State and market synergies:
Insights from India’s microinsurance success

Rupalee Ruchismita and Craig Churchill

India is the global leader in microinsurance innovation. The Indian context brings together a number of factors that contribute to improved risk management for low-income households by effectively governing the intersection between financial inclusion in the insurance markets and the extension of social protection to workers in the informal economy, including:

- **Public investment in safety nets**: At 2.1 per cent of its gross domestic product (GDP), India’s share of public spending on safety nets is higher than most low- and middle-income countries (Weigand and Grosh, 2008). India’s economic growth has permitted an expansion in social protection since the mid-2000s, particularly through mass health insurance schemes.

- **Public-private partnerships**: To support the extension of insurance coverage to populations below the poverty line (BPL), the government has contracted both public and private insurance companies to manage state-subsidized schemes.

- **Incentivizing through subsidies**: India’s central and state Governments have subsidized some insurance products to support productive activities by low-income households, making them more affordable, with a particular preference for agriculture and livestock.

- **Quota-driven innovations**: Insurance companies are required by the Indian Insurance Regulatory and Development Authority (IRDA) to originate a percentage of their portfolio in the “rural and social sectors”. Servicing these markets required new approaches, leading to significant innovations.

- **Microinsurance regulations**: In 2005, the IRDA promulgated the “Micro-Insurance Regulations”, which reduced the certification requirements to be a microinsurance agent and defined a microinsurance product. This facilitative regulation legalized alternative delivery channels to enable insurers to diversify their distribution methods.

- **Large government-owned insurers**: Despite the rapid growth of private insurance companies, the market is still dominated by large public companies with a mandate and infrastructure to assist the poor.
Insurers and microinsurance

-- **Active aggregators:** Approximately 90 per cent of the labour force is employed in the informal economy or the “unorganized sector” in India. However, there is in fact a high degree of organization in the unorganized sector, through non-governmental organizations (NGOs), microfinance institutions (MFIs), self-help groups (SHGs\(^1\)), cooperatives and other aggregators. These potential intermediaries are often positively disposed to insurance, and some even carry the risk themselves outside the purview of the insurance supervisor.

-- **Large low-income market:** Out of a total population of 1.3 billion, 42 per cent of rural and 26 per cent of urban households live below the poverty line (Tendulkar et al., 2009). These households, as well as economically active rural households above the poverty line, provide insurers with a huge potential market and the prospect of achieving economies of scale.

The convergence of these factors, all in one very large country, creates a dynamic environment for the development of microinsurance. Section 20.1 provides an overview of the general and life insurance industries in India, particularly with regard to their outreach to the rural and social sectors. The second section considers specific product innovations that have enabled livestock, agriculture, life and health insurance to become relevant for low-income markets. Section 20.3 describes the channels commonly used to distribute insurance to the poor. The chapter concludes by summarizing key factors that have contributed to the development of microinsurance in India, which might provide insights for practitioners and policymakers interested in extending social protection and enhancing financial inclusion in other countries.

\(^1\) A self-help group (SHG) is a village-based group usually composed of 15 to 20 local women. Members make small regular savings contributions over a few months until they have enough capital to begin lending among themselves. SHGs are common in India because they have been promoted by the National Bank for Agriculture and Rural Development (NABARD). Through NABARD’s SHG-bank linkage programme, SHGs with a track record of regular repayments with their own capital can access additional funding from banks with re-financing from NABARD. NABARD estimates that there are 2.2 million SHGs in India, representing 31 million members, which have taken loans from banks under this programme. This figure does not include SHGs that have not borrowed from banks (Annual Report NABARD, 2011).
20.1 Industry overview

In 1999 the IRDA, the newly formed regulator, opened up the previously nationalized insurance industry to private insurers and foreign investment. Consistent with the requirements for public insurers, the IRDA obliged all private insurers to have a certain percentage of their portfolios in the rural and social sectors, using the logic described by the then Chairman of the IRDA as “forced familiarity” (see Box 20.1).

Box 20.1

Rural and social sector obligations

The IRDA issued the “Rural and Social Sector Obligations” notification for all insurers in 2002. The obligations require life insurers to originate 7 per cent of the total lives insured from the rural sector, increasing annually to 16 per cent by the fifth year. For general insurers, the rural obligations start from a target of 2 per cent of their insured premium in the first year, rising to seven per cent in the tenth year. Social sector targets for all insurers begin with 5000 lives insured in the first year and progressively rising to 55,000 lives in the tenth year of operation (IRDA, 2008).

According to former IRDA Chairman Rao, this “forced familiarity” with rural business will encourage insurers to discover profitable business models to serve this market segment, and in subsequent years they will voluntarily increase their investment and expand outreach to low-income households. Although some insurers see their obligations as a cost of doing business, others have validated this argument by regularly exceeding their rural and social targets.²

Source: Authors.

The Indian insurance industry has experienced significant growth since it was opened up to private companies, with 19 general and 23 life insurance companies starting since 2000. In recent years, the microinsurance portfolio has grown even faster than the insurers’ traditional lines. Not even counting coverage under the Government’s mass health insurance schemes (see section 20.2.4), in 2009–10³ an

² In this chapter, the data reported under “Rural and Social Sector Obligations” is used as a proxy for microinsurance, although not all of the rural insurance business is exclusively focused on vulnerable communities. Wherever available, microinsurance data, referring to products registered under the Micro-Insurance Regulations, 2005, is used to further improve assessment of targeting.
³ The Indian fiscal year begins on 1 April and ends on 31 March, so all data is presented mentioning the two years.
estimated 163 million low-income persons had some form of insurance. This unrivalled outreach has been achieved by a variety of approaches with public and private insurers, and general and life insurers, taking different paths to serve the low-income market.

Aside from regulatory targets, growth has been propelled by the Government’s willingness to provide subsidies to promote access to a range of products, as summarized in Table 20.1. While most subsidized schemes address microinsurance challenges, such as the “willingness and ability to pay” and “limited awareness”, some subsidies are designed better than others. For example, a fully subsidized premium may not be appropriate as it does not allow user-fees to signal client value, and thus could result in inefficient products and players. Also poor targeting, when subsidized products are available to clients who can afford to pay, crowds out market-based solutions. This applies particularly to the many subsidized insurance schemes distributed through banking networks providing “directed credit”, which is subsidized and targeted for specific purposes (e.g. buying livestock) and/or for specific target groups (e.g. SHG members), but in fact is not a particularly effective means of targeting the poor.

The priority targets and the availability of state-funded premium subsidies to private companies have contributed significantly to the development of their rural portfolios. However, these government interventions are not the only explanation for the private insurers’ rural portfolios. Some are also keen to have first-mover advantage, building up their brand in the low-income market, recognizing that millions of India’s rural poor will not stay poor for long. One of the best ways of distinguishing themselves from the public insurers, who already have strong brands, is through innovations. Those innovations are particularly powerful if they not only help private players to efficiently undertake rural business, but also provide lessons that could benefit the insurers’ traditional business lines.

This section highlights some of the key differences between the microinsurance outreach of general and life insurance companies, primarily using rural sector data as a proxy to assess performance in serving low-income households.

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4 These are rough estimates based on published data of state schemes and outreach of insurance companies through other models. The outreach mentioned here does not include the estimated 300 million low-income persons covered by mass health schemes, as described in section 20.2.4.
Making subsidies work

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Janashree Bima Yojana (JBY)</th>
<th>Aam Admi Bima Yojana (AABY)</th>
<th>Livestock Insurance Scheme (LIS)</th>
<th>National Agriculture Insurance Scheme (NAIS) Programme</th>
<th>Weather-based Crop Insurance Scheme (WBCIS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk carrier</td>
<td>Life Insurance Corporation of India (LIC)</td>
<td>LIC</td>
<td>Multiple insurers, mostly public</td>
<td>Agriculture Insurance Corporation (AIC)</td>
<td>Initially only AIC, but now multiple private insurers</td>
</tr>
<tr>
<td>Subsidy</td>
<td>50 per cent premium subsidy plus scholarship for high school student</td>
<td>Entire premium is subsidized by central Government</td>
<td>50 per cent premium subsidy</td>
<td>Premium subsidies vary by crop and state, up to 80 per cent; funded 50-56 by the state and central Governments</td>
<td>Premium subsidies vary by crop and state, up to 80 per cent</td>
</tr>
<tr>
<td>Primary distribution channel</td>
<td>Banks through SHG-bank linkage programme</td>
<td>Government schemes and credit linkage programme of regional rural banks</td>
<td>State Livestock Development Board (SLDB) and State Animal Husbandry Department (SAHB)</td>
<td>2/3 of insureds are members of credit linkage programme of regional rural banks; short-term crop loan is insured</td>
<td>Primarily credit linkage programme of regional rural banks replacing NAIS in districts where it is offered</td>
</tr>
</tbody>
</table>

Source: Adapted from various sources, available on Micro Insurance Map, 2011. The Micro Insurance Map is a available databank, located at www.microinsurancemap.com, replete with statistics on microinsurance in India, managed by the Centre for Insurance and Risk Management (CIRM).

20.1.1 General insurance companies

Of the US$8 billion in general insurance premiums collected in 2009–10, 17 per cent were in the rural and social sector. In 2009–10, ten insurers exceeded their mandated targets, while only one missed its rural target. Furthermore, the rural portfolio grew at a faster rate, with a year-on-year growth of 39 per cent compared to 19 per cent for the overall industry.

With a longer history and higher quotas than the private insurers, the five public insurers are bigger players in the rural and social sectors. In 2009–10, the public insurers – AIC, United India, New India, National and Oriental – had a
78 per cent market share, primarily covering agriculture, livestock and health risks. The five largest private insurers together had 16 per cent of the market. The remaining 14 general insurance companies generated only 6 per cent of the US$1.3 billion premiums of the rural and social sector (see Figure 20.1). Yet, the private insurers’ market share has grown steadily from just under 12 per cent (approximately 4 million risks covered) in 2004–05 to 22 per cent (approximately 13 million risks covered) in 2009–10, indicating that private players are undertaking more rural business even though they lack the rural infrastructure of the public insurers.

**Figure 20.1**

**Total rural and social sector premiums for general insurers (2009–10)**

![Pie chart showing market share of different insurance companies.]

- 5 Largest private insurance companies: 15%
- Other private insurance companies: 6%
- Public insurance companies: 78%


### 20.1.2 Life insurance companies

Life insurance premiums in the rural sector amounted to 2.5 per cent (US$1.5 billion) of the US$59 billion of total life premiums in 2009–10. Only one life insurer did not achieve its rural and social mandate, while five exceeded their targets.

As the oldest and largest player, Life Insurance Corporation (LIC), India’s only public life insurer, has approximately 76 per cent of the overall life insurance market. LIC is required by the regulators to maintain a special rural target of 25 per cent of its total annual lives insured. In 2009–10 it accounted for 95 per cent of all life microinsurance premiums, attributed to its early market entry, its army of individual agents and more recently, exclusive access to state-subsidized microinsurance products. LIC’s deep rural market outreach is rivalled only by the Rural Postal Life Insurance (RPLI) products of the Department of Posts,
which benefits from having the world’s largest postal network, including 150,000 post offices.

In 2009–10, LIC’s microinsurance products, which are a subset of its much larger rural insurance portfolio, accounted for approximately US$84 million in premiums. The next largest microinsurance portfolio is that of Aviva Life at US$1.9 million, illustrating the state insurer’s massive market share. However, the private insurers are expanding as they grow to maintain their compliance with their increasing rural targets and, while today the products registered as “microinsurance” are not the most prominent contributors to this portfolio, they are expanding fast.

An important difference between LIC and the private insurers is their distribution models. While LIC relies on a large network of individual agents, a historical legacy that may not be considered a “good practice” for microinsurance today, private insurers typically offer loan-linked products that reach low-income households through MFIs and cooperatives. SBI Life is different because its rural portfolio can be attributed to the bancassurance model; it exploits the extensive rural infrastructure of its parent company, State Bank of India, the largest commercial bank in the country, to reach the borrowers of the SHG-bank linkage programme. Product distribution is discussed in more detail in section 20.3.

20.2 Products

In recent years, India has seen an explosion of new products covering the priority risks of low-income households. This section highlights some of the innovations emerging in the livestock, agriculture, health and life insurance lines.

20.2.1 Livestock insurance

Approximately 100 million Indians derive their livelihood from livestock, as either their primary or a secondary source of income. Despite this huge market, only 7 per cent of the country’s livestock are insured. Raising cows and buffaloes is a riskier livelihood than agriculture because an animal’s death causes permanent asset erosion, not just a seasonal loss of income. The livestock economy can be divided into two categories: a) large animals, primarily bovines for milk production; and b) small animals such as goats, sheep and fowl. Few products are available for the latter group, even though small-animal owners often include the more vulnerable communities like nomadic tribes.

Since accurate data on the rural portfolio of life insurance companies is not available, this estimate is based on the mandated rural portfolio target of 25 per cent of its total portfolio.
Since 1971, the Government has catalysed the livestock insurance market through the Small Farmers’ Development Agency (SFDA), which has introduced various schemes for livestock-rearing farmers over the years. Historically, livestock insurance has been offered as a compulsory product, linked to bank loans with a 50 per cent premium subsidy. Voluntary distribution through direct sales has a 10 per cent premium subsidy; however, it has high growth potential considering the emergence of private dairies, prospective aggregators that have an incentive to invest in protecting the livelihoods of their milk-supplying farmers (Sharma et al., 2009).

In 2004-05, approximately 80 per cent of the 7.9 million insured cattle were covered by public insurers, particularly United India, the largest cattle insurer. Despite their market dominance, public insurers have introduced few modifications in product design. Even though the Government allowed private insurers to avail themselves of the subsidized rural credit-linked portfolio, few private insurers attempted to cover this pool. In 2007, after the IRDA removed the restrictions on premium rates, six private insurers entered the livestock insurance market, introducing new products and processes to discover a profitable business.

Even with subsidies, premiums from livestock cover account for less than 1 per cent of the total rural premiums. Besides the challenges summarized in Chapter 12 – which include high transaction costs, fraud and moral hazard – the pricing of livestock insurance is complicated by a lack of mortality data on regional breeds and limited information on the net present value, which is necessary to establish the sum assured. There remains significant scope for improving product design, which is generally limited to one-year terms and linked to loans rather than to cattle productivity phases; the risks covered are limited to the death of the animal; and livestock cover is notorious for cumbersome claims settlement procedures – all of which inhibit demand.

The biggest challenge for livestock insurance is the high claims ratios, often exceeding 100 per cent, which is exacerbated by fraud at two levels. At the client level, for example, when insurance agents provide the owner with ear tags to identify the insured animal, the owner may not tag the cattle, effectively allowing the household to insure the full herd for the cost of one animal. Alternatively, owners may cut the tagged ears of live animals and submit them for claims. The second level involves fraud by intermediaries, including agents and banks. For example, if the loan is used for a purpose other than to buy cattle, bank staff may retain the tag for this “paper cow” and then submit it for a claim in the event of the death of an uninsured animal. Veterinarians may also be an accessory to fraud at either level by providing false death certificates for an additional fee (Sharma et al., 2009).

To control fraud, insurers are experimenting with various strategies. For example, IFFCO-Tokio introduced Radio Frequency Identification (RFID) tags
and corresponding changes to its operational processes to improve the identification of insured animals distributed through cooperatives (see Box 12.2). As a result, it has experienced an incidence rate of 0.8 per cent, which is substantially lower than the industry average of four per cent. During a two-year pilot test, only four claims were rejected while 117 claims were settled out of a pool of 15,080 insured cattle. Similarly, HDFC Ergo is testing a range of innovative features to reduce claims. Besides controlling fraud through the use of RFID and photographs, the insurer collaborates in providing risk-reduction services, such as vaccination, de-worming and fodder enrichments, to reduce cattle death and improve productivity (Joseph and Ruchismita, 2011).

**20.2.2 Agricultural insurance**

Agriculture’s share of Indian GDP, while declining, remains significant at around 18 per cent (in 2008) and the sector employs more than 60 per cent of the labour force. The need to protect farmers from risks and irregular incomes has been an on-going concern of national policymakers. India has 116 million operational farm holdings covering 163 million hectares, with a vast majority being small and marginal in size. Approximately 80 per cent of farmers operate in less than 2 hectares, and a significant proportion of such households are below the poverty line (GFDRR and World Bank, 2011). Since only 40 per cent of India’s gross crop area is irrigated, farmers are particularly vulnerable to adverse weather conditions, punctuated by periodic news of farmer suicides during drought years. This section first describes area-yield insurance promoted by government schemes and then introduces weather-index insurance, initially piloted by the private sector and now also offered as a government programme.

**Area-yield insurance**

The vast majority of India’s farms cultivate rain-fed crops and are particularly vulnerable to the vagaries of the Indian monsoon. During the decade ending in 2009, an estimated 350 million people were affected by drought in India (GFDRR and World Bank, 2011). To protect farmers against agricultural risk, the Government has historically relied on two interventions: a) minimum price support; and b) subsidized crop insurance via area-yield indices. The government-sponsored Comprehensive Crop Insurance Scheme (CCIS) introduced in 1985-86 was replaced by the National Agriculture Insurance Scheme (NAIS) in 1999. Underwritten by AIC, NAIS is usually distributed through rural banks as a compulsory product tied to subsidized crop loans (see Table 20.1).

Since farmers plant multiple crops to diversify their risk, NAIS’s multi-crop product attempts to insure the farmers’ total agriculture income better than CCIS’s single crop cover. The NAIS index is based on major individual crop
yields under cultivation in the area, weighted by their acreage. It compares deviations in historical crop yields in that location, and treats all farmers in its defined perimeter as identical in terms of risks and loss. By 2009, NAIS had covered 19 million farmers and 26 million hectares, covering approximately 16 per cent of the cultivated land (see Figure 20.2). The scheme was effective in reaching smallholders: the average premium per farmer insured slightly exceeded INR 400 (US$9). As for landholdings, the average area insured per farmer has come down from 1.6 hectares in 2000–01 to 1.4 hectares in 2008–09, suggesting that the scheme is covering more small and marginal farmers (GFDRR and World Bank, 2011).

Despite these advantages, a scheme that uses an index, rather than a farmer’s actual losses, is subject to basis risk (see sections 4.3.2 and 11.1). Although the index approach is more cost-effective than assessing the loss of each farm, area-yield schemes still involve high manpower costs in undertaking local crop-cutting exercises to measure yield. In India, this measurement is done by government agencies, which reduces the cost for the insurer, but the insurer cannot control the process of loss assessment. The involvement of the additional party also contributes to substantial delays in claims payout (Sinha, 2007).

The underwriter, AIC, receives premium and claim subsidies from the Government to keep the product affordable for the farmer. Although NAIS provides limited cover to farmers, the product still has high claims payouts and is inherently unsustainable, as shown in Figure 20.3 – hence the need for implicit reinsurance through claims subsidies from the Government.

While NAIS continues to be the largest agriculture insurance programme, its growth is inhibited by the limitations discussed above. The Government is testing
a new approach, Modified National Agricultural Insurance Scheme (MNAIS), which has key features to make it more relevant to farmers as well as attractive to private insurers. MNAIS is described in Box 20.4 at the end of this section, but first it is necessary to introduce weather-index insurance.

Weather-index insurance
The private sector’s involvement in agriculture insurance has primarily taken the form of weather-index cover. As described in Box 4.1, in 2003 the World Bank supported ICICI Lombard and its distribution partner BASIX in piloting India’s first weather-index insurance contract, a product that made payouts to farmers based on recorded rainfall (or other weather parameters) instead of actual losses.

The success of the private sector in responding to farmers’ specific needs with a profitable business model led the Government to provide subsidies, available to both the public and private insurers, resulting in dramatic increases in product take-up. Nearly two million farmers were covered by WBCIS in 2009–10, which grew to nine million Indian farmers in 2010–11 (Kumar, 2011). Today, India has the largest, most vibrant weather-index insurance market among developing countries.

The evolution of the weather-index market can be described by a review of three topics: 1) contract design; 2) data quality; and 3) distribution models, which provide interesting insights and valuable lessons.

Contract design
An important debate is the trade-off between accurate and complex contracts that are more responsive to farmers’ risks, compared to simple, more easily understood products. Before 2008, simpler products were dominant since sales were voluntary
and therefore farmer understanding was crucial. These were very clear contracts, but rarely involved crop-stage specific covers. Crop-stage contracts address the different risks faced during germination, vegetative stage, flowering and maturity or harvesting phase, and allow different covers and payout thresholds for each stage (see Box 20.2). It is a difficult choice, as farmers understand simple contracts better, but if they are unable to make claims during bad years, they will lose confidence and are unlikely to renew, which is a strong motivation to invest in contracts specific to crop stages.

**Crop-stage weather tickets**

HDFC Ergo, in collaboration with the International Food Policy Research Institute and CIRM, is running a weather-index pilot that attempts to strike a balance between simple, easy-to-understand products, and more accurate but more complex contracts.

In this pilot, weather insurance contracts are sold in the form of tickets that are for specific crop risk phases and clearly state the amount of payout. Using a building block approach, the farmer can choose the amount of cover as well as the crop stage to be covered, allowing flexibility and choice. As the contracts are for shorter risk phases, the premiums are lower and considered more affordable.

For a cropping season, two types of tickets are available for each of the four-month periods. Both tickets have similar benefits but differing probability of payouts. The ticket with a higher payout probability costs INR 352 (about US$8, equivalent to four days of agricultural wage labour), while the one with a lower probability is available for INR 265 (about US$6). The first ticket pays in the event of moderate rainfall, whereas the other pays in the event of excessive rainfall, representing severe losses. Both tickets allow a payout of either INR 1,000 (US$22) per acre when the index reaches the “strike” amount of high rainfall, or INR 4,000 (US$88) per acre when the index hits the “exit”. Farmers can choose how severe an event they want to cover, and for which phase, allowing them to build their own cover based on liquidity constraints and risk perception. The process of choosing their own cover creates a better understanding and transparency about when and how an index insurance product works.

About 93 per cent of the contracts sold were high value options. This indicates farmers’ preference for moderate risk covers, which have a higher probability of payouts, even when they have a higher up-front cost. As expected, the sales in the three-cover period were uneven with the highest sales in the second cover period. These buyer choices suggest that a customizable approach could induce greater take-up.

*Source: Adapted from CIRM, 2011.*
With improved data correlations between crop yield and various weather conditions, India has graduated from its pilot years of single-weather, one-crop covers with comparatively weak crop-to-weather correlations. Now products with multi-weather covers are common, which also allows for the development of contracts with greater precision. In theory this lowers the basis risk for the farmer. However, improved product design may not result in increased take-up because the resulting complexity may place a burden on sales and distribution channels (see Chapter 13). For example, the multi-peril weather-index insurance product for rice developed by Weather Risk Management Services (WRMS) was subsequently replaced by single peril covers (temperature and rainfall separately), which made distribution and sales easier, even though it increased transaction costs and limited the risk cover for the farmer.

The other concern with data is timing, where a delay in the receipt of certified weather data by insurers leads to claim settlement delays. Some innovations have tried an immediate interim payout approach based on available data to improve turnaround time. An additional way to improve the process is to transfer data automatically from weather stations to insurers.

Weather-index insurance has also evolved to include a broader range of crops, such as coriander and grapes, and additional weather parameters, such as frost for fruit orchards. Such innovations are also valuable for a limited range of non-agricultural risks, as illustrated in Box 20.3.

Not all product evolution has been positive. For example, there has been a change in claim payment periods, resulting in products with less client value. In the pilot years, claims were settled after each crop phase, but now payouts often come at the end of the season because of the limited financial infrastructure and the high cost of reaching farmers. A key advantage of a weather-index contract should be its ability to make immediate payouts to help farmers pay for alternate remedial measures such as hiring water pumps to reduce actual crop losses. Therefore, shorter payment periods should be retained, with payments made via low-cost cash transfer mechanisms.
Weather-index for non-agricultural groups

Lac insurance for indigenous populations
With support from the Department of Tribal Affairs, NGOs BASIX and PRADAN, WRMS and ICICI Lombard developed a specific product for tribes producing lac, a natural resin secreted by insects that thrive on specific trees. Lac, a highly remunerative income source for forest dwellers, is used to make jewellery, varnish, dyes and sealing wax.

During their short production cycle, the insect larvae are vulnerable to sudden variations in temperature. The weather index is triggered by temperature variation, unlike other contracts that mostly cover extreme conditions. Claims payout is made immediately to allow the insured to buy more larvae in time for a second crop cycle. It is conceptually similar to a “sowing period seed cover” in an agricultural context, which provides replacement seeds if there is scarce rainfall during the sowing phase.

Salt insurance for salt-pan workers
In another example of non-agricultural weather-index cover, insurers IFFCO-Tokio and ICICI Lombard came together to offer a unique contract designed by WRMS for salt-pan workers. Salt pans, mostly in coastal areas, are fields where brine water is spread by seasonal labourers for drying and salt production. The salt-pan workers are typically landless labourers belonging to lower social and economic groups.

This excess rainfall cover contract is unique because it has zero design basis risk. There is 100 per cent correlation between farmers’ losses and excess rainfall since the drying salt dissolves when exposed to rain. Such weather-index contracts have very high value for the client. However, after two years the product was discontinued, even though there was substantial interest from the farmers, after catastrophic losses due to Cyclone Laila. The insurers were unable to aggregate salt producers across the country to achieve scale, so the scheme was not large enough to interest reinsurers.

Source: Adapted from Baidya and Ruchismita, 2011.

Data quality
While the starting point is access to digitized historical crop productivity and weather data to identify correlations and develop the index, the expansion of weather-index cover depends on the creation of reliable data transmission mechanisms for weather measurement infrastructure.

A critical driver of the weather-index market was the access to historical data from weather stations by the Indian Meteorological Department. The majority
of stations were just rain gauges and there has been considerable effort to expand the network of automated weather stations (AWS). The investment in AWS was made by various government departments, such as meteorological, space research and educational institutes, and has also attracted investment from private agencies with incentives to access more accurate data on a wider range of weather phenomena (e.g. wind speed). Future efforts to improve the standardization of the data from public and private sources should improve access to affordable reinsurance.

Instead of relying exclusively on weather stations, IFFCO-Tokio is testing new technologies to build transparency and improve claims settlement time, such as the normalized difference vegetation index (NDVI) to reduce basis risk in weather-index insurance (Patankar, 2011).

Similar to the market-making role of microinsurance intermediaries (see Chapter 23), the involvement of WRMS, a weather insurance intermediary, has supported the weather-index market in reaching scale by putting together bulk deals and investing in digitizing data and risk modelling. However, in general, poor data quality and uncertainty regarding the impact of climate change (see Chapter 4) are on-going challenges, and lead to high reinsurance premiums that could inhibit the development of better and more affordable products.

**Distribution**

In the initial years, there was only one insurer (ICICI Lombard) and it distributed weather-index insurance through NGOs and MFIs. This relationship served as a learning opportunity from which various products were designed to provide customized solutions for specific risk groups. Subsequently, scale was achieved by diversifying distribution, for example by working with cooperatives and exploiting the rural outreach of agriculture input suppliers and procurement agencies.

The Government responded to farmers’ voluntary take-up of weather-index schemes by offering premium subsidies for such contracts, initially to AIC and then to all insurers. The inclusion of AIC in the weather-index market has been a major driver of scale because it enabled cover to be extended to the captive clientele of the credit-linkage programme. The massive volumes of weather-index cover in India, and interest among private players to collaborate with the Government to offer WBCIS, can be partly attributed to the seamless premium collection and distribution. Rural banks deduct the premium from the farmer’s loan and the matching state subsidy is made available in a single transaction, minimizing administration costs for insurers.

Such subsidies, however, are restricted to specific crops in identified districts and are not available to all farmers. This selective provision of insurance is inherently inequitable and influences the cropping decisions of farmers, causing them
to focus on mainstream insured crops. Some of the limitations of the WBCIS may be overcome by the MNAIS (see Box 20.4).

**Modified National Agricultural Insurance Scheme (MNAIS)**

MNAIS is a hybrid yield and weather-index product, combining AIC’s NAIS and WBCIS index schemes, pilot tested in 34 districts in 12 states for the Rabi (winter) season of 2010–11 to overcome some of the challenges associated with NAIS. If it runs successfully, it may replace NAIS and provide small and marginal farmers with better risk cover.

MNAIS is using what is expected to be a more accurate basis for calculating the threshold yield for triggering payouts: the average yield of the last seven years excluding up to two years of declared natural calamity. It draws from both the area yield as well as weather index contracts. The area yield for major crops is measured at village level, reducing spatial basis risk substantially. One of the key advantages of the weather-index aspect of the contract that MNAIS retains is its ability to pay claims during the cropping season, providing immediate relief, allowing the farmer to invest in alternate strategies to arrest crop loss for the whole season.

The product covers “prevented sowing” for 25 per cent of the total sum insured if the monsoon is late and the farmer decides to postpone sowing until the rains arrive. The product also covers “post-harvest” losses for up to two weeks after harvest. Due to limited rural warehouse infrastructure, farmers “cut and spread” the crop in the field for drying after harvesting. A sudden bout of rain could spoil the harvested crop leading to substantial loss.

In MNAIS, actuarial premiums will be paid for insuring the crop and hence claims liability will be on the insurer, unlike NAIS where the State provided claims subsidies. This modification could lead to improved price transparency (where the premium reflects the true risk), and stimulate the use of informed reinsurance arrangements instead of the Government acting as a free reinsurer. MNAIS could also lead to better management of the programme, as the actual losses will have to be borne by the insurer. Premium subsidies will continue to make the product affordable.

This product could expand the outreach of weather-based contracts, catalyse private investment in weather infrastructure, ensure better reinsurance pricing by pooling risk from diverse regions, and generate considerable guaranteed demand to encourage new insurers to offer agriculture insurance. While stand-alone agriculture insurance companies like AIC are critical, greater competition is necessary to serve the huge untapped market at an affordable cost.

*Source: Adapted from CIRM, 2011.*
20.2.3 Life insurance

India has 32 registered life microinsurance products. Aviva Life has the most products with seven, and LIC, the largest insurer, has four products. The growth in the number of registered products, mostly by private insurers, can be attributed to two factors. First, the longer insurers are around and the more their mainstream portfolio grows, the higher their rural and social sector targets, which puts pressure on insurers to grow through new approaches. Second, since the public insurer has been operating longer, the “low-hanging fruit” have been taken, so private insurers have to try new approaches.

As described in Chapter 8, an increasing number of insurers are supplementing loan-linked life products with voluntary products. Both endowment and term life products are being adapted to household liquidity constraints and product preferences, for example:

- **Composite product:** SBI Life, the largest private life insurer, is pilot-testing a composite product – a life product with covers for hospital cash and critical illness, along with a personal accident and an asset insurance (dwelling and contents) cover to increase client value while reducing transaction cost through integrated delivery.

- **Guaranteed benefits:** Bajaj Allianz works in partnership with rural banks and large MFIs to distribute its voluntary savings and insurance cover. By November 2010, this product had scaled to cover three million lives and generated approximately US$100 million in premiums, illustrating the customers’ preference for savings-based products with features such as a high surrender value, even though the maximum insured amount is low.

- **Unlapsable endowment:** Max New York Life’s (MNYL) unique Max Vijay product is a savings plus insurance product designed to be “unlapsable”. To accommodate the irregular incomes of the target market, policyholders can top up their account whenever they have additional funds (see Chapters 8 and 22).

- **Short terms:** Birla Sun Life’s Bima Kawatch Yojana product, which has a three-year term option, and Tata AIG’s Navakalyan Yojana, which provides cover for five years, both allow customers to quickly experience the benefits of their premium payments, instead of having to wait for ten or fifteen years.

- **Flexible payment options:** LIC’s Jeevan Madhur offers a range of premium options, including minimum weekly payment of INR 25 (US$0.50), fortnightly INR 50 (US$1), and monthly INR 100 (US$2.20). LIC has made use of its microinsurance agents to sell more than 100,000 of these policies in its first year, and has also started distributing through NGOs, MFIs and SHGs. This product has also been customized and offered to a previously excluded group: commercial sex workers, where the cost of the medical examination is borne by LIC.
For life insurance, product design is often less of a challenge than getting the product to the target market, which is covered in section 20.3.

### 20.2.4 Health insurance

Perhaps India’s greatest contribution to the global microinsurance discussion has been in the area of health. This section highlights some of the innovations emerging in the critical function of claims administration, and then introduces the accomplishments of the mass health insurance schemes that are subsidized by the Government.

**Towards better claims management**

India’s active and diverse health microinsurance models developed by mutuals, MFIs and insurers have been widely reported (for example, Radermacher and Dror, 2006; MicroInsurance Centre, 2009). Although these efforts have pioneered affordable health microinsurance in India, they have found it difficult to establish systems and processes to ensure high service quality in claims management and supervision of hospitals (see Box 20.5).

The partner-agent model, for example, has achieved scale, but has had problems with service quality. The insurers, as the partner in the model, often worked with a mainstream third-party administrator (TPA) to serve their rural health portfolios. However, the limited rural presence of TPAs and their complex claims management processes did not respond well to the basic health insurance products offered by MFIs. The resulting client dissatisfaction led some MFIs to move away from cashless schemes, away from private insurers or away from the partner-agent model. For example, Bandhan, an MFI with more than three million members, reverted to reimbursement-based benefits when it began experiencing loan defaults due to problems with “cashless” claims processing. Claims management had become cumbersome and faced numerous challenges, including incomplete documentation provided by clients, clients’ failure to understand exclusions, and occasional collusion between client and provider.

More recently, new TPAs have started “rural focused” business operations. Also, mainstream TPAs encouraged partly by vast state-supported health schemes have modified systems to serve rural clients better. The capacity of the TPAs should continue to play an important role in helping manage huge volumes of high-quality health insurance contracts.
Because of the difficulties with TPAs, when agents like MFIs and NGOs offered health covers underwritten by insurers, they often built in-house administration capacity or used the insurer’s systems for TPA-like services to improve servicing ability. These efforts required investment in customized processes and IT systems to manage the volume of business and to align the systems of the agent, insurer and the healthcare facilities. However, the partner-agent model did not create financial incentives for the NGO or MFI to facilitate better claims servicing or investing in fraud control.

In contrast, the mutual model encourages the scheme to monitor claims and ensure better servicing as the financial benefits of fraud control and high re-enrolments are retained. Some MFIs have switched from the partner-agent to the mutual model to improve claims servicing and cater to their members’ specific product needs. Here are a few examples of how players addressed the “missing middle” of claims administration:

- **Carry the risk in-house**: The MFI Grameen Koota moved from working with mainstream insurers to cooperating with a service partner, SAS Poorna Arogya Healthcare, to provide TPA services to its members and manage it as an in-house health insurance scheme. Similarly, the NGO SHEPHERD moved from the partner-agent to the mutual model, with assistance from the mutual “insurer” Uplift. By carrying the risk, both organizations have more incentives to manage claims effectively.

- **Outsource to a trusted administrator**: The MFI SHARE worked with MicroEnsure in specific locations to handle its data management requirements with the insurer.

- **In-house administration**: NGOs BASIX and Sri Kshetra Dharmasthala Rural Development Programme (SKDRDP) built in-house technology to manage TPA-like operations to facilitate seamless integration of systems with the insurer and allow better-customized products and servicing. They are also providing these services to other organizations.

*Source: Authors.*
Mass health insurance schemes
What is particularly interesting about health microinsurance in India is the emergence of state-driven mass schemes. These schemes are considered under the broad heading of microinsurance because several of them involve some sort of user fee, and they are often implemented by the insurance industry through public-private partnerships. Furthermore, the design of the schemes has drawn considerably on the experiences of the mutual and NGO-based health microinsurance.

From 75 million people covered under such schemes in 2007, it is estimated that 302 million people had health microinsurance in 2010. Three of these schemes – Aarogyasri in Andhra Pradesh, Kalaignar in Tamil Nadu, and the national Rashtriya Swasthya Bima Yojana (RSBY) programme – reportedly insured 54 million families by the end of 2010 (PHFI, 2011). Backed by political will and the ability to aggregate huge numbers, these schemes are transforming health microinsurance by addressing key challenges such as data creation, investment in identification technology and setting industry standards for healthcare provision.

Figure 20.4 illustrates the timeline of the major schemes and their current outreach. While the first mass health insurance scheme, Yeshasvini, started by the Karnataka Department for Cooperation in 2003, has been an inspiration for the later schemes, most of its features remain unique. It has no risk carrier and is managed as a health fund through a TPA. It is a voluntary product with a premium contribution from the members. In contrast, the Weavers’ Health

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6 These numbers seem optimistic and may be assuming larger family sizes. Based on an analysis of RSBY, Krishnaswamy and Ruchismita (2011) calculate that there are on average 2.7 persons per family for each card issued, whereas the estimate by the Public Health Foundation of India (PHFI) seems to assume the average household size is larger.
Insurance Scheme launched two years later by the Ministry of Textiles for poor handicraft artisans is managed by insurers. The Weavers’ scheme is unique because it includes outpatient cover, while the other mass schemes primarily cover hospitalization.

The key features of RSBY, Yeshasvini and the two state schemes are summarized in Table 20.2. The differences between the two state-funded programmes, Aarogyasri and Kalaignar, are attributed to the health status of each state, suggesting that the product design is customized to respond to regional requirements. Aarogyasri in Andhra Pradesh initially provided a hospitalization cover, but over the years its package expanded to include critical illness. Kalaignar, on the other hand, operates in Tamil Nadu, which has a more robust and functional public health infrastructure, and consequently it only needed to cover critical illness.

Yeshasvini invests less in identification technology, but all schemes rely heavily on electronic data collection and transmission and have fairly robust management information systems (MIS). With the exception of Aarogyasri, the schemes have few human resources allocated to monitoring and supervision. RSBY and Kalaignar use biometric cards to control fraud; RSBY issues real-time health cards (at the enrolment camp) to improve customer service and control any rent seeking behaviour by the card-issuing agency (see Box 20.6). There is a marked variation in the average cost of hospitalization, which can be attributed to four factors: the type of medical risk covered, the profile of households targeted, the rising healthcare costs in the region, and the scheme’s ability to negotiate preferable rates with health providers.

Yeshasvini continues to have a high utilization rate, which could be partly attributed to the client contribution, which increases awareness and induces usage. The concern with this scheme is the rising average claims ratio (157 per cent in 2010), which would make a fund with no insurer or reinsurer insolvent.
RSBY: Delivering at scale

By the end of 2010, RSBY had been launched in 340 districts in 25 states, with 23 million active cards, insuring approximately 63 million individuals living below the poverty line. The successful implementation on such a scale can be attributed to the public-private partnership the scheme has forged. While Aarogyasri and Kalaighnar collaborated with one insurer, Star Allied Insurance, RSBY in its first year worked with eight insurers and 16 TPAs to implement the scheme. Many TPAs have more localized strengths, which RSBY can exploit through its district-level bidding and contracting arrangement. While three insurers account for 75 per cent of RSBY’s operations, the programme performance is correlated to the TPA and not to the insurer.

In the first year, RSBY had a 2.4 per cent incidence rate, which is lower than one might have expected since the previously uninsured target population would presumably have had a pent-up demand for healthcare services. Utilization rates are higher when cards are issued promptly. Villages that have at least one claim have a higher percentage of cards activated within the first 20 days of enrolment. To improve enrolment as well as usage, the scheme may need to engage in direct contracts with TPAs, instead of only contracting the insurers. A direct relationship with TPAs may improve performance monitoring and avoid multiple levels of sub-contracting of enrolment activities by TPAs.

Regions with more networked private hospitals show greater utilization, with a 0.2 per cent higher hospitalization rate. This could be attributed to the perceived (or actual) better quality of health infrastructure and to the availability of supplies at private facilities, and also to the proactive seeking of business by the private hospitals. RSBY is currently implementing a quality improvement initiative, which relies on a tiered incentive structure to encourage public and private hospitals to improve their health infrastructure.

Source: Adapted from Krishnaswamy and Ruchismita, 2011.
### Comparative features of the four largest mass health insurance schemes

<table>
<thead>
<tr>
<th>Features</th>
<th>Criteria</th>
<th>Yehawini (Karnataka) 2003</th>
<th>Aayogari (Andhra Pradesh) 2007</th>
<th>RSBY (National) 2008</th>
<th>Kalaighar (Tamil Nadu) 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Unit of enrolment</td>
<td>Individuals</td>
<td>Families</td>
<td>Families</td>
<td>Families</td>
</tr>
<tr>
<td>Sources of funds</td>
<td>Contribution: Beneficiary 58% + Government 42% (in 2009-10)</td>
<td>by state</td>
<td>US$6 per family</td>
<td>US$0.60 per beneficiary + 75% by Centre and 25% by State government in most cases</td>
<td>by State</td>
</tr>
<tr>
<td></td>
<td>Premium rate in 2009-10</td>
<td>US$1.30 per person</td>
<td>US$3 per family</td>
<td>Average US$12 per family</td>
<td>US$10 per family</td>
</tr>
<tr>
<td></td>
<td>Maximum insurance cover</td>
<td>US$4,444 per person</td>
<td>US$333 per family with additional buffer of US$111</td>
<td>US$666 per family</td>
<td>US$2,222 over 4 years, per family</td>
</tr>
<tr>
<td>Common operations</td>
<td>Cardiac, orthopaedic, and ENT, general surgery, paediatric, obstetric, ophthalmic operations</td>
<td>Oncology, cardiology, gynaecology and urinary surgeries, general surgeries</td>
<td>Orthopaedic, oncology, urology, cardiology, hysterectomy, ophthalmology and ENT</td>
<td>Orthopaedic, oncology, urology, cardiology, gynaecological and obstetric operations</td>
<td>Orthopaedic, oncology, urology, cardiology, gynaecological and obstetric operations</td>
</tr>
<tr>
<td>Cost containment measures</td>
<td>– TPA provides pre-authorization for all procedures</td>
<td>– Predefined diagnostic package rates and pre-authorization control for medical escalation</td>
<td>– Predefined diagnostic package rates and pre-authorization control for medical escalation</td>
<td>– Predefined diagnostic package rates and pre-authorization control for medical escalation</td>
<td>– Predefined diagnostic package rates and pre-authorization control for medical escalation</td>
</tr>
<tr>
<td></td>
<td>– Tariffs for 1600 procedures pre-negotiated</td>
<td>– MIS, medical vigilance teams and deep network of project monitoring staff in hospitals</td>
<td>– MIS, medical vigilance teams and deep network of project monitoring staff in hospitals</td>
<td>– MIS, medical vigilance teams and deep network of project monitoring staff in hospitals</td>
<td>– MIS, medical vigilance teams and deep network of project monitoring staff in hospitals</td>
</tr>
<tr>
<td>IT tools used</td>
<td>– Electronic claims submission</td>
<td>– Digital signature for all users, patient digital photographs pre- and post- procedure</td>
<td>– Webcams for coordination and monitoring of liaison officers in network hospitals</td>
<td>– Webcams for coordination and monitoring of liaison officers in network hospitals</td>
<td>– Webcams for coordination and monitoring of liaison officers in network hospitals</td>
</tr>
<tr>
<td>Hospital empanelment criteria</td>
<td>Minimum 90 in-patient beds + intensive care (ICU), ambulance, qualified doctors</td>
<td>Minimum 50 beds and other infrastructure criteria like ICU with 2 ventilators</td>
<td>At least 10 beds + medical, surgical, diagnostic facility + registration with IT department</td>
<td>Minimum 50 beds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No. of full-time staff in implementing agency</td>
<td>Less than 10</td>
<td>117</td>
<td>Approximately 10 at central level and 100 at state nodal agencies</td>
<td>Less than 10</td>
</tr>
<tr>
<td>Performance</td>
<td>Number of beneficiaries (Sept. 2010)</td>
<td>3 million</td>
<td>Approximately 70 million (20.4 million families)</td>
<td>65 million</td>
<td>25 million</td>
</tr>
<tr>
<td></td>
<td>Average cost per hospitalization (INR)</td>
<td>2,460</td>
<td>27,843</td>
<td>8,222</td>
<td>3,3720</td>
</tr>
<tr>
<td></td>
<td>Number of hospitalizations per 1,000 persons</td>
<td>22</td>
<td>25</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Claims ratio</td>
<td>157%</td>
<td>69.6–128.4% (average 89%)</td>
<td>About 80% in 2009–10</td>
<td>80%</td>
</tr>
</tbody>
</table>

Source: Adapted from PHFI, 2011.
20.3 Distribution channels

The distribution of insurance to low-income households is difficult for several reasons, including the challenges of accessing remote areas and encouraging take-up by individuals who lack experience with complex financial products (Gaurav et al., 2011). In addition, poor households by definition face liquidity constraints in paying premiums and are reluctant to buy an intangible product with benefits that may or may not be available at some point in the future.

Listed below, more or less chronologically, are four prominent channels through which insurance has been distributed in rural India with attempts to address these challenges. Initially, before the term microinsurance was used, the Government’s extensive rural banking infrastructure, the Post Office, and LIC’s agent network were the primary channels for distributing affordable products, and today they remain the most prominent. In the 1990s and early 2000s, NGOs and mutuals built upon their social capital in the community to educate households in insurance and risk management, and offer customized products. Later, MFIs entered the market and provided a solution to the affordability problem by financing premiums. They also offered strong data and cash management systems, and helped facilitate the evolution of the sector from a “development” initiative to having a more commercial orientation. More recently, insurers have expanded their distribution strategy to include rural supply chains and technology-enabled direct sales channels such as rural Internet kiosks and banking correspondent networks, which have a high potential to help insurance achieve scale with basic products at affordable prices.

20.3.1 Government-facilitated channels

Before the introduction of private insurance companies in India in 1999, insurance distribution to rural areas was generally through three main channels: the vast network of LIC agents, the Government’s financial infrastructure, and India Post.

For decades, LIC relied on its agents to sell life policies across the country. The scalability of this channel is attributed to three factors: 1) LIC’s state-directed mandate to serve low-income households; 2) LIC’s robust brand which is well known in most rural areas; and 3) its popular savings-based products with features such as return of premium. Even though its agent commission structures are at par with industry standards, the large and stable business volumes, government subsidies, and an elaborate agent development programme contributes to the viability of the model. One of the factors contributing to their popularity is the agents’ ability to offer a reliable savings instrument through a convenient “doorstep service”. This distribution model remains effective today. In 2009–10, LIC agents sold 38 million of the industry’s total 45 million life insurance policies, highlighting these agents’ success and their relevance for LIC.
India has over 32,000 rural bank branches, mostly public-sector commercial banks and regional rural banks, approximately 14,000 cooperative bank branches and 98,000 primary agricultural credit societies (PACS) (Basu, 2006). This vast network of government-dominated rural financial institutions provides directed credit, which is often accompanied by the associated mandatory and subsidized insurance cover. In addition, these financial institutions maintain a prominent life and personal accident insurance portfolio.

India Post is the world’s largest postal network, with 90 per cent of its post offices in rural areas. Its long history and deep outreach has helped make it a successful channel for the delivery of financial services, managing more than 240 million saving accounts. In 1995, India Post introduced its Rural Postal Life Insurance (RPLI) scheme with a specific mandate to provide cover to rural households, disadvantaged persons and women workers. In 2009–10, RPLI had 9.9 million active policies with an aggregate sum assured of INR 596 billion (US$12 billion) from its six life insurance products. Besides distributing its own product line, the postal network also acts as an agent to distribute Oriental’s general insurance products. Oriental’s personal accidental insurance policy at an annual premium of INR 15 (US$0.30) for a sum insured of INR 100,000 (US$2,222) has been particularly popular (India Post, 2010–11).

20.3.2 Mutuals and NGO-led models

Mutuals and NGOs are community-based organizations with broad development agendas that also use insurance to achieve their objectives. They tend to be involved in diverse activities, such as women’s empowerment, livelihood creation, disaster relief, and infrastructure development such as schools, wells and clinics. India is fortunate to have more than 25,000 civil society organizations, many of which have paved the way for the present vibrant microinsurance market, particularly health cover by community-based health insurance (CBHI) schemes.

Membership in CBHIs has been stable due to the high value provided by their client-responsive products and services, but financial viability has been a concern. Members have positive perceptions of their unique features, such as payment of premiums in grains, no-claims bonuses and loyalty incentives that increase the cover limit from the previous year. Greater product maturity has been demonstrated through additional services. For example, SKDRDP’s scheme provides surgical and non-surgical hospitalization without waiting

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7 The six products are Whole Life, Convertible Whole Life, Endowment, Anticipated Endowment for 15 and 20 years, Joint Life Endowment, and Children’s Policy. In 2008–09, 45,000 claims were settled amounting to INR 1.3 billion (US$26.4 million). All operations of RPLI are computerized (India Post, 2010–11).
periods for domiciliary treatment,\textsuperscript{8} maternity services, accidental death and natural calamity covers. Other CBHIs offer “value-added services” ranging from consultations through telemedicine to the provision of drugs and ambulance services. CBHIs tend to be affordable when they work in tandem with the government health infrastructure to ensure easy access to care. They also intervene to increase access to drugs at affordable prices.

While these models have high re-enrolment levels and perceived higher client satisfaction, they are often unable to scale up due to limited management capacity and insurance expertise. There are some notable exceptions, such as the DHAN Foundation, VimoSEWA, SKDRDP and Uplift (see Box 5.1), which have all shown impressive membership growth, but in general CBHIs tend to remain small.

The relationship between CBHIs and insurers has evolved over the years. In some cases, CBHIs prefer to carry the risk themselves (e.g. DHAN Foundation); others work in partnership with insurers for standard covers and then retain some of the risks to provide benefits that the insurers do not cover (e.g. VimoSEWA and SKDRDP).\textsuperscript{9} However, CBHIs that retain all of the risk often offer products with limited cover in part because reinsurance facilities are not available to them in the current regulatory environment. Indeed, these schemes operate in a regulatory vacuum because IRDA recognizes only insurance companies as entities that can offer insurance contracts.\textsuperscript{10}

The mass health insurance programmes such as RSBY, which target similar populations, may also pose as competition to mutuals and NGOs. To accommodate these social protection programmes, community-based schemes are exploring ways of supplementing the benefits provided by the Government. Government programmes offer a unique opportunity to involve CBHIs by building on their core skills of community mobilization, which could improve enrolment rates and client awareness of the mass health schemes. Additionally they provide capacity to monitor local health facilities, which would be mutually beneficial as it could ensure better health services for low-income households while providing greater legitimacy to mutuals and NGOs.

\textsuperscript{8} Domiciliary hospitalization is provided when the condition of the patient is such that he or she can be treated from home under nursing supervision.

\textsuperscript{9} For example, SKDRDP’s health scheme has a “zero rejection” policy whereby the NGO covers claims it considers genuine but are not approved by the insurer. It also offers domiciliary treatment cover and rest allowance, which the insurer does not. However, in only three of its seven years of operation have the claims paid by the scheme been less than total premiums collected, making it difficult for SKDRDP to find private insurers, who, unlike public insurers, rarely have access to state subsidies and are keen on insuring sustainable portfolios.

\textsuperscript{10} For more details about regulatory conditions for mutuals and community-based schemes, see section 25.4.
MFI distribution

Unlike NGOs and mutuals that often provide microcredit as one of many interventions in the community, Indian MFIs are focused primarily on providing financial services. Their close links to their clients reduce transaction costs, adverse selection and fraud for the insurer. In addition, credit-linked insurance decreases the MFI’s repayment risk, and therefore incentives for the delivery channel are well aligned with the interests of the insurer. With the exception of the 2010 Andhra Pradesh crisis, the success of microfinance in India raised hopes that these institutions with strong data and cash handling systems could serve as an effective channel for the provision of insurance and other risk management solutions.

MFIs are spreading rapidly in India, thus representing a scalable delivery channel. According to the industry association Sa-Dhan, MFIs served more than 26 million customers in 2009–10, an 18 per cent growth in clients and a 56 per cent growth in the loan portfolio from the previous year (Srinivasan, 2010). Compulsory credit-linked products have already demonstrated how MFIs can help insurers reach their rural targets. There have been problems with more ambitious products, however, which can be partly attributed to the insurers’ lack of capacity to cope with clients and healthcare providers in rural areas, as well as the misalignment of incentives where MFIs are only compensated for originating policies, not for servicing them.

In 2007–08, CIRM surveyed 47 MFIs to understand their involvement in microinsurance and found that the vast majority of the products were mandatory and credit-linked on behalf of insurance companies. Figure 20.5 shows the type of products offered.

The few voluntary products primarily covered health and accidental death. While there is a demand for health risk solutions, available products generally cover rare catastrophic events and therefore do not respond to households’ needs to cover moderate and more frequent risks. MFIs have found it difficult to offer affordable voluntary cover because of two major factors: a) staff are ill equipped to advise households on risk management solutions; and b) it consumes considerable staff time. Investing in client education and insurance origination is difficult for Indian MFIs known for their streamlined processes aligned to offer a basic loan product. Few MFIs have modified processes to accommodate product diversification.
Insurers working with MFIs often assume that they have the ability to provide on-the-ground support for the early reporting of claims and assistance to beneficiaries in producing the necessary documentation. Although many of the larger MFIs are able to support claims settlement and manage insurance activities, this is not the case with newer, smaller MFIs. Over half of the MFIs surveyed did not maintain a separate microinsurance balance sheet, did not undertake claims analysis, and did not invest in staff training to deliver microinsurance.

Even large, capable MFIs can be risky delivery channels. Insurance is not their core business, but rather a supplementary activity. The microfinance crisis in 2010 directly affected the portfolios of large, and some medium-sized MFIs with substantial exposure in the state of Andhra Pradesh. The crisis had additional global implications, as described in Box 20.7, which could present an opportunity for microinsurance depending on how players respond to the regulatory change that prohibits MFIs from charging clients service fees in addition to the commissions they receive from insurers.
Box 20.7

**Opportunity in the crisis?**

A rivalry between competing MFI and state-supported SHG models in Andhra Pradesh had been simmering for years. In 2010, the initial public offering of SKS, India’s largest MFI with a sizeable share of its portfolio in Andhra Pradesh, along with media reports linking loan collection practices to suicides, prompted Andhra Pradesh’s Chief Minister to pass “an ordinance to protect the women self-help groups from exploitation by the microfinance institutions”. This ordinance sought to impose a range of new conditions on MFIs, including district-by-district registration, requirements to make loan repayments near local government premises, a shift from weekly to monthly repayment schedules, and other measures to contain supposedly unethical collections, high interest rates and profiteering. This ordinance has contributed to a general environment where MFI ground-level operations are impeded and loan repayments for MFIs in Andhra Pradesh dropped dramatically. MFIs unable to effectively negotiate their financing could become illiquid and insolvent.

Following concerns about customer protection, the banking regulator, Reserve Bank of India, imposed an interest-rate cap on MFIs’ loans. In this environment, identifying alternate sources of revenues are critical for MFIs to survive. As they explore other revenue-generating opportunities, the crisis may become an opportunity for microinsurance. The big question is whether microinsurance can become part of the MFIs’ core business, and whether they can evolve beyond mandatory loan-linked schemes to offer a range of customized insurance and risk management solutions.

*Source: Adapted from CGAP, 2010; Balkenbol, 2010.*
20.3.4 New distribution channels

Even though MFIs are growing rapidly, they reach only a small percentage of the rural population. Indian insurers are also distributing cover to the poor through new channels, including supply chains, banking correspondents and direct agent sales.

Rural supply chains: Other aggregators involved in extending insurance in rural areas include agriculture supply chain firms, such as:

- **Dairies**: In Tamil Nadu, United India in collaboration with Hatsun Dairy is attempting to address the liquidity constraints of rural households by distributing livestock insurance where premiums are paid up-front by dairies and collected against the household’s milk income.
- **Tractor sales points**: HDFC Ergo distributes state-subsidized weather-index insurance in Madhya Pradesh through a tractor retailer.
- **Fertilizer and seed companies**: Similar to the bundled personal accident cover IFFCO offers with its fertilizer bags, Pioneer Seeds also experimented with a free insurance cover, underwritten by ICICI Lombard, which would pay benefits in seeds if there was insufficient rain during the germination period. Such a link reduces marketing and distribution costs for insurance.
- **Farm input outlets**: AIC has leveraged agricultural input providers such as Hariyali Kisan Bazaar to distribute agriculture insurance.

Rural Internet kiosks: Internet outreach in rural India has been expanding. One big fillip to this growth has been the Government’s ambitious e-governance plan to set up kiosks in rural areas to facilitate information and data services. Known as common services centres (CSC), these kiosks with an Internet-connected computer are delivery points for public, private and social sector services. As of August 2011, there were 96,000 functional CSCs in rural India managed by 15 private state-designated agencies (SDAs). Some SDAs offer insurance, such as SARK Systems offering products by Birla Sun Life and HDFC Ergo, while 3i Infotech has collaborated with MNYL to distribute life insurance. Besides the Government’s CSC network, there are also private kiosk channels, such as COMAT, which distributes LIC’s life insurance products through its 2,000 rural business centres in five states (Department of IT, 2011).

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11 This product was offered for one year with mixed success. A key challenge was the lack of incentive for the retailers to undertake the additional paperwork involved in providing insurance receipts. Also, since the insured year was a good year, no claims were paid. According to the retailers, the intangible benefit of insurance did not influence the farmers’ seed purchase decision as much as the popular free umbrella scheme of previous years (Akhilandeswari and Patankar, 2010).
New distribution channels and technology

An important factor supporting the emergence of these new distribution channels is the availability of new technologies that provide a “light” customer interface in rural areas without a branch office infrastructure, facilitate transparent communication between the various organizations involved in the supply chain, and improve the claims experience. Three technologies that support different aspects of that process are mobile phones, PoS devices and biometric smart cards.

Mobile phones

Even though Indian regulation inhibits premium collection through mobiles, they have been used for other purposes, such as:

- **Insurance origination**: Thinkways, a mobile technology player, has collaborated with HDFC Ergo to develop a mobile application for insurance data collection and policy issuance.
- **Value-added services**: WRMS offers weather forecasts as text messages along with its insurance products to improve client retention.
- **Transaction accounts**: While banking correspondent FINO uses PoS machines and mobiles (see Box 25.6), Eko relies exclusively on mobile phones to open up transaction banking accounts, which will be a powerful platform for insurance distribution.

Point-of-sale devices

- **Connectivity challenges**: MNYL piloted PoS machines because there was an assumption that policyholders would want receipts when making their premium payments. Yet the PoS devices had major connectivity problems and were therefore eventually scrapped in favour of scratch cards and mobile phones, both of which were well received by customers.
- **Remote diagnosis**: CARE Foundation uses a handheld device to offer outpatient insurance services through a village health champion (see section 24.2.2 and Box 5.3).

Biometric cards

- **Fraud prevention**: RSBY along with other mass health schemes employs a biometric smart card to reduce identity fraud.

Linking client enrolment with transaction processing systems, technology players such as Gradatim offer front- and back-end solutions for intermediaries to allow greater integration of systems among players. This integrated approach streamlines processes and reduces the cost of sales, underwriting and claims administration.

Source: Authors.
**Bancassurance and banking correspondents:** SBI Life, the largest private life insurer in the country, distributes the majority of its portfolio through the bank branches of its parent company to reach self-help groups. The new variation of bancassurance is with banking correspondent companies, such as Financial Information and Operations Network (FINO), A Little World and Eko Indian Financial Services, which are catering to the huge unmet demand for convenient banking services and offering an avenue for insurance distribution. This channel is unique because it relies on voluntary sales by a local agent, so products must be simple and pre-underwritten, with easy claims adjudication. Bharti Axa has collaborated with Eko to provide Bachat Bima (savings insurance), while HDFC Ergo’s alliance with FINO sold 100,000 personal accident policies. These products are part of the trend to achieve high business volumes by distributing simple, low-value, affordable products.

**Direct sales:** Historically LIC, and more recently Tata AIG, have used individual agents to deliver life insurance in rural areas. A more recent innovation with potential to scale has been MNYL’s technology-enabled agents distributing the Max Vijay product and servicing it through point-of-sale (PoS) machines. This model has experienced mixed success. Although the insurer managed to sell more than 90,000 policies, it had less success encouraging top-ups, or the on-going payments, possibly because the completely flexible approach with no payment schedule was too flexible, and did not instil sufficient discipline (see Chapter 8).

In general, the potential success of many of these new delivery channels hinges on technological solutions, as illustrated in Box 20.8, which facilitate greater outreach and efficiency of microinsurance (see Chapter 24).

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**20.4 Conclusion: Catalysts of success**

By most accounts, the development of microinsurance in India is a success story. While there is certainly room for improvement, anyone interested in expanding social protection and/or developing inclusive insurance markets could learn valuable lessons from the Indian experience. Perhaps one of the more interesting observations is how closely integrated the state and the market can become.

Based on the evidence from India, the following are critical to a sustainable and scalable microinsurance market: 1) government commitment; 2) conducive regulation; 3) technological solutions; 4) new stakeholders; and 5) specialized products.
1) Government commitment

- **Public insurers and market liberalization:** Large public insurance companies with an explicit mandate to reach underserved areas have been a major asset for the development of microinsurance in India. However, the participation of private insurers with foreign investment has been critical to encourage competition and stimulate innovation.

- **Cautious allocation of subsidy:** Premium subsidies can be a way to incentivize markets to provide relevant protection for the poor. However, subsidies that crowd out market-based solutions should be avoided. Some government schemes, like the agriculture and livestock programmes, end up catering to large and medium-sized farmers who can afford insurance. In addition, products with subsidies at both ends – premiums and claims – inhibit transparent price discovery and make it more difficult to produce a reliable evaluation of programme costs and success. It is also advisable with subsidized products to maintain partial premiums, which allow users to signal the relevance of the product and its providers through take-up and renewal.

- **Accreditation and standardization of infrastructure:** The government can be an important player in creating industry-wide standards, which would lead to greater efficiency as service-quality monitoring costs for insurers diminish. For example, mass health schemes have started to create protocols and to invest in the accreditation of health providers and standardization of health care. In agriculture insurance, to improve data reliability and allow reinsurers to charge lower “unknown risk” premiums, a certification process for data from private weather stations has been implemented. Going forward, a more comprehensive accreditation and standardisation process will lower entry barriers for insurers.

- **Public-private partnership:** The Government’s transition, from directly providing insurance through its own insurers and distribution channels, to financing premiums for portfolios managed by public and private insurers, has successfully supported the achievement of scale, as seen in the mass health insurance schemes and weather-index insurance market. Effective implementation requires a transparent tendering process and the public sharing of risk data.

- **Relevant infrastructure:** Microinsurance has benefited significantly from extensive financial sector infrastructure, with its network of bank branches, post offices, Internet kiosks and, soon, banking correspondents. It is important to also consider healthcare facilities, weather stations, telecommunications and other supportive infrastructure that are critical to the expansion of microinsurance. Where possible, governments should encourage the private sector to invest in some of that infrastructure.
2) **Conductive regulation**

- **Forced familiarity:** The IRDA’s Rural and Social Sector Obligations have contributed significantly to ensuring that insurers focus on the low-income markets. With many companies exceeding their rural and social sector targets, it appears that the industry sees microinsurance business opportunities. Quotas are controversial and certainly not for everyone. But would the private companies have become involved in microinsurance if they had not been obliged to? Perhaps some would, but not with the same level of investment and commitment that they have shown to date. Microinsurance has developed more quickly in India because of the rural and social sector mandates.

- **Microinsurance regulations:** Unlike the obligations, which are mandatory, the Micro-Insurance Regulations, 2005 are facultative in nature, to create an enabling environment to help insurers serve low-income households. While the results have been mixed, the regulations have allowed NGOs, SHGs and some MFIs to operate as microinsurance agents and offer both life and non-life products, providing a legal identity for social aggregators.

- **Supportive regulation in allied sectors:** Draft guidelines from the Ministry of Health and the Ministry of Information and Technology on issues such as e-health, via the Internet, and telemedicine have sent positive signals for private investment in more comprehensive health insurance products involving alternative models of healthcare provision and health information management.

3) **Technological solutions**

- **Identification systems:** Most products at scale have adopted new identification technologies, such as RFID and biometrics, to improve efficiency, control fraud and ensure timely claims settlement. Efforts to create a nationwide unique identification number will also make significant headway towards addressing the challenges of identification and data management, and will enable insurers to reduce origination and claim settlement costs.\\(12\\)

- **Information management:** Technology platforms are needed to allow seamless interaction among players: between insurers, TPAs and the distribution infrastructure. Such technologies have also allowed insurers to harness existing infrastructure such as post offices and banks.

- **Front-end solutions:** Investment in tools such as the use of point-of-care diagnostics (e.g. CARE Foundation in its outpatient insurance pilot) and

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\(12\) Approximately 9.5 million individuals have already received the Aadhar unique identification card. It will store basic demographic data and biometric information on each individual, such as photograph, ten fingerprints and an iris scan, in a central database. A similar effort in Pakistan titled National Database and Registration Authority (NADRA) has already covered 96 million individuals and has been valuable in identifying households for delivery of government programmes.
hand-held devices (e.g. by MNYL) is required to provide reliable and low-cost products. Going forward, it is anticipated that insurers will make use of technology-heavy channels such as banking correspondents, which use mobile and PoS devices along with biometric cards to address operational challenges.

- **Risk reduction:** Technology does not mean just high tech; many low-tech solutions can make significant contributions to better risk management practices, for example through health education of preventable diseases and improved livestock management practices. Insurers have incentives to prevent claims, which result in positive development results.

4) **New stakeholders**

- **Specialized players:** WRMS played a critical role in enabling the weather insurance market to reach scale through innovative products customized for specific risk groups, distribution channels and crops. Now software companies are emerging, such as Thinkways and Gradatim, to build information systems for origination and claims management while creating actuarial data for programme improvement.

- **Third-party administrators:** Microinsurance requires huge volumes and insurers often do not have the in-house capacity to manage the administration themselves. For health microinsurance, TPAs can play a critical role in supporting the development of large schemes, although they are not for everyone. Dissatisfaction with administrators has led some MFIs and NGOs to set up in-house processing centres, which reduce claims origination delays and overall claims management time. Such efforts require closer collaboration with insurers to ensure seamless process integration.

- **Alternative distribution:** The next wave of distribution channels may be the most promising – including agriculture supply chains, banking correspondents, kiosks offering Internet access, and local retailers with point-of-sale devices – all focused on facilitating access and reducing transaction costs for customers. Incentives are better aligned where distributors have a vested interest in partnerships, such as dairies that want to ensure the predictability of milk supply or seed companies that provide benefits in kind.

5) **Specialized products**

- **Portfolio covers:** With a huge untapped market, the microinsurance industry’s key challenge has been that of market entry, i.e. reaching out to households that have had no prior insurance access. Products that are light and can easily go “viral” have received greater attention from practitioners. Transaction cost is a prominent part of microinsurance products, being as high as 40 per cent of the premium, making formal insurance undesirable for households. Low insurance
literacy further exacerbated by a lack of sales channel training makes direct sales costly and exposes the client to possible mis-selling. An alternative, more affordable approach to market entry is to offer portfolio or meso-level covers to intermediaries, as tested by BASIX for its agriculture loan portfolio, which circumvents the client education cost and helps cover insurable risk at affordable rates.

- **Composite products:** With the weak last-mile connectivity available to low-income households, life and general insurers face distribution problems. While the microinsurance regulation has allowed composite products, few insurers have offered them. The SBI Life composite product aimed at insuring life and property risk cuts down on a double transaction cost to the household, and therefore may be a step in the right direction towards more affordable, comprehensive cover.

- **Products for moderate risks:** Many initiatives offer cheap products that cover low probability events to make them more affordable. These products tend to generate fewer claims, leading to low re-enrolment rates, which is an important yardstick for measuring perceived customer value. To increase value, products can give households the option to choose between moderate and catastrophic covers, increasing household awareness of cover and exclusions.

- **Providing value-added services:** The preferred model of bundling services would be where the additional package reduces the insured risk, thus aligning the interest of the insurer (or the intermediary) in delivering it. For example, intermediaries may provide vaccination and fodder enrichments with cattle insurance. Another such example is the provision of outpatient coupons or healthcare camps to reduce incidents of hospitalization. Such arrangements ensure that the clients receive something tangible for their premium, even if they are unable to make a claim, increasing the perceived value of the product.

The Indian achievement over the past decade to protect the poor through the involvement of all sectors of society has been nothing short of remarkable.

Certainly, India has not figured everything out. There is a need to recognize that poverty and vulnerability are urban as well as rural phenomena, and to consider interventions that will benefit slum dwellers and migrants. The compulsory nature of many state-subsidized products does not allow feedback for product improvement. Additionally, dependency on the credit programme and banking network reduces the ability of insurers to control the quality of their portfolios. There is certainly scope for improved consumer education and consumer protection, to support sales while avoiding a microfinance-like crisis in the microinsurance sector. And the regulatory constraints that prevent insurers from using mobile-phone-based insurance sales and premium collection are impeding the next wave of innovation.
Regardless of the challenges that remain, India’s success, involving a diversity of approaches and players, combining financial inclusion and social protection, serves as a beacon of inspiration.