Final Report

A STUDY ON NATIONAL AGRICULTURAL INSURANCE SCHEME (NAIS)

Submitted to

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EXECUTIVE SUMMARY

The aim of the National Agricultural Insurance scheme is to provide insurance coverage and financial support to the farmers in the event of crop failure against natural calamities like drought, excess rainfall, flood, hail, pest infestation, etc. and ensure credit worthiness for ensuing season.

It has been observed that banks/PACS are not complying with mandatory crop insurance for crop loans disbursed for notified crops, thereby leaving a major portion of the eligible crop loans uninsured. Furthermore, there are delays in crediting the claims to the accounts of beneficiary farmers even though the scheme stipulates a period of two weeks for banks to credit claims to beneficiary farmer's account. Such delinquencies defeat the very objective of the scheme. As a result, the target farmer segments are deprived of intended insurance coverage and financial support in the event of failure of notified crops caused by exogenous risks. Keeping the above backdrop in mind, Agriculture Insurance Company of India Ltd. (AIC) has commissioned this study on NAIS.

The study was carried out in 5 States covering 22 Districts and 66 Reference Units. A total of 1452 farmers, comprising of 22 farmers per Reference Unit (RU) formed the sample for primary field survey. The sample consisted of both loanee and non-loanee farmers having experience of NAIS. Primary research had considerable representation of other key stakeholders in NAIS such as State Governments, Banks & Credit Institutions and other relevant organizations, Study tools employed for the study were check-lists and questionnaires, customized for different categories of information sources/respondents.

KEY FINDINGS OF THE STUDY

The key findings of the study are summarized below in order of the various tasks enlisted in the TOR

Task 1: To examine the status of compliance of compulsory provision under NAIS in regard to crop loan disbursed for the notified crops in the notified areas by the banks/PACS

Data for six crop seasons from banks indicate that commercial banks are insuring 10% to 20% (average – 14.6% for Kharif season and 12.3% for Rabi season) of their crop loan portfolio for notified crops. The corresponding values for RRBs range from 23% to 73%

(average – 33.4% for Kharif season and 64.4% for the Rabi season). Cooperative banks (DCCBs) fare better than RRBs in case of Kharif season (average – 49.7%) while in case of Rabi season (average – 27.7%), their performance leaves scope for substantial improvement, both in absolute terms and relative to RRBs.

The above values, though derived for a small sample of banks, provide evidence of the gap in mandatory crop insurance coverage for notified crops.

Task 2: To study the kind of legal and regulatory environment to ensure compliance of compulsory provision

Though both RBI and NABARD, the apex regulators for commercial banks and cooperative/rural banks respectively, issue circulars for promoting adherence of mandatory crop insurance provision by banks, the administrative stringency from regulators to warrant the fulfillment of this mandate by banks is inadequate. In the absence of legal support, such circulars are not able to elicit required enforcement from credit institutions leading to ineffective implementation of crop insurance program. Cooperative entities like PACS have been found to frequently subvert the role of crop insurance by passing resolutions against adoption by member farmers.

Mandatory crop insurance for loanee farmers has been routinely challenged in courts. The absence of a clear-cut law for agricultural insurance has allowed a higher degree of divergence in interpretation of crop insurance by various courts with some verdicts undermining the mandatory nature of crop insurance for loanee farmers. Wide-ranging interpretations by courts have also diluted the level of commitment with which various state governments implement the crop insurance program. In some cases, Government of India has been made a party in legal disputes over mandatory crop insurance thus forcing unnecessary investments of resources to defend its stand on a welfare subject like agricultural insurance.

Task 3: To examine the reasons and justification for failure, if any, in respect of non-compliance by the banks/PACS and the possible remedies

Banks, particularly Commercial Banks, exhibit a discretionary approach towards mandatory crop insurance of loanee farmers. Such a behavior of banks cannot be attributed to typical reasons such as the operational constraints faced by them or the resistance of farmers against crop insurance. The reluctance of banks to embrace crop insurance as an effective risk mitigation instrument has reasons deeper than those which meet the eye. From the various interactions during this study, it has become evident that banks possess little conviction in the efficacy/utility of crop insurance currently being implemented in India. In many cases, it has been seen that banks, especially the local branches of commercial banks, decide their stance on crop insurance based on the claim pattern in a particular location or area. It would not be blasphemous to believe that banks, especially commercial banks, treat crop insurance essentially as an instrument of convenience; backing it when the claim history has been in their favour and giving it a short shrift when claim history indicates unfavorable or mixed outcomes. Owing to their indifferent participation in NAIS and their detached working with AIC, banks particularly the commercial banks seem to have developed a conception of NAIS that is distant from reality.

The supply-driven approach of crop insurance in India, NAIS in particular, has precluded banks from participating and contributing to key design and administration aspects of NAIS. Even more than a decade after the introduction of NAIS, banks cite problems in design and administration of this scheme as a key reason for their inability to fulfill the mandatory crop insurance requirement for loanee farmers. When asked to elaborate on these problems and the resulting hindrance, a number of banks have complained mainly about issues like low probability of claims under NAIS, infrequent payouts, mismatch between crop losses and claims, non-inclusion of perils like cyclones etc., poor visibility of CCEs and their limited number, biased selection of plots for CCEs and high/unaffordable premiums. Many banks have gone beyond and demanded implementation of a crop insurance scheme based on individual assessment of claims. Coming from banks, these demands signify only misplaced expectations and improper understanding of crop insurance. As a result, the improvements or modifications in NAIS demanded by them tend to be unrealistic, borne out of a one-sided view of a multi-faceted scheme like crop insurance.

The reluctance of banks to fulfill the mandate of compulsory crop insurance can sometimes be attributed to the disillusionment and resistance of loanee farmers. Owing to their day-to-day engagement at the grassroots, banks have to be sensitive to the experiences and sentiments of their clientele, of which farmers constitute an integral part. The disillusionment and resistance of farmers could have a valid reason as indicated by the claim experience across insurance units in India. Even in states that have been the biggest beneficiaries of NAIS, the claim experience across districts has been lopsided in most cases. While farmers of a few districts have become increasingly convinced of the risk mitigation benefits provided by NAIS, those in other districts with poor or no history of claims view it as an unnecessary burden imposed by banks.

Even when the administrators and key decision makers of a particular bank are convinced of the risk management benefits of crop insurance, it may not necessarily ensure compliance by the personnel entrusted with operational responsibilities for crop insurance within a particular branch. Formal system for rewards and punishment to bank branches and personnel, which takes into account their performance with respect to crop insurance is reported to be absent across the banking network.

Time window for enrollment of farmers under crop insurance coincides with the period of heavy workload for banks. Despite the apparent advantages, incentives for early enrolment into crop insurance scheme have not been instituted. Farmers and banks tend to delay the process of enrollment in crop insurance as much as possible to gain additional information about crop conditions and forecasts. This leads to an accumulation of workload for associated bank personnel during periods close to the cut-off date for crop insurance. At the same time, the procedures and documentation requirements for crop insurance have not been streamlined, reengineered or automated to an optimum level. These factors combined make the tasks related to crop insurance more burdensome for banks.

Task 4: To study the nature of inadequacy of infrastructure, if any, at the loan disbursing branches and/or at the Nodal Points of the concerned Bank

Inadequacy of infrastructure would, at best, be an excuse for banks and credit institutions to justify delinquencies in compliance of mandatory for crop insurance. Among the various tasks and processes handled by banks and credit institutions as part of their core business, there are at least some which require a higher degree of infrastructure compared to that required for crop insurance. The critical infrastructure required by banks and credit institutions for handling crop insurance can be deemed to be available as long as the entity is discharging its credit-related responsibilities.

Interfacing the information systems of banks and credit institutions with those of AIC may enable better management of workflow and knowledge transfer. Almost all major commercial banks have transitioned to Core Banking Systems (CBS). Likewise the information systems of cooperative banks and regional rural banks are also getting upgraded even though their technical sophistication may not match that of information systems employed by leading commercial banks. Considering the fact that the cooperative banks particularly the DCCBs represent the single-largest sources of business to AIC in most locations, Annapoorna - the information system of AIC must be aligned to provide a seamless interface not only with the

CBS of commercial banks but also with the information systems of cooperative banks and RRBs.

Task 5: To examine additional incentive, if any, to be paid to the banks/PACS, so as to enhance penetration level through compliance of the compulsory provision of the Scheme. If so to what extent and in what form. Also examine the sharing of bank service charges by the nodal banks with the grass root level branches/PACS and possible sharing arrangement

Out of the respondents from banks and PACS covered during the study, nearly 47% have proposed an increase in service charge paid by AIC to 5% of the premium from farmers; around 22% have sought a much higher service charge of 10%; slightly less than 10% have asked for service charges between 3% and 5%. Rest of the respondents have not indicated a numerical value for incentives but have suggested provisions such as cash rewards for better performing branches and personnel, exposure visits to well-performing branches in other states etc.

Task 6: To find out the modalities of insuring crop loans given against mortgage of FDs, Jewellery, movable assets, etc.

Less than 10% of banks in the sample responded to the data item related to this task. In the current scenario, very few banks have a loan offering (product) under which crop loan is provided against mortgage or pledge of movable assets like Gold, FDs etc. In majority of the cases where such loans banks are offered by banks, the loans are for uses other than crop production.

Task 7: To examine the modalities of insuring crop loan withdrawn in advance of the season, (e.g., rabi loans in kharif season), particularly though KCC

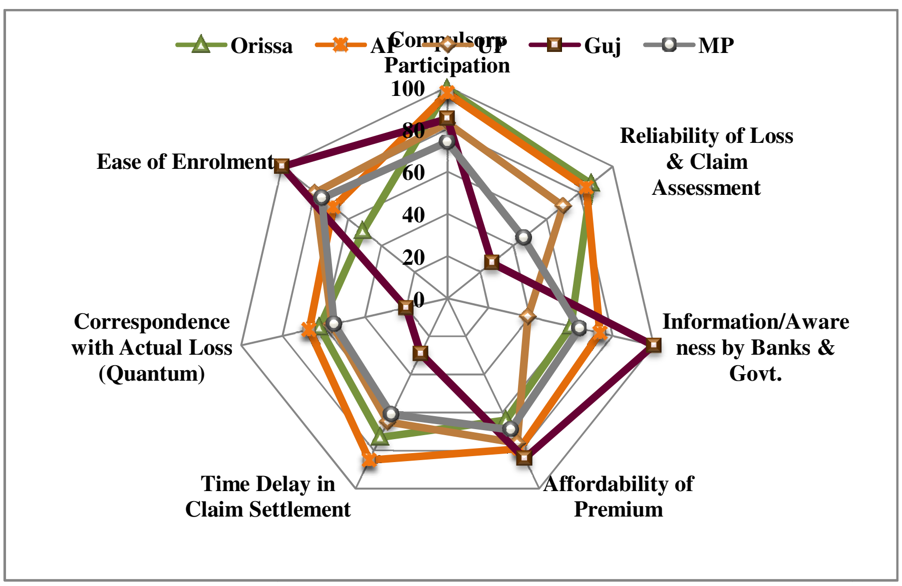
Kisan Credit Card (KCC) has brought about a radical change in agricultural credit system by empowering the farmers to exercise discretion in the usage and withdrawal of agricultural credit. Though the credit limit under KCC is determined largely on the basis of factors like scale of finance for planned crops and operational landholding, this credit limit is fungible in that it can be utilized for meeting other financial requirements.

As KCC provides flexibility to farmers in choosing the timing and quantum of withdrawal, farmers can exploit this convenience to influence their enrollment/participation under mandatory crop insurance scheme. Only when a farmer withdraws funds from his KCC account during a stipulated time window (which starts sometime before the time of sowing and extends up to the cut-off date for crop insurance of indicated crop(s)), he will be enrolled under crop insurance for the indicated crop(s). Withdrawal before or after this stipulated time window will omit him from coverage under mandatory crop insurance even if he is a loanee farmer. Since enrollment under crop insurance is not automatic or by default, the emergence of KCCs as the preferred mode of crop loans is adversely affecting the mandatory coverage of loanee farmers.

Widespread availability of KCC was seen across the five states covered during the study. UP and MP are the best performing states with almost 99% respondents from UP and 98% respondents from MP holding a KCC. Orissa and Gujarat are also marginally behind with 95% and 93% respondents respectively. Though AP figures at the lowest level, the fact that 87% of its respondents wield a KCC does not indicate an unsatisfactory level of performance.

Task 8: To examine the reluctance of farmers towards crop insurance, classify these groups into various categories

The following radar chart indicates the corresponding percentage of respondents from a given state who are fully or partly satisfied with key aspects of NAIS. The key observations from the chart are summarized below:



- The highest levels of satisfaction (average-88%) are recorded on the aspect pertaining to compulsory crop insurance for loanee farmers.

- The next highest levels of satisfaction (average-75%) are seen with regard to the ease of enrollment in crop insurance
- Affordability of premiums (average-74%) marginally trails behind ease of enrollment in the level of satisfaction
- Information/awareness by banks and Government officials (average-67%) figures at the median (middle-most position) across the aspects of NAIS
- Reliability of Loss & Claim Assessment and Time Delay in Claim Settlement are the two aspects of NAIS that figure at the penultimate spot in terms of level of satisfaction
- Correspondence with Actual Loss' (in terms of quantum) emerged as the aspect with the lowest level of satisfaction (average-52%)

On similar lines as the preceding radar chart, the following table captures the satisfaction level on key aspects of NAIS as indicated by various categories of farmers.

Aspect of Crop Insurance (NAIS)	Social Category				Landholding			Education				
	SC	ST	OBC	Gen*	S&M*	Medium	Large	Illiterate	Primary	H&I*	Grad*	PG*
Compulsory Participation	86	92	83	88	88	84	87	87	86	89	80	86
Reliability of Loss Assessment	50	64	64	64	65	56	60	47	58	69	61	81
Information by Banks & Govt.	56	84	67	69	65	68	70	67	67	68	61	63
Affordability of Premium	67	96	79	74	75	76	72	73	77	71	73	88
Time Delay in Claim Settlement	71	32	64	62	69	53	61	72	58	62	57	77
Correspondence with Loss	52	76	59	50	50	50	59	50	50	51	53	77
Ease of Enrolment	73	88	71	77	75	74	81	82	75	74	77	65

Legend (*): Gen – General; S&M – Small & Marginal; H&I – High School & Intermediate; Grad – Graduate; PG – Post Graduate

Task 9: To elicit the views of the bankers with regard to lowering the size of insurance unit to village/village-panchayat level and to what extent so as to attract more farmers to join the scheme

This task, which is similar in nature to a loaded question, elicited the natural response. Almost all (97%) respondents from banks and PACS supported the lowering of insurance unit to village level. During unstructured interactions with bankers, mainly those from SLBC, some even raised demand for group-based and individual crop insurance citing the discrepancies between payouts and actual crop losses.

However the preference by banks for lowering of insurance unit to village level was not backed by a conviction about greater patronage of farmers as a result of this improvement.

Task 10: To find out ways and means of strengthening the backward and forward linkages between the Nodal Banks with the crops loan disbursing branches/PACS under its jurisdiction and with AIC

No specific inputs were obtained from the 20% representatives of banks and PACS who responded on this matter. All the responses indicated satisfaction over the current state of affairs between Nodal banks and crop loan disbursing branches/PACS.

Task 11: To obtain useful feedback from the banks about the proposed holistic IT project, namely, Annapoorna of AIC

Barring the 13% respondents out of those from UP, no other respondent from any of the states was aware of Annapoorna – the proposed holistic IT project of AIC. Even those who indicated awareness of Annapoorna did not have sufficient details or understanding to enable them for providing useful feedback on it.

Task 12: To study and furnish comparable data of time gap between actual disbursal of claims by AIC and credit to the account of farmers by the Banks

About 37% of the representatives of banks and PACS responded imprecisely by stating that the time gap between receipt of claims from AIC and credit to the account of farmers was negligible. Nearly 26% reported a time gap of approximately one week in crediting claims to farmers' accounts. Around 23% respondents admitted a time gap of two weeks or 15 days, followed by almost 15% respondents who acknowledged a delay of up to four weeks or 30 days in crediting claims to accounts of farmers.

Time taken in mapping claims to the actual farmer beneficiaries due to improper database management / record-keeping by PACS and disbursing branches was the most commonly reported cause of delay. Administrative issues like unavailability of the concerned officer of Nodal banks and/or supervisors of disbursing branches because of their other commitments also led to delay in some cases.

KEY SUGGESTIONS/RECOMMENDATIONS

CATEGORY 1: Improving Ownership/Stake of Banks

A participatory approach by insurers and policy makers can help in ironing out stumbling blocks and perceptual barriers between banks and insurers. Not only would it bridge the gap between banks and insurers that has so far led to a misaligned and suboptimal association but would rather go a long way in building equity of banks in the Indian crop insurance program.

(i) Increasing Ownership and Stake of Banks in Crop Insurance Scheme

- *Resolution of Misconceptions and Disagreements related to Scheme Design and Administration*

It is high time that key resource-persons and policy-makers from banks and AIC sit across the table and resolve the perceptual barriers and differences of understanding on NAIS. Trust-enhancing exercises involving these critical stakeholders in NAIS can be instrumental in improving the effectiveness and efficiency of what we should strive to maintain as the leading crop insurance program in the world.

- *Collaborative Exercises for Reviewing Baseline Values/Key Parameters under Area Yield Insurance and Making Revisions wherever Required*

AIC should work with banks for an exhaustive review of the baseline values and key parameters for crop insurance. This review could help in identifying the values and parameters that need to be revised in order to align the crop insurance with the ground realities and fair expectations of farmers in a given location. Such exercises can help in restoring the perceived utility of crop insurance which could have got eroded in certain areas because of unfavorable payout history for farmers. These exercises would equip the banks with technical understanding and objective clarity on crop insurance thus enabling them to appreciate its utility and to work towards its increased penetration and outreach.

- *Incentive and Reward System for Branches and Personnel*

As part of the collaborative exercises proposed between banks and AIC, the issue of service charges or incentives for banks can also be taken up. The quantum of service charge received by the banks from AIC can be consolidated into a corpus. This corpus can then be utilized by a bank for distributing rewards and incentives among individual branches based on their fulfillment of mandatory crop insurance provision. On similar lines, some deterrents and penalties can be instituted to discourage controllable or willful non-conformance of mandatory crop insurance by bank personnel.

While efforts must be made to stimulate banks for putting in place an incentive and penalty structure, the onus is on the apex regulatory institutions to provide impetus and fillip to such a drive towards a concerted fulfillment of mandatory crop insurance of loanee farmers and improvement in the coverage of non-loanee farmers.

- *Human Resource Support to Banks for Meeting Seasonal Workloads*

For improving service delivered by banks to farmers, in-depth training on key aspects of crop insurance like insurance principles, policy design, communication, marketing and operating procedures should be imparted to bank personnel and PACS staff engaged in crop insurance. Furthermore, it is imperative for AIC to devise a system under which temporary or short-term manpower for crop insurance could be provided to banks particularly during periods of heavy workload.

The temporary or short-term human resources to be deployed by AIC should have broad knowledge of crop insurance and should be conversant with insurance selling and enrollment procedures. The services of such a workforce could be utilized on a time-sharing basis across bank branches in a given region. If the skills, performance and career preferences of some individuals align well with requirements of AIC, such individuals may be inducted by AIC for a longer-duration or full-time association.

- *Technology Usage & Process Improvements*

Almost all major commercial banks have transitioned to Core Banking Systems (CBS). Likewise the information systems of cooperative banks and regional rural banks are also getting upgraded even though their technical sophistication may not match that of information systems employed by leading commercial banks. Considering the fact that the cooperative banks particularly the DCCBs represent the single-largest sources of business to AIC in a majority of locations, Annapoorna - the information system of AIC must be aligned to provide a seamless interface not only with the CBS of commercial banks but also with the information systems of cooperative banks and RRBs.

AIC may also have to take a lead for initiating the review and streamlining of processes currently followed by banks for enrolling farmers under crop insurance. Based on the scope of improvement identified, some of these processes may be redesigned or reengineered to minimize the physical workload and operational bottlenecks for banks.

- *Increasing Touch Points for Service Delivery by AIC*

One of the key demands voiced by Banks and supported by government officials sought more localized presence of AIC in the form of district-level offices or service points. Keeping in mind the high dependence of AIC on banks for bulk/wholesale business, district-level service centers may not be practicable in the short to medium term. Nevertheless, AIC should proactively work towards deepening its footprint in key business territories either through association with banks or with GIPSA companies.

CATEGORY 2: Improving Policy Environment and Provisions of Crop Insurance Scheme

(ii) Creating an Empowering Regime for Implementing Mandatory Crop Insurance through

- *Suitable Policy or Legal Support in the form of Law/Statute from Government and Directives to Banks from Ministry of Finance & RBI*

As a result of the failure of private agricultural insurance markets, most countries have adopted different interventions to subsidize the agricultural insurance market and to position agricultural insurance as a key welfare instrument. A number of nations have clearly articulated their policy commitment through specific legislations for agricultural insurance. The rationale for strengthening the legal and regulatory framework for agricultural insurance in India is germane considering the current state of development in this sector.

- Agricultural insurance is an effective conduit for streamlining various forms of financial relief for farmers afflicted by natural calamities. In the absence of suitable legal structure, agricultural insurance is unable to mobilize different forms of funding that can be more efficiently delivered through a transparent and objective channel provided by insurance.
- For India, the implementation of crop insurance program in states like Punjab, Haryana etc. is restricted by a minimum participation rate requirement and state government support. If some farmers are denied participating in agricultural insurance due to state support or insufficient participation rate, there would be unrealized potential economic welfare. Agricultural insurance law can help overcome such systemic constraints so that agricultural insurance program could be carried out in the location, and such potential welfare will be actually realized.

- A review of the leading agricultural insurance programs across the world indicates that legislations and specific laws have been in force in countries where agricultural insurance is substantially supported by the government.
- Allocation of funds for crop insurance entails huge efforts from concerned government departments in justifying the criticality of these funds over competing demands. Enactment of a separate law will guarantee allocation of necessary funds to meet demands for effective implementation of agricultural insurance and also galvanize state governments for better compliance on their part.
- Insurance of allied activities in agriculture will get an impetus from enactment of a separate law for agricultural insurance. Penetration of cattle insurance is abysmal (less than 3%) in India considering the spectacular achievements made by the dairy sector of India.

While legislation for crop insurance, whether in the form of a statute or a law, takes time to come into force, the Department of Agriculture & Cooperation can mobilize the support of Ministry of Finance and Reserve Bank of India (RBI) to tighten the policies and regulations pertaining to mandatory crop insurance for farmers accessing credit from commercial banks and RRBs.

- *Devising Mechanism to Insure Loanee Farmers based on Credit Sanctioned under KCC and not on Credit Disbursal or Withdrawal. Onus on farmers to provide suitable proof for getting exemption from crop insurance coverage*

While the rationale behind notification cannot be disputed, it is important to minimize the scope for farmers to willfully avoid crop insurance with the help of faulty provisions. The concept of purchase/enrollment window in a mandatory crop insurance regime is seemingly paradoxical. Farmers should automatically be covered under crop insurance based on either the credit limit sanctioned under KCC or their crop loan amount. It should be incumbent on the loanee farmers themselves to provide suitable documentary evidence to seek exemption or change of insured crop else they would be insured for their usual crops by default.

- *Modifications in Provisions related to Enrolment Period and Cut-off Dates for Crop Insurance*

If the idea of automatic/default enrollment under crop insurance takes time to gain acceptance and be implemented, AIC should look to make improvements in provisions related to enrolment period and cut-off dates. Currently farmers can purchase crop insurance much after the period of sowing. Such laxity exposes AIC to higher levels of adverse selection as banks can exploit the knowledge of crop conditions and forecasts to protect their crop loan portfolios better and also to provide favorable benefits to farmers through crop insurance.

AIC can encourage early enrollment of crop insurance by offering premium discounts. This discount may be extended to banks to encourage orderly enrollment of loanee farmers instead of the lumped coverage around the cut-off dates. Similarly a premium penalty could be charged for late sign-up by banks and farmers and late payment of premium subsidy contribution by state and central governments.

- *Reducing Disparities across Coverage Locations through Better Utilization of Government Support to NAIS*

Premium subsidy for crop insurance should be provided essentially for promoting, popularizing and establishing the need for crop insurance.

For maintaining equilibrium between locations covered under NAIS, AIC can consider shifting such locations which experience frequent and high level of payouts from the NAIS to the WBCIS regime. At the same time, higher level of premium subsidy should be channelized towards those regions and locations where the risk mitigation benefits of NAIS could not be demonstrated to farmers and banks so far. To the extent it can, AIC should try to leverage premium subsidy as a strategic instrument to expand its outreach and appeal in areas that have been untapped or under-tapped by NAIS.

CATEGORY 3: Investments for Promotion and Voluntary Adoption of Crop Insurance among Farmers

Marketing crop insurance to Indian farmers beset with low levels of financial literacy poses tremendous challenges to intermediaries and financial institutions. In case of crop insurance, the solace comes from its mandatory nature for farmers who avail crop loans from banks. However to sustain the conviction of the ultimate patrons of crop insurance i.e. farmers, a regular stream of investments need to be made towards financial literacy and sensitization of farmers.

(iii) Need for Promotion of Crop Insurance among Farmers through

- *Financial Education and Counseling*

Promotion of financial literacy can be instrumental in creating a win-win situation for both farmers and financial service providers (banks, insurance companies and other financial intermediaries). Not only can financial literacy help farmers in managing their individual, household, community and agricultural resources better, it can help them in building assets and improving their financial well-being.

Given the financial challenges that the farming community has to face, it is imperative that proactive measures are taken to build its capacity for financial management. The Working Group constituted to examine the procedures and processes for agricultural loans (Chairman: Shri C. P. Swarnkar) had recommended in its report (April 2007) that banks should actively consider opening of counseling centers, either individually or with pooled resources, for credit and technological counseling. This would make the farmers aware of their rights and responsibilities to a great extent. Subsequently another Working Group constituted by the Reserve Bank to suggest measures for assisting distressed farmers (Chairman: Shri S.S. Johl) had also suggested that financial and livelihood counseling are important for increasing viability of agricultural credit.

- *Utilizing Mass Media*

Considering the substantial financial outlay on providing crop insurance to farmers, the expenditure on its dissemination and promotion through mass media should, at best, be considered marginal vis-à-vis the annual expenditure for operational implementation of NAIS. Awareness-building campaign for crop insurance may be modeled on the lines of the remarkably effective promotional campaigns for Mahatma Gandhi Rural Employment Guarantee Scheme (alternatively NREGS) and Bharat Nirman that were implemented through mass media. The reach of Doordarshan and AIR - the national media could be effectively utilized by government to vigorously promote crop insurance as an instrument for protection of farmers against uncontrollable risks in agriculture. These media could also be used to disseminate technical information about the operation of crop insurance schemes.

- *SHG Movement in India*

Self-help group movement (SHGs) of rural women is one of those few programs that have endured and given good results. With the outreach and penetration of self-help groups (SHGs) and other interest-based collectives spread deep into the rural hinterlands of India, there are opportunities to leverage these SHGs and other interest-based collectives for deepening penetration of crop insurance in India. The utilization of SHGs and other interest-based collectives as a vehicle for sales, distribution and post-sales service delivery should be a win-win proposition as it can reduce the typical insurance problems of moral hazard, high transaction costs, lack of customer feedback and poor post-sales service delivery.

- *Expanding Coverage of Non-Loanee Farmers*

The exemplary work in AP for expanding coverage of non-loanee farmers under NAIS could be an eye-opener for most states of India where numbers of non-loanee farmer participants in NAIS are lamentable. Through proactive association with the state agricultural department in AP, AIC has been successful in increasing the coverage of non-loanee farmers in AP from a mere 5 farmers in 2005 to an enviable 3 lakh in 2010.

Since banks have failed to provide service and due attention to coverage of non-loanee farmers, AIC should look to associate with relevant institutions and agencies other than banks for increasing the base of non-loanee farmer participants in NAIS. Keeping in mind that a non-loanee farmer would opt for crop insurance only if he is convinced about its utility, AIC may have to make focused, intensive and sometimes exclusive efforts for bringing such farmers under the fold of crop insurance. AIC may also have to invest towards provision of service and other customer support to non-loanee farmers.

CATEGORY 4: Improvements in Crop Insurance Scheme

(iv) Increasing Appeal among Farmers & Banks through Review of Technical and Implementation Aspects of Crop Insurance Scheme

- *Devising Premium Refund Policies for Years of Successive No-Claims*

Just as a claim payout acts as the best trigger for driving repeat purchase of insurance, likewise a series of no-claims poses the greatest barrier to its continued patronage. The yardstick of claims for assessing the value of insurance is employed not only by farmers but also by more financially astute entities like banks and government agencies.

The time is ripe for introduction of premium refund or savings-backed crop insurance policies that can assure a minimum return to farmers when a claim has not taken place even after specified number of seasons of successive crop insurance coverage.

- *Expanding Physical Individual/Area Assessment of Non-Indexable/Localized (Hail/Frost/Wind) Losses*

NAIS presently provides for individual assessment of losses in case of localized risks, viz. hailstorm, landslide and flooding, on an experimental basis. Farmers feel the experiment is not adequate, and it should be implemented on a full scale, covering all areas. Earlier Government reviews have supported the view that the localized calamities should be assessed on an 'individual' basis in all the areas. But it should be reiterated that historical data and past claims play a role in determining the premiums and damage assessment continues to be the biggest challenge for crop insurers. Crops at different stages are affected differently by hail/frost/wind making knowledge of losses arising out of these essential for insurers. The practice of physical assessment of losses from non-indexable/localized perils (Hail/Frost/Wind) must be extended to the entire coverage of NAIS.

- *Standardizing Size of Insurance Unit across States*

The movement towards smaller insurance units (IUs) has gained inevitability except for states like Gujarat where the extremely limited size of state government machinery for crop insurance practically rules it out. Most of the states with considerable stake in NAIS either have made the transition towards smaller IUs or are in the process of making it.

Along with the moves to bring down the size of the IUs, there is a need to take a fresh look at the methodology for computation of threshold yields and indemnity levels for such IUs. The baseline values of area yield or normal crop productivity should also be examined critically taking into account the quality of historical yield data and the potential variation to be encountering during the shift to a lower unit of insurance. Significant investment may be needed towards collection of relevant data that could be used to validate the data being currently used and could also be used for cross-checking key parameters for NAIS going forward.

Though there are bound to be practical and administrative difficulties in switching to a standard IU size across the entire country, the Central government should try to define a timeline for achieving such a goal. Suitable financial and technical support may be granted to the states where such transition is hindered due to a dire constraint of resources.

- *Improving CCEs and AIC's Systems for Crop Loss Assessment, Forecast & Validation*

Crop cutting experiments (CCEs) are central to NAIS. There is tremendous scope for improvements in CCEs when we look at them from the perspective of crop insurance. The data from the CCEs should be able to throw light on the reasons for low yields in a given plot. It is natural for the concerned cultivator to ascribe low yields to the perils insured under NAIS. However proper training and technical know-how to the personnel carrying out the CCEs can enable them to discern the real reason for such yield losses beyond what has been stated by the cultivator.

Over the medium to long term, efforts should be made to prepare a specialized cadre of personnel with grounding in crop insurance. With the help of such a cadre, it would be possible to implement CCEs in accordance with crop insurance principles. As the Indian crop insurance regime seems to be moving towards more localized loss assessment and claim settlement, it is high time that the need for a specialized taskforce for crop insurance is recognized and acted upon. Loss assessment in crop insurance calls for a distinctive set of skills that cannot be readily imported from other insurance lines.

Considering the transition of crop insurance towards a market-based regime and indications of Government's intent to reduce the burden of crop insurance on the exchequer, it would be in AIC's interest to plug the loopholes in CCEs and claim assessment process. Towards this end, AIC must evaluate key statistical parameters for the yields reported from an IU. In case of discrepancy, AIC can assess the state of crop losses through the use of independent data sources, such as weather data, satellite images and crop intelligence reports.

AIC can even envisage the usage of satellite imagery based yield and crop health estimation for planning, validating and improving crop loss estimation procedures. Through remote sensing technologies, AIC should be able to get a sense of the probable yields within an area based on which it can modulate the number of CCEs and other control measures for better data capture from that area.

Chapter 1

AGRICULTURAL RISK MANAGEMENT

Agriculture is an intrinsically risky economic activity. Variations in crop yields due to adverse shocks like unmitigated moisture stress in the growing season, drought, natural calamities, pest infestation, outbreak of diseases and input risks like non-availability of inputs at the right time frequently affect the agricultural households[1] in India. Price risks arising from fluctuations in input and output prices also induce variability in the agricultural incomes. Yield risk becomes the most important agricultural risk given the fact that crop losses arising from production shortfalls or complete crop output failure wipe out farm profits and trigger a condition of distress where the cultivation costs are irrecoverable, triggering a high default probability of the indebted farmers or inducing asset-depletion and poor investment potential in future agricultural seasons.

1.1 Evolution of Agricultural Insurance: Trends and Problems

Agriculture insurance, in its most popular avatar, crop insurance, has existed in many countries as an institutional response to agricultural risk. Agricultural production is susceptible to vagaries of weather and large-scale damages due to attack of pests and diseases making crop insurance a vital instrument in the stabilizing the crop incomes and hence secure the livelihoods of the agricultural community. Crop insurance is based on the fundamental principle of insurance business, that is, the 'laws of large numbers'. The risk is distributed across space and time. The losses suffered by farmers in a particular affected area are shared by farmers in unaffected areas or premium accumulations over good years can be used for indemnification of losses in bad years. Thus, a good crop insurance program combines both self as well as mutual help principle. Crop insurance brings in security and stability in farm income. Crop insurance protects farmers' investment in crop production and thus improves their risk bearing capacity. Crop insurance facilitates adoption of improved technologies and, encourages higher investment resulting in higher agricultural production

In the early 20th century some private companies in the US introduced crop insurance covering multiple risks, while protection against specific perils like hail insurance had been

[1]As per the NSS 59th Round 2002-03, around 60 percent of the 148 million rural households in India being cultivator households and 78 percent of the operational land holdings are marginal and small holdings (less than 2 hectares). The average land holding size for marginal farmers is as low as 0.4 hectares; about 13 percent of the holdings are of 2-4 hectares while 7.1 percent are of 4-10 hectares size (medium and semi-medium).

introduced in Europe, the US and Canada, over a century ago. In India, J S Chakravarti[2] designed, as early as in 1920, a scheme of agricultural insurance based on rainfall for India which is a path breaking work in the space of agriculture insurance. According to Chakravarti (1920, referred to in Mishra 1995), agricultural insurance in India should be a package consisting of the following, in increasing order of priority as per conditions prevailing during the times: (i) Insurance of buildings, granaries and agricultural implements (ii) Cattle insurance (iii) Insurance of crops. He identified that the most important element of a system of agriculture insurance is the assumption of the risk of loss or deficiency in respect of crop production, which forms the core of his scheme of agricultural insurance because of its importance and complexity. By grouping insurance of houses, implements, cattle, etc. can with other types of property insurance, it left the system of agricultural insurance to grapple with crop insurance.

The detailed scheme of agricultural insurance laid down by Chakravarti was sensitive to the issues of basis of insurance i.e. whether the basis of insurance payout should be on the basis of value of the crop or on its quantity, with his preference for value rather than quantity as the basis given the inverse relationship between quantity and price of produce and eventualities in bad crop seasons. He took due consideration of indemnification level, role of the state within an 'area approach' analogous to Dandekar's (1976) homogenous area approach. He emphasized the problems of 'human elements' i.e. moral hazard in crop insurance and suggested a scheme of drought insurance. According to him, the usual remedy applied in other types of insurance to overcome the problem of moral hazard is 'partial insurance or under- insurance or deductible'. Chakravarti rightly argued that this remedy may not be effective in case of crop insurance, because the crop to be insured is yet to exist and the state of its existence thereof would depend on the actions of the insured farmer which an insurer would not be able to monitor easily. This, according to him was likely to reduce the benefit of insurance and hence its demand. In addition to information

[2]The scheme is outlined and discussed in his book 'Agricultural Insurance: A Practical Scheme Suited to Indian Conditions' published in 1920', printed at the Government Press, Bangalore. This piece of work, is one of the earliest monographs on the subject, but surprisingly does not appear to have been accounted for in the analytical literature on agricultural insurance. The book was published in 1920; Chakravarti had been working on the subject since a number of years prior to that. As he mentions in the preface to the book, the first seven chapters were published in the Mysore Economic Journal during the years 1915 through 1917. He presented a paper on Agricultural Insurance in 1917 at a conference of the Indian Science Congress at Bangalore. In 1920 he already

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asymmetry problems, he identified other constraints like illiteracy of most cultivators, inadequate village statistics and general backwardness among the population.

In the 1930s Japan and the US formalized public crop insurance schemes. Developing countries of Asia, Africa and Latin America saw crop insurance schemes much later. In the 1960s and the 1970s there was a lot of optimism for the success of crop insurance schemes, even for those in the public sector (Mishra 1995). Some studies in the 1980s and early 1990s [e g, Hazell et al 1986, Hazell 1992] argued that all-risk crop insurance programs performed dismally and highlighted the need for governments to be cautious in introducing large crop insurance schemes. Some common findings are that crop insurance schemes are costly, financially unsustainable and not in a position to produce welfare gains as envisaged. Some studies [e.g. Ahsan 1985; Dandekar 1985; Ray 1985; Miranda 1991; Roberts et al 1991; Williams et al] 1993; Mishra 1994 provided evidence on why crop insurance would work and made sense for protecting agricultural incomes of millions of farmers in the developing world. Agricultural insurance schemes have been argued to be a form of 'crop credit insurance' as most of the crop insurance schemes have been credit-linked. This reduces the default risk to the lending institutions and probability of repayment remains higher at times of crop failure as the compensation received from crop insurance enables the farmers to repay their debts and stay avoid indebtedness to high cost informal credit sources like moneylenders (Hazell*et al* 1986; Pomareda 1986).

There are some idiosyncrasies in the case of agricultural insurance making the above mentioned problems standard attendant problems. The cost of information is much higher, because the required data related to farms and even plots of land spread over a vast geographical area. Collection of data is costly as well as time consuming. There is wide agro-climatic variation which results in the problem of adverse selection. A crop insurance scheme can be based either on the 'individual approach' or the 'area approach'. In case of the former, assessment of indemnity is made separately for each insured farmer based on the crop yield of his or her farm and the premium may be determined separately for individual farmers or for a group of farmers. In case of the area approach both the premium rate and the indemnity are determined not separately for each farmer but for a group of farmers. Most crop insurance schemes in the world are based on the individual approach. Area- yield crop insurance schemes based on the area approach have attained popularity recently.

The global experience of state-sponsored (Government -backed) agricultural insurance programs has not been satisfactory in general if financial viability and coverage of farmers are the criteria. Other agricultural risk-related interventions by governments like price supports, input subsidies (fertilizer, irrigation, electricity) and credit market interventions can also be very expensive and ineffective in terms of their net welfare-effects, and crop insurance is not an exception. The heavily subsidized public crop insurance programs have been characterized by high claims ratio and actuarial losses. The unifying theme in the administration of public crop insurance schemes is that financial performance of most of the public crop insurance schemes has been disastrous in both developed and developing countries and the multi-peril crop insurance like the National Agricultural Insurance Scheme (NAIS) in vogue in India today are very expensive and has to be heavily subsidized.

The models of crop insurance existing in some developed countries, such as US, Spain[3], France and Italy are characterized by a certain commonality by way of the central Government providing the following:

(i) subsidies on premiums to farmers;

(ii) operational subsidies to private insurers to cover some of the high administrative costs associated with agricultural insurance contract underwriting; and

(iii) subsidized reinsurance.

It would be imprudent to simply replicate the existing model of crop insurance found in developed countries in a developing country context characterized by limiting fiscal and monetary constraints. Without quantifying the cross-subsidization effects of agricultural insurance in the presence of distortionary input and price subsidies would also render successful models elsewhere ineffective in India. Nevertheless, many of the agricultural risks insured under public insurance program are essentially uninsurable in nature and are generally costly given the frequent occurrence of the loss events. In sum, traditional agricultural insurance programs are financial failures because of high administrative costs and unresolved, adverse selection and moral hazard problems.

1.2 Agriculture Insurance Schemes in India

(a) Program based on 'individual' approach (1972-1978): The first ever crop insurance program started in 1972 on H-4 cotton in Gujarat, and was extended later, to a few other crops & states. The program by the time its wound up in 1978, covered merely 3,110 farmers for a premium of INR 454,000 and paid claims of INR 3.79 millions.

(b) Pilot Crop Insurance Scheme – PCIS (1979-1984): PCIS was introduced on the basis of report of Prof. V.M. Dandekar and was based on the 'Homogeneous Area' approach. The scheme covered food crops (cereals, millets, pulses), oilseeds, cotton, & potato; and was confined to borrowing farmers on a voluntary basis. The scheme was implemented in 13 states and covered about 627,000 farmers, for a premium of INR 19.70 millions and paid indemnities of INR 15.71 millions.

(c) Comprehensive Crop Insurance Scheme – CCIS (1985-1999): The scheme was an expansion of PCIS, and was made compulsory for borrowing farmers. Sum insured which was initially 150 percent of the loan amount, reduced to lower of 100 percent of the loan amount or INR 10,000 per farmer. Premium rates were 2 percent of the sum insured for cereals & millets and 1 percent for pulses & oilseeds, with premium and claims, shared between the Centre & States, in 2:1 ratio. The scheme when wound up in 1999, was implemented in 16 States & 2 Union Territories and cumulatively covered about 76.30 million farmers, for a premium of INR 4035.60 millions and paid claims of INR 23190.00 millions.

(d) National Agriculture Insurance Scheme –NAIS (1999)

NAIS was introduced during Rabi 1999-00, by improving the scope and content of the erstwhile CCIS and is still running. The salient features are as follows:

(i) **States and Areas covered**: The Scheme is available to all States and Union Territories, on an optional basis. A State opting for the Scheme will have to continue it, for a minimum period of three years.

(ii) **Farmers covered**: All farmers including sharecroppers and tenant farmers, growing the notified crops in the notified areas, are eligible for coverage. The scheme is compulsory, for farmers availing crop production loans (borrowing farmers) and voluntary for others (non-borrowing farmers).

(iii) **Crops covered:** *The Scheme covers*

a) Food crops (Cereals, Millets & Pulses)
b) Oilseeds (groundnut, soybean, sunflower, rape seed& mustard, safflower, niger etc.)
c) Annual Commercial / Horticultural crops - sugarcane, cotton, potato, onion, chilly, turmeric, ginger, jute, tapioca, coriander, cumin, isabgol, fennel, fenugreek, annual banana, annual pineapple, etc.

(iv) **Sum insured:** The minimum Sum Insured (SI) in case of borrowing farmers, is the amount of loan availed, which can be further extended up to 150 percent of the average yield. For non-borrowing farmers, it can be up to a value of 150 percent of the average yield.

(v) **Premium rates:** The premium rates are 3.5 percent for oilseeds & pearl millet and 2.5 percent for cereals, millets & pulses, during Kharif (June – October); in the Rabi season (November – March), the rates are1.5 percent for wheat & 2 percent for other food crops and oilseeds. The rates for annual commercial / horticultural crops are **actuarial.**

(vi) **Premium subsidy:** Small / Marginal farmers are subsidized in premium to the extent of 50 percent, to be shared equally between the Central government & the participating States. The premium subsidy is, however, to be phased out over a five year period, on a sunset basis. It's retained at 10 percent since 2004-05.

(vii) **Scheme approach:** The scheme covers losses from **sowing to harvesting**, and operates on an 'area yield' basis for **widespread calamities**. For this purpose, a unit of insurance (IU), is defined. It may be a Village Panchayat, Mandal, Hobli, Circle, Phirka, Block, Taluka, etc., to be decided by the State. However, each participating State was required to reach the level of Village Panchayat as the unit, within a maximum period of three years. The Scheme is to operate on '**individual plot**' basis for specified **localized calamities**. However, individual assessment of losses is currently piloted only in a few areas within each participating State.

(viii) **Loss assessment, Levels of Indemnity & Threshold Yield:** The Threshold Yield (TY), also called Guaranteed Yield for a crop in an IU, shall be the moving average yield based on the past three years, in case of Rice & Wheat, and five years for other crops, multiplied by the level of indemnity. Three pre-defined levels of Indemnity (coverage levels), viz., 90%, 80% and 60%, corresponding to Low Risk, Medium Risk & High Risk areas, will be available for all crops. The insured farmers of a unit area may also opt for higher level of indemnity, on payment of an additional premium.

If the 'Actual Yield' (AY) per hectare of the insured crop for the IU falls short of the specified 'Threshold Yield' (TY), all the insured farmers growing that crop in the IU, are deemed to have suffered a shortfall in their yield and are paid indemnity per formula given below:

$$Indemnity = \text{Max}\left(0, \frac{Threshold\ Yield - Actual\ Yield}{Threshold\ Yield}\right) \times Sum$$

(ix) **Sharing of Risk:** Until transition is made to an actuarial regime, Central government and States shall share claims beyond 100 percent of the premium collected, for food crops & oilseeds, on 50:50 basis. In case of annual commercial / horticultural crops, claims beyond 150 percent of premium in the first 3 or 5 years, and 200 percent thereafter, are borne by the Central government and State on an equal (50:50) basis.

Chapter 2

STUDY ON NAIS

2.1 Background

The aim of the National Agricultural Insurance scheme is to provide insurance coverage and financial support to the farmers in the event of crop failure against natural calamities like drought, excess rainfall, flood, hail, pest infestation, etc. and ensure credit worthiness for ensuing season. The scheme is compulsory for all institutional loanee farmers and voluntary for non-loanee farmers.

Though RBI/NABARD have issued necessary guidelines / instructions to all the banks, including cooperative banks for the implementation of the scheme, it is observed that there is a considerable gap between the amount of insurable crop loans disbursed by Banks/PACS and their actual coverage under NAIS. It is also observed that loan disbursing banks/PACS are not complying with mandatory insurance provision in respect of the crop loans disbursed for notified crops, thereby leaving a major portion of the eligible crop loans uninsured. In addition, there are delays in crediting the claims to the accounts of beneficiary farmers even though the scheme provided a stipulated period of two weeks to the banks for crediting the claims to the ultimate beneficiary farmer’s account. Such delinquencies defeat the very objective of the scheme.

The net result is that the target farmer segments are deprived of intended insurance coverage and financial support in the event of failure of notified crops as a result of natural calamities, pests & diseases. It is with the above backdrop that the Agriculture Insurance Company of India Ltd. (AIC) has commissioned the present study.

2.2 Terms of Reference

The Terms of Reference (TOR) of the Study are as following:

(i) To examine the status of compliance of compulsory provision under NAIS in regard to crop loan disbursed for the notified crops in the notified areas by the banks/PACS;

(ii) To study the kind of legal and regulatory environment to ensure compliance of compulsory provision;

(iii) To examine the reasons and justification for failure, if any, in respect of non-compliance by the banks/PACS and the possible remedies;

(iv) To study the nature of inadequacy of infrastructure, if any, at the loan disbursing branches and/or at the Nodal Points of the concerned Bank;

(v) To examine additional incentive, if any, to be paid to the banks/PACS, so as to enhance penetration level through compliance of the compulsory provision of the Scheme. If so to what extent and in what form. Also examine the sharing of bank service charges by the nodal banks with the grass root level branches/PACS and possible sharing arrangement;

(vi) To find out the modalities of insuring crop loans given against mortgage of FDs, Jewellery, movable assets, etc.

(vii) To examine the modalities of insuring crop loan withdrawn in advance of the season, (e.g., rabi loans in kharif season), particularly though Kisan Credit Card;

(viii) To examine the reluctance of farmers towards crop insurance, classify this groups into various categories from the perspective land holding, crops grown by them, availability of irrigation, credit and other facilities;

(ix) To elicit the views of the bankers with regard to lowering the size of insurance unit to village/village-panchayat level and to what extent so as to attract more farmers to join the scheme;

(x) To find out ways and means of strengthening the backward and forward linkages between the Nodal Banks with the crops loan disbursing branches/PACS under its jurisdiction and with AIC;

(xi) To obtain useful feedback from the banks about the proposed holistic IT project, namely, Annapoorna of AIC;

(xii) To study and furnish comparable data of time gap between actual; disbursement claims by AIC and credit to the account of farmers by the Banks ;

(xiii) If the time gap is considerable, examine the reasons and recommend remedial measures, such as, disbursing claims through electronic mode wherever possible;

The analysis would include point of view of all the stakeholders – farmers, Banks/PACS, etc.

2.3 Universe of the Study

The study was conducted in 5 States covering 22 Districts and 66 Reference Units. From each district, 3 Reference Units (RUs) were selected aggregating to 15 RUs for AP and UP and 12 RUs each in the other 3 States. The names of States and Districts covered under the Study are presented in Table 3.1.

Table 1: List of Sample States & Districts

Category of States	Sample States	Sample Districts	No. of Reference Insurance Units
Implementing States	Andhra Pradesh	Kurnool	3
		Medak	3
		Nalgonda	3
		Guntur	3
		East Godavari	3
	Gujarat	Rajkot	3
		Amreli	3
		Banaskantha	3
		Vadodara	3
	Madhya Pradesh	Hoshangabad	3
		Vidisha	3
		Bhind	3
		Dhar	3
	Orissa	Balasore	3
		Ganjam	3
		Kalahandi	3
		Bargarh	3
	Uttar Pradesh	Banda	3
		Mirzapur	3
		Lakhimpur Kheri	3
		Muzaffarnagar	3
		Moradabad	3
TOTAL	**5**	**22**	**66**

A total of 1452 farmers, comprising of 22 farmers under each Reference Unit (RU), covering both loanee and non-loanee farmers, formed the sample for the primary field survey. Under non-loanee category of farmers, those availing crop insurance as well as those not availing crop insurance were duly covered for meaningful analysis and assessment. Table 3.2 details the sample size for the study.

Table 2: Sample Size for the Study

Variable	Number
Number of States	5
Number of Districts*	22
No. of Reference Units (RUs) at Block/Mandal level**	66
Farmers per Reference Unit (RU)	22
Farmers per District	66
Total Sample Size of Farmers	**1452**

**5 districts each in AP and UP and 4 districts each in other 3 States (Gujarat, MP and Orissa).*
***RU – Reference Units for Crop Insurance*

The composition of the farmer samples at various levels of administrative units is presented below. It is to be noted that the lower and upper limits for sampling under various category variables are being defined for balancing representativeness and flexibility. The nature of purposive sampling best fits the requirements defined in the following table and thus makes it the ideal choice for the primary research on farmers.

Table 3: Farmer-level Sampling for Various Administrative Units

<table>
<tr><th>Category</th><th>Respondents per RU</th><th>Category</th><th>Respondents per District</th><th>Category</th><th>Respondents per State</th></tr>
<tr><td>Small & Marginal Farmers</td><td rowspan="2">12-15</td><td>Loanee</td><td>40-60</td><td>Rainfed</td><td>120-180</td></tr>
<tr><td>Medium Farmers</td><td>Non-Loanee</td><td>20-40</td><td>Irrigated</td><td>60-120</td></tr>
<tr><td>Large Farmers</td><td>5-8</td><td colspan="4"></td></tr>
</table>

The database of loanee farmers were collected by the Study Team from Banks (Commercial, Cooperative & RRBs) and village-level PACS etc. The identification of non-loanee farmers was done through purposive sampling to ensure diversity of farmers.

2.4 Study Tools

The study tools are considered to be the *sine qua non* for any assessment of impact and evaluation of programme. The survey schedules have, therefore, been so designed as to lead to meaningful data on well-defined quantitative parameters in consonance with the Terms of Reference (TOR) of the study, broad objectives of National Agricultural Insurance Scheme and the key sub-tasks developed by us.

Schedules for the inter-active phase with various stakeholders were in the form of Structured Check Lists and Open-ended Questionnaire for each category of interviewees/agencies.

The following Study Tools were designed for the interactive-phase of the study:

(i) Participant Farmer Schedule
(ii) Non-Participant Farmer Schedule
(iii) Schedule for State Governments
(iv) Schedule for Implementing Banks
(v) Schedule for Primary Agriculture Cooperative Societies (PACS)

The schedules have captured information and data relating to, inter-alia, awareness of the scheme, knowledge of various features, satisfaction/acceptance level, opinion of farmers on premium rates and subsidy, claim payouts (if any) received by them, timeliness in receipt of payouts, transparency in scheme operation, perception about the reliability & accuracy of data, extent of support from agencies at the field level, opinion regarding NAIS, constraints/problems faced in obtaining insurance cover, scope/suggestions for improvement in the scheme etc.

2.5 Field Survey, Data Collection & Analysis

The study team undertook visits to sampled States/Districts for interaction with concerned officials of the State Government, AIC RO, Implementing Banks, Insurance Intermediaries/experts and other stakeholders. The field survey was carried out by trained research associates and supervisors under the close guidance of the Core Team.

The primary and secondary data collected from the field as well as different stakeholders were collated and analyzed using statistical analytical tools and inferences drawn thereon.

Chapter 3

KEY FINDINGS FROM PRIMARY RESEARCH

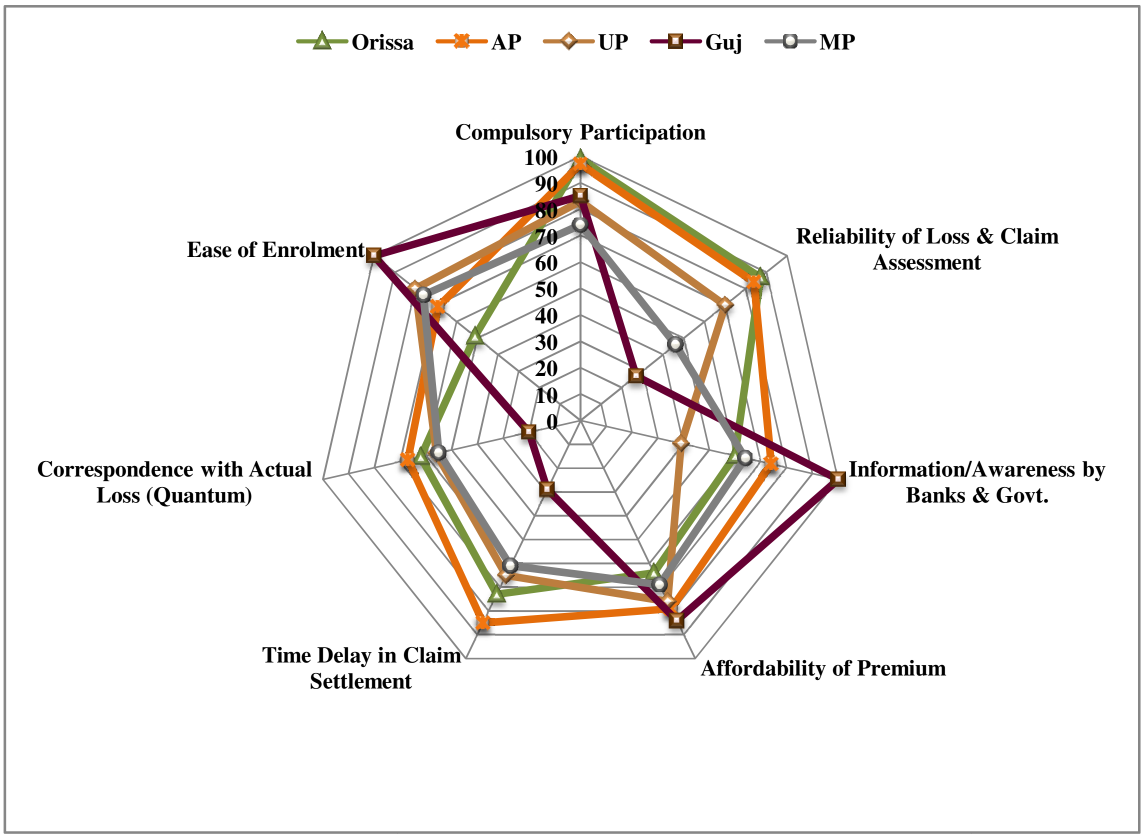
3.1 Summary of Findings from Primary Research with Farmers

The following radar chart (REFERENCE CHART 1) summarizes the key findings from the primary data collected from farmer beneficiaries of NAIS.

REFERENCE CHART 1

The following radar chart indicates the corresponding percentage of respondents from a given state who are fully or partly satisfied with key aspects of NAIS such as compulsory provision for loanee farmers, reliability of loss & claim assessment, information/awareness by Banks & Govt. personnel, affordability of premiums, time delay in claim settlement, correspondence with quantum of actual loss and ease of enrolment.

REFERENCE CHART 1: SUMMARY OF SATISFACTION LEVEL WITH KEY ASPECTS OF NAIS (STATE-WISE)



The key observations from REFERENCE CHART 1 can be summarized as following:

- The highest levels of satisfaction (average-88%) are recorded on the aspect pertaining to compulsory crop insurance for loanee farmers.

  - Nearly 99% respondents from Orissa and 97% from AP have indicated satisfaction regarding the compulsory crop insurance provision
  - The lowest level of satisfaction on this aspect has been recorded by respondents from MP. Given that it is considerably high at 74% affirms the widespread acceptance regarding mandatory participation of loanee farmers.

- The next highest levels of satisfaction (average-75%) are seen with regard to the ease of enrollment in crop insurance

  - Almost 100% of the farmer respondents from Gujarat have endorsed the ease in enrollment for crop insurance
  - UP with 80% of respondents and MP with 76% respondents have also indicated high levels of satisfaction regarding ease of enrollment
  - Respondents from Orissa have recorded their lowest level of satisfaction on this aspect (across all aspects of NAIS investigated) with only 51% of respondents indicating satisfaction

- Affordability of premiums (average-74%) marginally trails behind ease of enrollment in the level of satisfaction

  - 84% of respondents from Gujarat, 79% from AP and 76% from UP deem NAIS premiums to be affordable
  - The respondents from MP and Orissa are not much behind in supporting the affordability of NAIS premiums backed by 69% of respondents and 64% of respondents respectively

- Information/awareness by banks and Government officials (average-67%) figures at the median (middle-most position) across the aspects of NAIS

  - Once again almost 100% of respondents from Gujarat approve the efforts of banks and Government officials towards information/awareness on crop insurance

- A fair level of satisfaction is witnessed from AP, MP and Gujarat with 74%, 64% and 60% of respondents endorsing efforts of banks and Govt. officials towards providing information/awareness on crop insurance
- With only 39% of respondents, UP poses questions on the support and assistance for information/awareness on crop insurance as provided in UP by banks and Government officials

▪ Reliability of Loss & Claim Assessment and Time Delay in Claim Settlement are the two aspects of NAIS that figure at the penultimate spot in terms of level of satisfaction

- AP and Orissa exhibit the highest level of satisfaction on these aspects with almost 85% and 80% (averaged) respondents
- UP also displays a relatively balanced level of satisfaction (average-67.5%) on these two aspects of NAIS
- In case of MP, the level of satisfaction on these two aspects is a bit different with the aspect 'Time Delay in Claim Settlement' notching a 61% satisfaction level compared to a much lower 46% satisfaction level for 'Reliability of Loss & Claim Settlement'
- Both aspects, 'Time Delay in Claim Settlement' and 'Reliability of Loss & Claim Settlement' could muster only 29% and 27% respondents from Gujarat who were satisfied regarding these aspects.

▪ Correspondence with Actual Loss' (in terms of quantum) emerged as the aspect with the lowest level of satisfaction (average-52%)

- AP and Orissa again display the highest satisfaction across the states though at a relatively lower level (67% and 62% respectively)
- UP and MP also record a level of satisfaction (56% and 55% respectively) which is slightly higher than the average of 52% on this aspect
- Distinctively again, Gujarat conforms to its extreme nature of response with only 20% satisfaction level on this aspect

It can be seen from the REFERENCE CHART 1 and the ensuing summary that respondents from Gujarat have provided sharply defined responses that might be considered bipolar. Given their better exposure and higher level of awareness regarding NAIS, their responses could be deemed more representative. The range of claim experience for NAIS in Gujarat may have been more diverse than that for any other state.

Respondents from MP also show a reasonable level of dissatisfaction but at a relatively much lower level than their counterparts from Gujarat. Their dissatisfaction is more pronounced for aspects related to reliability/accuracy of loss/claim assessments.

The following summary table indicates percentage of respondents of various categories who are fully or partly satisfied with key aspects of NAIS (as discussed above).

Aspect of Crop Insurance (NAIS)	**Social Category**				**Landholding**			**Education**				
	SC	**ST**	**OBC**	**Gen***	**S&M***	**Medium**	**Large**	**Illiterate**	**Primary**	**H&I***	**Grad***	**PG***
Compulsory Participation	86	92	83	88	88	84	87	87	86	89	80	86
Reliability of Loss Assessment	50	64	64	64	65	56	60	47	58	69	61	81
Information by Banks & Govt.	56	84	67	69	65	68	70	67	67	68	61	63
Affordability of Premium	67	96	79	74	75	76	72	73	77	71	73	88
Time Delay in Claim Settlement	71	32	64	62	69	53	61	72	58	62	57	77
Correspondence with Loss	52	76	59	50	50	50	59	50	50	51	53	77
Ease of Enrolment	73	88	71	77	75	74	81	82	75	74	77	65

Legend (*): Gen – General; S&M – Small & Marginal; H&I – High School & Intermediate; Grad – Graduate; PG – Post Graduate

3.2 Findings from Primary Research with Farmers

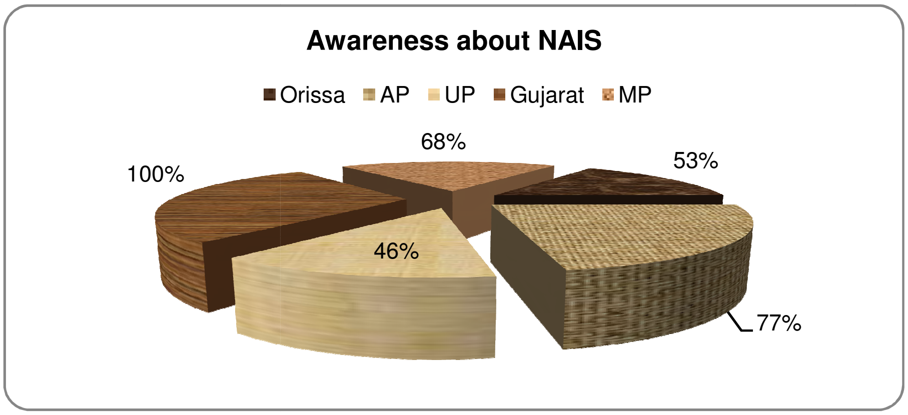
The multi-pronged and detailed field research has thrown up a variety of perceptions, experiences, judgments, projections and perspectives that have enriched this study.

The differences in responses across different states indicate the variability inherent in the implementation of the crop insurance program across geographies.

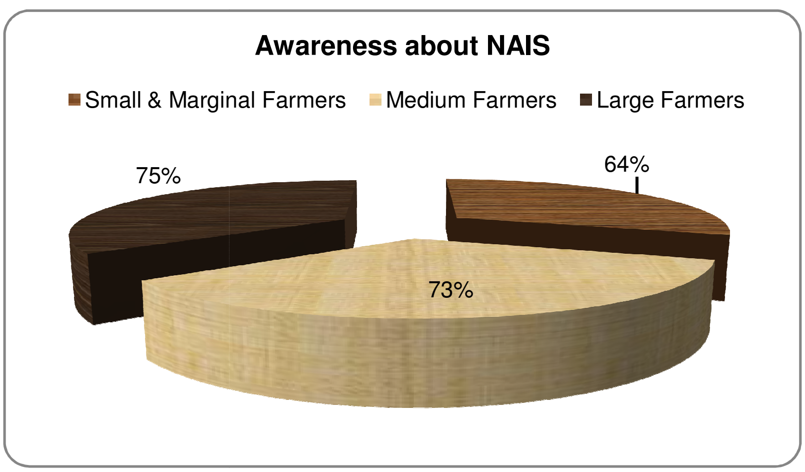
The following section summarizes the key findings from the primary data collected from respondent farmers. For the ease of review and for completeness, summary tables for data collected through field research are provided in Annexure 1.

3.2.1 Awareness about NAIS

Awareness of NAIS among the respondents is indicated by the following chart. Gujarat leads with 100% of the respondents from the state admitting awareness of NAIS. AP with 77% respondents and MP with 68% respondents trail Gujarat by significant difference in levels of awareness. The other two states namely Orissa with 53% and UP with 46% have much to catch up when it comes to awareness of farmers about NAIS.

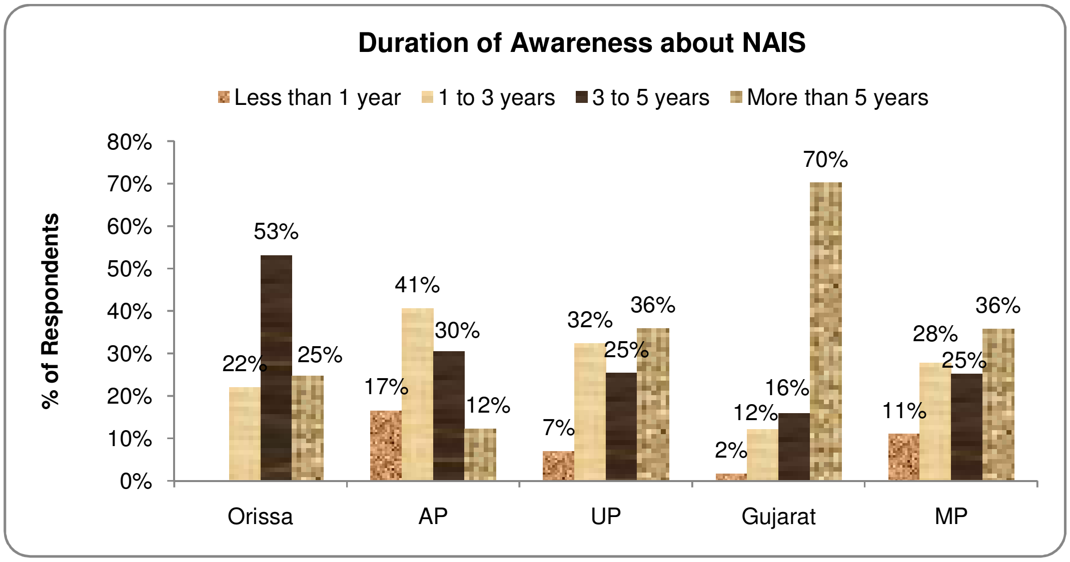


While considering level of awareness across farmer categories (in terms of landholding), the differences are not as glaring as seen in case of states. As could be expected, large farmers have shown the highest levelof awareness about NAIS with almost of respondents from this category acknowledging awareness of NAIS closely followed by medium farmers with 73% of respondents. Though separated from medium farmers by a slightly higher difference, small and marginal farmers have also fared reasonably well with 64% of the respondents from this category affirming awareness about NAIS.



3.2.2 Duration of Awareness on NAIS

The respondents were questioned on the length of time they have been aware of the NAIS. Four types of time duration were provided: less than one year, 1-3 years, 3-5 years and more than 5 years.



For the category representing the highest duration, Gujarat has surpassed other states by a huge margin (exceeding nearest competitor by more than 90%) with 70% of its respondents indicating awareness of NAIS for more than 5 years. MP and UP have almost an equal percentage of respondents (36%) in this category followed by Orissa with 25% respondents.

In the next category of 3-5 years, Orissa contributes the highest percentage of respondents (53%) followed by AP with 30% respondents.

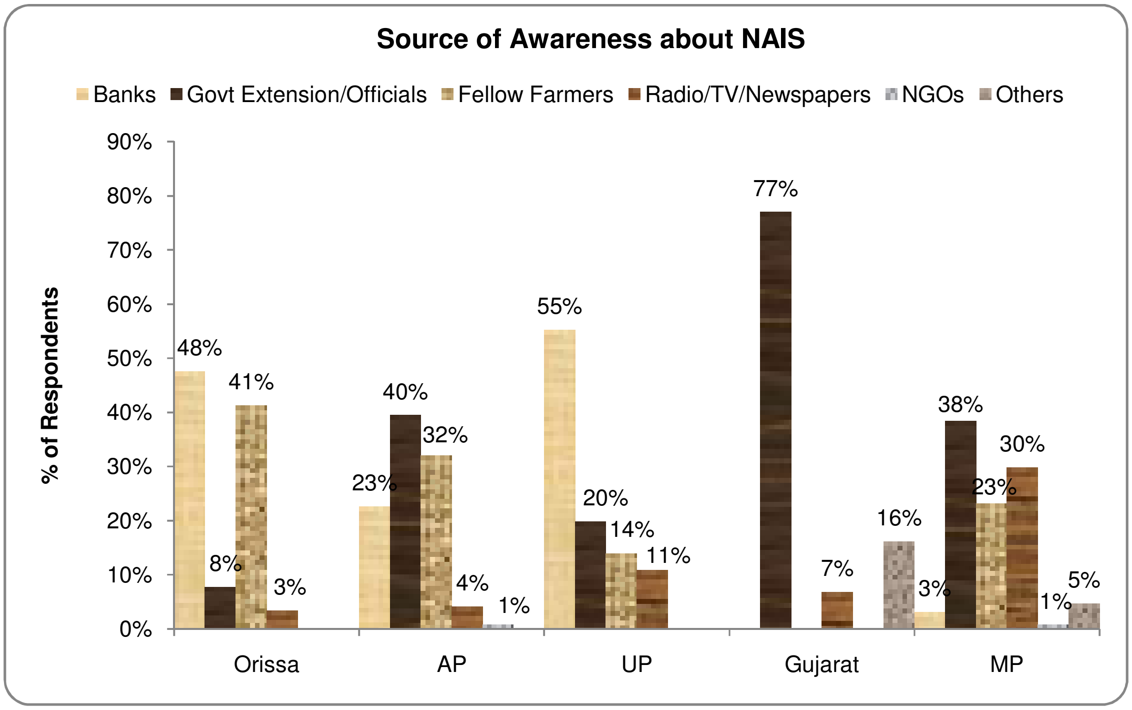
UP and MP exhibit a reasonably balanced distribution of respondents across the three categories denoting the highest duration of awareness of NAIS. Nearly 93% respondents from UP and 89% from MP have indicated awareness of NAIS for a length of time exceeding a year.

3.2.3 Source of Awareness about NAIS

The respondents were enquired about the source of their awareness about NAIS. Potential sources of respondents were enlisted into six main categories: Banks, Govt. Extension/Officials, Fellow Farmers, Radio/TV/Newspapers, NGOs and Others.

More than three-fourth respondents (77%) from Gujarat have attributed their awareness of NAIS to Govt. Extension/Officials. In AP as well as in MP, the contribution of Govt. Extension/Officials towards awareness on NAIS has been recognized by 40% respondents and 38% respondents respectively.

On the other hand, nearly 55% respondents from UP have given credit to banks for their awareness on NAIS. In case of Orissa, banks have been reckoned as the key source of awareness on NAIS by nearly 48% respondents while 41% respondents from the same state have ascribed their awareness of NAIS to fellow farmers.

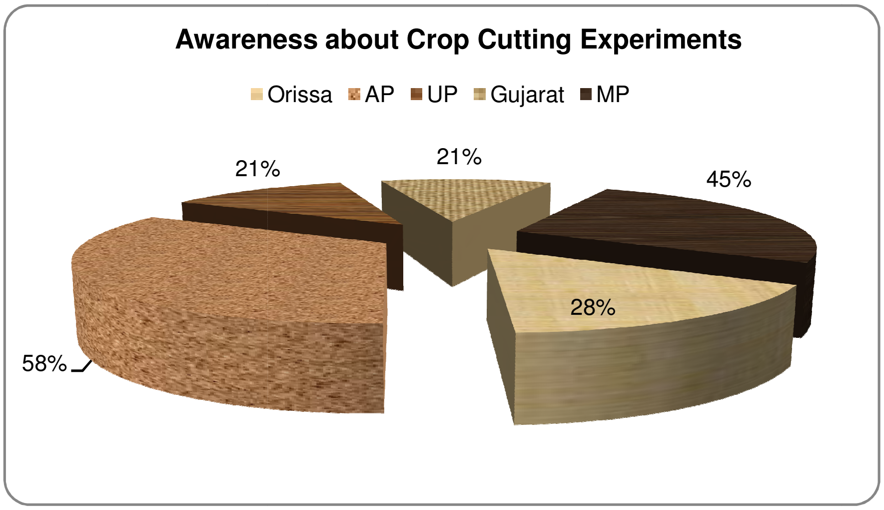


The role of NGOs in building awareness on NAIS has been minimal across all the states. Radio/TV/Newspapers as a source of information on NAIS appear to be effective only in MP where nearly 30% of respondents endorsed the role of such media in their awareness.

3.2.4 Awareness about Key Aspects of NAIS

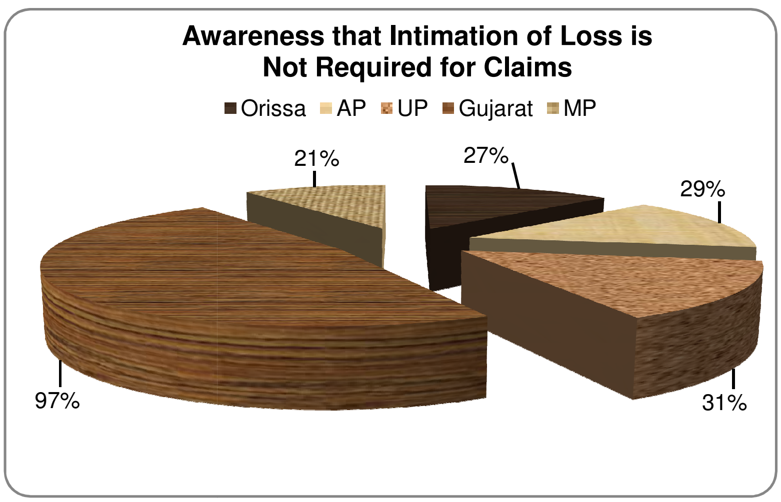
3.2.4.1 Awareness about Crop Cutting Experiments for Assessment of Area Yields

Awareness about crop cutting experiments for assessment of area yields is still at modest level in all the states. AP and MP lead with 58% & 45% of respondents indicating awareness of crop cutting experiments (CCEs) as the basis for determination of area yields. Orissa with 28% respondents, both Gujarat and UP with 21% respondents lag far behind in terms of awareness about CCEs as the basis for assessment of area yields.



3.2.4.2 Awareness that Intimation of Loss is Not Required for Claims to Trigger

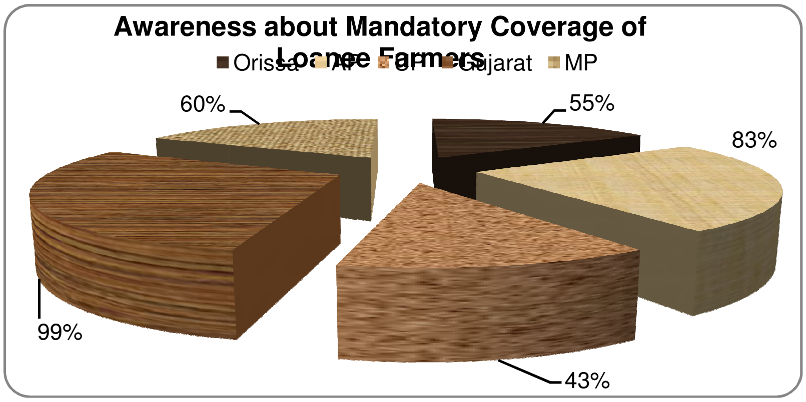
Awareness about the claim process is vital for any subscriber of insurance. One of the items in the survey instrument tried to assess whether the respondents were aware that intimation of loss to insurance company is not required for their claims to get triggered. The results are presented in the following chart.



Gujarat came out far ahead of other states with 97% respondents affirming their awareness of automatic triggering of claims. The percentages of respondents from other states having such awareness were much lower: UP (31%), AP (29%), Orissa (27%) and MP (21%).

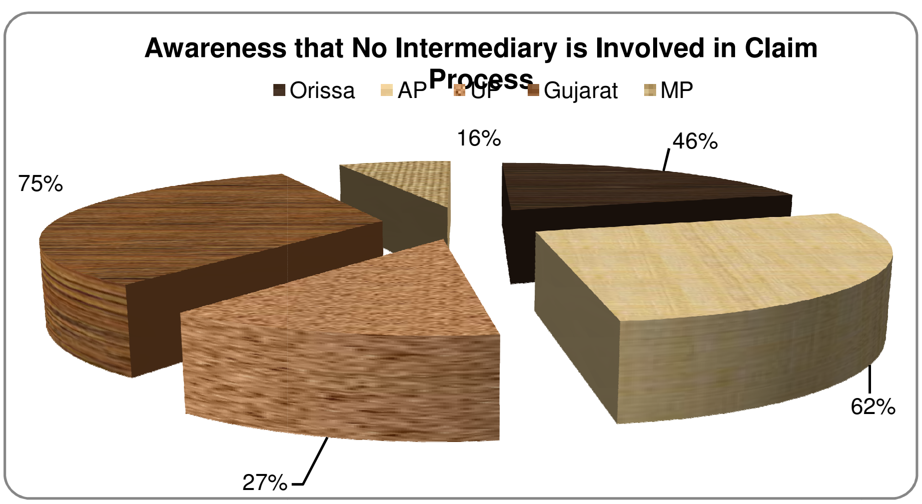
3.2.4.3 Awareness about Mandatory Coverage of Loanee Farmers

Gujarat again came up tops with 99% respondents indicating awareness about mandatory coverage of loanee farmers. AP also fared well with 83% respondents followed by MP and Orissa with 60% and 55% respondents respectively.



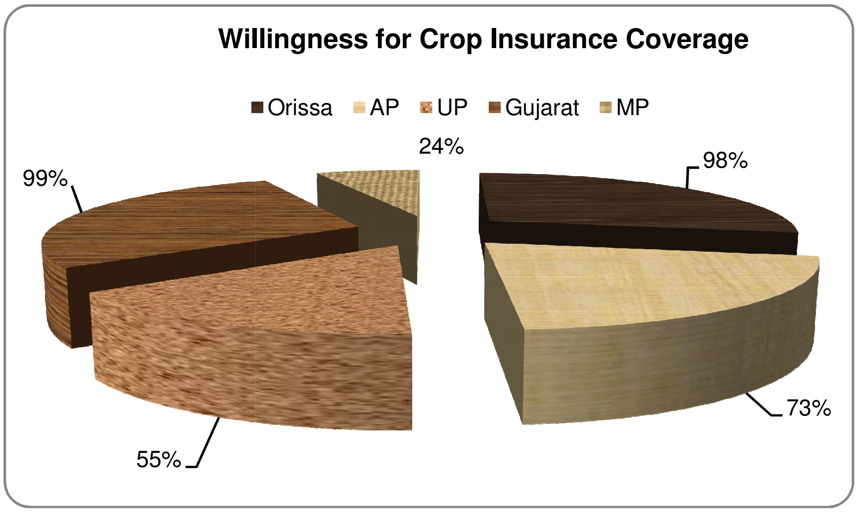
3.2.4.4 Awareness that No Intermediary is involved in Claim Process

Almost three-fourth (75%) of respondents from Gujarat indicated awareness that no intermediary is involved in claim process for crop insurance and that farmers receive 100% of the amount released by AIC as claim. Such awareness was also observed in respectable proportion in AP with slightly less than two-third (62%) respondents affirming it. In UP and MP, the levels of such awareness were quite low backed by only 27% and 16% respondents respectively.



3.2.5 Willingness for Coverage under Crop Insurance

The following chart depicts willingness of respondents for coverage under crop insurance.

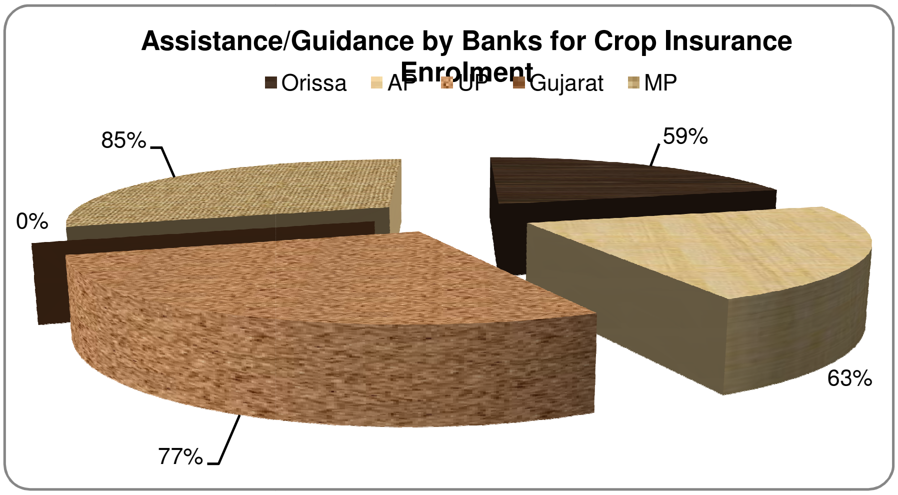


Respondents from Gujarat and Orissa have shown an overwhelming willingness for coverage under crop insurance with 99% and 98% rooting for it. The willingness in AP is also higher with slightly less than three-fourth (73%) of respondents averring their inclination for crop insurance coverage. Only in case of MP, crop insurance seems to be facing a crisis of confidence with less than one-fourth (24%) respondents indicating inclination for coverage.

3.2.6 Assistance/Guidance by Banks for Crop Insurance

Banks are a pivotal constituent in the value chain for crop insurance. They provide the necessary interface between farmers and insurance company. In the absence of touch points of the insurance company at the grassroots, banks fulfill the key responsibility of assisting and guiding farmers on matters related to crop insurance. The perceptions of farmers on this role of banks were gathered during the field research.

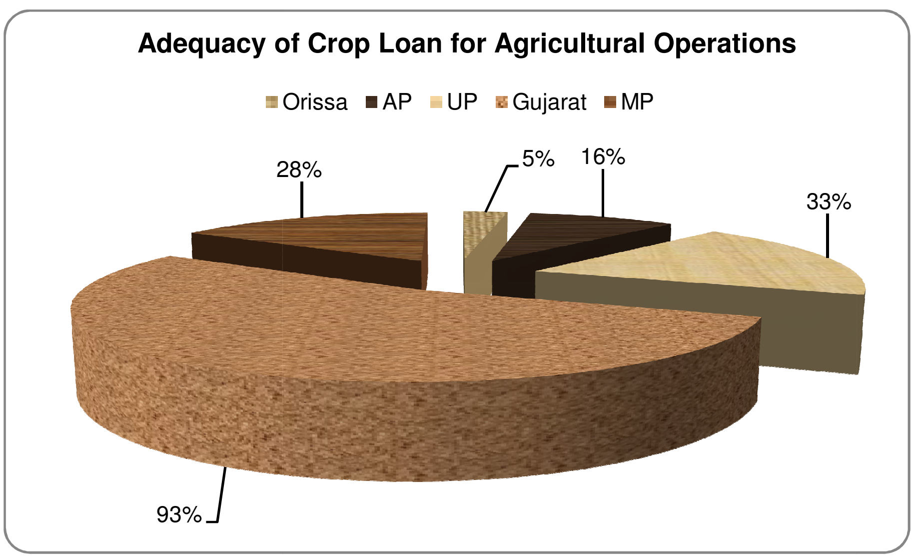
A high proportion of respondents from MP and UP (85% and 77% respectively) have acknowledged the assistance and guidance of banks towards crop insurance. Their perceptions are matched albeit in slightly lower proportions by respondents from AP and Orissa (63% and 59% respectively). The responses from Gujarat farmers stand out as none of them have credited banks for assistance and guidance on crop insurance.



3.2.7 Credit Requirement for Crop Production and its Utilization

3.2.7.1 Adequacy of Crop Loans for Agricultural Operations

As more and more farmers come into the fold of formal credit, their dependence on crop loans for meeting their production expenses is bound to increase. The quantum of crop loan sanctioned varies from crop to crop and district to district. However the policies of the banking sector and the State Government also have a bearing on the scale of finance – a parameter that determines the typical size of crop loan in a particular district.



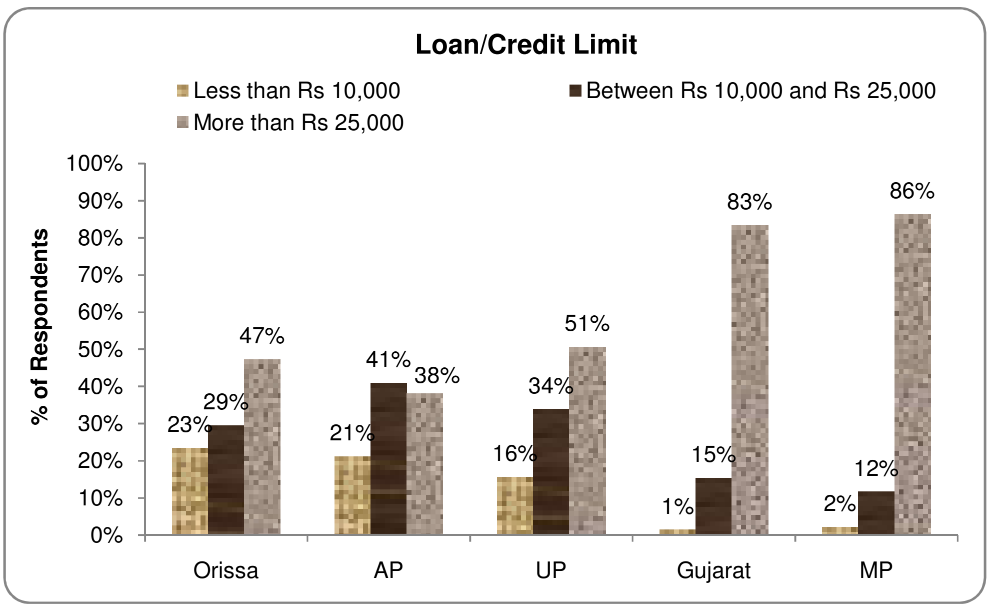
A very high proportion of farmers (93%) in Gujarat believe crop loan amount to be adequate for their agricultural requirements. Respondents from the remaining states have provided contrasting views which indicate that crop loans are inadequate for them to fully meet their agricultural needs. While 33% of respondents from UP and 28% from MP deem their crop loan amount to be adequate, only 16% from AP and 5% from Orissa feel so.

3.2.7.2 Loan/Credit Limit

The respondents were questioned on the amount of credit limit that is available to them from banking institutions for crop production. Credit Limit is broken down to three categories: (i) Less than Rs 10,000, (ii) Between Rs 10,000 and Rs 25,000 and (iii) More than Rs 25,000.

For category of credit limit less than Rs 10,000, Orissa leads the chart followed by A.P. and U.P but the difference across the states is minimal. Only few respondents belong to this category from Gujarat and M.P.

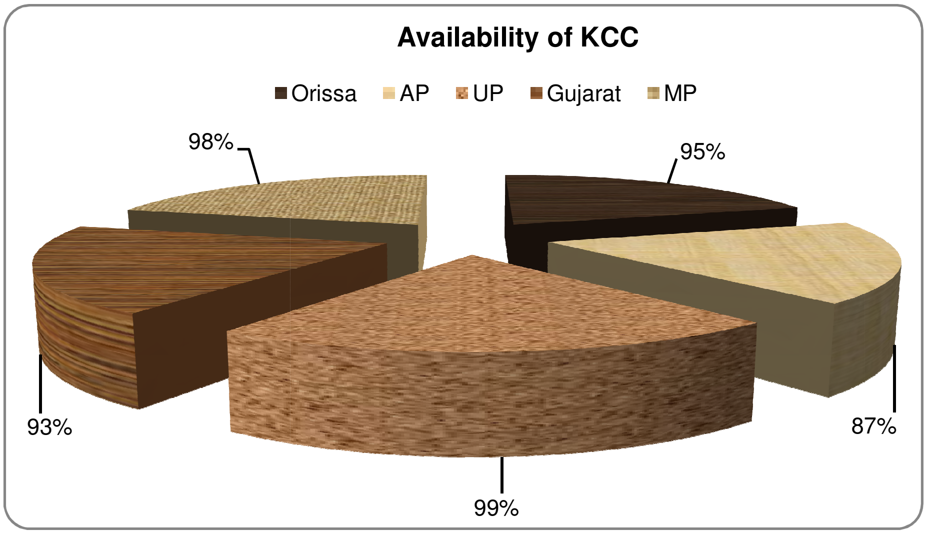
For category of credit limit between Rs 10,000 and Rs 25,000 A.P. leads the chart with 40% of the respondents very closely followed by U.P. with 35% of the respondents and Orissa with 30% of the respondents. Gujarat and M.P lags behind significantly with 10% and 8% of the respondents from the respective states.



For the category signifying a credit limit of more than Rs 25,000 the top position is held by MP and Gujarat with more than four-fifth (80%) of respondents from these states wielding such a credit limit. U.P. lags significantly behind MP and Gujarat with nearly half (51%) of respondents having a credit limit of more than Rs 25,000. Orissa with 47% respondents closely follows UP whereas AP lags behind with only around 38% respondents enjoying a credit limit exceeding Rs 25,000.

3.2.7.3 Availability of KCC

The performance of various states in terms of availability of KCC to farmers is depicted in the following chart.



All states fared well on the availability of KCC (Kisan Credit Card). The above chart indicates that UP and MP are the best performing states with almost 99% respondents from UP and 98% respondents from MP holding a KCC. Orissa and Gujarat are also marginally behind with 95% and 93% respondents respectively. Though AP figures at the lowest level, the fact that 87% of its respondents wield a KCC does not indicate an unsatisfactory level of performance.

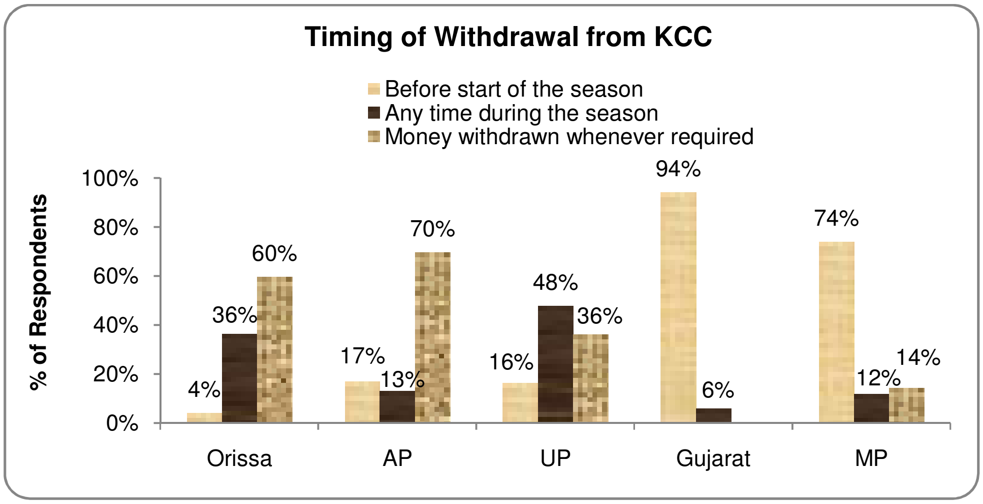
3.2.7.4 Timing of Withdrawals from KCC

To understand pattern of withdrawals from KCC, respondents were enquired about the timing of their withdrawals.

Majority of respondents from Orissa and A.P. have withdrawn money from KCC whenever they felt the need. Almost 70% of respondents from A.P. and 60% of respondents from Orissa affirmed such a withdrawal pattern. In contrast majority of the respondents from Gujarat and M.P. prefer to withdraw the money from KCC before the start of the season with

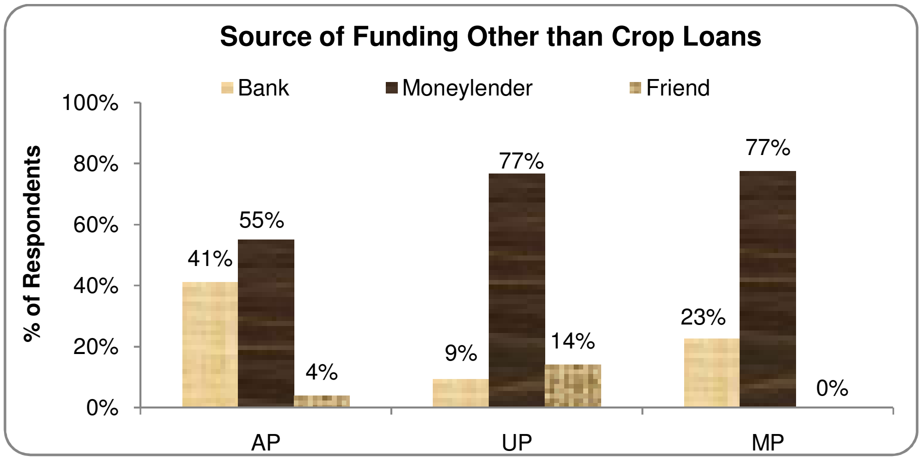
94% of respondents from Gujarat and 74 % of respondents from M.P. indicating such timing of withdrawal.

The timing of withdrawal for respondents from U.P. is more indeterminate with 48% respondents withdrawing anytime during the growing season and 36% respondents withdrawing whenever they feel the need.



3.2.7.5 Source for Funding other than Crop Loans

The respondents were enquired on the sources of funding, in addition to crop loans, for meeting the variety of expenses during crop production. Other loans from banks, credit from moneylenders and assistance from friends were considered for as alternative sources of funding for crop production.



Data results indicate moneylenders to be widely used source of alternative funding for crop production. 77% of respondents each from U.P. and M.P. accessed funding support from moneylenders whereas 55% of respondents from A.P. took recourse to such a source of alternative credit.

Other loans from banks emerged as the second most widely used alternative. AP leads this category with 41% of respondents availing other loans from banks followed by MP with 23% of the respondents.

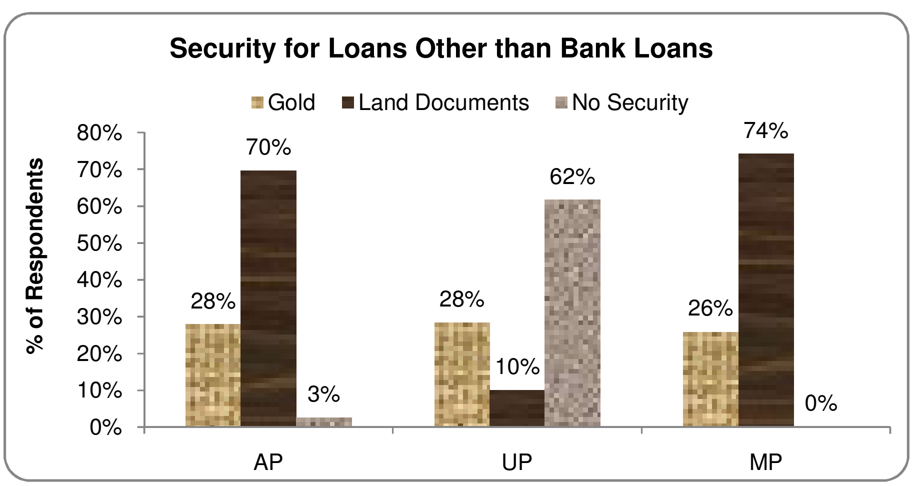
Assistance from friends is the least widely used source of financing with negligible or no respondents from AP and MP accessing credit from friends. In U.P. assistance from friends is the second most widely used alternative with 14% of the respondents availing such a funding support.

3.2.7.6 Security or Asset Pledged for Credit/Loans from Sources other than Banks

The respondents were questioned on pledges for availing loans other than Bank loans. The choices were restricted to gold, land documents and no security for availing loans.

Land documents are seen as the most widely used collateral in M.P. and A.P. with 74% and 70% respondents respectively providing them as a security to the credit provider. But for UP, the usage of land documents as collateral is restricted to about 10% of the respondents.

Gold as collateral is the second-most widely instrument in all the three states with 28% respondents each from AP and UP and 26% respondents from MP using it as pledge against loans other than those from banks.



U.P. stands out as an exception considering that more than three-fifth (62%) of its respondents able to avail credit from entities other than banks/formal credit institutions without providing any security. Negligible proportion of respondents from A.P. and almost none from M.P are able to avail loans without security.

3.3 Summary of Findings from Interactions with Other Key Stakeholders

Primary research with key stakeholders in the crop insurance sector, other than farmers, has helped in gaining critical insights for improving the effectiveness of crop insurance schemes in India. Detailed interactions were conducted with a wide spectrum of stakeholders including state agencies, intermediaries, insurers, social sector organizations, research institutions and subject matter experts. The main points from interactions with other key stakeholders are systematically summarized in the following section.

3.3.1 Observations of Banks and PACS on Key Aspects of NAIS

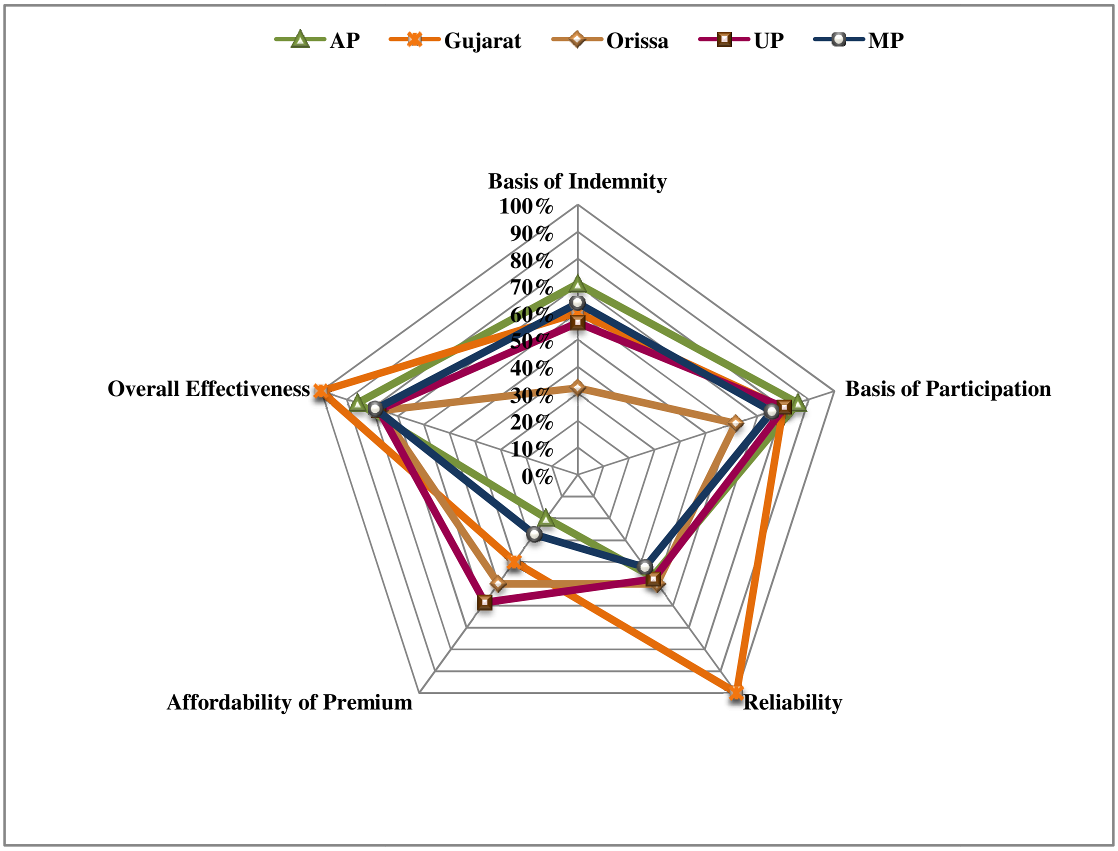
The following radar chart (REFERENCE CHART 2) summarizes the perceptions of Banks and PACS regarding key aspects of NAIS.

REFERENCE CHART 2

The following radar chart indicates the corresponding percentage of respondents representing Banks or PACS who are satisfied with key aspects of NAIS. These aspects include basis of indemnity, basis of participation, reliability, affordability and overall effectiveness. The defining characteristics of the aforementioned aspects are:

- Basis of Indemnity – Computation of claims on the basis of yields calculated through crop cutting experiments within a Block / Taluka / Mandal / Patwar Halka
- Basis of Participation – Compulsory participation of farmers availing crop loans from banks
- Reliability – Ability to view the process for computation of crop losses and settlement of claims as reliable
- Affordability – Reasonableness of premiums when assessed against the protection or risk mitigation benefits against crop losses
- Overall Effectiveness – Utility of NAIS as an instrument of protection and risk mitigation against Crop Losses

REFERENCE CHART 2: SUMMARY OF SATISFACTION LEVEL OF BANKS AND PACS WITH KEY ASPECTS OF NAIS (STATE-WISE)



The key observations from REFERENCE CHART 2 can be summarized as following:

- The highest levels of satisfaction (average–84%) are recorded on the aspect pertaining to overall effectiveness of NAIS.
  - All respondents from Gujarat have indicated satisfaction regarding the overall effectiveness of NAIS
  - The lowest level of satisfaction, substantially high in itself, is seen in Orissa where 77% of respondents affirm the overall effectiveness of NAIS
- The next highest levels of satisfaction (average–77%) are seen with regard to the basis of participation
  - AP with 86% respondents, Gujarat and MP each with 80% respondents record higher levels of satisfaction about mandatory participation of loanee farmers

  - Respondents from Orissa have recorded the lowest level of satisfaction on this aspect with 62% of respondents indicating satisfaction

- Both basis of indemnity and reliability (average–57%) trail considerably behind basis of participation (average –77%)

  - All the respondents from Gujarat have vouched for the reliability of NAIS whereas half or less than half the respondents from the other states have expressed on this aspect (Orissa–50%, UP–48%, AP–47%, MP–42%)
  - Regarding basis of indemnity, respondents from AP (71%) have exhibited the highest level of satisfaction
  - Satisfaction level for basis of indemnity are separated by almost an equivalent level in case of MP, Gujarat and UP (64%, 60% and 56% respectively)
  - Respondents from Orissa have indicated the lowest level of satisfaction with less than one-third (32%) seeing merit in the basis of indemnity under NAIS

- Lowest level of satisfaction have been recorded on the aspect dealing with affordability of premiums under NAIS

  - Barring the exception of UP (with 59% respondents), the other four states have witnessed 50% or less satisfaction level regarding affordability of premiums under NAIS (Orissa–50%, Gujarat–40%, MP–27%, AP–20%)
  - Such satisfaction levels seem to be expected lines when we consider that premiums on NAIS have indirect economic implications on the attractiveness of crop loans provided by Banks and PACS. Furthermore, higher premium for crop loans increases the cost of credit for farmers thus impacting the repayment ability of farmers adversely.

In addition to the information depicted through REFERENCE CHART 2, observations from Banks and PACS are provided as summary tables in Annexure 1.

3.3.2 Summary of Findings (State-wise) from Other Key Stakeholders in NAIS

ANDHRA PRADESH	
Stakeholder: **Government**	1) There is non-compliance of compulsory provisions under NAIS. Main reasons for non-compliance are: farmers' dissatisfaction with claims, political influence on payouts, poor correspondence between farm losses and claims, low awareness in farmers about crop insurance, discretionary

	stance of bankers in insuring loanee farmers. 2) Some respondents suggested that RBI should give direct instruction to Banks for complying with mandatory crop insurance provision. Others advocated stronger administrative measures like cut in increments and transfer to penalize bank officials for non-compliance 3) To popularize crop insurance, awareness programs should be conducted at Mandal and Village levels. Information should also be disseminated through periodicals, Radio programs and advertisements on Television and Cable. 4) To bring about improvement in the scheme, strict review of progress and performance should be undertaken at frequent intervals during the crucial period of implementation 5) Non-loanee farmers should be increasingly covered under crop insurance. They are currently discouraged by bank officials.
Stakeholder: **Financial Institutions**	1) Psychology of the farmers is driven by comparison with other farmers who have received claims without suffering losses. Such instances severely undermine the credibility and transparency of crop insurance 2) Premium rates for commercial crops prove to be higher than the interest rate for crop loans 3) Though crop cutting is based on statistical principles, its actual implementation may provide misleading results if a higher proportion of good plots get selected for crop cutting 4) People take loan for non-notified crops and grow notified crops to avoid payment of insurance premium 5) Farmers should be educated about crop insurance through mass media 6) Assessments for crop losses should be linked to other such similar assessments / surveys undertaken by other Government departments. For examples, surveys for agricultural input subsidy, *Annawari* survey for losses due to floods, cyclones etc. 7) Settlement procedures should be improved 8) Tie-ups with State Govt. Agencies should be promoted for higher coverage of Non-loanee farmers

	9) Top demands/grievances of Banks a. Correspondence of claims with losses is below expectations b. Resistance from farmers c. Higher Premium Rates for Commercial Crops d. Separate Compensation/Relief procedures from Different Various Govt. Agencies 10) Weather insurance appears as a better alternative to NAIS 11) Strengthening of LDM offices may be useful in improving coverage of crop insurance by banks 12) Govt. should provide infrastructure so that financial literacy & credit counselling of farmers could be undertaken 13) AIC should have district-level resource-centres for better service delivery to banks and farmers 14) Data on input subsidy by Govt. for agricultural inputs (seeds/fertilizers etc) need to be used for cross-checking claims due under crop insurance. Such subsidy should also incentivize crop insurance coverage to avail maximum benefits from this subsidy 15) SHG networks & Farmer clubs need to be utilized for promotion of crop insurance
ORISSA	
Stakeholder: **Government**	1) Participation of farmers in crop insurance is poor because of reasons like high premium rates; mismatch between value of claim and actual loss, and repeated failure to compensate farmers who suffer crop losses 2) To improve crop insurance scheme, departments are carrying out publicity through ATMA, spreading message by village-level workers, providing financial literacy to the farmers, improving facilitation and coordination of banking at village level, decreasing of premium rates, higher incentive to banks and refund of premium after deducting administrative cost in case of no losses. 3) The current scheme of crop insurance is not farmer-friendly. The defects in crop insurance scheme discourage farmers from participating voluntarily.

	4) Most commercial banks in the area do not entertain the farmers for loan and crops insurance. Farmers are often asked to “come Tomorrow” by Bankers. 5) Structural changes in crop insurance scheme have been proposed by State Government to make it more popular among farmers. For example, 66 % of the premium paid by the farmers should be returned in event of no loss. Some others are: actual losses should be covered under the crop insurance scheme; marketing of crop insurance scheme should be on the lines of the advertisement and promotional activities undertaken by any private entrepreneur; higher incentives to banks for reducing non-compliance of mandatory provision; allocation of more personnel to rural banks at least during the peak season of crop insurance
Stakeholder: **Technical Experts**	1) Statistical field surveys are conducted at Block and GP levels. 2) Statistical data on crop cutting is submitted to the Directorate within 20 days after processing at different levels (Block and District). 3) GP level unit has assisted in assessing the losses more accurately when compared to units of larger size
Stakeholder: **Financial Institutions**	1) There is substantial difference between amount disbursed as crop loan and amount covered under crop insurance. 2) Commercial Banks in most cases fail to comply with the compulsory nature of crop insurance for loanee farmers. 3) There is inadequacy of infrastructure at banks that hinders in fulfilment of mandatory crop insurance provision 4) Participation of farmers in NAIS can improve if bankers take interest in strict enforcement of the scheme, publicity of the scheme is done at different stages, premium rates are reduced, and additional crops like cashew, medicinal and aromatic plants are covered under the scheme. 5) Lack of proper awareness about the crop insurance sometimes leads to non-compliance. Non-compliance is not intentional in many of the cases. 6) Lack of infrastructure in rural banks also causes non-compliance 7) Incentives to rural branches may help in encouraging officers to put in

	more efforts towards crop insurance 8) Strict instructions should be issued to Regulators and the respective Controlling Officers at various Banks for ensuring adherence to the mandatory provision of crop insurance 9) Political influence in assessment of losses should be eliminated with the help of more enabling provisions 10) Some operational reasons for non-compliance by banks are: a. Premium reports sent to controlling branches are kept pending at controlling office because of workload or because of transfer of incumbent bank personnel. These reports do not reach AIC and thus appear as non-compliance b. Bank Managers in rural branches usually have more work load and are thus sometimes unable to fill up all the proforma for crop insurance. In such cases, either the entire premium proposals are rejected or there is delayed reporting of crop insurance premium. 11) Some of the measures suggested to improve the scheme are: a. Effective measures should be taken to improve awareness about crop insurance schemes b. Positive measures should be taken to increase crop yields and to hike the normal crop yields to a higher level c. Premium rates should be reduced so that the burden on farmers is less d. Defaulting branches should be punished for not complying with the mandatory provision of crop insurance 12) There are difficulties in mandatory crop insurance due to non-renewal of loan by defaulters 13) There is a provision to remit the premium of crop insurance even if the crop loan is withdrawn through KCC

UTTAR PRADESH	
Stakeholder:	

<table>
<tr><td>Government</td><td>
1) Administrative measures to punish defaulting banks branches should be instituted. On the same line, awards and incentives need to be provided to branches that fulfil the mandate of crop insurance most effectively

2) The State Level Review Committee should strictly instruct compliance with compulsory provision of crop insurance scheme. Frequent reviews should be held to track the adherence of banks to mandatory provision

3) In western UP, farmers growing sugarcane are not interested in the scheme since the crop is largely resistant to crop losses.

4) Suggestions to improve the system of insurance are:

a. Threshold yield should be based on the normal yield of crop in a normal season and not on yields based on moving average

b. Indemnity level should be raised from 90% to 95 %

c. More efforts need to be put towards extension for popularizing the crop insurance scheme among farmers

d. Sample surveys for actual loss need to be conducted to cover farmers affected by severe crop losses

e. Weather based crop insurance scheme with few modifications may be a good alternative to current scheme (NAIS)

5) All eligible loanee farmers during the year 2007-08, 2008-09 and 2009-10 have been covered under crop insurance by the PACS. The slight level of non-compliance in UP can be attributed to lack of infrastructure in branches located in remote villages

6) Suggestions for improving coverage under crop insurance were:

a. Incentives given to DCCB may be distributed to individual PACS

b. Premium rates of field crops and horticulture crops should be lowered

c. Reference unit to be lowered to GP from Nyaya Panchayat that is currently applicable in UP
</td></tr>
<tr><td>Stakeholder: Financial Institutions</td><td>
1) In some RRBs, the Manager of the Bank has to perform most of the transactions himself as a result of which crop insurance work is hampered during the peak season.
</td></tr>
</table>

	2) Reasons for non-participation can be attributed to: a. Farmers in sugarcane belts of western UP do not allow deduction of premiums as sugarcane crop hardly fails b. Small and marginal farmers lacking necessary records do not approach Banks for insurance c. Premium rates for crop insurance, particularly for commercial and horticulture crops are on the higher side. As a result, farmers struggling to make ends meet are unable to afford the premiums d. Frequency and quantum of benefits under crop insurance are not representative of actual losses suffered by farmers 3) Incentives to bank and improvement in their staff position during peak season can significantly bring down the level of non-compliance 4) No mortgage loans against gold are advanced as crop loan. 5) Lowering of crop insurance unit size may not help the Banks unless there is a simultaneous improvement in their infrastructure 6) There are no delays by banks in disbursing claims received from AIC to the eligible beneficiaries. There are no delays by controlling bank in crediting claims received from AIC to the subordinate Banks through electronic transfer 7) There is difficulty in enforcing mandatory crop insurance as farmers who are part of unions and other collective strongly agitate against forced coverage by banks 8) Branches in remote, rural areas are facing difficulties in covering insurance due to heavy work load 9) There are incidences of long delays in disbursement of claims to the accounts of beneficiaries. However, branches covered under CBS system do not witness such delays 10) Crop losses in western UP are quite minimal largely because of assured irrigation through Ganga and Yamuna rivers 11) State government has issued orders to all banks asking them to provide individual receipts for crop insurance premium. This has become an insurmountable task because of lack of manpower with the banks

	12) Rural branches should be supplemented with additional manpower at least during their peak season. 13) Requirement for crop cutting experiments should be waived in areas that have been declared by State Government as severely drought-affected
GUJARAT	
Stakeholder: **Government**	1) Contribution of banks towards CCEs and yield estimation is negligible 2) Banks should be able to provide details of crop grown under different survey numbers for validation of claim eligibility 3) 25,000 CCEs currently carried out in Gujarat every year. Currently CCEs are undertaken at Taluka-level in Gujarat primarily due to scarcity of manpower and resources for CCEs 4) Cotton has more assured production. Therefore the relevance of crop insurance for cotton is minimal 5) The burden of more CCEs & higher premiums negates benefits of MNAIS 6) Higher premium rates under MNAIS increase the liability of State Govt. towards premium subsidy 7) Extension activities by State for crop insurance should be supported by AIC. Farmers still are not sufficiently aware of crop insurance scheme and its working
	1) Current scheme of crop insurance (NAIS) is such that farmers voluntarily or forcibly opt out of the scheme 2) Wide variation in claim experience across regions has been witnessed for a reasonably period of time which raises questions on the reliability of crop insurance benefits 3) DCCBs are regulated/controlled by NABARD. Hence NABARD can co-opt them for complying with mandatory crop insurance requirements. 4) Disbursal during April-June period (Loan disbursal window) is considered for crop insurance coverage. Window for loan disbursal to be covered under insurance needs to be made flexible

Stakeholder : **Financial Institutions**	5) If KCC limit is financed for 3 years, then the tenure of crop insurance should be increased accordingly 6) The cut-off for crop insurance is not relevant in case of loanee farmers, given the stipulation that are mandatorily insured 7) Relevance of crop insurance is more for rain-fed farmers. Therefore farmers with good/assured irrigation are reluctant to be covered under crop insurance 8) AIC presence at the grassroots needs to be strengthened. To begin with, there should be an AIC representative in each district 9) Timeliness of guidelines and notifications for crop insurance can ensure that banks implement the mandatory crop insurance provision more effectively 10) Service charges for crop insurance (partial or complete) could be transferred directly to the branches enrolling farmers in order to incentivize better coverage by them 11) Lead Bank Officer should meet bankers regularly and sensitizes them about various schemes for banks 12) There should be provision for rebates under NAIS, in case of successive years of no-claims this may encourage repeat enrollment by banks/farmers 13) Annapoorna can be integrated with the core banking systems used by banks for better streamlining of crop insurance work by banks
MADHYA PRADESH	
Stakeholder: **Government**	1) Waiver of requirement of No-objection Certificate from banks has allowed loan defaulters to be covered under crop insurance 2) There is a possibility of multiple crop insurance coverage on the same loan exposure 3) Crop insurance needs to be based on sanctioned credit limit and not on the actual loan disbursed 4) Individualized assessment of losses for localized calamities is a major demand to improve the appeal of NAIS. Individualized assessment can

	also mean increased sampling or sampling at lower levels of administration 5) Threshold of indemnity for soybeans under NAIS is fixed at 60% of GY. This is not acceptable to farmers and is thus a major deterrent to higher coverage of crop insurance under this crop 6) There should be a single channel for recording grievances of farmers 7) NAIS should not be freed from compulsory provision. Such an action will provide impetus to more effective implementation of the scheme through; Usage of low-cost efficient technology (IT/RS/Video-recording etc), enhancement of productivity of personnel/workers involved in crop insurance and other risk mitigation measures (Drought-proofing/water conservation, preventive control of pests and diseases, relief from state agencies) 8) WBCIS is more suitable for horticultural crops 9) State Govt. do not have capacities for handling product development under crop insurance 10) Subsidy for crop insurance should be provided essentially for promoting, popularizing and establishing the need for crop insurance. It should be gradually phased out as per a planned schedule 11) Contribution of insurance claims to total value of crop production is insignificant 12) Crop insurance should be made voluntary. Subsidy should be strategically used to establish its demand through demonstration of benefits and not as a freebie/largesse from the Govt. 13) Resources are meagre for State Govt. to implement crop insurance in an effective manner 14) Contribution of insurance companies towards extension and awareness-building can be deemed as insignificant 15) There is lack of effective participation by bankers in District-level Committee on Crop Insurance 16) Crop loan data by banks should be aggregated/integrated and made online for better planning and control

	17) The current crop insurance regime should do away with crop cutting experiments which could be considered as an eye-wash/farce. 18) Settlement of crop insurance claims of previous season before cultivation of next crop has been a strong demand of farmers 19) Satellite-based crop yield/health estimation should be promoted and subsequently incorporated for loss estimation of crops 20) Data on GY & other parameters (cost of cultivation etc) under crop insurance are out of sync with ground realities in agriculture 21) Private insurance companies are exploiting farmers and Govt. Their orientation is entirely commercial and devoid of any consideration for development of farmers or Indian agricultural sector 22) CCEs are the weakest element of the current crop insurance regime

3.3.3 Key Statistics on Crop Loans and NAIS Coverage by Banks

The following tables provide key statistics and ratios for crop loans dealt by banks covered during the study.

Table 4: Crop Loan & Crop Insurance Statistics for Kharif Season

	Crop Loan (in Rs Lacs)								
Type of Bank	Disbursed	Notified Crops	Insured	Disbursed	Notified Crops	Insured	Disbursed	Notified Crops	Insured
	2007	2007	2007	2008	2008	2008	2009	2009	2009
Commercial	8322	6629	1132	7578	6504	1137	18239	15338	1428
RRBs	56621	49638	13515	33615	27143	6261	45462	27367	13621
Cooperative	74048	67525	32335	47865	40683	21239	81398	72274	35464

Table 5: Crop Loan & Crop Insurance Statistics for Rabi Season

	Crop Loan (in Rs Lacs)								
Type of Bank	Disbursed	Notified Crops	Insured	Disbursed	Notified Crops	Insured	Disbursed	Notified Crops	Insured
	2007	2007	2007	2008	2008	2008	2009	2009	2009
Commercial	13305	5134	757	18975	8993	1130	22982	11903	1158
RRBs	46390	10345	6529	49080	26636	15136	73188	49803	36472
Cooperative	75164	28652	7313	101472	35508	8754	124048	34220	11314

Table 6: Key Percentages for Crop Loans in Kharif Season

Type of Bank	Kharif 2007 Notified/ Disbursed	Kharif 2007 Insured/ Notified	Kharif 2008 Notified/ Disbursed	Kharif 2008 Insured/ Notified	Kharif 2009 Notified/ Disbursed	Kharif 2009 Insured/ Notified
Commercial	79.7	85.8	84.1	17.1	17.5	9.3
RRBs	87.7	80.7	60.2	27.2	23.1	49.8
Cooperative	91.2	85.0	88.8	47.9	52.2	49.1

Table 7: Key Percentages for Crop Loans in Rabi Season

Type of Bank	Rabi 2007-08 Notified/ Disbursed	Rabi 2007-08 Insured/ Notified	Rabi 2008-09 Notified/ Disbursed	Rabi 2008-09 Insured/ Notified	Rabi 2009-10 Notified/ Disbursed	Rabi 2009-10 Insured/ Notified
Commercial	38.6	47.4	51.8	14.7	12.6	9.7
RRBs	22.3	54.3	68.0	63.1	56.8	73.2
Cooperative	38.1	35.0	27.6	25.5	24.7	33.1

Data for six crop seasons from banks indicate that commercial banks are insuring 10% to 20% (average – 14.6% for Kharif season and 12.3% for Rabi season) of their crop loan portfolio for notified crops. The corresponding values for RRBs range from 23% to 73% (average – 33.4% for Kharif season and 64.4% for the Rabi season). Cooperative banks (DCCBs) fare better than RRBs in case of Kharif season (average – 49.7%) while in case of Rabi season (average – 27.7%), their performance leaves scope for substantial improvement, both in absolute terms and relative to RRBs.

The above values, though derived for a small sample of banks, provide evidence of the gap in mandatory crop insurance coverage for notified crops.

Chapter 5

KEY CONCLUSIONS

KEY CONCLUSION 1: Banks, particularly Commercial Banks, exhibit a Discretionary Approach towards Mandatory Crop Insurance of Loanee farmers

The primacy of the agricultural sector in India has led to enabling measures by the Government to ensure and augment supply of credit to farmers. In order to safeguard banks from the downside risk of credit default by farmers, crop insurance has been made mandatory for farmers accessing crop loans from banks. Despite the mandatory provision, banks have been unable to bring a majority of loanee farmers under the coverage of crop insurance. These coverage gaps are starker in case of commercial banks than for cooperative banks, regional rural banks or local area banks. Nevertheless, there is massive scope for improving the outreach and penetration of crop insurance across all banks that are providing crop loans to farmers, irrespective of their ownership pattern or area of operation.

Such a behavior of banks cannot be attributed to typical reasons such as the operational constraints faced by them or the resistance of farmers against crop insurance. The reluctance of banks to embrace crop insurance as an effective risk mitigation instrument has reasons deeper than those which meet the eye. From the various interactions during this study, it has become evident that banks possess little conviction in the efficacy/utility of crop insurance currently being implemented in India. In many cases, it has been seen that banks, especially the local branches of commercial banks, decide their stance on crop insurance based on the claim pattern in a particular location or area. It would not be blasphemous to believe that banks, especially commercial banks, treat crop insurance essentially as an instrument of convenience; backing it when the claim history has been in their favour and giving it a short shrift when claim history indicates unfavorable or mixed outcomes.

Till almost a decade ago, the majority of the rural and farming community was outside the service net of formal credit. However, with the launch of a vigorous, nation-wide drive towards financial inclusion, the stake of banks in the agricultural ecosystem is likely to increase manifold. Integrating the increased farm credit exposure of banks with suitable agricultural risk management solutions would thereby be the need of the hour.

The widely acknowledged increase in weather uncertainties is not going to make the task of lending to farmers any easier for the banks. Out of the various options available to banks for mitigating risks in agricultural lending, crop insurance, without doubt, is the most suitable.

Crop insurance, by its very nature, goes well with the offerings of banks and can be seamlessly bundled for providing an integrated suite of financial services to the Indian farming community.

Unfortunately, almost without exception, banks have been assessing the value of crop insurance on the basis of conventional but flawed yardstick of frequency and quantum of historical payouts.

KEY CONCLUSION 2: Nonparticipation in Design and Administration of NAIS has led to Misplaced Expectations and Low Ownership of Banks

The supply-driven approach of crop insurance in India, NAIS in particular, has precluded banks from participating and contributing to key design and administration aspects of NAIS.

Even more than a decade after the introduction of NAIS, banks cite problems in design and administration of this scheme as a key reason for their inability to fulfill the mandatory crop insurance requirement for loanee farmers. When asked to elaborate on these problems and the resulting hindrance, a number of banks have complained mainly about issues like low probability of claims under NAIS, infrequent payouts, mismatch between crop losses and claims, non-inclusion of perils like cyclones etc., poor visibility of CCEs and their limited number, biased selection of plots for CCEs and high/unaffordable premiums. Many banks have gone beyond and demanded implementation of a crop insurance scheme based on individual assessment of claims.

These issues and demands would sound plausible if they come from farmers, government agencies or civil society organizations. But coming from banks, they signify only misplaced expectations and improper understanding of crop insurance and its practical aspects. As is the case with most financial products which banks deal with, crop insurance also comes with its benefits and limitations. Owing to their indifferent participation in NAIS and their detached working with AIC, banks particularly the commercial banks seem to have developed a conception of NAIS that is either distant from reality or replete with stray instances. As a result, the improvements or modifications in NAIS demanded by them tend to be unrealistic, borne out of a one-sided view of a multi-faceted scheme like crop insurance.

KEY CONCLUSION 3: Resistance of Farmers due to Unfavorable/Lopsided Claim Experience deters Banks from Enforcement of Mandatory Crop Insurance

With each passing day, banks are deepening their footprint in the rural areas of the country. Owing to their day-to-day engagement at the grassroots, they have to be sensitive to the experiences and sentiments of their clientele, of which farmers constitute an integral part. The reluctance of banks to fulfill the mandate of compulsory crop insurance can sometimes be attributed to the disillusionment and resistance of loanee farmers. Such an orientation of farmers could have a valid reason as indicated by the claim experience across insurance units in India.

Even in states that have been the biggest beneficiaries of NAIS, the claim experience across districts has been lopsided in most cases. While farmers of a few districts have become increasingly convinced of the risk mitigation benefits provided by NAIS, those in other districts with poor or no history of claims view it as an unnecessary burden imposed by banks.

KEY CONCLUSION 4: Circulars from Regulators and Existing Legal Provisions are Inadequate for Ensuring Strict Adherence to Mandatory Crop Insurance Provision

Even when the administrators and key decision makers of a particular bank are convinced of the risk management benefits of crop insurance, it may not necessarily ensure widespread compliance. Across the various branches of the banks entrusted with the task of insuring loanee farmers, the level of compliance varies significantly.

Though both RBI and NABARD, the apex regulators for commercial banks and cooperative/rural banks respectively, issue circulars for promoting adherence of mandatory crop insurance provision by banks, the administrative stringency from regulators to warrant the fulfillment of this mandate by banks is inadequate. In the absence of legal support, such circulars are not able to elicit required enforcement from credit institutions leading to ineffective implementation of crop insurance program. Cooperative entities like PACS have been found to frequently subvert the role of crop insurance by passing resolutions against adoption by member farmers.

Mandatory crop insurance for loanee farmers has been routinely challenged in courts. The absence of a clear-cut law for agricultural insurance has allowed a higher degree of divergence in interpretation of crop insurance by various courts with some verdicts undermining the mandatory nature of crop insurance for loanee farmers. Wide-ranging interpretations by courts have also diluted the level of commitment with which various state governments implement the crop insurance program. In some cases, Government of India has been made a party in legal disputes over mandatory crop insurance thus forcing unnecessary investments of resources to defend its stand on a welfare subject like agricultural insurance.

KEY CONCLUSION 5: Mandatory Nature of Crop Insurance Provision is Diluted by Requirements of Notification by Government and Fulfillment of Enrollment Process by Banks/Loanee Farmers

Though loanee farmers are to be mandatorily insured, their enrollment in crop insurance scheme is not automatic. Banks have to enroll loanee farmers under crop insurance by fulfilling some certain procedural requirements. The time window for enrollment of loanee farmers has to be preceded by notification issued by the respective state government. The process of notification is required to ensure that the planted area for a given crop will be adequate for proper implementation of CCEs. Such requirements are paradoxical to mandatory crop insurance which should ideally be automatic.

KEY CONCLUSION 6: Time Window for Enrollment of Farmers under Crop Insurance coincides with the Period of Heavy Workload for Banks

KEY CONCLUSION 7: Loss Assessment Process of NAIS as manifested through Crop Cutting Experiment has emerged as a Major Source of Discontent among Farmers and Other Stakeholders. A number of Areas of Discontent are directly or indirectly influenced by this Pivotal Element

KEY CONCLUSION 8: There is Need for Improvement in NAIS for Correcting Imbalances in Claim Experiences and for Compensating Farmers aggrieved by Long History of Claim-free Seasons

KEY CONCLUSION 9: Despite the painstaking efforts by AIC towards sensitization of farmers, their interest groups and other key stakeholders, the task of building awareness and understanding of crop insurance at grassroots needs concerted support by Government extension system and banks. The role of banks which constitute the primary point of contact with loanee farmers is pivotal for developing and nurturing relationships with intended beneficiaries of crop insurance.

Chapter 7

KEY SUGGESTIONS AND AGENDA FOR ACTION

CATEGORY 1: Improving Ownership/Stake of Banks

A participatory approach by insurers and policy makers can help in ironing out stumbling blocks and perceptual barriers between banks and insurers. Not only would it bridge the gap between banks and insurers that has so far led to a misaligned and suboptimal association but would rather go a long way in building equity of banks in the Indian crop insurance program.

I. Increasing Ownership and Stake of Banks in Crop Insurance Scheme

a. Resolution of Misconceptions and Disagreements related to Scheme Design and Administration

It is high time that key resource-persons and policy-makers from banks and AIC sit across the table and resolve the perceptual barriers and differences of understanding on NAIS. Trust-enhancing exercises involving these critical stakeholders in NAIS can be instrumental in improving the effectiveness and efficiency of what we should strive to maintain as the leading crop insurance program in the world.

b. Collaborative Exercises for Reviewing Baseline Values/Key Parameters under Area Yield Insurance and Making Revisions wherever Required

Though the key parameters of crop insurance (premium rate, frequency of payouts, threshold/guaranteed yields, indemnity levels etc.) are a function of the intrinsic risk profile of a region and derived using historical data for a given area, the variability in the quality of such historical data as well as the stark disparities in crop insurance benefits necessitate that banks and AIC have collaborative exercises for reviewing baseline values and key parameters for crop insurance and revising them wherever required.

AIC should work with banks for an exhaustive review of the baseline values and key parameters for crop insurance. This review could help in identifying the values and parameters that need to be revised in order to align the crop insurance with the ground realities and fair expectations of farmers in a given location. Such exercises can help in restoring the perceived utility of crop insurance which could have got eroded in certain areas because of unfavorable payout history for farmers. These exercises would equip the banks with technical understanding and objective clarity on crop insurance thus enabling them to appreciate its utility and to work towards its increased penetration and outreach.

c. Incentive and Reward System for Branches and Personnel

As part of the collaborative exercises proposed between banks and AIC, the issue of service charges or incentives for banks can also be taken up. The quantum of service charge received by the banks from AIC can be consolidated into a corpus. This corpus can then be utilized by a bank for distributing rewards and incentives among individual branches based on their fulfillment of mandatory crop insurance provision. On similar lines, some deterrents and penalties can be instituted to discourage controllable or willful non-conformance of mandatory crop insurance by bank personnel.

While efforts must be made to stimulate banks for putting in place an incentive and penalty structure, the onus is on the apex regulatory institutions to provide impetus and fillip to such a drive towards a concerted fulfillment of mandatory crop insurance of loanee farmers and improvement in the coverage of non-loanee farmers.

d. Human Resource Support to Banks for Meeting Seasonal Workloads

For improving service delivered by banks to farmers, in-depth training on key aspects of crop insurance like insurance principles, policy design, communication, marketing and operating procedures should be imparted to bank personnel and PACS staff engaged in crop insurance. Furthermore, it is imperative for AIC to devise a system under which temporary or short-term manpower for crop insurance could be provided to banks particularly during periods of heavy workload.

The temporary or short-term human resources to be deployed by AIC should have broad knowledge of crop insurance and should be conversant with insurance selling and enrollment procedures. The services of such a workforce could be utilized on a time-sharing basis across bank branches in a given region. If the skills, performance and career preferences of some individuals align well with requirements of AIC, such individuals may be inducted by AIC for a longer-duration or full-time association.

e. Technology Usage & Process Improvements

Almost all major commercial banks have transitioned to Core Banking Systems (CBS). Likewise the information systems of cooperative banks and regional rural banks are also getting upgraded even though their technical sophistication may not match that of information systems employed by leading commercial banks. Considering the fact that the cooperative banks particularly the DCCBs represent the single-largest sources of business to AIC in a majority of locations, Annapoorna - the information system of AIC must be aligned to provide a seamless interface not only with the CBS of commercial banks but also with the information systems of cooperative banks and RRBs.

AIC may also have to take a lead for initiating the review and streamlining of processes currently followed by banks for enrolling farmers under crop insurance. Based on the scope of improvement identified, some of these processes may be reengineered to minimize the physical workload and operational bottlenecks for banks.

f. Increasing Touch Points for Service Delivery by AIC

One of the key demands voiced by Banks and supported by government officials sought more localized presence of AIC in the form of district-level offices or service points. Keeping in mind the high dependence of AIC on banks for bulk/wholesale business, district-level service centers may not be practicable in the short to medium term. Nevertheless, AIC should proactively work towards deepening its footprint in key business territories either through association with banks or with GIPSA companies.

CATEGORY 2: Improving Policy Environment and Provisions of Crop Insurance Scheme

II. Creating an Empowering Regime for Implementing Mandatory Crop Insurance through

a. Suitable Policy or Legal Support in the form of Law/Statute from Government and Directives to Banks from Ministry of Finance & RBI

Crop insurance constitutes an important part of the welfare policy of the Indian Government. It therefore has the nature of quasi-public goods. As a result of the failure of private agricultural insurance markets, most countries have adopted different interventions to subsidize the agricultural insurance market and to position agricultural insurance as a key welfare instrument. A number of nations have clearly articulated their policy commitment through specific legislations for agricultural insurance. The rationale for strengthening the legal and regulatory framework for agricultural insurance in India is germane considering the current state of development in this sector.

Some of the key arguments which underscore the rationale for a separate agricultural insurance law are presented below:

- Research indicates that most effective agricultural insurance programs have at their core a mutually beneficial relationship involving the support of the public sector, the involvement of the private sector and the strong participation by the farming community. The insurance community will not participate if it determines that the state policies and environment related to agricultural insurance are not stable. It becomes paramount that legislation and regulatory policy are made appropriate and enduring through a suitably drafted act for agricultural insurance. A fair and fervent competition among insurers can lead to wider participation of farmers by guaranteeing them better service delivery and products. It would also mitigate uncertainties regarding arbitrariness in government support to agricultural insurance.

- Agricultural insurance is an effective conduit for streamlining various forms of financial relief for farmers afflicted by natural calamities. In the absence of suitable legal structure, agricultural insurance is unable to mobilize different forms of funding that can be more efficiently delivered through a transparent and objective channel provided by insurance. Multiple channels and programs operating under various agencies of the Government route funds for agricultural relief without coordination with each other. The duplicity and suboptimal delivery due to lack of a consistent legislation and policy ultimately results in depleted value for Government funds.

- It is notable that the subsidy provided to crop insurance by the State is permissible under the category of "the green box" policies of the WTO. However there may be differences in the way countries make use of the subsidy for agricultural insurance. In general, the developed countries usually focus on the rural social security (social welfare) system construction, and take into account the development of agriculture; at the same time, whereas the developing countries' aim is to improve the welfare of farmers, and promote a stable development of agriculture. For India, the implementation of crop insurance program in certain states like Punjab, Haryana etc. is restricted by a minimum participation rate requirement and state government support. If some farmers are denied participating in agricultural insurance due to state support or insufficient participation rate, there would be unrealized potential economic welfare. Agricultural insurance law can help overcome such systemic constraints so that agricultural insurance program could be carried out in the location, and such potential welfare will be actually realized.

- A review of the leading agricultural insurance programs across the world indicates that legislations and specific laws have been in force in countries where agricultural insurance is substantially supported by the government. The following box summarizes the legal structure regarding agricultural insurance in some key nations.

US: In 1938, America promulgated "Federal Crop Insurance Act" and at the same year set up a government agency under the act. The Federal Crop Insurance Company has been operating and managing the crop insurance program for US since 1939.

Japan: The Japanese government had enacted "Livestock Insurance Act", "Agricultural Insurance Act" in 1938 and the "Agricultural Disaster Compensation Law" in 1947. The legal system of agricultural insurance was amended in 1957, 1963, 1966, 1972, 1978, 1985 and 2003, which provided a strong institutional guarantee for the continued development of Japanese agricultural insurance.

Canada: An all-risk crop-insurance program is available to Canadian farmers under the authority of the Federal Crop Insurance Act (of 1959) and through concurrent and complementary legislation enacted by each province.

Spain: In 1978, a radical change occurs upon the publication of the 87/1978 Law on combined agricultural insurances. With the Law, Government, farm unions and insurance companies agreed that the farm insurance system defined in the Law would be the tool for managing catastrophic damages in the farm sector.

China: As part of its commitment to the development of agricultural insurance, the Government of China is considering the development of an appropriate legal and regulatory framework. This may include the development of a new Agricultural Insurance Law and Regulations as envisaged by the new Insurance Law.

- Allocation of funds for crop insurance entails substantial efforts from concerned government departments in justifying the criticality of these funds over competing demands. Enactment of a separate law will guarantee allocation of necessary funds to meet demands for effective implementation of agricultural insurance and also galvanize state governments for better compliance on their part.

- Increasing role for public private partnerships and involvement of multiple stakeholders for effective implementation of agricultural insurance necessitate a clear-cut legal framework specifying the roles and responsibilities for various stakeholders. Agricultural insurance has high risk, substantial premiums, limited anticipated economic benefits etc. which lend it a specialized nature. Such specialized nature of crop insurance calls for more proactive regulation and legal protection for safeguarding the interests of farmers and deriving adequate value for government funds (in the form of subsidy). With increase in number of insurers in agricultural insurance, their compliance with the defined benchmarks of product performance and service delivery might be better ensured under a specialized legal framework for agricultural insurance. Incidence of adverse selection and moral hazard can be minimized by improving the outreach and penetration of agricultural insurance in regions and farmer segments currently excluded due to lack of legal mandate.
- Insurance of allied activities in agriculture will get an impetus from enactment of a separate law for agricultural insurance. Penetration of cattle insurance is abysmal (less than 3%) in India considering the spectacular achievements made by the dairy sector of India. Government support to insurance solutions for allied activities in agriculture through their inclusion in the proposed legislation can effectively underscore the significance of allied agriculture activities to the Indian economy while serving as a positive signal for channelizing investments towards this vibrant sector.

While legislation for crop insurance, whether in the form of a statute or a law, takes time to come into force, the Department of Agriculture & Cooperation can mobilize the support of Ministry of Finance and Reserve Bank of India (RBI) to tighten the policies and regulations pertaining to mandatory crop insurance for farmers accessing credit from commercial banks and RRBs.

b. Devising Mechanism to Insure Loanee Farmers based on Credit Sanctioned under KCC and not on Credit Disbursal or Withdrawal. Onus on farmers to provide suitable proof for getting exemption from crop insurance coverage

While the rationale behind notification cannot be disputed, it is important to minimize the scope for farmers to willfully avoid crop insurance with the help of faulty provisions. The concept of purchase/enrollment window in a mandatory crop insurance regime is seemingly paradoxical. Farmers should automatically be covered under crop insurance based on either the credit limit sanctioned under KCC or their crop loan amount. It should be incumbent on the loanee farmers themselves to provide suitable documentary evidence to seek exemption or change of insured crop else they would be insured for their usual crops by default.

c. Modifications in Provisions related to Enrolment Period and Cut-off Dates for Crop Insurance

If the idea of automatic/default enrollment under crop insurance takes time to gain acceptance and be implemented, AIC should look to make improvements in provisions related to enrolment period and cut-off dates. Currently farmers can purchase crop insurance much after the period of sowing. Such laxity exposes AIC to higher levels of adverse selection as banks can exploit the knowledge of crop conditions and forecasts to protect their crop loan portfolios better and also to provide favorable benefits to farmers through crop insurance.

AIC can encourage early enrollment of crop insurance by offering premium discounts. This discount may be extended to banks to encourage orderly enrollment of loanee farmers instead of the lumped coverage around the cut-off dates. Similarly a premium penalty could be charged for late sign-up by banks and farmers and late payment of premium subsidy contribution by state and central governments.

d. Reducing Disparities across Coverage Locations through Better Utilization of Government Support towards NAIS

Premium subsidy for crop insurance should be provided essentially for promoting, popularizing and establishing the need for crop insurance. Some key officials representing state governments have strongly suggested that levels of subsidy should be brought down or gradually phased out once the utility or benefits of crop insurance have been firmly proven in a given location. Government support towards NAIS is directed in the form of premium subsidy as well as reinsurance support (excess of liabilities over premiums).

For maintaining equilibrium between locations covered under NAIS, AIC can consider shifting such locations which experience frequent and high level of payouts from the NAIS to the WBCIS regime. At the same time, higher level of premium subsidy should be channelized towards those regions and locations where the risk mitigation benefits of NAIS could not be demonstrated to farmers and banks so far. To the extent it can, AIC should try to leverage premium subsidy as a strategic instrument to expand its penetration, outreach and appeal in areas that have been untapped or under-tapped by NAIS.

CATEGORY 3: Investments for Promotion and Voluntary Adoption of Crop Insurance among Farmers

Marketing crop insurance to Indian farmers beset with low levels of financial literacy poses tremendous challenges to intermediaries and financial institutions. In case of crop insurance, the solace comes from its mandatory nature for farmers who avail crop loans from banks. However to sustain the conviction of the ultimate patrons of crop insurance i.e. farmers, a regular stream of investments need to be made towards financial literacy and sensitization of farmers.

III. Need for Promotion of Crop Insurance among Farmers through

a. Financial Education and Counseling

Promotion of financial literacy can be instrumental in creating a win-win situation for both farmers and financial service providers (banks, insurance companies and other financial intermediaries). Not only can financial literacy help farmers in managing their individual, household, community and agricultural resources better, it can help them in building assets and improving their financial well-being.

Unpredictability of crop production outcomes and the highly seasonal nature of cash flows in agriculture accentuate the need for astute financial management by farmers. The conservative or sometimes evasive approach of formal (banks, NBFCs) and semi-formal (MFIs) financial institutions towards agricultural lending forces farmers to meet their household credit needs by borrowing from family, friends, moneylenders, pawnshops and a wide range of informal credit providers. While a fair proportion of farmers are able to cope up with the complex web of economic transactions sometimes through trial and error and sometimes favorable fortune, a good majority of farmers are always struggling to make their ends meet. Unfortunately, for such farmers lying at the fringes, a 'reactive' approach to managing their finances can jeopardize the future of their households if it severely depletes or erodes the assets or places a long-term external claim on potential income streams.

Given the financial challenges that the farming community has to face, it is imperative that proactive measures are taken to build its capacity for financial management. The Working Group constituted to examine the procedures and processes for agricultural loans

(Chairman: Shri C. P. Swarnkar) had recommended in its report (April 2007) that banks should actively consider opening of counseling centers, either individually or with pooled resources, for credit and technological counseling. This would make the farmers aware of their rights and responsibilities to a great extent. Subsequently another Working Group constituted by the Reserve Bank to suggest measures for assisting distressed farmers (Chairman: Shri S.S. Johl) had also suggested that financial and livelihood counseling are important for increasing viability of agricultural credit.

Broadly speaking, the purpose of financial education is to teach people concepts of money and how to manage it wisely. The aim should be to enable people to become more informed financial decision makers, develop awareness of personal financial issues and choices, and learn basic skills related to earning, spending, budgeting, saving, borrowing, and investing money. Financial literacy can help people set financial goals and optimize their financial options. It can help people manage risk, cultivate savings and build household assets.

Promotion of financial education for farmers calls for efforts on several fronts:

- Development of systems for financial education preferably at multiple levels. At the primary level, training materials and techniques should be prepared for building the capacities of trainers and financial educators who will then impart financial education to farmers. At the next level, training material and guides have to be developed which would be used by trainers and financial educators for delivering financial education to farmers both at group and individual levels. Such materials and techniques should draw upon adult learning techniques and make use of interactive aids like workbooks, games, case studies, and simulations

- Constitution of the delivery system for imparting financial education in association with partner organizations or a collaborative network. Such partner organizations could include banks, SHG federations, farmers clubs, cooperatives, government extension agencies, community service and civil society organizations, local self-government bodies, agribusiness companies, financial intermediaries, and other relevant entities having access to the farming community

- Implementation of pilot programs for testing and fine-tuning approaches, tools, and materials to be utilized for financial education of farmers

- Establishment of monitoring and evaluation system for tracking and assessing performance of programs and instituting course correction measures if required

b. Utilizing Mass Media

Considering the substantial financial outlay on providing crop insurance to farmers, the expenditure on its dissemination and promotion through mass media should, at best, be considered marginal vis-à-vis the annual expenditure for operational implementation of NAIS. Awareness-building campaign for crop insurance may be modeled on the lines of the remarkably effective promotional campaigns for Mahatma Gandhi Rural Employment Guarantee Scheme (alternatively NREGS) and Bharat Nirman that were implemented through mass media. The reach of Doordarshan and AIR - the national media could be effectively utilized by government to vigorously promote crop insurance as an instrument for protection of farmers against uncontrollable risks in agriculture. These media could also be used to disseminate technical information about the operation of crop insurance schemes.

c. SHG Movement in India

Self-help Group movement (SHGs) of rural women is one of those few programs that have endured and given good results. With the outreach and penetration of self-help groups (SHGs) and other interest-based collectives spread deep into the rural hinterlands of India, there are opportunities to leverage these SHGs and other interest-based collectives for deepening penetration of crop insurance in India. The utilization of SHGs and other interest-based collectives as a vehicle for sales, distribution and post-sales service delivery should be a win-win proposition as it can reduce the typical insurance problems of moral hazard, high transaction costs, lack of customer feedback and poor post sales service delivery.

All such advantages associated with SHG movement call for focused pilot projects to assess the effectiveness of SHGs and other interest-based collectives for promoting crop insurance. One potential model involving SHG for crop insurance promotion is described below.

SHG-based Model of Crop Insurance by Prof V.M. Rao

Rao V.M. suggests an SHG-type model of insurance for farmers in order to set up a simple and feasible arrangement for insuring their enterprises against risk and uncertainty caused by weather. While an SHG-type model would not be adequate by itself to protect the farmer from the hazards of his occupation, it could be of help as a base and an initial framework for developing an insurance system to meet the requirements of modernized agriculture. He suggests that the guaranteed yield would be fixed at village level on the basis of simple average of five years. Farmers participating in the program can choose the number of units of insurance based on how much he / she is willing to pay as premium. Claims would be paid on 'area approach' at village level and the aggregate payout is decided on the basis of actual sample yield estimated during the current season and the aggregate value of sum insured. The claim is distributed in the proportion of the number of units of insurance bought. If the accumulated premium fund available in a year is less than the total amount of compensation to be paid, the lower amount will be used to calculate the amount of compensation to be paid per unit of premium per acre. In the event of a lack of agreement among the farmer members about the status of the activity in a deficit year, an expert can be asked to estimate the degree of the loss in that year.

Rao also suggests a variant of the above model, in which the Government / NGO/ funding agency that sponsors the program will contribute to the premium fund of the community. Each year this contribution can be a fixed percentage of the total amount of premium collected by the community in that year and will be paid to the community at the end of the year. This can serve as an incentive for the community to start operating the insurance program and augment the funds available for the payment of compensation during deficit years. The administrative costs, which in any case would be meager, can be paid out from the premium fund.

Rao rightly believes that a valuable by-product of the SHG model of insurance will be the data base on farmer-wise acreage, output and income of different crop and non-crop activities in the community over a period of years. The community itself can learn to monitor these data carefully to improve their capacity to cope with the risks inherent in their occupation. It could also open up new vistas for analyses of the farm economy and weather and market fluctuations by researchers and policy-makers. Further, insurance companies will find the database invaluable for developing new insurance products for farmers. Thus, the SHG model for farmer insurance could trigger innovative developments within the rural communities, including individual farm based insurance.

d. Expanding Coverage of Non-Loanee Farmers

The exemplary work in AP for expanding coverage of non-loanee farmers under NAIS could be an eye-opener for most states of India where numbers of non-loanee farmer participants in NAIS are lamentable. Through proactive association with the state agricultural department in AP, AIC has been successful in increasing the coverage of non-loanee farmers in AP from a mere 5 farmers in 2005 to an enviable 3 lakh in 2010.

Since banks have failed to provide service and due attention to coverage of non-loanee farmers, AIC should look to associate with relevant institutions and agencies other than banks for increasing the base of non-loanee farmer participants in NAIS. Keeping in mind that a non-loanee farmer would opt for crop insurance only if he is convinced about its utility, AIC may have to make focused, intensive and sometimes exclusive efforts for bringing such farmers under the fold of crop insurance. AIC may also have to invest towards provision of service and other customer support to non-loanee farmers.

CATEGORY 4: Improvements in Crop Insurance Scheme

IV. Increasing Appeal among Farmers & Banks through Review of Technical and Implementation Aspects of Crop Insurance Scheme

a. Devising Premium Refund Policies for Years of Successive No-Claims

Just as a claim payout acts as the best trigger for driving repeat purchase of insurance, likewise a series of no-claims poses the greatest barrier to its continued patronage. The yardstick of claims for assessing the value of insurance is employed not only by farmers but also by more financially astute entities like banks and government agencies.

The time is ripe for introduction of premium refund or savings-backed crop insurance policies that can assure a minimum return to farmers when a claim has not taken place even after specified number of seasons of successive crop insurance coverage.

b. Expanding Physical Individual/Area Assessment of Non-Indexable/Localized (Hail/Frost/Wind) Losses

NAIS presently provides for individual assessment of losses in case of localized risks, viz. hailstorm, landslide and flooding, on an experimental basis. Farmers feel the experiment is not adequate, and it should be implemented on a full scale, covering all areas. Earlier Government reviews have supported the view that the localized calamities should be assessed on an ‘individual’ basis in all the areas. But it should be reiterated that historical data and past claims play a role in determining the premiums and damage assessment continues to be the biggest challenge for crop insurers. Crops at different stages are affected differently by hail/frost/wind making knowledge of losses arising out of these essential for insurers. The practice of physical assessment of losses from non-indexable/localized perils (Hail/Frost/Wind) must be extended to the entire coverage of NAIS.

c. Standardizing Size of Insurance Unit across States

The movement towards smaller insurance units (IUs) has gained inevitability except for states like Gujarat where the extremely limited size of state government machinery for crop insurance practically rules it out. Most of the states with considerable stake in NAIS either have made the transition towards smaller IUs or are in the process of making it.

Along with the moves to bring down the size of the IUs, there is a need to take a fresh look at the methodology for computation of threshold yields and indemnity levels for such IUs. The baseline values of area yield or normal crop productivity should also be examined critically taking into account the quality of historical yield data and the potential variation to be encountering during the shift to a lower unit of insurance. Significant investment may be needed towards collection of relevant data that could be used to validate the data being currently used and could also be used for cross-checking key parameters for NAIS going forward.

Though there are bound to be practical and administrative difficulties in switching to a standard IU size across the entire country, the Central government should try to define a timeline for achieving such a goal. Suitable financial and technical support may be granted to the states where such transition is hindered due to a dire constraint of resources.

d. Improving CCEs and AIC’s Systems for Crop Loss Assessment, Forecast & Validation

Crop cutting experiments (CCEs) are central to NAIS. The CCEs are conducted over 5 x 5 m plots in fields randomly chosen within villages that have also been randomly chosen within an IU. Currently the government engages individuals at the state level and at the local level for conducting CCEs which are a key source of data for government policies on agricultural development while meeting the requirement of loss assessment data for crop insurance.

There is tremendous scope for improvements in CCEs when we look at them from the perspective of crop insurance. The data from the CCEs should be able to throw light on the reasons for low yields in a given plot. It is natural for the concerned cultivator to ascribe low yields to the perils insured under NAIS. However proper training and technical know-how to the personnel carrying out the CCEs can enable them to discern the real reason for such yield losses beyond what has been stated by the cultivator.

Over the medium to long term, efforts should be made to prepare a specialized cadre of personnel with grounding in crop insurance. With the help of such a cadre, it would be possible to implement CCEs in accordance with crop insurance principles. As the Indian crop insurance regime seems to be moving towards more localized loss assessment and claim settlement, it is high time that the need for a specialized taskforce for crop insurance is recognized and acted upon. In Canada, U.S., Mexico and other countries there is in-country network of certified insurance loss adjusters. Loss assessment for crop insurance calls for a distinctive set of technical skills that cannot be readily imported from other insurance lines.

Considering the transition of crop insurance towards a market-based regime and indications of Government’s intent to reduce the burden of crop insurance on the exchequer, it would be in AIC’s interest to plug the loopholes in CCEs and claim assessment process. Towards this end, AIC must evaluate key statistical parameters for the yields reported from an IU. In case of discrepancy, AIC can assess the state of crop losses through the use of independent data sources, such as weather data, satellite images and crop intelligence reports.

AIC can even envisage the usage of satellite imagery based yield and crop health estimation for planning, validating and improving crop loss estimation procedures. Through remote sensing technologies, AIC should be able to get a sense of the probable yields within an area based on which it can modulate the number of CCEs and other control measures for better data capture from that area.

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ANNEXURE 1: Summary Tables for Data from Field Research

DATA FROM FARMER SURVEY

Awareness about NAIS

State	Yes	No
Orissa	53%	47%
AP	77%	23%
UP	46%	54%
Gujarat	100%	0%
MP	68%	32%

Duration of Awareness about NAIS

	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Orissa	0%	22%	53%	25%
AP	17%	41%	30%	12%
UP	7%	32%	25%	36%
Gujarat	2%	12%	16%	70%
MP	11%	28%	25%	36%

Source of Information about Crop Insurance

	Banks	Govt. Extension/ Officials	Fellow Farmers	Radio/ TV/ Newspapers	NGOs	Others
Orissa	48%	8%	41%	3%	0%	0%
AP	23%	40%	32%	4%	1%	0%
UP	55%	20%	14%	11%	0%	0%
Gujarat	0%	77%	0%	7%	0%	16%
MP	3%	38%	23%	30%	1%	5%

Awareness about Crop Cutting Experiments for Assessment of Area Yield

State	Yes	No
Orissa	28%	72%
AP	58%	42%
UP	21%	79%
Gujarat	21%	79%
MP	45%	55%

Awareness of CCEs in Own Village

State	Yes	No
Orissa	81%	19%
AP	78%	22%
UP	74%	26%
Gujarat	64%	36%
MP	44%	56%

Awareness that Intimation of Loss is not required for Claims under NAIS

State	Yes	No
Orissa	27%	73%
AP	29%	71%
UP	31%	69%
Gujarat	97%	3%
MP	21%	79%

Awareness that Loanee Farmers are Compulsorily Covered under NAIS

State	Yes	No
Orissa	55%	45%
AP	83%	17%
UP	43%	57%
Gujarat	99%	1%
MP	60%	40%

No. of Payouts Considered Ideal when Insured for 10 Crop Seasons

State	1 to 2	3 to 4	5 to 6	7 & More
Orissa	100%	0%	0%	0%
AP	74%	18%	7%	1%
UP	30%	26%	26%	19%
Gujarat	46%	51%	3%	0%
MP	50%	15%	20%	15%

Continuation of Enrollment even after Non-Receipt of Claims for 2-3 Seasons

State	Yes	No
Orissa	16%	84%
AP	44%	56%
UP	45%	55%
Gujarat	28%	72%
MP	56%	44%

Participation in Crop Insurance out of Own Choice

State	Yes	No
Orissa	98%	2%
AP	73%	27%
UP	55%	45%
Gujarat	99%	1%
MP	24%	76%

Assistance by Banks for Explaining Features of Crop Insurance Scheme

State	Yes	No
Orissa	59%	41%
AP	63%	37%
UP	77%	23%
Gujarat	0%	100%
MP	85%	15%

Willingness by Banks to Accept Premium from Non-Loanee Farmers

State	Yes	No
Orissa	3%	97%
AP	30%	70%
UP	25%	75%
Gujarat	100%	0%
MP	17%	83%

Number of Claims during Last 10 Crop Seasons of Crop Insurance Coverage

State	0 to 2	3 to 5	6 & more
Orissa	100%	0%	0%
AP	94%	6%	0%
UP	99%	1%	0%
Gujarat	51%	48%	1%
MP	90%	10%	0%

No. of Times (out of 10) when Claims were not paid despite Major Crop Losses

State	1 to 2	3 to 5	6 to 8	9and above
Orissa	99%	1%	0%	0%
AP	63%	33%	3%	0%
UP	32%	67%	0%	0%
Gujarat	57%	39%	4%	0%
MP	66%	29%	2%	3%

Awareness that No Intermediary is involved in Claims Paid Solely by AIC

State	Yes	No
Orissa	46%	54%
AP	62%	38%
UP	27%	73%
Gujarat	75%	25%
MP	16%	84%

Availability of Kisan Credit Card (KCC)

State	Yes	No
Orissa	95%	5%
AP	87%	13%
UP	99%	1%
Gujarat	93%	7%
MP	98%	2%

Credit Limit of KCC

State	< Rs 10,000	> Rs 10,000 < Rs 25,000	> Rs 25,000
Orissa	23%	29%	47%
AP	21%	41%	38%
UP	16%	34%	51%
Gujarat	1%	15%	83%
MP	2%	12%	86%

Number of Withdrawals from KCC in a Year

State	Less than 3	3 to 5	More than 5
AP	90%	9%	1%
UP	80%	20%	0%
MP	97%	2%	1%

Timing of Withdrawals from KCC

State	Before start of the season	Any time during the season	Money withdrawn whenever required
Orissa	4%	36%	60%
AP	17%	13%	70%
UP	16%	48%	36%
Gujarat	94%	6%	0%
MP	74%	12%	14%

Average Crop Loan Amount (Rs per Acre)

State	< Rs 5000	> Rs 5000 < Rs 20,000	> Rs 20,000
AP	8%	70%	23%
UP	25%	52%	22%
MP	10%	10%	80%

Adequacy of Crop Loan by Banks

State	Yes	No
Orissa	5%	95%
AP	16%	84%
UP	33%	67%
Gujarat	93%	7%
MP	28%	72%

Shortfall (as % of Total Requirement) in Meeting Crop Production Expenses through Crop Loan

State	< 25 %	>25% < 60%	> 60%
AP	40%	20%	40%
UP	0%	0%	100%
Gujarat	38%	13%	50%
MP	72%	13%	15%

Usage of Loan against Mortgage of Jewellery, FDs & Other Movable Assets

State	Yes	No
Orissa	59%	41%
AP	50%	50%
UP	52%	48%
Gujarat	100%	0%
MP	88%	12%

Source of Loan against Mortgage of Jewellery, FDs & Other Movable Assets

State	Bank	Moneylender	Friend
AP	41%	55%	4%
UP	9%	77%	14%
MP	23%	77%	0%

DATA FROM SURVEY OF PACS & BANKS

Regular Receipt of Notification by State Govt. regarding Coverage under NAIS

States	Yes	No
AP	97.1%	2.9%
Gujarat	100.0%	0.0%
Orissa	96.0%	4.0%
UP	93.2%	6.8%
MP	100.0%	0.0%

Regular Receipt of Guidelines Issued by AIC to Nodal Banks

States	Yes	No
AP	100.0%	0.0%
Gujarat	100.0%	0.0%
Orissa	96.2%	3.8%
UP	93.0%	7.0%
MP	100.0%	0.0%

Proportion of Farmers Availing Crop Loans Covered under KCC

States	Proportion
AP	81.3%
Gujarat	80.0%
Orissa	65.4%
UP	76.2%
MP	92.0%

Positive Impact of Crop Insurance on Recovery on Crop Loans

States	Yes	No
AP	48.3%	51.7%
Gujarat	100.0%	0.0%
Orissa	69.2%	30.8%
UP	68.3%	31.7%
MP	38.1%	61.9%

Crop Loans against Mortgage of Jewellery, FDs and other Movable Assets

States	Yes	No
AP	57.1%	42.9%
Gujarat	20.0%	80.0%
Orissa	23.1%	76.9%
UP	19.4%	80.6%
MP	47.6%	52.4%

Usefulness of Financial Incentives for PACS & Banks to Ensure Better Compliance of Mandatory Crop Insurance

States	Yes	No
AP	73.3%	26.7%
Gujarat	100.0%	0.0%
Orissa	87.5%	12.5%
UP	90.0%	10.0%

Awareness of Annapoorna Project being currently implemented by AIC

States	Yes	No
AP	0.0%	100.0%
Gujarat	0.0%	100.0%
Orissa	0.0%	100.0%
UP	13.0%	87.0%
MP	0.0%	100.0%