialised banks with their government imposed restrictions could not achieve the twin objectives of
financial sustainability of the lending institution and the targeting of the
programme to the most desirable.

Moreover, the poverty alleviation programmes introduced in these developing
countries suffered from problems of targeting, poor utilisation of loans,
misappropriation of funds and poor recovery (Gaiha et al. 2001). As noted earlier,
informal lending agencies were observed to be better in bringing down the costs
of interest rate ceilings, as they had good information about the credit dealings of
their clients. They could charge differential rates of interest. Moreover, they
reduced the risk by inter-linkages or by diversifying into product, input and
processing markets (Bouman 1984). Even though the arguments put forth by the
Ohio School are worthwhile, it should be noted that the School has not given
adequate attention to the implicit gains, which the specialised development banks
could generate. The Ohio School giving emphasis on the financial viability of the
lending institution was criticised for its idealisation of informal financial sector,
ignoring externalities, failing to produce data concerning social rate of return and
poverty impact of these institutions (Hulme and Mosley 1996).

However, it is essential to look into the points raised by the Ohio school,
especially those relating to the sustainability of the financial institution. It is
significant to note that the savings on the part of the members provided
information about the creditworthiness of the borrowers and capital for lending
(Desai 1983; Vogel 1984; Rutherford 2001; Adams et al. 1984). A freely
determined market rate of interest is viable to cover the transaction costs of the
lenders. But, a higher rate of interest charged by the moneylenders, even though
justifiable from the point of acquiring information on creditworthiness of the
borrowers, is not desirable. Therefore, both the formal and informal lending
institutions have merits and defects. This necessitated the creation of a new credit
institution, which combined good features of formal and informal institutions.
2.4. Micro-Finance as an Innovation in the Credit Market

Developing countries have adopted micro-finance programmes as financial innovations aimed at poverty alleviation. In general, women participate in these programmes. They access credit for Income Generating Activities (IGAs) and thereby, improving their standard of living. Various scholars (Mayoux 1998, 2001; Hashemi et al. 1996; Khandker 1998) have stated that the participation in the micro-finance programmes empowered the women socially, politically and economically and hence, improved their status within the household and outside.

What advantages do micro-finance groups have? These are small sized groups of poor women engaged in activities of lending and savings besides engaging in matters of social significance. These groups incorporate good features of reduced transaction costs and improved targeting. Under these groups, large number of small borrowers without adequate collateral can access credit by using social collateral.

Generally, the members of these groups are familiar with each other and belong to similar socio-economic characteristics. Under them, lenders issue loans to groups rather than to individuals and the group undertakes the responsibility of repaying back the loan. Thus the transaction costs of the lenders while exercising the functions of selecting, monitoring and enforcing repayment are brought down. Since the individual borrowers find it difficult to access credit from formal institutions, they can make use of the social networks, social connections and mutual trust for bringing down the asymmetry of information and achieve a better outcome (Reinke 1998). Besides providing information to the lenders about the creditworthiness of the borrowers, Okten and Osili (2004) have stated that family and community networks provide information to the borrowers about the place to borrow and improve borrowers' access to credit institutions. Therefore, social networks and the mutual trust among the members of the groups bring down transaction costs of both the lenders and borrowers. As against formal institutions, these groups do not require physical collateral from the poor borrowers and hence, a large number of small borrowers without physical
collateral can access credit (Huppi and Feder 1990; Godquin 2004) and therefore, increase the outreach.

Lenders self-select group members, based on their familiarity and personal contacts. Self-selection of the members into the group has the advantage that it exploits local information about the borrowers. By making use of this intangible resource, that is, information about creditworthiness of the members through social networks, they can alleviate credit market failures (Ghatak 1999). Intimate knowledge of each other's activities facilitates mutual monitoring and joint liability principle creates peer pressure for repayment. Besides ensuring repayment of the co-partners, the principle of joint liability influences the members to undertake the responsibility to repay the share of the loan of their partners in case of their default.

Since the members are familiar to each other, the application of other social control mechanisms based on custom and social norms are effective (Schneider 1996). While formal lenders have only limited options to compel repayment from delinquent borrowers, group members can employ social sanctions (Sharma and Zeller 1997). According to Reinke (1998), solidaristic structure imposes high costs on the group members in terms of costs of formation of the groups, obligations for fortnightly meetings and mutual screening and risks of joint liability. However, such costs are observed to be less in rural areas where social stability and flow of information are more as members interact in small numbers and often, they belong to similar socio-economic characteristics (Braverman and Gusach 1993).

Unlike the earlier subsidised credit programmes that neglected the capacity of the poor to make savings, the savings contributed by the members under microfinance programmes has many advantages. The regular saving contributions made by the members to the group strengthens the perceptions that members have a stake in the institution. Groups rely on such savings of members as a reliable source of loanable fund. Such savings also help to know the
creditworthiness of the borrowers and provide an incentive to make timely repayments (Bhatt 1988; Vogel 1984; Bouman 1984; Hulme and Mosley 1996). The periodic savings contributed by the members act as checks and balances (Morduch 1999a, 1999b; Hulme and Mosley 1996). Morduch (1999b) notes that the following are the advantages in the contribution of savings: Firstly, savings can provide a relatively inexpensive source of capital for re-lending. Secondly, savings programme creates a natural client pool. Thirdly, building up savings may offer important advantages to low income households directly. Households can build up assets to use as collateral, they can build up a reserve to reduce consumption volatility over time, and they may be able to self finance investments rather than always turning to creditors.

Under group lending, the principle of joint liability ensures completion of the credit transaction. Joint liability principle asserts that all the members in a group are equally responsible to timely repayment. The principle of joint liability among the members in a group provides incentives to (and/or compel) its members to undertake those actions, which reduce uncertainty in the credit market (Bhatt and Tang 1998; Morduch 1999b). This collective responsibility among the members in a group is the key aspect of micro-finance groups whereby the transaction costs relating to the enforcement of the contract can be brought down. Such lower costs increase the volume of transactions in the credit market and in the process, lead to an improved access to credit for large number of members.

It is observed that in remote communities where the poorest are less mobile and do not have alternative sources of credit, the micro-finance programmes work effectively (Sharma and Zeller 1998; Morduch 1999b). Additional non-financial services offered by the group such as training programmes, provision of inputs for project initiation and marketing facilities, etc., have positive impact on the performance of the group in terms of repayment (Mosly and Dhal 1985; Godquin 2004). These together with dynamic incentives such as second and higher amount of loan will be provided only after the repayments of the first loan have improved
their performance. Those members who demand further loans from the group through repeated interactions try to abide by the rules of the group.

As the poor borrowers without physical collateral are finding it difficult to access credit from the formal institutions, the social collateral offered by the group of members has the potential to access credit. The principle of joint liability enables the members to exercise the functions collectively. Collective action is the force behind the success of micro-finance groups while bringing down transaction costs. Thus, it is pertinent to examine the concept of collective action and how it is applicable among the micro-finance group members.

2.5. Concept of Collective Action

The concept of collective action has been taken from New Institutional Economics to understand the sharing of collective responsibility and the exercise of peer pressure among the micro-finance group members. Collective action represents the group of individuals with common interest tending to act to further those common interests. If rational and self-interested individuals realise that they gained from particular collective action, then they could be expected to engage in such an action (Olson, 1965). Buchanan and Tullock (1965) have supported the same argument by stating that a group would choose a collective mode of action, when each of its individual members found it profitable to act collectively rather than individually. But, those individuals with higher perceived private costs of co-operating over the perceived private benefit of co-operating might not attempt for collective action. This raises a question of what incentives were provided to group members to participate in collective action. The Prisoner’s Dilemma game of Campbell (1985) reveals the benefits from collective action by the members in a group. If two persons with opposing interest were having a chance of getting an equal outcome, it was advantageous for them to co-operate; otherwise, if the people were not having any communication or information, resultant outcome would be sub optimal.
Since collective sharing of responsibility brings down transaction costs, there should be free flow of information so that there should not be any free riding on the part of the members. Moreover, there should be a norm that one should forgo self-interest and act according to the collective interest of the group (Coleman 1988). But, the problem of tending to under supply or free ride the efforts towards collective interest on the part of an individual is also there because of non-excludability characteristic of such an effort. In other words, the actors who generate the collective responsibility capture only a small part of its benefit. There are various circumstances under which the members come for collective action, which may reduce occurrences of non-co-operative behaviour. Most important aspect is that the members should feel the significance of acting collectively rather than individually.

The game theorists have proposed various conditions under which collective action will become a workable solution. In Olson's (1965) static analysis, non-co-operative outcome is the equilibrium solution. But, the repetition of the game into the future brings out a co-operative solution. Under situations of repetitive game, the fear of non-co-operative action from the participants of the game in future and the introduction of penalties for violating arrangements can be a powerful incentive for collective behaviour. If the players in a Prisoners Dilemma know that the game will be played repeatedly, the chances are that they will co-operate today in the hope that others will then do so are much higher than where the game is played only once (Axelord 1981). If we assume that players can alter their own choice before the pay-offs of each round are received, then the rational strategy is one of conditional co-operation or co-operate first, defect if the other defects, or simply put 'no first cheat'. If we assume that the players are able to negotiate changes in the rules of the game among themselves, then one likely change is the introduction of penalties for violating agreements. The effect of such penalties is to reinforce the tendency towards co-operation. Generally, if the individuals in a group share a common interest, the furtherance of common interest will automatically benefit each individual in the group, whether or not he/she has borne any of the costs of collective action to further the common
interest. It is here the principle of joint liability becomes significant as members in a group have to bear the costs arising from non-co-operative action of an individual member.

2.6. Factors Facilitating Collective Action

Even though the members interacting in a group aim at a common objective, there are circumstances that the interests of some members may contradict with that of others. In most of the studies, it is argued that certain preconditions are necessary for the collective enforcement of group norms, while in some other studies it is argued that these conditions can be developed in due course of time through their interactions.

According to Olson (1965), two conditions were required to make collective action possible. One condition was that the number of individuals acting collectively to further their common interest should be sufficiently small. The other condition was that the groups should have access to 'selective incentives'. The number of members in a group was an important factor determining the incentive for collective action. For him, larger groups had a lower incentive for collective action, as an additional member added heterogeneity to the group in some or the other dimension and hence, the chances of free riding. Small groups might prevent the incentives for cooperation getting diluted. He has stated that partnership could be a workable solution, when the number of partners was quite small. When the number of partners increased, the incentive for each partner to work for the welfare of the enterprise lessened. Moreover, small group was more durable and the degree of consensus was easily workable as they had close and continuous interactions.

Various scholars have looked into the issue of number of members involved in a cooperative effort. According to Stiglitz (1990), small size increased the risk from a single member's default but increased the incentive for peer monitoring. The gains from the latter were likely to exceed the losses from the former. Larger groups had free rider problems, as each would expect others to expend the energy
required to monitor and incur the ill-will that would result from reporting offenders who had misused the funds lent to them. Moreover, the cost to each member as a result of a default by one member might be sufficiently small that incentives to monitor were minimal in large groups. In short, as the size of the group increased, the time spent for monitoring also increased. Even though the costs of supervision increased for larger groups, the costs of mobilising resources could be brought down for larger groups (Poteete and Ostrom 2004). Ghatak and Guinnane (1999) have brought out that smaller groups could effectively cope up with free rider and mass co-ordination problems.

Homogeneity of the members involved in a cooperative effort was another most important precondition often discussed and debated by the scholars. It is argued that the socio-economic homogeneity of the members could ensure collective action (Lin and Nugent 1995), as members with similar socio-economic characteristics had advantages while interacting repeatedly into the future and attaining a co-operative solution. There were strong incentives for groups with similar risk characteristics to form. It was quite natural for those members with high risks to free ride and they would like to join groups with those having lower risk of default. Homogeneous groups emerged as those with lower default risk recognised their mutual interest in grouping together and the process would continue until the individuals with the highest risk were forced to group together (Stiglitz 1990).

Social norms, rules and conventions present in the society can influence the co-operative behaviour (Putnam 1993: 167). Historical experiences and traditional mores help the people to shape their preferences and degree of trust in their mutual relationship (Baland and Platteau 1996). A study on the Malawian group credit has brought out that the pre-existing groups had a significant impact on collective outcomes, as it was easy for them to join the groups (Schaefer-Kehnert 1983). Moreover, groups formed without any external influences would sustain for long, as they were formed voluntarily and from the felt needs of the people.
The effectiveness of the cooperative outcome depends to a large extent on the effectiveness of the repeated interactions with lower alternative opportunities and effective implementation of the incentives in the cooperatives. In order to stimulate cooperative action or to avoid non-cooperative outcome, the members in a group should be provided with both the positive and negative incentives (Olson 1965). Social sanction or social ostracism was often used as the negative incentive or sticks\textsuperscript{14} for the members to avoid non-co-operative behaviour. Moreover carrots or positive incentives like higher amounts of loans in successive lending were provided to the members to encourage co-operation. Young (1998) has argued that expectation of the gains from repeated interactions into the future could be considered as an incentive for co-operation. The patterns of interaction, presence or absence of reciprocity among the members and decision-making arrangements determined whether a group would succeed or not (Oakerson 1986). Reciprocity required that members of the group contributed positively to each other’s welfare. But, generally, they co-operated and helped the other member in the hope that she/he would help them in future, in return. Here, rules, procedures, norms, customs, traditions could influence individual and collective decisions.

2.7. Micro-Finance Groups as Institutions of Collective Action

Various scholars (Huppi and Feder 1990; Stiglitz 1990; Morduch 1999b; Floro and Yotopolous 1991) have advocated the significance of group lending programmes in bringing down the transaction costs. These studies have highlighted the welfare enhancing features of group lending programmes, either for the borrowers or for the lenders or for both. The linkage between formal banking institutions and micro-finance groups leads to improved access to bank credit and financial discipline among borrowers. This is made possible by way of generating information about the bankability of the rural borrowers, providing a guarantee cover to loans in order to encourage rural lending and allocating resources to upgrade the creditworthiness of the rural borrowers (Llanto 1990).

\textsuperscript{14} The stick is a negative incentive which prevents the members from a non-co-operative behaviour; whereas carrot is a positive incentive, which stimulates the members in a group for collective behaviour.
Under group lending mechanisms, welfare could be improved by transferring the risks from the lenders on to the borrowers (Stiglitz 1990). Varian (1990) has stated that if group members insured against one another across states of nature, it was advantageous for the lender. Some of the studies have emphasised the significance of the process through which group lending attained efficiency. These studies have brought out the significance of joint liability under group lending and how it enforced successful repayment of the loans borrowed through social ties among members (Floro and Yotopolous 1991; Besley and Coate 1995; Wydick 1999). Some of them were of the opinion that the pressure of social sanction and penalties against defaulters ensured repayment.

In order to ensure bonding and timely repayment of loans, group lending needs to promote certain rules and at the same time, it should provide incentives to the members. The social ties among members in a group have the potential to promote solidarity in the group. Here, the interactions among the group members are structured within the lending group. The social relations among the individuals can help the entire group rather than a single individual. Without high degree of trustworthiness among the members in a group, the institution cannot exist. Thus, social relations among the group members can provide information, which facilitate collective action. The acquisition of information about the potential behaviour of the players in a group is a necessary condition for a group to succeed. Here, the social relations established and maintained for some or the other purpose can be utilised.

While group borrowing is advantageous on account of its capacity to reduce transaction costs, it has disadvantages on account of the common ownership and team production. It is likely to emerge as a non-co-operative outcome, as the liability is fully shared among members under group lending. Huppi and Feder have stated that under the joint liability “the risk is borne by the group, whereas the benefit is reaped by individual... Group members have little incentive to repay if the majority of their peers default” (1990: 191). A non-co-operative outcome leads to over-borrowing and under-supply of effort or of other
individually costly production activities. In order to control the occurrences of such unhealthy practices, the members have to be provided with a system of incentives and rules (Braverman and Gusach 1993).

As the joint liability insists on the members to share the responsibility collectively with all the members, there are chances to free ride. According to Besley and Coate (1995), group lending generated both positive and negative incentives. Positive incentive resulted the successful group members had an incentive to repay the loans of group members whose projects had yielded insufficient return to make repayment worthwhile. On the other hand, negative incentives emerged in those circumstances where the entire group defaulted, when some members would have repaid but not repaid due to the liability of their partners’ loans.

According to Huppi and Feder (1990), group lending had both advantages as well as disadvantages. On the one hand, they brought down the transaction costs of credit market dealings by providing information about the creditworthiness of the borrowers, ensured timely repayment of the borrowers and improved their bargaining position. On the other hand, these programmes suffered from portfolio diversification and reduced the incentives of the members to make repayment if a majority of the members were found defaulted. It had the disadvantage of successful borrowers to default because of the burden of repaying for their partners. According to Devereux and Fishe (1993), joint liability was a useful solution under group lending, if the members of the group gained individually by the misfortune of another member or if the other members avoided the costs from repaying another member’s loan. The element of individual gain or cost avoidance was the external factor exploited by the joint liability clause. When this element was not present, the default of one member tended to encourage the group as a whole to default, thus, exacerbating the delinquency problem.

The social sanction ensured through joint liability could be misguided in societies where homogeneous group members with covariate risks faced adversities
(Braverman and Gusach 1993). During good harvest, group lending worked. Group lending failed during poor harvests when the successful members did not show any interest in repaying their co-partners as a majority of them were defaulting and the gains from repaying were less (Bratton 1986). Another problem which might emerge in these collective entities was that the members would have the incentive to undertake risky project. Since the group was liable to repay for the share of the defaulters, it would generate a negative incentive among the members to undertake risky projects and ultimately this might increase the probability of default (Sharma and Zeller 1997). But, such things could be circumvented, if the group cohesion was strong and the members felt responsible for the effect of the actions of others (Huppi and Feder 1990). However, in these groups with high social connectedness or social cohesion or social capital \(^{15}\) repayment could be ensured through the use of negative incentives of loss of social reputation. Jain and Mansuri (2002) have gone beyond the discussion on the negative incentives and hence, have argued that it might result in the failure of the group unless adequate social connectedness was developed to mitigate these negative effects. However, if the members were unwilling to put pressure on delinquent borrowers and to sanction those who defaulted, it was difficult to ensure joint liability (Ghatak and Guinnane 1999).

The social pressure among members had its own place in micro-finance programmes (Hulme and Mosley 1996). If the social penalty of not repaying the loans was greater than the value of financial penalty imposed for non-repayment, peer pressure would be effective. Greater the homogeneity, stronger was the social pressure to repay. On the other hand, Ghatak and Guinnane (1999) have argued that the availability of alternative sources of credit determined the success of group lending. The competition among various joint liability institutions excluded people from the threat of denial of credit, since they had alternative credit institutions. Moreover, the existence and the cost of dynamic incentives decided whether joint liability would work or not. If a group was having

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\(^{15}\) Social connectedness, social cohesion and social capital are the words used by different scholars (Besley and Coate 1995; Bhatt and Tang 1998; Wydick 1999) to ensure repayment of the loans borrowed through social sanction.
heterogeneous characteristics, the burden of group formation and solidarity would be high. Similarly, if the social ties were weak, or, if there was unwillingness to sanction one another, the mechanism of joint liability would not work.

The costs of solidarity are likely to differ between countries and locations. By giving an example of the group credit programme in Africa, Reinke (1996) has argued that the costs of creating an environment suitable for group lending were high and hence, the individualistic credit was more efficient in making loans to poor entrepreneurs than solidarity groups. According to him, the solidarity was not easily achieved in a volatile and competitive environment where poor Africans were forced to live in and higher administrative costs related to the management of group worked. Even though the impact of the programme was difficult to measure in micro-finance groups in this study area, the social return in terms of decrease in poverty, unemployment and associated social evils exceeded private returns of lending.

2.8. Challenges before Micro-Finance Groups
Various studies (Wydick 1999; Bhatt and Tang 1998; Godquin 2004; Sharma and Zeller 1997; Mosley and Dhal 1986; Stiglitz 1990; Jain and Mansuri 2002; Zeller 1994 and 1998; Besley and Coate 1995; Huppi and Feder 1990; Schaefer-Kehnert 1983; Desai 1983; Wenner 1995) on micro-finance programmes have looked into the ability of the institutions to reduce asymmetry of information and its capacity to ensure access to credit for the rural poor based on the principle of joint liability. All these studies have considered repayment achieved by the groups as a measure of success. This was because timely repayment of the loans reduced their dependence on subsidies and improved institutional sustainability. In other words, these studies were of the opinion that higher repayment ensured financial sustainability of the credit institution. But, they had not considered the problem of borrowers at the time of repayment and the processes behind repayment of the loans.
An important mechanism for ensuring loan repayment was the presence of tightly structured instalment repayments, which enabled micro-finance groups to overcome informational hurdles they faced while enforcing repayment and also reduced the burden of repayment on a lump sum basis (Hulme and Mosley 1996). But, such a repayment pattern imposed certain costs onto the borrowers. Since members were required to make repayment immediately after their borrowing, it was difficult for them to repay the loan from the income generated from the investment made on the project. Moreover, they had to limit the type of projects they financed and there were transaction costs of making regular instalment repayments. A study by Jain and Mansuri (2002) has brought out that this mechanism of instalments repayment constituted by social sanction created dependence on informal credit markets at times of repayment by borrowers. According to them, dependence on informal sources of credit was more among micro-finance group members than non-members.

As the principle of joint liability was strictly followed by the members to ensure repayment, the strong social pressure and the fear of social ostracism from the community associated with the peer pressure forced members to borrow from moneylenders at times of repayment (Chavan and Ramakumar 2002). If members were repaying the loans from the income generated from the activities undertaken with the micro-finance loans, the risks of inability to make repayment and unwillingness to repay would have been brought down or would be made negligible. But, if the members in a group were very poor to make investments in productive projects or could not generate remunerative income from the invested activity, micro-finance programmes, in fact, worsened the financial conditions of the poor women. Because of factors relating to the structure\textsuperscript{16}, crises\textsuperscript{17} and life-cycle\textsuperscript{18}, which were external to the system, members experienced negative shocks at the time of repayment (Ahmed 1999). Under such a system, periodic instalment repayments increased the likely default. So, payment of small periodic

\textsuperscript{16} Market related, like low demand for labour, goods or services.
\textsuperscript{17} Natural and climatic factors including seasonality, or due to family emergencies like death of a family member or marriage.
\textsuperscript{18} Related to demographic changes in the family.
instalment appeared not to be a good method of collecting loans from the poor experiencing persistent negative shocks, as it might probably deplete the profit, savings and thereby, the input use of the members. Similarly, the benefits of groups in terms of repayment of loans existed only if the members in a group did not experience the same shock (Bratton 1986).

Women-oriented micro-finance programmes have the public transcript\(^9\) that they improve women’s contribution to family welfare and assist poor women through their socio-economic empowerment. The idea of giving loans to women who do not have physical collateral may seem attractive. But, it has a hidden transcript\(^{20}\) that since women have limited physical mobility and culturally imposed restrictions, often, the positional vulnerability of women is used at times of repayment (Rahman 1999). The bank workers select women borrowers, as it is easier for them to ensure repayment. But, often, their husbands and other family members put pressure on them to join the programme to get loans for their own use. Rahman’s study (1999) on Grameen Bank model of micro-finance programme in Bangladesh reveals that at the time of repayment women experienced tensions and violence from within the household and from the members in a group and also from the bank workers. Moreover, the undue importance given to the credit performance measured in terms of repayment gave over-weight to dispensing and recovery of loans rather than the issue of whether women developed meaningful control over their investment activities (Goetz and Gupta 1996). It is significant to note that often their male relatives controlled a large proportion of the women’s loans.

According to Floro and Dymski (2000), credit programmes were directed to encourage women’s participation in the credit market and hence, employment sector at times of financial crisis had the costs of greater household risks at times of repayment. It had the costs of greater cash flow dependence and financial

\(^{9}\) Public transcript here refers to the philosophy and objectives of the Grameen Bank and the official view of its operation (Rahman 1999).

\(^{20}\) Hidden transcript is the “covert discourse” of the informants about credit operations in the village (Rahman 1999).
fragility and the women were forced to bear these costs and their conditions became even more vulnerable. The financial vulnerability reduced their earned income, assets they controlled and their voices in the household decision-making with the result that women bore a disproportionate share of the adjustment costs.

The peer pressure exerted by micro-finance programmes at times of repayment, often strained the social relation between group members and the staff (Woolcock 1999). Woolcock’s (1999) study reveals that in Bangladesh, the country where the programme had received wide popularity, the poorest members were forced to leave the programme and the attitude of the officials pressuring the members to make timely repayments forced them to borrow money from the moneylenders. The principle of joint liability forced those members who repaid on time to bear the burden of wilful default of their counterparts. Thus, he brings out the point that even in the case of programmes which achieved successes, there were areas, branches, centres, groups, where some individuals suffered at times of repayment.

2.9. Research Gaps

Micro-finance groups bring down the transaction costs by providing information about the creditworthiness of the borrowers. They bring down the asymmetric information through social collateral offered by the members and improve access to credit to the poor who do not have any physical collateral. The principle of joint liability ensures repayment of the loans borrowed.

As members in a group are equally responsible while ensuring the completion of the credit transaction, there are chances that the members may under-supply their effort. The group specific factors such as group size and the homogeneity among members facilitate the emergence of collective outcome. It is expected that in small sized groups having homogeneous members, the solidarity among the members would be more and hence, gathering information would be easy. In order to stimulate or motivate the members to contribute to a collective outcome, the institution needs to provide certain incentives. These incentives can be either
positive or negative. While positive incentives lead to the emergence of a collective outcome, the negative incentives prevent the emergence of non cooperative outcome. Certain studies (Godquin 2004, Mosley and Dhal 1985) have brought out that the dynamic incentives of obtaining further and higher amounts of loans in future could be an incentive for them to ensure repayment. But, Wydick (1999) is of the opinion that the peer pressure among members mitigated the problems of ensuring timely repayment.

The members in a group collectively enforce certain mechanisms to be followed by them. Various mechanisms have been incorporated for the selection of the creditworthy borrowers or to avoid the problem of adverse selection for monitoring the utilisation of the loan or to avoid the emergence of moral hazard; and to ensure timely repayment or to avoid the problem of default in repayment. They relate to the participation of members in the group meetings, contribution of savings, issue loans as a proportion of member contributions, repayment of the loans immediately after borrowing from the group and repayment in various instalments etc.

In this context, the present study looks into the nature and extent of collective action among the members while improving their access to credit. It examines the various incentives and mechanisms incorporated in micro-finance groups and their impact while bringing about collective action among the members while selecting the borrowers, monitoring the utilisation of the loan and enforcing repayment.

2.10. Summary
The rural credit markets are imperfect as it is difficult for the lenders to gather information about the creditworthiness of the borrowers. The imperfect information about credit transactions imposes transaction costs for both the lenders and borrowers and thereby, it brings down the volume of the goods transacted. However, the asymmetry of information can be brought down through group based micro-finance programmes. Under these groups, the poor who do not
have any physical collateral can access credit through social collateral. It is observed that the costs of formation of groups would be less in rural areas where members have close contact and interact quite often. The principle of joint liability gives an assurance to lenders that the members are equally responsible for the repayment of the loan. As collective responsibility is a public good, there is a tendency for the members to under supply their effort. In order to prevent the emergence of such free riding on the part of the members, they should be provided with adequate incentives and mechanisms.

In this present chapter, we have discussed the issue of collective action in terms of the micro-finance groups. It is observed that the group specific factors such as number of members and homogeneity of the members can contribute towards collective action. The repeated interactions of the members provide incentives to the members for cooperation. We have discussed both the positive and negative incentives, which play major roles while ensuring collective action among the members. Before going into the details of these issues, it is relevant to examine the evolution and growth of micro-finance programmes in India and Kerala. This has been discussed in the third chapter.