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A Study on the Performance of National Agricultural Insurance Scheme and Suggestions to Make it More Effective

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Abstract

Agricultural production and farm income in India involve several risks. Crop insurance is the only mechanism available to safeguard against production risks. Against this background, this paper has examined the features and performance of National Agricultural Insurance Scheme (NAIS) operating in the country and has suggested some modifications to make it more effective. NAIS coverage in terms of crop area, number of farmers and value of agricultural output is very small. If crop insurance programme is to be made an important tool in agricultural risk management, the present level of coverage will have to be improved, at least by 3-4 fold. Such an expansion can occur only with improvements in and broad-basing of the insurance scheme. Every suggested improvement has financial implications and affect the concerned insurance practices. It requires renewed efforts by the government in terms of designing appropriate mechanisms and providing financial support to agricultural insurance. Providing of similar support to the private sector insurers would help in increasing the insurance coverage and improving the viability of insurance schemes over time. The study has also suggested that different general insurance companies in the country may be assigned some reasonable targets to cover agricultural insurance, and to begin with, it could be equal to the share of agriculture in the national income.

Introduction

Agricultural production and farm income in India involve several risks. These relate to natural events, weather aberrations, epidemics and manmade disasters. All these affect both crop area and yield. Further, with the growing of agricultural commercialization and climatic changes, the degree of risk due to unfavourable eventualities is increasing. Sharp fluctuations in agricultural prices are causing a wide variability in farm income. For a section of the farming community, the Minimum Support Prices (MSP) for certain crops provide a means of their income stability (Vyas and Singh, 2006). But, for most of the crops and in many of the states, MSP has not been implemented. Recently, mechanisms like 'contract farming' and 'future trading' have been introduced and these are expected to provide some risk cover against price fluctuations, directly or indirectly. It is believed that crop insurance is the only mechanism available to safeguard against production risks in agriculture. Considering this need, the Government of India had introduced a Comprehensive Crop Insurance Scheme (CCIS) in 1985 and later, a National Agricultural Insurance Scheme (NAIS) in 1999-2000 (Bhende, 2005). But, this scheme also has not been able to make the expected impact and acceptability.

Against this background, this study has examined the features and performance of National Agricultural Insurance Scheme (NAIS), operating in the country and has suggested changes to make it more effective. The main objective of the scheme is

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to protect farmers against losses suffered by them due to crop failure on account of natural calamities, such as drought, flood, hailstorm, cyclone, fire, pest/ diseases, so as to restore their credit worthiness for the ensuing season. The paper has presented the results of detailed analysis of secondary data for 13 crop seasons, since the inception of NAIS, covering the period *rabi* 1999-2000 to *rabi* 2005-06. Field investigations were also conducted for the state of Andhra Pradesh during October, 2006 to asses the perception of loanee and non-loanee insured farmers, bankers and other functionaries of NAIS. Besides the field study, discussions were also held with experts in Agriculture Insurance Company (AIC) and agricultural departments, and bankers, academicians and farmers' representatives .

Main Features of NAIS

The National Agricultural Insurance Scheme (NAIS) was introduced in the country from the *rabi* season of 1999-2000. Agricultural Insurance Company of India Ltd (AIC), which was incorporated in December, 2002, and which started operating from April, 2003, took over the implementation of NAIS. This scheme is available to both loanees and non-loanees. It covers all food grains, oilseeds and annual horticultural / commercial crops for which past yield data are available for an adequate number of years. Among the annual commercial and horticultural crops, sugarcane, potato, cotton, ginger, onion, turmeric, chillies, coriander, cumin, jute, tapioca, banana and pineapple, are covered under the scheme. The scheme is operating on the basis of both '*area approach*' for widespread calamities, and '*individual approach*' for localized calamities such as hailstorm, landslide, cyclone, flood, etc.

The premium rates applicable on the sum insured are :

Bajra and oilseeds	: 3.5 %
Other *kharif* crops	: 2.5 %
Wheat	: 1.5%
Other *rabi* crops	: 2.0%
Annual commercial / horticultural crops	: Actuarial rate

Initially, the premium in the case of small and marginal farmers was subsidized @ 50 per cent, which was shared equally by the Government of India and the concerned State/UT. The premium subsidy was to be phased out over a period of five years, and during 2005-06, only 10 per cent subsidy was provided on the premium payable by small and marginal farmers.

All India Coverage of NAIS

Initially, only 9 states / UTs participated in the National Agricultural Insurance Scheme. It covered 5.8 lakh farmers and 7.8 lakh hectares of cropped area (Table 1). The coverage under NAIS increased dramatically after the *kharif* 2000. The number of farmers increased from 84.1 lakh in *kharif* 2000 to 126.7 lakh by *kharif* 2005 and the area coverage reached 205.3 lakh hectares from 132.2 lakh hectares during this period. The coverage has been far larger during the *kharif* than *rabi* seasons. During six *kharif* seasons, since *kharif* 2000, a total of 60.21 million farmers have been covered, as against 18.96 million farmers during the seven *rabi* seasons since *rabi* 1999-2000. The trend in *kharif* coverage appears to be linked to the expansion of participating states, crops notified, extent of drought, and non-borrower farmers' decision to participate in the scheme. Non-borrower farmers generally opted for crop insurance only selectively, after being almost certain of crop failure.[1]

During the entire period from 1999-00 through 2005-06, the NAIS covered 79.17 million farmers and 128.91 million hectares area. The total sum insured during *kharif* and *rabi* seasons taken together was to the tune of Rs 75827 crore and the premium collected was Rs 2333 crore (Table 1). The average premium charged during *kharif* was Rs 3.39 per hundred rupees of sum insured as against Rs 2.02 per hundred rupees of sum insured during the *rabi*

[1]In *kharif* a farmer can go for insurance during 1st April to 30th June. In states like Andhra Pradesh, some indications of monsoon become available around that time. Based on the subjective assessment about rainfall and consequent impact on crops, farmers opted for crop insurance if they expected severe damage to crops and were sure to get insurance claim. The phenomenon is often referred to as "Adverse selection" in technical parlance.

Table 1. Season-wise performance of National Agricultural Insurance Scheme

Sl. No.	Season	No.of covered states / UTs	Farmers covered (lakh)	Area (lakh ha)	Sum assured (in crore Rs)	Premium (in crore Rs)	Total claims (in crore Rs)
				Rabi			
1	1999-00	9	5.8	7.8	356	5	8
2	2000-01	18	20.9	31.1	1603	28	59
3	2001-02	20	19.6	31.5	1498	30	65
4	2002-03	21	23.3	40.4	1838	39	189
5	2003-04	22	44.2	64.7	3049	64	491
6	2004-05	23	35.3	53.4	3774	76	160
7	2005-06	23	40.5	72.2	5070	105	252
	Total		189.6	301.1	17188	347	1224
				Kharif			
1	2000	17	84.1	132.2	6903	207	1222
2	2001	20	87.0	128.9	7502	262	494
3	2002	21	97.7	155.3	9432	325	1824
4	2003	23	79.7	123.6	8114	283	650
5	2004	25	126.9	242.7	13170	459	1038
6	2005	25	126.7	205.3	13518	450	1055
	Total		602.1	988.0	58639	1986	6283
				All			
1	1999-2000	9	5.8	7.8	356	5	8
2	2000-2001	18	105.0	163.3	8506	235	1281
3	2001-2002	20	106.6	160.4	9000	292	559
4	2002-2003	21	121.0	195.7	11270	364	2013
5	2003-2004	23	123.9	188.3	11163	347	1141
6	2004-2005	25	162.2	296.1	16944	535	1198
7	2005-2006	25	167.1	277.5	18586	555	1057
	Grand Total		791.7	1289.1	75827	2333	7507

Source: Economic Survey (2006-2007)

season. The average premium rate of Rs 3.08 indicates the dominance of risky crops in the crop area insured during the *kharif* season.

To get a clear picture of penetration of NAIS in each season, the number of holdings (farmers) covered were related to the total number of holdings. In the first season, i.e. *rabi* 1999-00, only 0.5 per cent of the holdings were covered by NAIS (Table 2) and this proportion has been slowly going up since then. It reached 3.83 per cent in *rabi* 2003-04, but again dropped to 3.51 per cent in *rabi* 2005-06. In the first *kharif* season of 2000, more than 7 per cent of the holdings in the country were provided insurance cover for some crop(s). This has been going up and touched 10.97 per cent in *kharif* 2005. The same is more or less true for area coverage as well. It is also noteworthy that except for the past two years, the percentage of holdings covered was higher than the percentage of area covered, suggesting a higher penetration among small holdings.

From 1999-2000 to 2005-2006, the scheme covered 9-15 per cent farmers, 8-16 per cent crop area (Table 2) and 2.14 -3.57 per cent of crop output in value-terms in different years (Table 3). The amount of claims was much higher than the premium paid, indicating loss in the operation of this scheme. During 2000-01 and 2002-03, the claims were more than five-times of the premium paid. During 2003-04 and 2004-05, the amount of claims was more than

Table 2. Season-wise share of insured farmers in total holdings and area

(in per cent)

Crop year	*Rabi*		*Kharif*		Total	
	Holdings	Area	Holdings	Area	Holdings	Area
1999-00	0.50	0.41	-	-	0.50	0.41
2000-01	1.81	1.66	7.28	7.07	9.09	8.73
2001-02	1.70	1.65	7.56	6.77	9.23	8.42
2002-03	2.02	2.30	8.46	8.82	10.48	11.12
2003-04	3.83	3.39	6.90	6.49	10.73	9.88
2004-05	3.06	2.80	10.98	12.73	14.04	15.53
2005-06	3.51	3.79	10.97	10.77	14.48	14.56

Source: Authors' calculations based on data taken from *Agricultural Statistics at a Glance* (2006) and *Economic Survey* (2006-07)

double of the premium collected. As claims exceeded premiums, there was a net loss in the scheme, even without considering the administrative cost. The magnitude of loss can also be seen by comparing the ratio of 'claims to sum assured' with ratio of 'premium to sum assured'. During the year 2005-06, claims constituted 5.69 per cent as against 2.99 per cent premium on the sum assured (Table 3). This implies a loss of 2.70 per cent of the assured value of output.

In the beginning, only 3 per cent non-borrowers adopted crop insurance offered under NAIS. In 2005-06, the proportion of non-borrowers in the scheme was 20 per cent (Table 3). This shows that the scheme is operational mainly because the farmers availing loan from institutional sources are required to go for an insurance, irrespective of the fact whether they are interested in it or not.

The number of loanee farmers covered under NAIS averaged around 19 lakh in the r*abi* season during 2000-01 and 2002-03. This number showed a significant increase during the next three *rabi* seasons (2003-04 to 2005-06) and reached the figure of 32.75 lakh. The number of non-borrower farmers showed a wide year-to-year fluctuations. There was a big jump in the non- loanee farmers opting for insurance in the year after 2002-03, which was a very severe drought year. The compensation received by those who had insured, induced a large number of other farmers to take the benefit of insurance in the adverse event. This shows a strong tendency towards adverse selection problem. Further, the non-borrower farmers' participation had come from those areas and crops which were most likely to report high crop losses. Their participation was predictably the highest, during adverse seasons. Based on the coverage between 1999-00 and 2005-06, the loss cost

Table 3. Year-wise performance of National Agricultural Insurance Scheme

Year	Sum assured as % of value of crop output	Claims ratio (Claims / Premium)	Premium / sum assured (%)	Claims / sum assured (%)	Ratio of borrower and non-borrower insured farmers
2000-01	2.14	5.45	2.76	15.06	97:3
2001-02	2.17	1.91	3.20	6.20	93:7
2002-03	2.83	5.52	3.23	17.84	86:14
2003-04	2.41	3.29	3.11	10.22	75:25
2004-05	3.57	2.24	3.16	7.06	88:12
2005-06	-	1.90	2.99	5.69	80:20

Source: Authors' calculations based on the data taken from *Economic Survey* (2006-07), *National Accounts Statistics* (2006) and AIC (2006).

to NAIS for non-borrower farmers was a staggering 27 per cent, compared to 9 per cent for the loanee farmers.

State Level Coverage of NAIS

As stated earlier, only nine states participated in NAIS during 1999 *rabi* season. Since 2005-06, the NAIS is being implemented by all the states, except Punjab, Arunachal Pradesh, Manipur, Mizoram, and Nagaland. Since the beginning of the scheme till the r*abi* season of 2005-06, about 79.17 million cases were extended the insurance cover. Out of these, 19.5 per cent were in Maharashtra, 15.4 per cent in Andhra Pradesh, 13.2 per cent in Madhya Pradesh, and 8.4 per cent each in Gujarat and Uttar Pradesh. Thus, these five states accounted for 65 per cent of the total cases and 69 per cent of area insured under NAIS. It is pertinent to mention that share of these states in all-India holdings and all-India cropped area is 8.5 per cent and 9.2 per cent, respectively.

The proportion of beneficiaries receiving indemnity payments ranged from zero in Jammu & Kashmir to 67 per cent of the participating farmers in Jharkand (Table 4). The percentage of insured cases who got claims was the highest in Himachal Pradesh (60%), followed by Karnataka (47%), Bihar (42%), Tamil Nadu (36%), Gujarat (35%), Maharashtra (30%) and Chattisgarh (28%) .

Table 4. State-wise distribution of insurance cases, area and claim to premium ratio under NAIS

States	Share in cases insured (%)	Share in area under insured (%)	Insurance cases received claims (%)	Premium / sum insured (%)	Claims / sum insured (%)	Claim / Premium ratio
Andhra Pradesh	15.41	14.37	19.69	2.76	7.30	2.65
Assam	0.09	0.04	12.26	2.51	2.18	0.87
Bihar	1.72	1.18	42.40	2.18	25.05	11.51
Chattisgarh	4.41	5.89	27.61	2.59	8.66	3.34
Goa	0.01	0.01	13.94	1.76	1.12	0.63
Gujarat	8.41	12.58	35.08	4.43	16.68	3.76
Haryana	0.37	0.28	8.34	3.16	0.84	0.27
Himachal Pradesh	0.14	0.05	59.56	2.29	9.64	4.21
Jammu & Kashmir	0.01	0.01	0.00	1.88	0.00	0.00
Jharkhand	1.26	0.43	67.13	2.43	30.76	12.67
Karnataka	7.31	7.23	46.58	3.25	16.06	4.94
Kerala	0.29	0.15	19.29	2.09	5.62	2.69
Madhya Pradesh	13.16	21.77	22.91	3.05	5.42	1.78
Maharashtra	19.47	12.56	29.71	3.63	8.47	2.33
Meghalaya	0.01	0.01	10.63	6.32	2.96	0.47
Orissa	7.96	4.99	21.86	2.53	7.13	2.82
Rajasthan	5.50	8.16	23.95	2.77	8.05	2.90
Sikkim	0.00	0.00	8.60	1.01	1.09	1.08
Tamil Nadu	0.86	0.90	35.80	2.07	13.25	6.40
Tripura	0.01	0.00	17.24	2.88	1.91	0.66
Uttar Pradesh	8.46	7.71	20.50	1.96	3.27	1.67
Uttaranchal	0.04	0.03	18.45	1.56	1.15	0.73
West Bengal	5.09	1.63	14.66	2.60	3.98	1.53
Andaman & Nicobar Islands	0.00	0.00	5.60	2.32	0.69	0.30
Pondicherry	0.02	0.02	22.09	1.97	4.70	2.39
All-India	100	100	27.02	3.08	9.55	3.10

Source: Authors' calculations based on data taken from AIC (2006)

The farmers claiming indemnity payment accounted for 67.3 per cent of the total 21.34 million beneficiaries (recipient of claims) in Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh and Maharashtra. The claim – premium ratio was less than unity in Assam, Goa, Haryana, Jammu and Kashmir, Meghalaya, Tripura, Uttaranchal and Andaman and Nicobar Islands, implying no loss in the premium received by NAIS in these states. Bihar and Jharkand were on the other extreme, where claims paid by NAIS were more than ten-times of the premium collected. In Tamil Nadu and Karnataka, the claims paid by the scheme were 6.4- and 4.9-times, respectively of the premiums obtained (Table 4).

On an average, 1.63 ha area was insured per farmer under NAIS during r*abi* 1999 through r*abi* 2005-06. However, the average area insured per participating farmer varied across the states. It was around half a hectare in the states of Himachal Pradesh, Jharkand, Tripura and West Bengal, whereas, it was more than the national average of 1.63 ha / farmer in the states of Chhattisgarh, Gujarat, Madhya Pradesh, Rajasthan and Tamil Nadu (Table 5). The average sum insured per household ranged from less than Rs 5000 in Goa, Himachal Pradesh and Jharkand to more than Rs 15000 in Gujarat, Tamil Nadu and Pondicherry. The average amount insured per farmer under NAIS at the aggregate level was Rs 9573. Similarly, the average sum insured was

Table 5. Average area, sum insured, premium paid and indemnities claimed under NAIS by states

States	Area / Farmer (ha)	Sum insured per (Rs)		Premium paid per (Rs)		Claim per (Rs)	
		Farmer	Hectare	Farmer	Hectare	Farmer	Hectare
Andhra Pradesh	1.52	13211	8675	365	239	965	634
Assam	0.75	8234	10979	207	276	179	239
Bihar	1.12	11469	10207	250	222	2873	2557
Chattisgarh	2.18	5636	2582	146	67	488	224
Goa	1.60	4017	2511	71	44	45	28
Gujarat	2.44	17614	7209	781	320	2938	1202
Haryana	1.25	8187	6536	258	206	69	55
Himachal Pradesh	0.61	4840	7883	111	181	466	760
Jammu &Kashmir	1.38	6770	4923	128	93	0	0
Jharkhand	0.56	3886	6954	94	169	1195	2139
Karnataka	1.62	10526	6511	342	212	1691	1046
Kerala	0.85	11195	13246	234	277	629	744
Madhya Pradesh	2.70	7905	2925	241	89	429	159
Maharashtra	1.05	5898	5593	214	203	499	474
Meghalaya	1.09	8853	8115	560	513	262	240
Orissa	1.02	8767	8563	221	216	625	610
Rajasthan	2.43	10293	4244	286	118	829	342
Sikkim	1.00	11778	11778	119	119	128	128
Tamil Nadu	1.71	16110	9394	333	194	2135	1245
Tripura	0.57	9642	16874	278	486	184	322
Uttar Pradesh	1.49	9155	6152	180	121	300	201
Uttaranchal	1.06	9405	8897	147	139	108	102
West Bengal	0.52	6680	12763	174	332	266	508
Andaman & Nicobar Islands	1.00	8852	8852	205	205	61	61
Pondicherry	1.56	19210	12295	378	242	902	577
All-India	1.63	9573	5860	295	180	915	560

Source: Authors' calculations based on data taken from AIC (2006)

Rs 5860 / ha and it varied from less than Rs 3000 / ha in Chattisgarh, Goa and Madhya Pradesh to more than Rs 15000 / ha in Tripura.

The average premium paid by the individual farmer ranged from Rs 71 in Goa to Rs 781 in Gujarat, while on per hectare basis it varied between Rs 44 (Goa) and Rs 513 (Meghalaya) . The average amount of indemnity claimed varied from less than Rs 100 per farmer in Goa, Haryana, Jammu & Kashmir and Andaman and Nicobar Islands to more than Rs 1500 per participating farmer in Karnataka (Rs1691), Tamil Nadu (Rs 2135), Bihar (Rs 2873) and Gujarat (Rs 2938). The average claims or indemnities per hectare varied from zero in Jammu & Kashmir to as high as Rs 2557 / ha in Bihar.

Suggestions to Make National Agricultural Insurance Scheme More Effective

The farming community at large does not seem to be satisfied with the partial expansion of scope and content of crop insurance scheme in the form of NAIS over Comprehensive Crop Insurance Scheme (CCIS). There are issues relating to its operation, governance and financial sustainability. After extensive reviewing and gathering perceptions of the farming community in Andhra Pradesh on the performance of NAIS, some modifications have been suggested in its designing to make to it more effective and farmer- friendly.

(a) Reduction of Insurance Unit to Village Panchayat Level

As of now, the National Agricultural Insurance Scheme is implemented on the basis of "*homogeneous area*" approach, and the area (insurance unit) at present is the Mandal / Taluk / Block or equivalent unit, in most instances. These are large administrative units with considerable variations in yields and impact of natural calamities. For the scheme to become more popular, the unit for determining claim should be reduced to the level of 'village' in the case of large villages and to 'cluster of villages' in the case of small villages. Ideally, "*Individual approach*" would reflect crop losses on a realistic basis, and has been regarded most desirable (Dandekar, 1985). However, under the Indian conditions, implementing a crop insurance scheme at the "individual farm unit level" is beset with problems, such as:

- Non-availability of the past records of land surveys, ownerships, tenancy and yields at individual farm level
- Small size of farm holdings
- Remoteness of hamlets and inaccessibility of some farm-holdings
- A large variety of crops, varied agro-climatic conditions and package of practices, and
- Inadequate infrastructure.

We feel that lowering of the insurance unit to the *Gram Panchayat* (GP) level, is a welcome move, as it would reflect yield losses at a reasonable level. However, data being the lifeline of insurance, the actuarial rating of the product at GP level would be possible only if the historical yield data at that level (GP) is available for a reasonably long period. In real terms, such data at the GP level are not available and therefore, it would be difficult for the insurer to work out premium rates on sound actuarial principles (Planning Commission, 2007).

(b) Threshold/Guaranteed Yield

Presently, Guaranteed Yield, based on which indemnities are calculated, is the moving average yield of the preceding three years for rice and wheat, and preceding five years for other crops, multiplied by the level of indemnity. The concept does not provide adequate protection to farmers, especially in areas with consecutive adverse seasonal conditions, pulling down the average yield. It is proposed to consider the best 5, out of the preceding 10-years' yield.

(c) Levels of Indemnity

At present, the levels of indemnity are 60 per cent, 80 per cent and 90 per cent corresponding to high, medium and low risk areas. It is perceived that the 60 per cent indemnity level, does not adequately cover the risk, especially in the case of small/ medium-intensity adversities, since losses get covered only if and when, the loss exceeds 40 per

cent. Consequently, suggestion was made that instead of three levels of indemnity, there should be only two levels of indemnity, viz. 80 per cent and 90 per cent. But, these higher levels of indemnity may escalate the premium rates, and would increase the subsidy burden of the government. Therefore, it may be wise to continue with the three levels, with up gradation of 60 per cent to 70 per cent. Since, majority of crops are being covered presently in the 60 per cent level category, its up-gradation to 70 per cent level would be a reasonable improvement.

(d) Extending Risk Coverage to Prevented Sowing / Planting, in Adverse Seasonal Conditions

The NAIS under the existing mode covers risk only from sowing to harvesting. Many a times sowing / planting is prevented due to adverse seasonal conditions and the farmer loses not only his initial investment, but also the opportunity value of the crop. A situation where the farmer is prevented from even sowing the field, is a case of extreme hardship and this risk must be covered. Pre-sowing risk, particularly prevented / failed sowing / reseeding on account of adverse seasonal conditions, should also be covered, wherein up to 25 per cent of the sum insured could be paid as compensation, covering the input - cost incurred till that stage.

(e) Coverage of Post-harvest Losses

In some states, crops like paddy are left in the field for drying after harvesting. Quite often, this 'cut and spread' crop gets damaged by cyclones, floods, etc., especially in the coastal areas. Since, the existing scheme covers risk only up to the harvesting, these post-harvest risks are outside the purview of insurance cover. This issue was examined in the light of difficulties in assessing such losses at the individual level. One of the suggestions to address this could be to extend the insurance cover for two weeks after harvesting.

(f) On-account Settlement of Claims

The processing of claims in NAIS begins only after the harvesting of the crop. Further, claim payments have to wait for the results of CCE's and also for the release of requisite funds from the central and state governments. Consequently, there is a gap of 8-10 months between the occurrence of loss and actual claim payment. To expedite the settlement of claims in the case of adverse seasonal conditions, and to ensure that at least part payment of the likely claims is paid to the farmer, before the end of the season, it is suggested to introduce 'on-account' settlement of claims, without waiting for the receipt of yield data, to the extent of 50 per cent of likely claims, subject to adjustment against the claims assessed on the yield basis.

(g) Service to Non-loanee Farmers

The awareness generation about the scheme is poor, partly due to lack of adequate localized interactions and substantially due to the lack of effective image building and awareness campaigns. For loanee farmers, with premia being deducted at the time of loan disbursement and claim settlements being credited to the farmer's loan account, the illiterate or poorly educated farmer is hardly aware of the scheme's existence, let alone its benefits. The poor participation of non-loanee farmers is even worse. Hence, major pilot studies, to build effective communication models, in this regard need to be conducted, as an integral aspect of policy planning.

NAIS being a multi-agency approach, the implementing agency presently has no presence, except in the state capitals. The scheme is marketed to non-loanee farmers through the rural credit agencies. These farmers are neither familiar nor comfortable in going to the distantly-located credit agencies. Dedicated rural agents, who could provide service, supported by the effective communication and training programs, would be a needed initiative (Planning Commission, 2007).

(h) Premium Sharing by Financial Institutions

Crop insurance claims are paid for adverse seasons, the loan availed of which in any case could not have been repaid by the farmer. The claim amount is automatically adjusted against the outstanding crop loan, leading to the recovery of dues for the financial institutions (FIs), and providing the farmer eligibility for fresh loan. In other words, crop insurance helps the flow of credit to crop production.

Considering the overall benefits of crop insurance and its direct and indirect protection to lending activities, the burden of high premium rates of crop insurance, may be partly shared by the Fls. Keeping in mind the collateral security provided by insurance, we recommend that 25 per cent of farmers' premium subject to a maximum of 1.00 percentage points be borne by the FIs, in respect of loanee farmers.

Conclusions and Policy Implications

Despite launching the crop insurance scheme in a modified form in the country, National Agricultural Insurance Scheme has served very limited purpose. The coverage in terms of area, number of farmers and value of agricultural output is very small, payment of indemnity, based on area approach, miss affected the farmers outside the compensated area, and most of the other schemes are also not viable. If crop insurance programme is to be made an important tool in agricultural risk management, the present level of coverage of crop insurance will have to be improved, at least by 3-4 fold. This expansion can only occur with improvements in and broad-basing of the scheme. Every suggested improvement has financial implications and affect the concerned insurance practices. The cost of insurance will go up further with each improvement.

As regards insurance practices, some of the improvements need to be carefully considered before incorporating in the programme. This requires renewed efforts by the government in terms of designing appropriate mechanisms and providing financial support to agricultural insurance programme. Providing of similar support to the private sector insurers would help in increasing the insurance coverage and improving the viability of insurance schemes over time. With improved integration of the rural countryside and communication network, the unit area of insurance could be brought down to 'village panchayat level'. Insurance products for the rural areas should be simple in design and presentation so that they are easily understood. There is lot of interest in the private sector to invest in general insurance business. This opportunity can be used to assign some reasonable targets to various general insurance companies to cover agriculture insurance. To begin with, this target could be equal to the share of agriculture in the national income (Raju and Chand, 2007).

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